



**THE CROUCH AND ROACH ESTUARY MANAGEMENT PLAN**

**THE CROUCH AND ROACH ESTUARY IS  
REMOTE AND BEAUTIFUL  
IT HAS A CHARM OF ITS OWN AND IT DESERVES TO BE CHERISHED**



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## **A. ACKNOWLEDGEMENTS AND FOREWORD**



**FOREWORD BY COUNCILLOR JOHN JOWERS,  
CABINET MEMBER FOR LOCALISM ESSEX COUNTY COUNCIL**

**A.1. FOREWORD**

**A.2. ACKNOWLEDGEMENTS**

## A.1.

# Foreword

Estuaries are partially enclosed, tidal areas receiving fresh and saline waters, and supporting intertidal habitats. The Crouch and Roach Estuary is internationally important for wildlife. Much of the area is legally protected by national, European and International nature conservation designations.

Like many other estuaries, there are a large number of organisations who regularly make use of the Crouch and Roach estuary, for example, for commercial gain, pleasure and transportation, etc. These uses all make increasing demands on the estuary ecosystem.

In order to have a co-ordinated approach to the protection and management of all the issues within the Crouch and Roach Estuary, a Management Plan has been produced. Its production has been overseen by the Crouch and Roach Estuary Project Steering Group, made up of the local strategic authorities and the voluntary sector.

With the exception of two short sections of the North Sea coast at the eastern extremities of the Dengie and Tendring Hundreds, the coastline of Essex comprises a system of estuaries. Estuary Management Plans have for some time already covered the Stour and Orwell, Hamford Water, the Colne, the Blackwater and the Thames estuaries. This Management Plan which covers the Crouch and Roach Estuary has now filled a previous gap in the county-wide overall estuary management plan coverage.

This Plan is accompanied by an Action Plan for local delivery which has been developed through community consultation, the Action Plan will be updated annually and has at its heart a commitment to ensure that the Crouch and Roach Estuary Management Plan is kept up to date and used as a tool for the implementation of integrated management.

I am delighted at the production of this important plan and commend it to you in the certainty that it will make a difference.

Cllr John Jowers  
Cabinet Member for Localism  
Essex County Council

June 2005

## **A.2. Acknowledgements**

Thanks are expressed for the advice, guidance, opinions and suggestions received in the preparation of this Management Plan.

In particular, acknowledgements are extended to:

- ◇ The project steering group members for their direct involvement, with special thanks to Carl Borges, English Nature for assisting by writing the nature conservation section; Adrian Gascoyne for assisting by writing the historic environment section and Clare Alexander, Essex County Council, for assisting with the writing of the air quality section.
- ◇ Interested stakeholders for their input, with special thanks to  
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- ◇ Parish and Town Councils for their interest and support
- ◇ The staff and pupils at King Edmunds Senior School Rochford and St.Peters' Senior School, Burnham-on-Crouch for taking part in the consultation process.
- ◇ The staff and pupils at Burnham County Primary School and Riverside Junior School, Hullbridge for taking part in the consultation process.
- ◇ All the members of the wider community who expressed a view in the preparation of this Management Plan.
- ◇ Councillor John Jowers, Essex County Council for supporting this Plan



## ◇ B. THE VISION AND OBJECTIVES



WALLASEA ISLAND

### B.1. THE VISION

### B.2. THE PRINCIPLE OBJECTIVES GUIDING THE CROUCH AND ROACH ESTUARY MANAGEMENT PLAN

**B.1. The Vision**

The Vision of the Crouch and Roach Management Plan is to strive to ensure the sustainable future of the Crouch and Roach estuaries by maximising their potential without comprising the economy of the area, or the needs of future generations, nor its landscape, ecology or historical heritage.

**B.2. The Principle Objectives Guiding the Crouch and Roach Estuary Management Plan**

1. Have regard to and promote the need for sustainability of the estuary system
2. Keep the Crouch and Roach Estuary Management Plan up to date and accurate
3. Seek to ensure that the natural landscape and wildlife is properly protected
4. Enable accurate information sharing and best practice
5. Encourage communities to take an interest in the estuary and contribute to its sustainability and seek to create sustainable links between the communities on both sides of the estuary
6. Seek to ensure sustainable public transport to and from the estuary
7. Encourage eco-tourism through the delivery of a sustainable tourism package
8. Ensure good quality public access to the river and surrounding countryside without compromising its sustainability
9. Seek to create a sustainable network to support business, farmers and fishermen
10. Encourage the growth of rural local businesses
11. Encourage sustainable agriculture and farm diversification where appropriate
12. Encourage commercial fishing, especially oyster and mussel beds and provide a forum for local commercial fishermen
13. Seek to create a sustainable network to support recreational sailing and fishing
14. Disseminate and deliver information on coastal protection
15. Disseminate and deliver information on water quality and raise awareness about improving water and air quality and promote a healthier environment.
16. Seek to ensure that the historic environment is conserved and enhanced.

## **C. INTRODUCTION**



**BRANDY HOLE**

- C.1. THE CROUCH AND ROACH ESTUARY SYSTEM**
- C.2. INTEGRATED COASTAL ZONE MANAGEMENT**
- C.3. ESSEX ESTUARY MANAGEMENT PLANS**
- C.4. THE CROUCH AND ROACH ESTUARY MANAGEMENT PLAN**
- C.5. THE AIMS OF THE CROUCH AND ROACH ESTUARY MANAGEMENT PLAN**
- C.6. CROUCH AND ROACH ESTUARY MANAGEMENT PLAN GEOGRAPHICAL AREA COVERED**
- 7. THE CROUCH AND ROACH ESTUARY PROJECT PARTNERS**
- C.8. THE WIDER CONTEXT**

### **C.1. The Crouch and Roach Estuary System**

The Crouch and Roach Estuaries are of international importance for wildlife. The complex of coastal grassland, ditches, saltmarsh and tidal flats support characteristic communities of plants and animals many of which are rare and some under the threat of extinction. The relatively mild climate and abundance of food attract internationally important numbers of wild fowl and waders during the winter months. For these reasons much of the area is legally protected by national, European and International nature conservation designations.

Like many other estuaries, there are a large number of organisations who regularly make use of the Crouch and Roach estuaries, for example, for commercial gain, for pleasure, for transportation, for residence, etc. These uses all make increasing demands on the estuaries, and it is inevitable that conflict will arise between user groups.

For the needs of conservation, commerce, leisure, transport, housing, and in particular for the future sustainability of the estuary system, it is vital that we all work together to ensure a common understanding of the pressures and the wider implications that these conflicts create, and that through this Crouch and Roach Management Plan, we all recognise and observe a general guidance that will bring into greater harmony the many and varied uses of the rivers Crouch and Roach without compromising the estuary ecosystem.

### **C.2. Integrated Coastal Zone Management**

The Rio declaration and Local Agenda 21 advocates the development of integrated coastal zone management (ICZM) as a framework for action in coastal areas (UN Conference on Environment and Development (Rio de Janeiro 1992). This is now accepted as the way forward to ensure the future sustainability of the coastal zone. Simply, ICZM is a multidisciplinary activity which involves the community, and includes the local economy and the local environment and relies on the informed co-operation and participation of all interested and affected parties in order to achieve equitable, fair and sustainable responses, measures and solutions to coastal zone issues. At local, national and international levels, the UK is committed to developing marine spatial planning as a means of managing and protecting marine resources.

### **C.3. Essex Estuary Management Plans**

With the exception of two short sections of the North Sea coast at the eastern extremities of the Dengie and Tendring Hundreds, the coastline of Essex comprises a system of estuaries. Estuary Management Plans have for some time already covered Hamford Water, the Stour and Orwell, the Colne, the Blackwater and the Thames estuaries. This Management Plan which covers the Crouch and Roach estuary has now filled a previous gap in the county-wide overall estuary management plan coverage.

The purpose of non statutory management plans is to provide the co-ordination and communication role for applying the principles of ICZM.

### **C.4. The Crouch and Roach Estuary Management Plan**

The Crouch and Roach Estuary Management Plan will harness the important contribution made by volunteers towards local community regeneration initiatives by supporting the work of the Burnham and Rochford Market Town Partnerships (the Burnham and Rochford Healthchecks) and it will also complement and benefit from the current SAIL II transnational project and the long term county-wide commitment of the Essex Estuaries Initiative to putting into place mechanisms that benefit the natural environment as well as improving the quality of life for those who live and work in or simply visit and enjoy the coastal region. The Essex Estuaries Initiative delivers to the Crouch and Roach Estuary Management Plan, a wider more strategic vision for the Essex coast and this includes the protection of the European Marine Site. The

European SAIL project brings to the plan a wealth of shared expertise and spatial planning for the long term conservation and sustainability of our tidal waters, coastline and coastal communities.

The Crouch and Roach Estuary Management Plan will form an essential link with a series of initiatives that together provide a concise and clear vision for the Essex coast and the communities that live along it. In forming this essential link, the Crouch and Roach Estuary Management Plan will include, embrace and explain the layers of regulation and statutory control that govern its geographical area, and it will tap into and support the many and varied contributing projects that bring added value to the Crouch and Roach Estuary.

### **C.5. The Aims of the Crouch and Roach Estuary Management Plan**

Through this Management Plan, a partnership of relevant stakeholders comprising statutory bodies and user groups are working together to identify current and future issues of common concern and to develop equitable, sustainable solutions.

This Management Plan through its stakeholders is able to;

- ◇ co-ordinate planning policies across four Local Planning Authorities within the County of Essex
- ◇ examine issues that are not addressed by the planning system
- ◇ examine the interplay between the pressures of tourism, agriculture, coastal protection and ecology
- ◇ examine the potential for coastal realignment options and the potential impact on agriculture, tourism, access and fisheries
- ◇ address the affects of recreational use on the ecology of the estuaries
- ◇ consider the health of the rural economy of the area
- ◇ identify opportunities for economic activity to support the rural population
- ◇ build on the findings of market town healthchecks on the north and south banks of the river Crouch and aid the delivery of local actions

It is hoped that there may be an opportunity to influence the planning authorities to plan sustainable development, including looking at how new housing developments can be planned along with open spaces and links into the wider countryside and using sustainable technology solutions. Development could take the needs of the wildlife associated with the estuaries into account and include habitat creation within schemes – this may involve a more imaginative use of green belt land.

### **C.6. Crouch and Roach Estuary Management Plan – Geographical Area Covered**

The Crouch and Roach Estuary Management Plan spans the entire length of the rivers Crouch and Roach. The river Crouch extends through the districts of Maldon on the north bank and Rochford on the south bank and narrows into the borough of Chelmsford. The river Roach is located exclusively in the district of Rochford.

The upper tidal limits of the Crouch begin at Battlesbridge, in the borough of Chelmsford, which now largely comprises a small light industrial area, and a centre for tourism based on craft and antiques businesses focused around the Old Mill and the Barge Public House. Down river, on the north bank, and still in the borough of Chelmsford lies South Woodham Ferrers, a relatively new town which expanded from a small settlement, to become the largest riverside town on the Crouch and Roach Estuary, with a population of approximately 16,500. It is an employment and service centre and is growing in importance as a centre for water recreation. Its redevelopment as a township was designed and facilitated by Essex County Council.

On the south bank opposite South Woodham Ferrers lies the riverside parish of Hullbridge, both South Woodham Ferrers and Hullbridge have grown from old areas of plotland.

Further down the river are the small riverside settlements of North Fambridge on the north bank, and South Fambridge on the south bank, beyond North and South Fambridge lie the small parishes of Althorne on the north bank and Canewdon on the south bank.

The most seaward settlement on the river Crouch, opposite the Islands of Wallasea and Foulness which lie to the south-east, is Burnham-on-Crouch on the north bank, which is of national significance as a yachting centre. Burnham has a population of around 8,000 and provides limited employment, educational establishments, numerous eating places, shops and a cinema.

Rochford has a population of around 7,500 and lies at the western head of the river Roach, the town centre is of historical importance. To the east of Rochford lie the small villages of Barling, Paglesham, and Great and Little Wakering.

Both the north and south banks of the river Crouch benefit from a rail link to London.

The Crouch and Roach estuary system comprises a complex network of tidal rivers and creeks which are interspersed with a number of islands, the largest being Foulness and Wallasea. The areas to the west of Wallasea Island and to the north of the Crouch are farmed, however in the south and east of the area, mudflats and drainage ditches predominate.

Apart from Foulness and Potton Islands, much of the north east corner of the Rochford district is not farmed and remains as saltings and the haunt of coastal bird populations. Much of the area is inaccessible due to the large number of creeks and channels and large areas especially to the south, can only be seen by boat. Apart from farming and military establishments at Foulness and Havengore and a timber wharf at Wallasea, the area is largely undeveloped.

In addition to the riverside towns and villages mentioned above, on the north bank of the river Crouch in the Maldon district, the following inland towns and villages are included in the Crouch and Roach Estuary Management Plan; Southminster, Asheldham, Latchingdon, Purleigh, Cold Norton and Stow Maries. All the towns and villages in the district of Rochford, whether coastal or inland, are in the geographical target area. The geographical area covered by the Crouch and Roach Estuary Project is shown on Map V.1.

### **C.7. The Crouch and Roach Estuary Project Partners**

The Crouch and Roach Management Plan has been established by a local partnership of stakeholders, including the Crouch Harbour Authority; Countryside Agency; English Nature; Ministry of Defence Estates; Environment Agency; Essex County Council; Department for Environment Food and Rural Affairs (Defra); Maldon and Rochford District Councils; Chelmsford Borough Council; and Burnham Town and Rochford Parish Councils.

### **C.8. The Wider Context** **The Essex Estuaries Initiative** **The European Marine Site** **SAIL** **A Southern North Sea Regional Park**

**The Essex Estuaries Initiative** is a network of coastal statutory authorities and user groups, it was set up in 1998 to act as an umbrella framework to support and link the many initiatives being carried out that affect the Essex coast.

**The European Marine Site** has been designated under the European Commission's Habitats Directive as a site that supports natural habitat, wildlife and plants that are of community interest and indigenous to their regions within Member States.

**SAIL** stands for Schéma d'Aménagement intégré du Littoral, a transnational project funded through the European Regional Development Fund that spans the Southern North Sea area (SNSA) and aims to ensure ICZM across its geographical area, and pays particular attention to natural resource management, and coastal tourism development. The concept of developing a Southern North Sea Forum and a Southern North Sea Regional Park are key actions within this project. The project operates through four member states, England, France, Belgium and Holland and includes the coasts of Essex, Kent, Nord-Pas de Calais, West Flanders and Zeeland. To identify the area covered by SAIL please see Map V.2.

**A Southern North Sea Regional Park** concept is one key action through SAIL, which will provide a transnational framework for integrated coastal zone management in the southern North Sea. Here in Essex it will include an Essex Coastal Trail that will provide greater sustainable access and the development of recreational and tourism opportunities that build on, celebrate and preserve in a sympathetic way, the heritage biodiversity and tranquillity of the Essex coast. The geographical area covered by the Crouch and Roach Management Plan will form part of the southern North Sea Regional Park.

**The European Marine Site** has been designated under the European Commission's Habitats Directive as a site that supports natural habitat, wildlife and plants that are of community interest and indigenous to their regions within Member States. Please see Map V.3.

## **D. ADMINISTRATIVE FRAMEWORK AND LEGAL STATUS**



**SOUTH WOODHAM FERRERS**

- D.1. IMPLEMENTATION**
- D.2. LINKS WITH EXISTING STRATEGIES**
- D.3. RESOURCE**
- D.4. MONITORING AND EVALUATION**



### **D.1. Implementation**

The Crouch and Roach Estuary Management Plan is produced as a tool for the implementation of good practice by all users of the estuary system. It is intended to be used as a guide, and should be seen as a living document that will be updated and refreshed as necessary. Estuary Management Plans are non statutory, their strengths lie in the commitment of their stakeholders to work together in a unified way to carry out the proposals contained within the plans and where appropriate to adopt as supplementary guidance these proposals within their own frameworks. A number of objectives have been identified, and are set out at the end of the relevant sections. To translate these objectives into actions, a separate Action Plan is being implemented which is updated on a yearly basis. This Estuary Management Plan should therefore be read in conjunction with the Action Plan prevailing from time to time. The Action Plan sets out what actions will be taken, by whom, and when. All actions are in accordance with one or more of the objectives set out herein.

The Crouch and Roach Estuary Management Plan is subject to and must take account of all national and international legislation and strategic policy documents affecting the area, if it is to be of value. Please see the full list of relevant authorities set out in section X.2.

### **D.2. Links with Existing Strategies**

A number of strategies for the Crouch and Roach estuaries are already either in force or in the pipeline. The Crouch Harbour Authority is the owner of much of the estuary bed and foreshore and has in place a Management Plan for the safe navigation of craft and the protection of the natural environment. The Crouch and Roach Management Plan builds on this, by broadening out to include the river banks and riverain communities.

The Crown Estates Commissioners have a small holding of river bed and foreshore on the river Crouch and a slightly larger holding on the river Roach.

The Environment Agency's Flood Strategy in particular is of extreme importance and is referred to in the Flood Protection section (K.2).

The Essex and Southend-on-Sea Replacement Structure Plan; The Essex Minerals Local Plan Adopted First Review; The Essex and Southend Waste Local Plan, and the Regional Planning Guidance 9 for the South East all contain sections that relate to coastal issues, as does the emerging Regional Spatial Strategy for the East of England RSS 14.

In addition to the Local Plans that are drawn up by the three local planning authorities covering the expanse of the estuary, Essex County Council publishes The Essex Coastal Strategy, and all these documents restate and observe national and regional plans that are developed by governmental agencies including English Nature, the Environment Agency, the Countryside Agency and Defra, and many of these plans serve to implement national and international policy. Foulness, Potton, Rushley, New England and Havengore islands are under the direct control of the Ministry of Defence who have special requirements and responsibilities to enable them to carry out their activities.

In view of the importance of the Crouch and Roach estuaries for their wildlife, conservation remains at the heart of the Crouch and Roach Estuary Management Plan with actions identified to protect the area through awareness raising and education. At

the same time, the Crouch and Roach Estuary Management Plan aims to promote the area through tourism opportunities, but with sympathetic regard for the potential environmental impact that could be caused by an increase in visitor numbers. (See also Sections F, L and M.)

### **D.3. Resource**

The Crouch and Roach Estuary Project Steering Group is made up of nominated representatives from the Project Partner organisations. Financial management, including expenses, rests with Essex County Council, who are the authority employing the Crouch and Roach Estuary Project Officer. The day-to-day management of the project officer is delegated by the Steering Group to Rochford District Council.

The Crouch Harbour Authority provides a resource for this project by the provision of the project officer's work base.

In order for this Management Plan to deliver identified actions, ongoing funding will be needed to secure the engagement of a project officer to carry forward the issues and funding must also be secured to pay for the identified actions. The Project Officer will have a role to play in seeking project funding.

### **D.4. Monitoring and Evaluation**

The Chair of the Steering Group will comprise an officer of one of the Funding Partners, elected by the Funding Partners each year, to run from 1st May each year. No person will be allowed to remain as Chair for more than one year. The Steering Group meet bi-monthly to monitor and evaluate the work of the Project Officer against pre-determined targets to ensure that the project is driven forward.

The Management Plan was produced through a process designed to be fully inclusive. Consultation took place with the local community, user groups and the project partners, as follows;

- With project partners by direct involvement
- Through community workshops in conjunction with the work being carried out by Burnham and Dengie Focus Group (the Burnham Healthcheck) and Rochford Regeneration (the Rochford Healthcheck).
- Through two community drop in sessions, one in Burnham-on-Crouch and one in Hockley.
- With school children by means of a visit to two schools (one senior and one primary) in the Rochford district and two schools (one senior and one primary) in the southern part of the Maldon district
- By consulting with District and Parish Councillors and Parish Clerks at a meeting in Cold Norton arranged specifically for Local Councils.
- By circulating a rapid appraisal standard questionnaire for completion by at least 10 members of each user group, including parish councils, community groups, special interest groups and other organizations with an interest in the estuary system,
- Through the use of a comments forum on the project's Website
- Through letters to Waterlines (the project newsletter).
- Through a feedback forum and launch of the final version of the Management Plan, prior to printing.

The Management Plan action plan will be kept up to date by the holding of an annual feedback event, and the Management Plan framework will be kept up to date by the holding of an annual analysis of the continued accuracy of the Plan.

The provisions of the Data Protection Act 1998 as amended, apply to any and all information that is collated, stored and shared about the estuary and the estuary communities, except only, where the information itself is not subject to data protection procedure.

## **E. LAND OWNERSHIP**



**FOULNESS ISLAND**

- E.1. TOTAL LENGTH OF COASTLINE IN KILOMETRES**
- E.2. CROUCH HARBOUR AUTHORITY HOLDING**
- E.3. CROWN ESTATES PROPERTY**
- E.4. MINISTRY OF DEFENCE ESTATES**
- E.5. OTHER IDENTIFIED RIVERBED OWNERS**
- E.6. FORESHORE OWNERSHIP**

### **E.1. Total Length of Coastline in kilometres**

The total distance of the project area is 243 km. The north bank of the river Crouch and its creeks measure 68km, with a further 31km of open coast, including the creeks, from the Crouch estuary to a point half way across the Dengie Flats, where the lower boundary of the Blackwater Project is seen to commence.

The distance of the south bank of the River Crouch and the River Roach and all the creeks is 132 km with a further 12 km of open coast from the Roach estuary to the Havengore Channel.

### **E.2. Crouch Harbour Authority Holding**

Unlike many other estuaries in England, which are in Crown Estate Commissioners (CEC) ownership and largely controlled by the relevant local authorities, the Crouch and Roach Estuary is largely in the private ownership of The Crouch Harbour Authority (CHA). Over the centuries the bulk of the river bed was acquired by the Burnham Oyster Company who sold their holding to the Crouch Harbour Authority in 1974, the CHA does however lease various tracts of the river bed to riparian owners.

### **E.3. Crown Estates Property**

Not all of the Estuary is in private ownership, in particular, Crown Estates Commissioners (CEC) own from the limits to which the tides flow (upstream from Battlesbridge) down to Hullbridge. Ownership is of the foreshore and bed but subject to various leases and licenses. CEC also own the majority of the River Roach and a number of the tributaries. Again this is subject to various leases such as to the Kent & Essex Sea Fisheries Committee.

### **E.4. Ministry of Defence Estates**

In 1900 ranges were established on Foulness Island by the War Department (the ancestor of the Ministry of Defence) and by circa 1915 two thirds of the area now known as "MOD Shoeburyness" including Foulness and the sands at Foulness and Maplin were in military possession. For the first time, a road was built onto the island from Great Wakering. Prior to the road being constructed the only way onto Foulness Island was via the Broomway, which is often covered by tide and quite hazardous to cross. In 1955 following considerable flood damage in 1953, the MOD purchased Potton Island. In addition to owning the land, the MOD has acquired the properties on the Shoeburyness site and now leases much of the land and farm buildings to its tenant farmers, many of the inhabitants have historic links to the island. The actual extent of ownership can be learned from title plans held by the Land Registry.

### **E.5. Other Identified Riverbed Owners**

The section between Battlesbridge by the pool up to Southlands is shown as sold to Essex Rivers Board, and is now presumably owned by its statutory descendants. The Middleway was recorded in 1891 as being owned by a J.Emmerson, but title is no longer certain. There are also a number of areas where ownership of the river bed is not clear as it appears that title has not been fully investigated.

### **E.6. Foreshore Ownership**

Whilst there are areas where ownership of the riverbed is unknown, these are outnumbered by the areas of foreshore along the estuary system where boundaries are unclear. The vast array of known organisations and individuals having freehold or leasehold ownership or licenses or other rights along the foreshore are too numerous to list here, but in addition to the known titles and licences, it is clear that there are vast areas of foreshore along the length of the estuary where ownership is not established, in dispute, or simply not known. It would be helpful to would be users of the land if this information was available from at least one of the project partners.

During the consultation period for the development of this plan it emerged that many local people would like to see ownership clarified, impacting as it does on local rights of way, and in particular, access to the two rivers. Community projects too are reported as having been delayed in the past by ownership queries which then ate into project resources, and more lately the discovery that HMS Beagle may be in a watery grave on the river Roach at Paglesham has created the need for land ownership investigations which highlights yet again the value of a thorough and detailed title search in respect of the foreshore and river bed. This information, once collated, could be held by the Crouch and Roach Estuary Project for the benefit of all enquirers. A database of land ownership exists at the Land Registry. Now tidal lands can be registered this practice should be encouraged as a means of completing the database.

In order for this investigative work to be carried out, funds must be accessed, but once the records are created the information can be kept up to date through the information sharing network that will be created by the Crouch and Roach Estuary Management Plan Project Partners via the co-ordination provided by the Project Officer. (See also D4.)

## **F. THE NATURAL ENVIRONMENT AND NATURE CONSERVATION**



**THE SHORE CRAB**

- F.1. DESIGNATIONS AND PROTECTED AREAS**
- F.2. ESTUARY FORMATION**
- F.3. CONSERVATION POLICY**
- F.4. CLIMATE CHANGE**
- F.5. THE CROUCH AND ROACH RIVER BEDS**
- F.6. SALTMARSH**
- F.7. COASTAL GRASSLAND**
- F.8. BRACKISH DYKES AND POOLS AND BORROW DYKES**
- F.9. ESSEX BIO DIVERSITY ACTION PLAN**
- F.10. WALLASEA WETLANDS CREATION PROJECT**
- F.11. HULLBRIDGE HABITAT CREATION SITE**
- F.12. TREE PLANTING**
- F.13. LOW TIDE DAY EVENTS**

### **F.1. Designations and Protected Areas**

The geographical area covered by the Crouch and Roach Estuary Management Plan is internationally important for wildlife. Nearly twenty-five thousand water birds visit the estuary each year including nationally important numbers of shelduck, shoveler and black-tailed godwit and internationally important numbers of dark bellied Brent Geese. The Essex Coast provides over-wintering for around one fifth of the world population of dark bellied Brent Geese with an average peak of just over 6 thousand birds (about 2.5% of the world population) congregating around the Crouch and Roach estuary. The tidal flats, saltmarsh and adjacent coastal grassland and ditch systems also support thirteen species of nationally scarce plant and important populations of rare invertebrates. An important breeding population of grey seal can be found at the mouth of the crouch estuary. Consequently the area is subject to a wide range of international, national and regional designations, the Crouch and Roach Estuary is a Site of Special Scientific Interest (SSSI), a Special Protection Area (SPA) and a Ramsar (wetland) site. The specific SSSIs include Goldsands Road Pit, The Cliff, The Crouch and Roach Estuaries and Foulness. The first two are geological sites and the latter two sites are also SPA and Ramsar.

New sites will be identified, studied and added from time to time, and information gathered by the Crouch and Roach Estuary Project could assist in identifying gaps in conservation area cover. A map of the area showing the Conservation Area can be found at V.3. below.

### **F.2. Estuary Formation**

The Essex estuaries were formed from river valleys that flooded with sea water when sea level rise reached 100 metres (over 300 feet) in the Holocene period (the end of the last major ice age, about 11,000 years ago) cutting off the UK from Europe. At the mouth of the estuary, energy is at its highest and decreases as the tide moves inland. This causes a grading of sediments along the estuaries, with coarse pebbles and shingle at the mouth of the estuary and finer clays and silts inland. Countless millions of worms, snails and other invertebrates contribute to continuous biological productivity. Life in the mud is supported by the nutrients brought in by the twice daily tides, which in turn become food for fish and birds. The fairly calm waters of estuaries are ideal nurseries for the juveniles of many species. Estuaries also support human populations, providing fish, shellfish, bait and wildfowl, and when managed in a sustainable way at levels that the estuary can support, these uses are compatible with nature conservation.

The process does not stand still, natural and man-made changes continue to occur. Along the Essex coast the sea level is rising at an estimated 6mm a year relative to the land. The natural response is for the tidal mudflats and saltmarshes to migrate inland. They are unable to do this if a sea wall is in the way, so instead they are being squeezed against the sea wall and are being lost to erosion. It has been estimated that 34% of the saltmarsh on the Crouch Estuary was lost to erosion between 1973 and 1998. Apart from their outstanding wildlife interest tidal mudflats and saltmarsh also act as the first line of coastal defence and their absence complicates and increases the cost of maintaining flood defences. Continued rebuilding of hard sea defence only compounds the problem, hard sea walls reflect wave energy, and this speeds up foreshore erosion. The answer is to work with nature, using natural sea defences. This will mean however that sea defences may have to move from their present position and wildlife will have to respond accordingly. The Crouch and Roach Project will raise awareness of the need to create new habitats landward of the sea wall and translocate key species in advance of coastal realignments.

It is important that the estuary system is looked at in a global strategic way. The Crouch and Roach Project will assist by collating on-going research on other estuary systems



and specifically on the Crouch and Roach estuary and it will encourage responsible use of the estuary through education.

The project will also look at the possibility, if appropriate, that there may be a managed retreat impact on landowners and other users.

### **F.3. Conservation Policy**

The Crouch Harbour Authority recognises that because of its powers under the Harbour Act 1974, and its ownership of large tracts of river bed, it is well placed to promote and manage the need for conservation. It states that the river Roach in particular is unspoilt, and that it will continue to seek to prevent any increase of water based activity which it considers detrimental to the river Roach, and that it is CHA policy not to issue a works licence on the rivers Crouch or Roach in areas with special designations, unless it is satisfied that no significant damage will result. English Nature and the Environment Agency, with the support of the local coastal authorities, are leading the development of Coastal Habitat Management Plans to reconcile the requirements of the Habitats Directive and the need for coastal defence in naturally dynamic coastal areas. The estuary is also protected through special designations nominated by English Nature (see F.1. above) and local planning authorities also have an important role to play in conservation management and control development through their Local Plans.

Further, there are 22 Environmentally Sensitive Areas ESAs nationally and these are designated by Defra where the landscape, wildlife or historic interest is of national importance. Within each ESA, landowners and farmers can receive payment for sensitive management and enhancement of the countryside. The Essex Coast ESA was designated for the rich heritage and unique character of the coastal grazing marshes and associated ditches which provide an important habitat for rare plants and animals. The area is internationally important for birds, especially overwintering wildfowl and waders. The ESAs are funded through the England Rural Development Programme (ERDP) (see also S.2. below).

### **F.4. Climate Change**

Climate change is one of the main reasons for the increase in the rate of sea level rise and will lead to increased storm events which will in turn impact on sea walls. It is recognised that climate change and coastal erosion will impact on existing habitat. There is an urgent need to create new intertidal habitats as part of a sustainable coastal defence strategy. However the creation of intertidal habitats takes a long time to get from the drawing board to the reality, and for every hectare of new habitat created nationally in the past 10 years, 10 hectares has been lost. It is vital that a programme of monitoring be followed, and that information is properly collated and analysed. A great deal of valuable information can be obtained from user groups such as anglers, wildfowlers and others, who know the estuary and its inhabitants, they have an important role to play in climate change research.

### **F.5. The Crouch and Roach River Beds**

The river Crouch occupies a shallow valley between two ridges of London Clay. The river Roach however runs between areas of brickearth and loams with patches of sand and gravel. The Crouch estuary is long and narrow in shape with the intertidal zone along both of the rivers being squeezed between the sea walls of the banks and the river channel. This means that, unlike wider estuaries, there is only a fairly narrow strip of tidal mud, but nevertheless the estuary attracts internationally important populations of water birds including; brent-geese, black-tailed godwit, shoveler, shelduck, redshank, golden plover, lapwing and dunlin, amongst others.. Coastal ecosystems are extremely productive for wildlife, providing habitat, food and shelter. The estuary saltmarshes and mudflats work as natural sea defences, absorbing and dissipating the force of the sea,

they are also home to many millions of invertebrates and algae which provide a vital source of food for fish and birds.

#### **F.6. Saltmarsh**

Since the middle ages progressive embankment has occurred to support livestock and agricultural farming leaving only relatively small areas of uninterrupted transitions from low to high saltmarsh, leading on into grassland. These transitions are important for plants and invertebrates and are rarely found on the Essex Coast, although they are found along the upper sections of Paglesham Pool, White House Farm and Woodham Fen. Records show that on the Crouch and Roach estuary approximately 34% of saltmarsh was lost over the past 30 years. Other salt marshes have formed naturally during this century, as a result of unplanned breaches in the sea wall, e.g., at Brandy Hole, North Fambridge Marsh and Bridgemarsh Island, but a significant proportion of these saltmarshes has also been lost.

Saltmarsh is a vitally important habitat, it provides food and shelter for many different types of animal, including resident and migratory birds, and is the home to many highly specialised plants and micro-organisms. These conditions are ideal for a range of unique and rare species

Saltmarsh also serves as a vital first line of flood protection, (see K3) as it acts as first line soft defence against the waves by providing a gentle brake, before the waves hit the hard sea wall defence. The cost of maintaining the hard sea wall defence is considerable. Saltmarsh contributes to the cost of maintenance by reducing the level of impact, at no cost whatsoever.

The saltmarshes of the Crouch and Roach estuary contain a range of characteristic plants. At the lower level, normally covered by the tide, glasswort, sea aster and annual Sea-blite thrive, with common saltmarsh-grass, sea purslane, common sea-lavendar and thrift being found at the higher level. At the uppermost level and along the sea walls, Sea Couch and other coarse grasses are dominant and these support dense populations of the nationally scarce roesel's bush-cricket and on a warm summers day the air is filled with their 'reeling' song.

#### **F.7. Coastal Grassland**

The sea walls, although artificial, represent a significantly important proportion of agriculturally un-improved grassland along the Essex coast, and support a range of uncommon plants and insects. In early summer, grass vetchling, sea clover and narrow-leaved birdsfoot-trefoil create a carpet of colour and provide a nectar source for butterflies and other insects. The landward side of the sea wall provides a refuge for many species that would naturally be associated with high level saltmarsh, now a rare habitat on the Essex coast. For example, nationally scarce coastal plants such as Borer's saltmarsh-grass, stiff saltmarsh-grass and sea barley grow between the sea wall and the borrow dyke where salt water seeps through the wall.

The grazing marsh, although dominated by perennial rye-grass, contains its own range of interesting plants, including; Spiny Restharrow, and Hairy Buttercup. Ground nesting birds such as Skylark and lapwing breed on coastal grazing marsh and dark-bellied brent-geese feed on the grazing marsh in the winter months. This is the type of habitat the ESA (see F3 above) is specifically designed to protect and enhance. There is a management tier in the ESA scheme to maintain old traditionally managed grazing marsh and two supplements, one which targets the restoration of grazing marsh habitat and one for producing the right grazing conditions for overwintering waterfowl.

### **F.8. Brackish dykes and pools and Borrow Dykes**

The borrowdykes, created when clay was excavated to build the sea walls, hold brackish water and form saline lagoons. These support marginal plants such as sea club-rush and lesser reedmace and aquatic plants such as fennel pondweed and the nationally scarce spiral tasselweed. These habitats support several uncommon invertebrate species, including species like the ruddy darter dragonfly and some rare soldier flies.

On the Crouch and Roach estuary there are mildly brackish lagoons at Saltcoats and Lower Raypits, and a fresh water reservoir adjacent to Stannets Creek. These waters provide important watering and preening grounds for wildfowl and other water birds that visit the estuary.

### **F.9. Essex Bio Diversity Action Plan**

In June 1992, leaders of over 150 countries gathered together in Rio de Janeiro for the 'Earth Summit' the conference considered environmental issues including biodiversity. As a result, the UK government signed up to the Convention on Biological Diversity which led to local Bio-Diversity Action Plans being drawn up. Biodiversity is the variety of life, it encompasses all living things. Local Action Plans seek to protect local endangered species.

The Essex Bio Diversity Action Plan lists the following as protected species found in or around the Crouch and Roach estuary;

#### Mammals

Brown Hare	widespread
Dormouse	widespread
Harbour Porpoise	widespread (coastal)
Water Vole	widespread

#### Birds

Grey Partridge	Dengie Flats
Skylark	widespread
Songthrush	widespread

#### Other Vertebrates

Great Crested Newt	widespread
Allis Shad	widespread (coastal)
Twaite Shad	widespread (coastal)

#### Invertebrates

Heath fritillary butterfly	Thrift Wood, South Woodham Ferrers, and Hockley Woods
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#### Trees and Plants

Black Poplar	widespread
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#### Habitats

Ancient and species rich Hedgerows and green lanes	widespread
Ancient woodland	widespread
Cereal field margins	widespread
Coastal grazing marsh	Dengie Peninsula

Eel Grass Beds	Dengie Flats, Foulness (extensive on Maplin Sands)
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Saline lagoons extending from Foulness point to Wakering Stairs and  
Suttons)  
widespread (coastal)

#### **F.10. Wallasea Wetlands Creation Project**

In 2004, Defra decided after consultation to create approximately 110 hectares of new wetland on the north eastern bank of Wallasea Island to compensate for wetland lost in the 1990s. It is intended that this work will take place in 2005/6 when pollutant free mud will be imported to the site by sea and used to raise the existing levels to create saltmarsh. One year later, once this has stabilised, the existing old sea wall will be breached at that point to allow the tide back onto its old flood plain. Once the site is created it is anticipated that it will be protected as an SSSI and as an SPA under the European Wild Birds Directive. The project will create a more sustainable estuary shape; provide a new footpath on top of the seawall for people to enjoy the restored landscape; give Wallasea Farms a robust tidal defence for their business; provide shelter and habitat for invertebrates, fish, and rare plants and create a haven for the wild birds that lost their winter homes. This project is seen locally as a good scheme, but careful monitoring must take place to ensure that flood defence is not jeopardised during or following completion of this project. Any observations by the community to this project, through the website or by letter to Waterlines (the Crouch and Roach Project newsletter) or via any other means, will be passed to Defra for their attention.

#### **F.11. Hullbridge Habitat Creation Site**

In November 2003, the Environment Agency caused a breach of tidal defence at Hullbridge which has created 7 hectares of intertidal habitat and 5 hectares of grassland.

#### **F.12. Tree Planting**

During the consultation process, a number of views were expressed regarding the loss of indigenous trees in the target area, over the last quarter of a century, due to disease, gales and other factors. Although trees are not an important feature of the Essex Coast and in many situations English Nature would resist plans to plant them. There are nevertheless places where trees could be planted that would not detract from the SSSI/SPA/Ramsar interest (although in no situation would they enhance that interest). Any benefit from tree planting would be associated with the Essex Bio-diversity Action Plan and wider countryside wildlife benefits. Therefore it is recognised that where possible and only in suitable locations, replacement tree planting should be encouraged.

#### **F.13. Low Tide Day**

Low Tide Day is a European initiative designed to involve the community in raising marine conservation awareness and delivering education on inter-tidal habitat. Local communities are encouraged to hold community fun-days along the coasts and estuary banks to deliver the message of the need for marine conservation. The Crouch and Roach Estuary Project will promote and facilitate Low Tide Day events as appropriate.

## **G. THE HISTORIC ENVIRONMENT**



**LATE BRONZE AGE WOODEN PADDLE EXCAVATED FROM THE FORESHORE AT CANEWDON,  
(RADIOCARBON DATED TO AROUND 900BC)  
PHOTOGRAPH COURTESY OF ESSEX COUNTY COUNCIL**

- G.1. THE ESSEX COAST**
- G.2. INTERTIDAL ARCHAEOLOGY**
- G.3. ANCIENT GROUND SURFACES AND PEAT DEPOSITS**
- G.4. TIMBER STRUCTURES**
- G.5. SALTWORKING SITES**
- G.6. OYSTER PITS**
- G.7. SEA WALLS**
- G.8. GRAZING MARSH**
- G.9. CROPMARKS AND DRY-LAND SITES ON CULTIVATED FARMLAND**
- G.10. HISTORIC FIELD BOUNDARIES**
- G.11. DEFENSIVE STRUCTURES**
- G.12. CONSERVATION MANAGEMENT, DESIGNATION AND POLICY**
- G.13. CLIMATE CHANGE AND COASTAL DEFENCE**

### **G.1. The Essex Coast**

The Essex coast is a historic landscape of great complexity and value, and the area covered by the Crouch and Roach Estuary Management Plan is of particular importance. The historic environment resource is diverse, and embraces both buried and therefore hidden archaeological deposits, and above ground remains and historic landscape features. These range in date from the early prehistoric periods through to the modern day and can be grouped under a number of headings as set out below.

### **G.2. Intertidal Archaeology**

The intertidal zone of the estuary contains a rich archaeological resource which has been preserved as a result of past changes in the coastline, and is now being exposed by modern changes in sea level and other coastal processes. The waterlogged conditions which are prevalent within the estuaries have greatly aided the survival of organic ecofacts and artefacts such as the remarkable Bronze Age paddle from Canewdon.

### **G.3. Ancient Ground Surfaces and Peat Deposits**

Occupation sites dating to the Mesolithic, Neolithic and Bronze Age, which were on dry-land, now lie buried and/or exposed within the intertidal zone. These have well preserved soil profiles and peat deposits, providing the potential for an enhanced understanding of human interaction with these buried landscapes through history. Wood peat, with woodland remains of oak and alder are present at Clements Green Creek in the Crouch estuary.

### **G.4. Timber Structures**

The inter-tidal zone, past and present also contains a wide variety of well preserved wooden structures ranging from finds of prehistoric brushwood trackways, used to cross creeks, to medieval fish traps and post medieval jetties, wharfs and wrecks linked to the maritime activities along the estuary

### **G.5. Saltworking Sites**

The earliest recorded salt-production site in Essex is at Fenn Creek in the Crouch estuary, dated to the Late Bronze Age. The later importance of the salt making industry is demonstrated by the large number of salt-working sites of late Iron Age and Roman date known as Red Hills due to their distinctive red soil, which are found both within the intertidal zone and landward of the sea wall in areas of current and former grazing marsh. A significant medieval salt making site is known at Stow Maries and this physical evidence is supported by documentary and place-name evidence from what was also a thriving medieval industry in Essex.

### **G.6. Oyster Pits**

The farming of oysters has been an important coastal industry since the Middle Ages. It's legacy is visible in the Crouch and Roach as numbers of disused oyster pits cut into the salt marsh.

### **G.7. Sea Walls**

Essex salt marshes have been reclaimed for grazing or cultivation for at least the past 500 years with the earliest sea walls dating from the Middle Ages or earlier. Sea walls are a striking and omnipresent feature of the landscape of the Crouch and Roach estuary. In addition to those still in use, abandoned, eroding examples exist in the intertidal zone, whilst others, including inland counter walls, survive as relict earthworks or cropmarks inside the present sea wall. In places, lines of timber posts next to modern sea walls may represent earlier sea defences. On Foulness Island, a section through a medieval sea wall revealed an internal timber framework dated to the late 15<sup>th</sup> century

### **G.8 Grazing Marsh**

Grazing marshes created through land reclamation during the medieval and post medieval period are complex historic landscapes, and the few surviving examples preserve historic environment which elsewhere has been largely ploughed away. In addition to former sea walls and counter walls relating to land reclamation, former tidal creeks, visible as low, sinuous linear depressions are the locations where buried prehistoric settlements, hulks, wooden structures and salt working sites can expect to be preserved. During the medieval period the marshes were a significant element of the local economy providing sheep pasture, salt, fisheries and hunting.

### **G.9. Cropmarks and Dry-land Sites on Cultivated Farmland**

On the farm land around the two estuaries, archaeological remains have been recorded in the form of cropmarks, artefact scatters, middens and earthworks, representing a wide variety of site, from prehistoric and Roman settlements and burial places to medieval moated sites and sites linked to economic activity, such as a duck decoy pond identified at Paglesham.

### **G.10. Historic Field Boundaries**

Farmland around the Crouch and Roach estuaries is characterised in part by distinctive field systems of regular coaxial hedgerow boundaries believed to have been planned and laid out during the Roman or Late Saxon period.

### **G.11. Defensive Structures**

WWII defensive structures are a characteristic feature of the Crouch and Roach estuary where Pill boxes and other structures such as the minefield control tower at Burnham-on-Crouch formed an integral part of a 'hard crust' of defence built all along the Essex coast to counter the threat of invasion. During the cold war, the Shoebury MOD site was further developed as a nuclear weapons research centre and has important structures relating to nuclear weapons testing.

### **G.12. Conservation Management, Designation and Policy**

The archaeological remains and historic landscape features are irreplaceable, often fragile and are constantly at threat from a multiplicity of agents including natural erosion, agricultural intensification, neglect, coastal defence and wildlife enhancement schemes. The considerable significance of the area for our understanding of early settlement, maritime economies and the development of coastal landscapes should not be underestimated and should be given appropriate consideration ahead of any schemes which may lead to damage or loss. In addition, much of the resource requires proactive management to prevent further degradation. The Crouch and Roach Estuary Management Plan is well placed to adopt a role in the promotion of the careful and informed management of the historic environment.

Archaeological remains situated in the intertidal or subtidal zone or on lengths of undeveloped coastline around the Crouch and Roach estuary are generally under-represented in the lists of statutorily protected sites. This reflects limited archaeological survey in the coastal zone and, even where survey has taken place many sites remain undiscovered due to masking by sediment deposition.

The government's consultation paper – *Protecting the Historic Environment: making the system work better* – is proposing important changes in the way the historic environment is statutorily protected and managed which will replace scheduling carried out under the Monuments Protection Programme. These proposals included: unified designations, combining listing, scheduling and registration; statutory management agreements; the

means of achieving integrated environmental management and effective partnerships. A series of pilot projects are being undertaken by English Heritage to test the application of the government's proposals. The island of Foulness is one of the pilot areas as it represents an opportunity to trial an approach to a complex, large-scale site where multiple designations already exist and there is an interface with natural environment designations.

Through Local Plans and Local Development Frameworks the local planning authorities have a key role to play in conservation management of the historic environment and development control through policy's contained within their Local Plans and future Local Development Frameworks. From 2005 Defra's Environmental Stewardship scheme (see S.2.) will offer enhanced opportunities to protect the historic environment and characteristic landscape of farmland in the area.

### **G.13 Climate Change and Coastal Defence**

Coastal erosion over recent years has highlighted the archaeological and palaeo-environmental potential of the intertidal and off shore areas of the estuary, whilst simultaneously destroying this irreplaceable resource. Coastal defence works in response to sea level rise can also have a significant impact on archaeological remains and the historic landscape and it is important that due consideration is given to the historic environment during the development of managed realignment and other defence schemes or abandonment programmes. (see also F.4., G.7., and section K).

During the development of the Crouch and Roach Flood Management Strategy, the Environment Agency established the following secondary objectives which will be considered during the assessment of flood management policy and strategic options for each Flood Management Unit in the area:

- Protect scheduled monuments and listed buildings where possible and provide mitigation in the form of excavation and recording at sites of non-scheduled known archaeological sites and undiscovered archaeology; and
- Maintain or enhance the existing landscape character and physical appearance, features of historic, archaeological and environmental importance and Special Landscape Areas.

The English Heritage guidance document 'Coastal Defence and the Historic Environment' provides advice on the implications of coastal and flood defence for the historic environment and considers in detail the implications for the historic environment of the increasing number of managed realignment schemes likely to arise from a sustainable coastal defence policy, and provides guidance on appropriate responses. The guidance can be usefully applied to other intrusive ground works which may have an impact on the historic environment, such as wildlife enhancement schemes, within the area of the Crouch and Roach Estuary Management Plan.



## **H. COASTAL ENVIRONMENT (BUILT)**



**BATTLESBRIDGE**

**H.1. THE RELATIONSHIP BETWEEN THE BUILT AND NATURAL ENVIRONMENT**

**H.2. HOUSEBOATS**

**H.3. COMMERCIAL STRUCTURES**

**H.4. MARINAS, MOORINGS AND JETTIES AND SLIPWAYS**

**H.5. MINERALS**

### **H.1. The Relationship Between the Built and Natural Environment**

Whilst the emphasis of any estuary management plan will inevitably focus on the water and the natural environment, it is important to remember that the built environment along the coastline has been instrumental in not only helping to develop the estuary as a commercial and leisure asset, but in shaping its future too. The relationship is one of significant historical importance, as parishes along the estuary developed by providing facilities for transport and trade links from the coast to inland communities. Without a built environment for the estuary to serve, the estuary, although not spoiled by development could be damaged by neglect. In recognising the importance of the built environment however, we must be sure that the balance is right, and that whilst the estuary should be stimulated by growth it has to be protected by proper management, with identified natural areas being kept as safe havens for wildlife and quiet places for the community to visit. Please also see River Safety at I.6. below.

The principal towns on the river Crouch are Burnham-on-Crouch and South Woodham Ferrers on the north bank and Hullbridge on the south bank. The smaller settlements, with Battlesbridge spanning both sides of the river, joined by a road bridge at the limit of the tidal stretch, include North and South Fambridge. Rochford lies at the source of the river Roach, with Stambridge, Wakering, Paglesham and Barling all providing built landscape on the banks of the Roach.

Both sides of Battlesbridge waterfront are in a conservation area, reflecting the historical significance of the place as a river crossing and a place of industry. There are numerous listed buildings and structures associated with the river and its historic commercial use: The C19th road bridge over the river; The 17<sup>th</sup>-18<sup>th</sup> Century Barge Inn, which is an obvious reference to the river craft and to its original clientele; The 18<sup>th</sup> Century Old Tide Mill and the dam wall attached to it, representing the milling trade carried out here. There are also old timber structures, wharfs and lock gates, etc, which are not listed, but part of the history of the management of the river as a resource.

Hullbridge is not a conservation area, but has some listed 18<sup>th</sup> Century cottages near the slipway on Ferry Road. The town presumably grew up because of the existence of a river crossing at this point.

South Fambridge is a settlement based on a ferry service to North Fambridge. The 18<sup>th</sup> Century Old Ferry House is listed and an important reminder of the village's origins.

On the Roach, there are no conservation areas or listed buildings on the waterside, but Stambridge Mills and Sutton Warf are of local importance. There is evidence all along the banks of the Roach of a history of management of the river: Pagelsham boatyard and hard; the nearby oyster pits, as well as dams, jetties and quays at various locations.

On the north bank of the River Crouch at Burnham-on-Crouch there are several examples of traditional white weather boarded properties overlooking the river, and Clock Tower which dates from 1877 is a very famous landmark.

### **H.2. Houseboats**

Some people are fortunate to reside in houses along the river banks and others are able to enjoy the estuary as residents of houseboats. Houseboats are currently moored on the river Crouch at Burnham, Battlesbridge and Paglesham. In Burnham-on-Crouch, Maldon District Council leases berths for up to five houseboats and requires facilities for sewage and effluent disposal to be adequate. The Crouch Harbour Authority in its Management Plan has identified the potential for further mudberths at Wakering,

Rochford and Bridgemarsh, but despite this potential, the current policy is not to licence further houseboats in rural areas and to restrict the number of licences in urban areas to such a number as in the opinion of the Relevant Authorities will not conflict with or be to the detriment of waterfront users. The sustainability of the estuary is paramount.

### **H.3. Commercial Structures**

There are also a number of commercial structures on the river that create a built focal point. Battlesbridge Old Mill is a well known local land mark and now houses an antique centre. Stambridge Mill at present stands idle, and is not currently as attractive as it could be. The Mill and curtilage is shown in the Rochford District Council's Local Plan as suitable for light industrial use. (See also N.2.)

Bridgemarsh Island was once an industrial brick making centre, although the Island is no longer inhabited, ruined brick firing ovens remain.

Wakering too had a thriving brick industry, barges transported bricks from Havengore to London. Boatyards have always played their part in the history of the estuary and they add to the coastal character.

### **H.4. Marinas, Moorings and Jetties and Slipways**

Marinas: There are currently four marinas on the river, two substantial marinas at Burnham-on-Crouch and Wallasea Island and two smaller marinas at Bridgemarsh and West Wick. The Crouch Harbour Authority's view with regard to marinas is that they should be restricted to the urban coastal resorts and their policy is that the development of new marinas or the expansion of existing marinas will normally be permitted only in urban areas. See also I.6.

In the consultation for the Crouch and Roach Estuary Management Plan there were a number of calls for more free slipways and more free moorings on both sides of the river for public use, as not all persons wishing to sail on the estuary belong to marinas, private boatyards or sailing clubs. The sustainability of the estuary is paramount, and congestion in the estuary must be avoided.

Moorings: The Crouch Harbour Authority who is responsible for navigation, takes the view that parts of the river Crouch are already congested by moorings and that any increase in the number of existing moorings may result in an unacceptable degree of congestion in the river. Byelaws prohibit anchoring which obstructs the Fairway. See also I.6.

#### Jetties and Slipways:

There are two public access points one on the north bank of the river Crouch and one on the south bank. There are no public access points onto the river Roach, although Paglesham has been identified by Rochford District Council as a place suitable for further investigation into the possibility of public access. See also I.6.

The river Crouch may be accessed by the public on the north side of the river at Ferry Road, South Woodham Ferrers, and on the south side at Ferry Road, Hullbridge. These two slipways are opposite each other on the river. The public right of way extends across the river bed and may be walked with extreme care when the tide is out.

The Crouch Harbour Authority considers that in the interests of safety, and for the proper balance of activities and harbour regulation, public access should be limited on the river Crouch to the two existing public launch sites.

The surface of the public slipway at South Woodham Ferrers is in need of repair. In view of the decision not to increase the number of public slipways, the existing ones should be well maintained and funding should be sought for the necessary repairs to be carried out.

## **H.5. Minerals**

The geology of the area contains large amounts of sand and gravel and some brickearth. Essex County Council's Minerals Local Plan seeks to balance development pressures and the protection of the landscape.

The aim of the Minerals Local Plan is to:

- Provide a sustainable planning framework allowing for the supply of basic raw materials at least cost to the environment of Essex
- Provide policies and proposals for non-land won supply
- Ensure extraction is matched by a high standard of restoration/site clearance

Proposed developments that reduce waste going to landfill and promote recycling are encouraged as they help to minimise the amount of land used for mineral extraction and waste disposal.

Active sites in the Crouch and Roach Estuary target area are on the north bank, at Southminster Road, Althorne, and on the south bank at Cherry Orchard Lane, Rochford and Lt.Wakering Rd., Barling Magna.

## **I. COASTAL COMMUNITIES**



**BURNHAM-ON-CROUCH**

- I.1. LIVING BY THE COAST**
- I.2. A SHARED IDENTITY**
- I.3. PRESERVING THE UNIQUE CHARACTER OF COASTAL TOWNS AND VILLAGES**
- I.4. EDUCATION AND AWARENESS RAISING**
- I.5. COMMUNITY SAFETY**
- I.6. RIVER SAFETY**
- I.7. NOISE AND LIGHT POLLUTION**
- I.8. WASTE REDUCTION AND RECYCLING**

### **I.1. Living by the Coast**

Coastal communities are usually seen as fortunate, living as they do in close proximity to coastlines. Many coastal inhabitants would agree that they are fortunate and would not wish to live elsewhere, but it is important to remember that coastal residence does come with a price. Many coastal resorts struggle with the problems created by increased visitor numbers in summer months, such as overcrowding and parking problems, clean up bills at the end of the season, etc. Coastal resorts are often quite remote, accessed by narrow dead-end roads; remoteness can lead to isolation for less mobile members of the community. Coastal resorts attract in-migration, particularly amongst the active retired population, which can increase local housing prices and lead to an “ageing population” burden on local health provision. Although it is recognised that sustainable in-migration is vital to the long term future of the area, as it can introduce new skills and aid the economy. Coastal communities live too with the fear of coastal erosion and increased risk of flooding. See also section K.

The Crouch and Roach Estuary has not in the past suffered greatly from the problems caused by huge numbers of visitors, and with the exception of the prestigious Burnham Week, Burnham’s Annual Sailing Event, the area does not attract too many tourists. Indeed there is scope and call for improved tourism opportunities. The area is however remote, and whilst the desolation and remoteness of the area is at the heart of its beauty, the remoteness makes it more difficult to attract visitors.

Communities carrying out community participation exercises and pulling together can do much to tackle some of the problems faced. The Crouch and Roach Estuary Project through networking with local communities will encourage community consultation and will refer communities interested in carrying out community consultations to the Rural Community Council of Essex who advise on all aspects of the process.

The Crouch and Roach Estuary Management Plan will harness the important contribution made by volunteers towards local community regeneration initiatives by supporting the work of the Burnham and Dengie Focus Group and Rochford Regeneration (the volunteer community groups who led the respective Burnham and Rochford Healthchecks), and will encourage the principle of Town and Village Centre Partnerships as a means of developing sustainable growth.

### **I.2. A Shared Identity**

It is particularly interesting to note that the communities who live on opposite sides of the river Crouch have a great deal in common and face very similar issues. Traditionally as rivers have created geographical separations, administrative areas have developed using rivers as boundaries. This has understandably led to a tendency for coastal communities to look landward for neighbours. However in reality, the communities on either side of the river are not divided by the river, they are united by it. A shared interest in the estuary by communities on both sides of the river provides an opportunity for them to work together in partnership with the Crouch and Roach Estuary Project to promote the area as a whole for the benefit of all. The Crouch and Roach Estuary Management Plan will seek to strengthen ties and develop a shared identity between the estuary communities through shared projects and promotion of events and facilities on both sides of the river.

### **I.3. Preserving the Unique Character of Coastal Towns and Villages**

There are several examples along the estuary of traditional building designs and building materials which add to the character of the estuary. Under the Local Development Framework local communities will have an opportunity to identify buildings with local character that complement the landscape and thereby assist in their preservation. The Crouch and Roach Estuary Project will where possible encourage local communities to think about the character and relationship of the built environment with the river as its

backdrop. The Local Planning Authorities spanning the estuary also have a role to play in ensuring the continuance of a sympathetic relationship through planning control and development. (See also H.1.).

#### **I.4. Education and Awareness Raising**

The Crouch and Roach Estuary Project has a role to play in educating and raising awareness about the estuary, and in drawing attention to the need to ensure harmony between the needs of nature and the demands of other uses, and in delivering information about the dangers of the river, such as the risk of drowning, and the risk of disease, amongst others.

From time to time in carrying out their responsibilities, the decisions and actions by the Partners to this project may be unpopular with some user groups and members of the local community. The project will seek to improve communication between the Project Partners and the wider community and through the project's website and newsletter the Project Partners will seek to explain the reasons for their decisions and actions.

#### **I.5. Community Safety**

Coastguard statistics show that on average the Royal Naval Lifeboat Institution (RNLI) launches approximately 200 times per year from Burnham and West Mersea, and evidences the need to make safety information for yachtsmen freely available. Crucial Crew is a project that works to raise awareness in Senior Schools. The Crouch and Roach Estuary Project will support in principle the work of Community Safety Officers, HM Coastguard and others in their attempts to raise awareness.

One such issue identified in the Burnham Healthcheck is the need for local swimming provision. Coastal communities are at greater risk of drowning and the opportunity for swimming lessons should be available for all age groups and for children in particular. Indeed the residents of Burnham-on-Crouch at a public meeting said that 'as a riverside town, the community has a moral duty to ensure that its young people can swim'.

Wickford has boasted a swimming pool for a number of years, South Woodham Ferrers has now acquired a local pool. Both South Woodham Ferrers and Wickford can be accessed by rail, and the swimming pool at Maldon can be accessed by bus. There is also further swimming opportunity at some local schools, but the river Crouch is unsuitable for swimming due to its strong current. Burnham people feel that journey time and travel expenses limit their opportunity for regular swimming and they have embarked on a project to provide a local pool. The Crouch and Roach Estuary Management Plan will assist and support in principle this local project.

#### **I.6. River Safety**

The Port Marine Safety Officer at the Crouch Harbour Authority has drawn up a Risk Assessment for all estuary users, as follows:

Regattas, Racing, Sailing Schools and Events: The CHA will continue to monitor the choice of suitable craft and the specific choke points to seek to eliminate the risk of collision.

Swimming and Sailing: The CHA will address the problem of sewage discharge into the Crouch Harbour with Anglian Water and the Environment Agency.

Recreational Angling: The CHA will monitor drift angling from boats in the harbour entrance.

Floating Jetties and Pontoons: The CHA will monitor lighting and notices.

Professional Fishing and Oystering: The CHA will monitor and explore new regulations for safer fishing and dredging in the moorings.

Boatyard and marina workings: The CHA will promote the need for individual risk assessments and safety management systems.

River trips: The CHA will monitor the safe performance of skippers.

Chartered boats: The CHA will monitor the standard of equipment and skippers.

Quays: The CHA will encourage owners of quays to display clear signs warnings of dangers and to install adequate lighting.

### **1.7. Noise and Light pollution**

The target area is very quiet, nestling away from major roads, save for a busy double roundabout at Rettendon, a short distance from Battlesbridge. Noise is heard from the MOD test site at Shoebury, and there is local concern about shock wave damage to buildings from the explosions that are generated as part of the test programme.

Whilst it is recognised that improved lighting, improves public safety, it should not be overlooked that the Dengie Peninsula and areas of Rochford district, especially around Canewdon, Wallasea and Barling, are amongst the few areas in Essex, and elsewhere, where you can clearly see the night sky without light pollution. No-one would disagree that there is a need to protect this fast disappearing special quality, so careful consideration and due weight must be given to any plans to install more lighting.

### **1.8. Waste Reduction and Recycling**

Essex County Council is responsible for the disposal of all household and commercial rubbish collected by the district councils. Its aim is to maximise reuse and recycling by providing Civic Amenity and Recycling Centres and running innovative projects. There are 23 civic amenity and recycling centres in Essex providing recycling facilities for items such as glass and paper and bulky waste such as timber, fridges and green garden waste. The recycling centres in the target area are situated at:

Springfield Road, Burnham-on-Crouch

Castle Road, Rayleigh

Ferrers Road, South Woodham Ferrers

Essex County Council has also created a website with tips to help make Essex a greener county – visit [www.agreeneressex.net](http://www.agreeneressex.net).



## **J. THE COASTAL ECONOMY**



**ESSEX MARINA, WALLASEA ISLAND**

- J.1. ECONOMIC GENERATORS**
- J.2. LOCAL EMPLOYMENT**
- J.3. BUSINESS SUPPORT**
- J.4. FARM DIVERSIFICATION**
- J.5. THE LEISURE INDUSTRY**

### **J.1. Economic Generators**

The local economy is mainly dependant on local businesses. The range of business undertaken is broad based, and includes agricultural services, the retail sector, hotels and catering, marine engineering, printing, electronic and high technology engineering, timber manufacture and distribution, and timber products, and other light industrial activities. There is a commercial timber wharf on Wallasea Island (Baltic Wharf).

Employment in traditional rural sectors, mainly agriculture, is in decline, and this is thought likely to continue. Farm diversification and the commercial use of redundant farm buildings would help to revitalise the local economy.

### **J.2. Local Employment**

In line with national trends, unemployment levels have fallen steadily in recent years and the area as a whole has relatively low unemployment. However local job opportunities are quite limited, particularly for young people with very few local firms offering training facilities to school leavers and other new employees. It is also more difficult to access external jobs due to the limitations on public transport and the remoteness of the area. Despite transport difficulties, across the area generally, there is quite a high dependence on external job opportunities, with many workers commuting to neighbouring towns and further afield into London, which is easily accessed by a rail link which runs on both sides of the river.

### **J.3. Business Support**

In Burnham-on-Crouch, and South Woodham Ferrers there are active Chambers of Commerce and in Rochford district there is a Federation of Small Businesses, and a Chamber of Commerce. In the consultation process, it emerged that many local people feel that more should be done to help local businesses to develop and that employment levels could be improved through the provision of more small starter units for small local enterprise operations. In response to an identified need for improved levels of local employment, the Crouch and Roach Estuary Project will promote and support in principle the provision of more small starter units, which could where possible be located in redundant farm buildings.

### **J.4. Farm Diversification**

The farming industry is currently undergoing a period of major change in response to the reform of the Common Agricultural Policy (CAP). In the past, the subsidies paid to farmers have been directly linked to production, so farmers have produced the commodities which attracted the highest subsidies. This meant that they were responding to an artificially created market, not to a demand created by the consumers. CAP Reform means that the subsidies have been de-coupled from production so that farmers are no longer subsidised to produce certain commodities, but instead they receive a flat rate Single Farm Payment (SFP) for meeting certain basic environmental, health and welfare standards known as Cross Compliance measures. These changes will throw up challenges but also new opportunities for farmers to re-engage with the consumer-led market. One way to adapt to these changes is through diversification of the farm business, perhaps growing different crops or adding value to produce by processing it on the farm, or by converting farm buildings for B&B's or conferencing facilities. There are many possibilities; a successful example of diversification can be seen at Burnham-on-Crouch where a railway museum has been operating for several years on land at Mangapps Farm. However, current planning policy can sometimes present an obstacle to diversification projects.

Defra's Rural Development Service offers a range of Project Based Schemes (PBS) which can assist with the funding of rural diversification projects. These include the

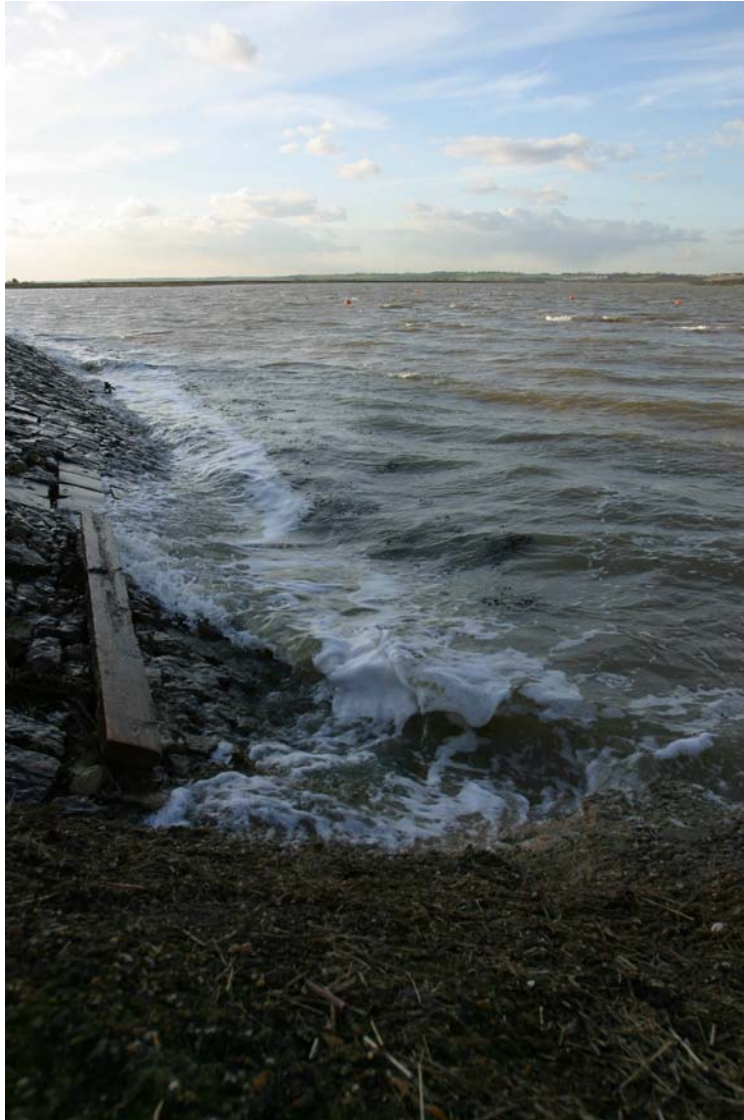
Rural Enterprise Scheme (RES), Vocational Training Scheme (VTS) and Processing and Marketing Grants scheme (PMG).

In response to a community call for more local farm diversification, the Crouch and Roach Project will seek to enable farmers on both sides of the river to share good practice, and will promote and support in principle farm diversification, especially where greater use can be made of redundant historic farm buildings in conjunction with Defra's new Farm Advice Unit. (See also Section S3. and Sections L and M).

#### **J.5. The Leisure Industry**

Tourism and the leisure industry are playing an increasingly significant role in the local economy. Leisure angling for instance is attributed with a contribution in the region of one billion pounds nationally towards local economies. Marinas and moorings encourage visitors and they too make an important contribution towards local wealth. Again, Defra's Project Based Schemes can assist with provision of more bed and breakfast establishments etc. (see J.4 above).

## **K. COASTAL PROTECTION/FLOOD DEFENCE**



**K.1. SEA LEVEL RISE**

**K.2. THE ENVIRONMENT AGENCY'S FLOOD STRATEGY FOR THE ROACH AND CROUCH ESTUARY**

**K.3. METHODS OF COASTAL DEFENCE**

**K.4 STATUTORY OBLIGATIONS**

**K.5. SHORELINE MANAGEMENT PLANS**

**K.6. LOCAL CONCERNS**

### **K.1. Sea Level Rise**

The Essex Coast is dynamic and vibrant, in constant change. The sea level is rising, the land is sinking, the Essex Coast is very flat, in some places it is below sea level. Much of the cultivated land next to the river banks and foreshore is land that has been previously drained for agricultural purposes. Sea level rise is currently occurring at around 6mm per year, and whilst this may not sound a lot, the impact is already being felt. Erosion of both the natural and built sea defences is taking place at a noticeable rate. Saltmarsh and intertidal mudflats are being lost and sea walls are crumbling. Erosion takes place at the edge of the saltmarsh, and in calm conditions sediment is deposited on the landward side. However hard sea walls form a barrier against the inward movement and the saltmarsh becomes squeezed so the area of saltmarsh narrows. Saltmarsh dissipates some of the energy of the tide and therefore acts as an efficient first line of defence against sea damage. The current Government strategy on sea defence is to encourage natural coastal processes, allowing the sea to follow its own course, and in turn allowing saltmarsh to be recreated naturally, but economic and environmental needs do assume an importance and priority for sea defence is dictated by the economic and environmental value of the area in question.

Flood Alerts will be provided when there is a real risk of flooding by means of a public address system operated by the police and by warning sirens sounded by Essex County Council and by information on local radio. If flooding is imminent gas and electricity should be switched off, and families should go upstairs, and where possible ensure that neighbours in single story dwellings are able to get to safety upstairs in neighbouring houses. Those who are badly flooded should hang a large sheet outside the window and await help. Drinking water may be contaminated so it is wise to have a supply of bottled water available. Further information can be obtained from the Emergency Planning Department at Essex County Council, telephone 01245 492211.

### **K.2. The Environment Agency's Flood Strategy for the Roach and Crouch Estuary**

The Environment Agency are currently preparing flood strategies for all the Essex Estuaries, and have completed a thorough survey of the Crouch and Roach Estuary sea defence, this was the first of the strategies to be carried out. By looking at land drainage, river currents, sediment, pollution, and sea level rise etc, to understand what the path the estuary will seek to follow over the next century, and by identifying at risk areas that should be protected, the Environment Agency were able to draw up a 100 year flood management strategy. This Strategy entitled Estuary Flood Management Strategy Roach and Crouch, which took the Environment Agency 4 years from 2001 to produce, takes into account the latest legislation which requires the Strategy to demonstrate flood management for the next 100 years. The estuary banks are home to £650m of assets, 12000 hectares of flood plain and 27000 properties. The Strategy must be sustainable and this includes the social and economic cost of flood management.

The first step in preparing the Strategy was to look at what information was already available, to talk to stakeholders, and to examine the hydrodynamics of the estuary. A Strategic Environmental Assessment was then prepared which provided a first draft Strategy against which the original objectives were tested. The strategic objectives were to deliver flood risk management; to develop a hydrodynamic shape for the estuary; to protect habitats; to avoid pollution; to ensure uninterrupted navigation and to ensure sustainability. The Strategy was then put out for consultation, which included face to face meetings with the stakeholders and community drop-in workshops.

The Roach and Crouch Strategy, being the first one to be carried out, forced the clarification of issues such as the Environment Agency's abandonment of seawalls that have rights of way across them, and landowners' rights to maintain their own seawalls following abandonment. Landowners collectively, felt that with modern technology, their

land was worth more than the current valuations which had been based on land that was harder to farm with more traditional farming methods. Landowners are now entitled to maintain their own sea walls, if they wish, where it is uneconomic for the Environment Agency to do so. The finalised Strategy Implementation Plan provides for 5 years worth of work on improvement schemes that include managed realignment schemes and tackling contamination. The Strategy which will deliver £15m in the first five years and £80m over 50 years will be launched in the autumn of 2005. It is envisaged that farmers with land bordering the estuary will under the Common Agricultural Policy Stewardship Scheme, seek grants for the management of mudflat rather than for cultivating crop.

### **K.3. Methods of Coastal Defence**

The government has said that hard sea defences are not sustainable from an economic and environmental point of view for maintaining hard sea defences, and this can be achieved by a mixture of methods, such as; the use of cheaper materials for strengthening sea walls; by managed realignment to remove pressure pinch points and by creating saltmarsh, (in some cases by bringing additional sediment to the alignment site) or by abandoning sea wall defences to a gradual natural process of realignment, which will also eventually allow the natural creation of saltmarsh.

Mistakes have occurred in the past, with materials used to strengthen sea defences later proving unsatisfactory. At Fambridge on the southern bank of the river Crouch, in the 1970's there was some landfill back filling to strengthen the sea wall, but more lately concerns have been expressed about the risk of leaching. This practice has been discontinued. The use of wrapped bales of old tyres for backfill has also been piloted, but the tyres deteriorate and the cost of preventing leachate is quite prohibitive. Other methods too are being used as appropriate for the circumstances, including polders, etc.

### **K.4 Statutory Obligations**

Planning Authorities now require flood risk assessments that not only look at the risk of flooding to the proposed developments, but also at the risk of flooding to existing properties from the run off from new developments.

The Environment Agency who have the overall duty for coastal community flood defence, also have a duty to protect wildlife and wildlife habitats. The sustainability of the estuary is paramount.

### **K.5. Shoreline Management Plans**

In addition to the estuary strategies, the Agency is also updating its Shoreline Management Plans and these are likely to have a greater impact on the coastline than the estuary management plans. The strategies for defence of settlements along sheltered estuaries do largely recommend holding the hard coastal protection lines at existing levels, but along open coastlines protection is more costly as the damage to sea walls is more severe and this does impact on the economic sustainability of ongoing defence. Preparation of the new Essex Shoreline Management Plan is due to commence in early 2005.

### **K.6. Local Concerns**

There is quite a lot of local concern over flooding risks and flood management. In particular, in the consultation for this management plan, there were calls for improved levels of information regarding the policies on local flood protection. There are worries locally that that there is no sea wall at Stow Creek, Stow Maries, this means that the Wickford rail line to Southminster which carries a tremendous number of commuters daily, is at risk as effectively the railway embankment has become the first line of defence. The Crouch and Roach Estuary Project will seek to raise awareness with a view to this situation being resolved.

There were also requests for further information to be made available about which roads are more likely to flood if the sea wall is breached, the local authorities have these maps available for public inspection but many people are not aware of this. Such information will be made more freely available through the Crouch and Roach Estuary Project. Local residents have also expressed concern about the loss of their much walked and loved coastal footpaths due to erosion and there were lots of requests for footpaths to be rerouted before sea walls are abandoned. These issues will be explored and where possible, addressed in a sustainable manner.

## **L. COUNTRYSIDE ACTIVITIES**



**THE SEA WALL AT CREEKSEA (ON THE NORTH BANK)**

- L.1. THE LINKS BETWEEN THE COUNTRYSIDE, THE ESTUARY AND LOCAL TOURISM**
- L.2. WALKING**
- L.3. CYCLING**
- L.4. HORSE RIDING**
- L.5. BIRD AND WILDLIFE WATCHING**
- L.6. WILDFOWLING**
- L.7. PAINTING AND PHOTOGRAPHY**
- L.8. BAIT DIGGING**
- L.9. SANDY BEACHES**
- L.10. ACCESS OPPORTUNITIES**



### **L.1. The Links Between the Countryside, the Estuary and Local Tourism**

It is hard to separate the countryside from the estuary, and hard to separate both from tourism issues, (see also section I and section M) as they are closely linked and in many ways interdependent on each other for their sustainability. Nevertheless 'countryside activities' and 'tourism' are quite wide topics and therefore deserves their own sections. In this section we will look more closely at land based activities, and how land based activities attract visitors, and how this complements the tourist industry. Many people love to visit the estuary, but do not necessarily wish to take part in water based recreation, the opportunities for enjoyable leisure pursuits on the land by the river banks are endless, but enjoyment of one form of activity may affect the enjoyment of a totally different type of activity if care is not taken to consider fellow users. The sustainability of the estuary is paramount in resolving these conflicts. Land based recreation is often more popular all year round than water based recreation, and is often part of a daily ritual for many people, who may go out in all weathers, to walk the dog, for regular exercise, or to paint or bird watch, etc.,

One of the main aims of the Southern North Sea Regional Park concept is to create an Essex Coastal Trail, this project will work with local partners to improve the quality of local sea wall paths to pave the way for a future sustainable coastal trail in the Crouch and Roach Estuary.

St. Peters' School in Burnham-on-Crouch has agreed to undertake an environmental project by the river with effect from September 2004, to draw up a development plan that takes in both sides of the river, making use of the Southminster Cycle Hire Scheme (see below), and the Wallasea to Burnham ferry crossing. The long term project will include a survey on both sides of the river to identify necessary improvements, e.g., information boards, benches, etc., The students will learn how to work in partnership, as a team, whilst learning about the environment, sustainability issues, volunteering, networking, fund raising, etc. St. Peters' School will actively seek to engage the involvement in this project of a school or schools in the Rochford District. The Crouch and Roach Project Officer will work closely with the school to assist with this project.

The Burnham and Dengie Focus Group are currently working with Essex County Council Rights of Way Team to carry out improvements to the sea wall paths leading out of Burnham on Crouch, and they will be looking in the longer term at disabled access to the sea wall paths. The Crouch and Roach Project supports in principle these aims. See also River Safety I.6.

### **L.2. Walking**

There are a number of rights of way on both sides of the estuary where people can take a leisurely walk for health benefits and to enjoy the natural environment. Essex County Council Rights of Way Team can provide information about public rights of way, and leaflets showing footpaths can be obtained from a number of outlets including tourist information centres and some local newsagents and bookshops etc. Waymarking is important especially for people visiting the area. People out walking who are confused about which way to turn, or who know the route but notice waymarking posts missing, should not hesitate to report this to either Essex County Council Rights of Way Team or the local Parish Council for the area concerned. Likewise if paths are found to be in need of repair, this should be reported too.

Dogs being exercised on public footpaths should be kept on a lead to avoid harm or inconvenience to wildlife, livestock farms, other dog walkers and the general public, etc., The consultation for this plan revealed two places in particular where public footpaths are in need of repair along the river banks, namely, the path from Hullbridge to South Fambridge, and the path from South Woodham Ferrers towards North Fambridge, the damage being due in both cases to coastal erosion. Requests were also made by the community for improved access to the river Crouch at South Woodham Ferrers, Runwell, Battlesbridge and to the river Roach, in two or three places, perhaps at

Paglesham. Calls were also made for the Roach Valley Way to be cleaned up, and it is hoped that this might be tackled as either a community project or by the Community Service Scheme.

### **L.3. Cycling**

Cycling is seen as an attractive method of cheap transport and as a leisure pursuit on the less busy rural roads. A cycle hire, repair and maintenance facility is based at Southminster Station House, three miles landward on the northern bank of the river Crouch. It provides sustainable tourism opportunities in the area and provides employment in the rural environment. Cycles can be taken across on the Burnham-Wallasea ferry, which enables cyclists to explore the other side of the river. Advice on local cycle routes is provided when hiring which should be adhered to as many stretches of the sea wall are unsuitable for cycling. It is thought that the Cycle Hire facility will further encourage cycling in the vicinity of the estuary, and there is potential to further improve local cycle routes and create cycle lanes, and this is supported in principle by the Crouch and Roach Estuary Project.

### **L.4. Horse Riding**

In the quiet lanes surrounding the Crouch and Roach estuary, horse-riders can be seen fairly frequently, but traffic in the quiet lanes is on the increase and accidents are becoming more likely. In recent years there has been a move to improve bridleways and where possible establish new bridleways so that horses can be ridden across country. Horses should not be ridden along the sea wall paths (unless it is a designated bridleway) as they cause the paths to become dented which increases the speed of erosion. The Crouch and Roach Estuary Project supports in principle the provision of more bridleways as safe places for horse riding to take place. Such provision has to be managed in a sustainable way.

### **L.5. Bird and Wildlife Watching**

Bird watching is a very popular pastime, the bird hides at Essex Wildlife Trust Reserve at Blue House Farm, North Fambridge on the river Crouch for instance, receive frequent visitors. As well as bird watching, many people like to look for other animals such as water voles, or insects such as damselflies etc. Some people simply like to take up a comfortable outdoor position possibly with a river view, where they are able to relax quietly and enjoy the natural surroundings.

The hides in Blue House Farm provide information boards, but there is little information along the coastal paths, and there have been echoed calls for the provision of some information boards by the river telling visitors what to look for, what they are seeing, and how to behave responsibly towards the wildlife that they see. Information boards are a valuable tool for raising awareness, and could be provided through a complete tourism package (see below).

### **L.6. Wildfowling**

There are a number of places on the estuary where wildfowling clubs operate. The clubs are licensed by Defra and the areas where wildfowling takes place is either by agreement with the landowner, eg., MOD Defence Estates on Foulness Island, or where the land is leased, eg., on Bridgemarsh Island, or where land is owned, eg at Brandy Hole. Uncontrolled, unlicensed wildfowling is illegal. Wildfowling contributes greatly to management of the environment, not by limiting bird numbers but by controlling unregulated shooting and creating managed refuge areas.

On Crown Estate property, the Crown Estate has a major role in wildfowling by granting leases of sporting rights to the British Association of Shooting and Conservation Clubs (BASC). There is a well established process based on the approval of management

plans, principally by EN. All applications are considered by the Joint Tidal Group, chaired by Crown Estates.

#### **L.7. Painting and Photography**

The Crouch and Roach Estuary is a rich source of inspiration for artists. The area enjoys mild weather, and is consistently warmer and drier through the winter than estuary systems outside the south east corner of the country. There is scope for promoting the area as a destination for artists through a complete sustainable tourism package (see below).

#### **L.8. Bait Digging**

Unlike many other estuaries, bait digging is not seen as a problem on the Crouch and Roach Estuary, with no reports at all for at least six or more years. This is possibly due to the limited access to the Crouch and Roach estuary foreshore, particularly for vehicles. However, in the event that a problem does emerge in the future, perhaps due to improved access or any other change of circumstance, it is felt that a policy on bait digging is required. Bait digging can have serious consequences, it can cause serious ecological disturbance, it can damage sea walls and exacerbate erosion, it can create dangerous potholes for walkers, if holes are not filled in, and more recently it has become known that locked in TBT antifouling paint can be released by bait digging, as can other harmful substances. However it is recognised that the right to dig for bait for personal use is a part of the public right of fishing and the landowner has no jurisdiction. The policy of the Crown Estates Commissioners is to encourage responsible and sustainable bait digging by licensing groups who demonstrate their ability to comply with this policy. In the Roach several fishery area there are certain powers available to prevent bait digging. No bait digging will be allowed on any SSSI or other designated site. EN is able to restrict the activity on the grounds that it is damaging to the environment.

#### **L.9. Sandy Beaches**

The Crouch and Roach Estuary is a place where families can visit and enjoy the water. There were numerous requests in the Management Plan consultation process for a sandy beach in Burnham-on-Crouch and a sandy beach in the Rochford District. Burnham-on-Crouch has had a beach for many years which has now fallen into decline. Attempts are being made to restore it to its former glory. Rochford once upon a time was called Rochford-on-Sea and also had a beach area, which is now lost. Difficulties do arise when introducing land based sand into a marine environment, and depending where sand is placed, it may have to be marine sand. Rising sea levels may mean that sand is quickly claimed by the tide, unless the sand is on sufficiently high ground. Extreme care must be taken in selecting a suitable place to create a new beach, or in replenishing an existing beach to avoid environmental impact, and consent will be required from Defra, the Environment Agency and the local authority concerned. Nevertheless there is scope for promoting the area as a “seaside” destination through a complete sustainable tourism package (see below) and if a suitable spot can be identified to create a sandy beach (or perhaps a children’s sand pit) in the Rochford district, this will be supported by the Crouch and Roach Estuary Project. The Crouch and Roach Estuary Project is also currently assisting Burnham in its quest to replenish its beach.

#### **L.10. Access Opportunities**

In order to access the estuary, people need facilities such as parking and toilets, and refreshments. There are a few places on the estuary where people can visit, and access these needs, but they are fairly few in number, these tourism outlets will be considered below. It must be borne in mind however that if access to the estuary is increased, the

level of supporting infrastructure eg., parking etc., may have to be equally increased and in any event, every attempt must be made to improve disabled access wherever possible. The sustainability of the estuary will be paramount.

The sea wall is not wheelchair friendly, and it has to be accepted that some parts of the sea wall paths will never be maintained to a standard suitable for wheelchair or mobility impaired visitors, as the cost of maintenance is too prohibitive, but the Crouch and Roach Estuary Project recommends that stretches of the sea wall that link into other circular routes be improved and ramps provided to enable wheelchair access. Efforts will be made to identify suitable stretches and to seek improvements on an ongoing basis.

## **M. TOURISM**



**THE HERITAGE CENTRE, FOULNESS ISLAND**

### **M.1. TOURIST ATTRACTIONS**

### **M.2. TOURISM OPPORTUNITY**

### **M.1. Tourist Attractions**

In the south Maldon district, Burnham-on-Crouch hosts a regatta in August and a carnival in September. A Community Information Centre on Burnham Quay offers advice and information to visitors. Burnham Museum which houses a great deal of information about local tradition, also stands on the quay at Burnham, and further along the quay heading west is Riverside Park which provides a decked walk through a small water reserve, open space, a children's play area, picnic tables and a small beach area. The Burnham Railway Museum is a mile inland. The Cliff at Creeksea, just west of Burnham is an SSSI, where a number of bird and shark fossils have been discovered. Further west along the north bank at North Fambridge you can visit Blue House Farm which provides excellent bird watching facilities and some very nice walks with excellent views over the estuary. Still further west you can visit Marsh Farm at South Woodham Ferrers which is, a very popular working farm and country park visitor attraction. At Battlesbridge there is an Antique Centre and a neighbouring popular public house which attract many visitors. Rochford at the source of the river Roach is an old market town, the Old House, Rochford, which houses the district council's office dates back over 700 years. Foulness Island has its own Heritage Centre where there are a number of exhibits depicting local habitation. The Old House and the Foulness Heritage Centre are open to the public by arrangement. The Ancient Woodlands at Hockley are well worth a visit too. From nearby Wallasea Island you can catch a ferry to Burnham-on-Crouch. At the time of going to print, it appears that the remains of HMS Beagle, the ship used by Darwin for his expedition to the Galapagos Islands, might be buried in the mud at Paglesham.

### **M.2. Tourism Opportunity**

The geographical area in the county of Essex in which the estuary sits is in the driest part of the country, and so it is well placed to offer year round short break green tourism. The area as a whole suffers from a lack of cohesive promotion. The existing attractions endeavour to promote themselves but do not promote the area as a whole. The demand for a sustainable tourism package was identified in the Burnham Healthcheck which was completed in 2002, and in the Rochford Healthcheck, completed in 2004 and in the community consultation for the preparation of this Plan. See also Sections I.3, I.4, and L and N3).

A complete package is required that tackles identified visitor deterrents, so that the estuary can be marketed with confidence, pride and true representation as an area well worth visiting. The Crouch and Roach Project could be instrumental in taking this forward in partnership, in view of its unique position in covering the whole of the estuary and the surrounding countryside. A sustainable tourism package that celebrates and features attractions and events and local buildings and walks of interest in the Crouch and Roach Estuary area would attract visitors to spend time visiting both the north and south sides of the estuary which would encourage diversity of visitor centres and aid the local economy. Burnham residents have stated a wish for a local swimming pool and the refurbishment of the Burnham beach; Rochford residents have expressed a desire for a local arts and craft centre (possibly at Stambridge Mill) and the provision of a sandy beach. These facilities whilst improving the quality of life for local people would also encourage tourism. It must be noted however that opportunities for holiday accommodation in the area, although available are not high in number and if the area is to grow in year round eco-tourism, more tourist accommodation will be needed, especially bed and breakfast and camping sites, which do tend to be favoured by visitors wishing to explore the natural environment. It must be remembered however that the sustainability of the estuary must take priority.

A sustainable tourism package for the area should promote the existing and encourage the following:

- ◇ Improved and expanded riverside walks with “sympathetic” benches and information boards to deliver education on the natural environment and its indigenous inhabitants, and linked riverside walks and coastal trails
- ◇ the development of cottage industry visitor attractions, eg working boatyards viewing areas
- ◇ a Darwin heritage centre (if appropriate)
- ◇ a swimming pool in Burnham-on-Crouch
- ◇ an arts and craft centre in Rochford
- ◇ a replenished beach in Burnham and possibly a sandy play area in Rochford
- ◇ Improved facilities/infrastructure for visiting and local yachtsmen with more information literature in French and Dutch
- ◇ More tourist accommodation facilities

In order to deliver a complete sustainable tourism package it is recommended that a separate Steering Group be set up comprising organisations and individuals on both sides of the estuary, with an interest in developing a better local tourist industry.

## **N. TRANSPORT**



**SOUTHMINSTER STATION**

### **N.1. PUBLIC TRANSPORT IN THE AREA**

### **N.2. RIVER CROSSINGS**

### **N.3. RIVER TRIPS**



### **N.1. Public Transport in the Area**

In common with most rural areas, the lack of public transport in the geographical area of the Crouch and Roach estuary is a problem for many local people. Some of the towns and villages in the area enjoy a better public service than others. The railway line runs along both sides of the River Crouch, a branch line from Wickford to Southminster, via the riverside settlements of Battlesbridge, Woodham Ferrers, Fambridge, Althorne and Burnham, and a main line link from Southend to London Liverpool Street which runs through Wickford, Rayleigh, Hockley and Rochford. The buses in the Rochford District are operated primarily by Arriva and Thameslink, and in the south Maldon District, the buses are mainly operated by the Dengie Village Link and First. Unfortunately, although there is transport available during the day, there is very little evening transport and no late night transport which does affect the ability of local people to socialise, and discourages evening visitors to the area. There is a small passenger airport in Rochford. The Crouch and Roach Estuary Project hopes that existing levels of service can be maintained and that services can be improved in a sustainable way in accordance with demand.

### **N.2. River Crossings**

Crossing the river Crouch is not easy, to take a motor vehicle to the other bank, motorists must travel the length of the river Crouch and cross it near to its source at Battlesbridge, or use a main road link to nearby Rettendon, slightly inland, where a large double roundabout acts as the major local junction. Apart from the existing restricted weight bridge at Battlesbridge there are no long term plans to provide any motor vehicle crossings along the stretch of the river. From Burnham to Hockley by car equates to a distance of around 20 miles. Apart from causeways onto the islands of Wallasea, Foulness, Havengore and Potton, (the latter three being on land controlled by the M.O.D) the river Roach has no bridges across it, and it is necessary to drive to Rochford in order to cross from the north to the south bank of the river Roach.

For pedestrians and cyclists, a ferry operates between Burnham-on-Crouch and Wallasea Island and this is seen as vital to the growth of the area, and very important for developing sustainable eco tourism.

In response to a call from the community to create a second pedestrian river crossing on the river Crouch between Hullbridge and South Woodham Ferrers, this suggestion is being explored. At the time of going to print, it is not known if a second river crossing is feasible or sustainable. The Crouch and Roach Estuary Project will endeavour to establish whether or not it is viable to pursue this suggestion, and will assist attempts to provide this facility if appropriate.

### **N.3. River Trips**

River trips are available on the river and provide an opportunity to see the seals on the Ray Sands, or to visit neighbouring riverside public houses and restaurants for social occasions. These river trips are seen as vital to the vibrant character of the area and provide an opportunity for everybody in the community to get out on the river. (See also Section M and I.6).

## **O. COMMERCIAL FISHING**



**THE SEALS ON RAY SANDS**

- O.1. COMMERCIAL SEA FISHING**
- O.2. COMMERCIAL OYSTER BEDS**
- O.3. DYNAMIC CHANGES**
- O.4. CEFAS**

### **O.1. Commercial Sea Fishing**

Commercial sea fishing is heavily regulated at local, national and international level. There is no doubt that commercial fishermen are finding it increasingly difficult to make a living. Reductions in the allocation of catch quotas mean that small businesses may lose out to larger businesses that have been able to secure a proportionally much larger share of the quotas. Fishing was once a traditional local source of employment for local people, who would go out in small family run fishing boats, but most local commercial fishermen these days work for bigger organisations, and many may travel further afield to join their fishing boats than their ancestors would have done.

Intertidal areas of estuaries provide a good spawning ground for many fish species, and the Crouch and Roach Estuary is important as a spawning and nursery ground for bass, and with the exception of eel, fish stocks are reported as being in healthy numbers. The eel population is reducing generally elsewhere also. It is vital that other pursuits on the estuary do not threaten the fish spawning grounds, in particular personal (household) waste from leisure craft users or visitors to the river banks can cause serious harm, plastics and other materials must not be discarded into the estuary. Events such as Low Tide Day, the website and the project newsletter will stress that the sustainability of the estuary is paramount and the importance of keeping our foreshores and estuaries pollution free.

### **O.2. Commercial Oyster Beds**

Once, the Crouch and Roach estuary was quite well known for shellfish beds, especially oysters, but this is no longer the case. Kent and Essex Sea Fisheries lease a section of the river Roach from the Crown Estates Commissioners, and manage the River Roach Oyster Fishery Order 1992, they are working to re-establish oyster layings and mussel and cockle fishing at sustainable levels.

The water quality in most parts of the estuary is category C, but in some parts of the estuary it is category D. The laying of oyster beds is therefore subject to control. Strict requirements must be met before oysters (or any shellfish) can enter the food chain, All shellfish caught in the river, will require at least 24 hours of purification processes by a competent person, before they are edible. There is no reason other than economic drivers, why oyster fishing should not be encouraged to thrive on the estuary, and the Crouch and Roach Estuary Project will support in principle any attempts to increase the sustainable level of oyster fishing on the estuary, by raising awareness and promoting existing and any new businesses, through its newsletter and website. See also River Safety 1.6.

### **O.3. Dynamic Changes**

Sea surface temperatures may rise by up to 3<sup>0</sup> C in shallow waters by 2080, with the acidity in seawater predicted to increase by 7.0 units in the next 50 years, the gradual process attributed to global warming will probably result in a change in local commercially important fish species.

The Crouch and Roach Estuary project newsletter and website will serve as a local forum for delivering local information as the potential long term effects begin to reveal themselves.

### **O.4. CEFAS**

CEFAS (Centre for Environment, Fisheries and Aquaculture Science) is a scientific research and advisory centre working in fisheries management, environmental protection and aquaculture. They undertake a wide range of research, advisory, consultancy, monitoring and training activities. One of their three UK laboratories is

based in Remembrance Avenue, adjacent to Burnham Quay. CEFAS works with Defra, the Environment Agency and Kent and Essex Sea Fisheries to monitor fish stocks and ensure that regulations are upheld.

## **P. RECREATIONAL FISHING**



**P.1 THE ECONOMIC CONTRIBUTION**

**P.2 THE NEEDS OF RECREATIONAL ANGLERS**

### **P.1 The Economic Contribution**

Angling as a hobby provides scope for thriving local commercial retail business. It has been recognised in the March 2004 Prime Minister's Strategy Unit Report on the future of the fishing industry that recreational angling makes a significant contribution to national and local economies, and that the annual total expenditure on sea fishing alone is in excess of £1 billion and statistics show that angling is one of the most popular sports in the country. At the time of going to print, the government is considering imposing a licence fee on offshore recreational anglers, which will be similar to the rod licence currently required for land based recreational angling. The Strategy Unit Report included a recommendation that angling needs should be represented in inshore fisheries management policy in the future.

### **P.2 The Needs of Recreational Anglers**

In the consultation process, a local sea angling club indicated the need for public access to the river as there is currently only two places on the river where small boats can launch without the prior permission of landowners, or clubs holding leases. Local riverbank anglers highlighted the problem they face in finding suitable places on the estuary from which to fish. (See H.4. above for the policy on public access to the river). Anglers are able to observe changes and act as monitors, they soon know if there is a problem with depleted fish stocks or water quality, and they should be encouraged to report their findings.

Commercial fishermen and anglers do not always agree on the management of fish stocks. More direct dialogue between those engaged in fisheries management and those undertaking commercial and recreational fishing would be beneficial in promoting a shared vision, and this might be achieved through a forum administered by the Crouch and Roach Estuary Project. If a forum is held that is seen as a success, this could be repeated on an annual basis. See also River Safety I.6. The sustainability of the estuary is paramount.

## **Q. SAILING COMMERCIAL**



**BALTIC WHARF**

**Q.1. BALTIC WHARF**

**Q.2. NAVIGATION**

**Q.3. DREDGING**

**Q.1. Baltic Wharf**

Baltic Wharf is the only commercial port on the estuary, it stands on the south bank of the river Crouch at Wallasea Island. Baltic Wharf which has been in existence since the late 1920's provides wharfage facilities and storage. The size of the site is approximately 18 hectares, and in addition to wharfage and storage, the site includes a sawmill and timber treatment facilities. Approximately 60+ vessels per annum deliver to Baltic Wharf, bringing mainly timber and steel. Baltic Wharf contributes to the local economy both as an employer, and as a vital shipping route for local business, and in the consultation process for this Plan, was described by a number of residents and others as an important local asset. See also J.2, Baltic Wharf provides a substantial number of local jobs.

**Q.2. Navigation**

The Crouch Harbour Authority is responsible for ensuring that navigation channels to Baltic Wharf, (and generally on the estuary), are kept open. The Crouch Harbour Authority's Bye laws set out the requirement on all estuary users to ensure a safe passage ([www.crouchharbour.org](http://www.crouchharbour.org)). See also I.6.

**Q.3. Dredging**

Whilst some dredging is necessary to keep navigation channels open, dredging has implications for wildlife, fisheries and coastal erosion. No dredging may be carried out in the estuary without the approval of the relevant Competent Authorities. Approval will normally only be issued for dredging for the purpose of navigation and removal of accumulated sediment at established moorings. The extraction of sand and gravel for commercial purposes is considered to be detrimental to the ecological balance in the harbour. It is the policy of the Competent Authorities that dredging licences will not normally be granted for commercial dredging operations for mineral extraction unless they are satisfied that such removal is not detrimental to the regime of the estuary or the stability of flood defences. See also I.6. The sustainability of the estuary is paramount.



## **R. SAILING LEISURE**



**SAILING ON THE RIVER CROUCH**

**R.1. LOCAL SUPPORT FOR SAILING FOR RECREATION**

**R.2. PUBLIC DEMAND FOR SLIPWAYS AND MOORINGS**

**R.3. SPEEDING ON THE ESTUARY**

**R.4. ESTUARY BYELAWS**

**R.5. CANOEING AND DINGHY SAILING**

### **R.1. Local Support for Sailing for Recreation**

Not surprisingly, in the consultation process that led to the preparation of this Management Plan, approximately 60% of respondents said that sailing was one of their interests, and there is no doubt about its popularity. The River Crouch is well known for sailing, Burnham Week, a prestigious yachting regatta has been held every year for over 100 years. It owes its success to the joint co-operation of the local clubs that take part. The event is very important to the local economy.

### **R.2. Public Demand for Slipways and Moorings**

Sailing is the most popular form of water recreation on the estuary, with around 20 sailing clubs situated along its banks. Demand for slipways and moorings for the exclusive use of clubs is high. The Crouch Harbour Authority controls most of the access points to the river where slipways and moorings are situated.

A small number of people like to sail on the estuary but have no wish to join one of the many clubs, this means that they are limited to using one of the two public access points, one in South Woodham Ferrers and one in Hullbridge. There were several calls in the consultation process for the number of public slipways to be increased. See paragraph H.4 above. There is evidence of some congestion at the public slipways at peak times, which with the growing number of residential properties in the area and the growing popularity of sailing and personal watercraft, is probably only likely to increase. Whilst there are no current plans to provide additional public slipways, this matter is likely to resurface from time to time, and will bring additional issues such as who might provide the funding for an additional public slipway. The sustainability of the estuary is paramount in resolving this and all other issues.

### **R.3. Speeding on the Estuary**

A number of concerns were voiced in the consultation process about the noise and speed levels that are created by water ski-ing, personal water craft and speedboats, with many people calling for reductions in the existing speed limit to preserve nature, reduce noise and lessen the impact on sea defences.

There is currently no intention by the Crouch Harbour Authority, who has the ultimate decision in this matter, to reduce speed limits on the estuary, but it now adopts a more proactive approach in dealing with those who are breaking the speed limits. Responsible reporting with detailed eye witness reports from other estuary users, together with a programme to raise awareness will help to resolve this issue. A map of the 8 knot speed limit is shown below at V.4.

### **R.4. Estuary Byelaws**

CHA have in place a system of licenses for use of the estuary, designed to promote responsible behaviour, and Byelaws in place to prevent irresponsible behaviour. The Byelaws aim to ensure sustainability and cover speed limits, water-sports, zoning of areas for specific uses, unseaworthy vessels, anchorage of vessels, obstruction of jetties, storage of fuel, dumping rubbish, being in charge of a vessel whilst unfit through excess alcohol or drugs, and criminal offences generally, including theft etc., A full schedule of the Byelaws can be viewed on the CHA website. A map of the speed limits can be seen below at V.5. The CHA also employs a Port Marine Safety Officer who is responsible for the overall safety of the harbour. See also River Safety I.6.

### **R.5. Canoeing and Dinghy Sailing**

Canoeing whilst not suitable at the mouth of the estuary, does take place on the upper reaches of the river Crouch and on the river Roach, and is more popular during the winter months.

The Wallasea Wetlands site will provide further opportunity for canoeing or for the use of a dinghy, there is currently an intention within this project to create one new creek on the eastern end of the new wetland and as the existing fields are very low, navigation over the entire area by small craft will be possible at high tide (probably limited to about 1 hour either side of high water). There will also be around 6 new islands within the site, and although some of these will be designated as bird nest areas, it is intended that some can be used as picnic sites for "boat people".

## **S. AGRICULTURE**



### **S.1. AGRICULTURAL LAND USE**

### **S.2. ENVIRONMENTAL STEWARDSHIP SCHEME**

### **S.3. DIVERSIFICATION**

### **S.1. Agricultural Land Use**

The low lying land surrounding the estuary has provided an ideal environment for farming, with well drained land for growing and rich marsh land for grazing. Over the generations, grazing marsh has been drained and ploughed for larger scale arable farming with modern farming equipment. The area is now known particularly for its arable contribution to the food chain. The area's remaining livestock farmers are having a particularly difficult time and a Foot and Mouth Disease outbreak in 2001 that affected the area very badly, saw a further reduction in local livestock farming. Global changes are likely to severely affect arable farmers too, as the sea level rises, and rain fall increases, creating a less well drained environment. Growers will be able to grow crop that prefers wetter, warmer conditions, but the cyclic period of change over many years may cause more unpredictable and dramatic weather patterns, which may harm certain vegetation. CAP Reform, Cross Compliance, and the changes Defra is making to its existing agri-environmental schemes are further sources of change and uncertainty for farmers at present. A good supply of British grown and British raised food is vital to the national economy. Farmers also contribute in many ways to the local economy, as employers, as suppliers to local outlets, farm shops and farmers' markets, and as purchasers of local wares, and any further reduction in agricultural business in the area would have a marked impact on local rural sustainability. Also farming and in particular, grazing with livestock, is essential for conserving the unique character and biodiversity of the Essex Coast Grazing Marsh. Sustainability of the estuary is paramount.

### **S.2. Environmental Stewardship Scheme**

Defra is launching a new agri-environment scheme in early 2005, called Environmental Stewardship (ES) which will consist of an Entry Level and a Higher Level. This scheme is designed to replace the current Environmentally Sensitive Areas, Countryside Stewardship and Organic Farming Schemes. Entry Level Stewardship and Organic Entry Level Stewardship (ELS and OELS) will be open to all, and designed to deliver simple but effective environmental management. Anyone who can meet the requirements of the scheme will be accepted and it is hoped that this will be perhaps 70-80% of farmers. Higher Level Stewardship (HLS) aims to deliver significant and targeted environmental benefits in high priority situations and areas. Payments are generally higher than in ELS, reflecting the more complex management requirements of the scheme. This scheme is competitive (unlike ELS) so only the applications which best meet the criteria will be accepted. The main objectives are; wildlife conservation; protection of the historic environment, maintenance and enhancement of landscape quality, promotion of public access and resource protection.

### **S.3. Diversification**

Good quality agricultural land is protected against development, and land generally is classified by local planning authorities as to its use and in some cases this can interfere with a farmer's proposals for diversification, one example might be a plan to sell in a farm shop items not actually grown on the farm, in response to a local demand, but this may well be refused, especially if the farm shop is outside the defined local retail area. Notwithstanding certain planning rules, there may be scope to restore redundant farm buildings to house e.g., bird hides; farm shops; holiday cottage accommodation; small light industrial units producing examples of local craft etc., and in more central places, small tea rooms. It would be nice to see good examples of historic barns and other historic farm buildings being preserved, and those with interesting ceilings and other features could be visitor attractions in their own right. There may be scope to improve the number of local camp sites, which could easily be controlled through existing certification schemes. Enterprising livestock farmers could be assisted to run "adopt a cow" schemes. On a much bigger scale there is scope for proper promotion and packaging of locally produced foods, local animal husbandry, over-wintering of breeds

susceptible to colder climates etc., The possibilities for sustainable diversification are numerous, but farmers are unlikely to find the time or the funds to embark on such schemes in isolation. The Crouch and Roach Estuary Project will work to support farmers intending to diversify, by providing network information, and by promoting through all avenues, the need to encourage sustainable farm diversification, especially in eco-tourism areas, and by exploring the provision of a sustainable tourism package that will provide publicity opportunities for farmers who choose to diversify. This will link in with section M. and see also J.4.

## **T. WATER QUALITY**



**T.1. THE WATER FRAMEWORK DIRECTIVE**

**T.2. WATER QUALITY CONTROL**

**T.3. THE QUALITY OF THE WATER IN THE RIVER CROUCH**

**T.4. PUBLIC CONCERN**

### **T.1. The Water Framework Directive**

The Water Framework Directive requires good ecological status for all waters by 2015. The Environment Agency (EA) has the responsibility of implementing the Directive in England and Wales and has a duty to ensure an integrated approach towards pollution prevention. The General Quality Assessment scheme (GQA) is the Environment Agency's national method for classifying water quality in rivers and canals. The scheme provides a means of ensuring consistent river quality tests from one river to another and for monitoring changes over a period of time. The Environment Agency River Quality Objectives (RQOs) are used in England and Wales as targets for water quality. See also I.6.

### **T.2. Water Quality Control**

Seven measures are currently used as indicators of the health of rivers and have been grouped into the River Ecosystem Classification. This classification is used to set quality targets (River Quality Objectives). If the target is not met EA will investigate the cause and take appropriate action.

EA operates a licence system for industry and farmers that wish to install a discharge of water into a river. RQOs underpin decisions on river management generally and control the conditions which EA impose on the licenses they issue.

The rivers are sampled 12 times each year. The classification is based on a three year period, ie., 36 samples, on a three-year rolling sampling programme.

#### Chemistry

Samples are analysed for levels of three main pollutants: organic pollution: ammonia, biochemical oxygen demand (BOD), and dissolved oxygen. The results for each site are averaged and percentiles are calculated. The lowest grade achieved by any of the three main pollutants is assigned to the whole length of river.

A = Very good	(All abstractions; very good Salmonid fisheries; Cyprinid fisheries; natural ecosystems)
B = Good	(All abstractions, Salmonid fisheries; Cyprinid fisheries; ecosystems at or close to natural)
C = Fairly good	(Potable supply after advanced treatment; other abstractions; good Cyprinid fisheries; natural ecosystems; or those corresponding to good cyprinid fisheries)
D = Fair	(Potable supply after advanced treatment; other abstractions; fair Cyprinid fisheries, impacted ecosystems)
E = Poor	(Low grade abstraction for industry; fish absent or sporadically present; vulnerable to pollution, impoverished ecosystems)
F = Bad	(Very polluted rivers which may cause nuisance; severely restricted ecosystems).

#### Biology

The small invertebrates that can be seen with the naked eye found in the samples are identified. The range of species present in the sample is compared with the range that should be present in the river. One of six following grades is allocated to each river:

A = Very Good	Unpolluted river
B = Good	Biology is a little short of an unpolluted river
C = Fairly good	Biology worse than expected for unpolluted river
D = Fair	A range of pollution tolerant species present
E = Poor	Biology restricted to pollution tolerant species



F = Bad  
pollution

Biology limited to a small number of species very tolerant of

### Nutrients

Samples are analysed for nitrate and orthophosphate. A grade is assigned for each of these nutrients according to the tables below.

#### Phosphate Grade limit (mgP/l) Average

1	0.02	Very low
2	0.06	Low
3	0.1	Moderate
4	0.2	High
5	1.0	Very high
6	>1.0	Excessively high

#### Nitrate Grade limit (mg NO<sub>3</sub>/l) Average

1	5	Very low
2	10	Low
3	20	Moderately low
4	30	Moderate
5	40	High
6	>40	Very high

Nutrients in rivers do not necessarily lead to good or bad water quality. Rivers in different parts of the country have naturally different concentrations of nutrients, the classifications are designed to draw comparisons between concentrations in neighbouring rivers.

### Aesthetics

Aesthetic quality is assessed by the appearance of the river, which can be damaged by an unpleasant look or smell. This might be due to the presence of litter, oil, foam, fungus, sewage etc. The water and the surrounding bank is surveyed and the site is given a grade from 1 to 4 which describes its overall aesthetic quality in the following way:

- 1: Good
- 2: Fair
- 3: Poor
- 4: Bad

Chemistry, biology, nutrients and aesthetics are graded separately, the overall grade for the river is then arrived at by combining the grades, and arriving at the category of water quality for the length of the river tested.

### **T.3. The Quality of the Water in the River Crouch**

The River Crouch at the present time is a Category C river, which means that whilst the quality is fairly good and able to support a natural eco system, it is not classed as suitable for swimming, nor for instance would it be possible to eat shellfish from the estuary without it first undergoing a 24 hour decontamination process.

### **T.4. Public Concern**

In the consultation process for this Management Plan a number of concerns were expressed about sewage being discharged into the river, however the Urban Waste

Water Treatment Directive imposes strict requirements on sewage treatment works, and ongoing monitoring has led to an all round improvement over the last two decades. It was clear from the consultation process that there is a need for improved public access to information about water quality, how water is tested and what is acceptable. The Environment Agency provides detailed information on its website. We can all also play our part in improving water quality by ensuring that we do not leave litter on river banks, nor allow any litter to escape overboard from any boats or other water craft, nor let any unauthorised discharge enter the river.

It should be noted too that some of the measures in Defra's Cross Compliance (meeting Good Agricultural and Environmental Condition) are designed to reduce diffuse pollution of waterways from agriculture by protecting soils from erosion. Resource Protection is also an objective of the ES scheme (see R1 above). The Crouch and Roach Estuary Project will work to ensure sustainability of the estuary.

## **U. AIR QUALITY**



**U.1. THE ENVIRONMENT ACT 1995**

**U.2 THE ESSEX AIR QUALITY CONSORTIUM**

**U.3. LOCAL AIR QUALITY**

**U.4. IMPROVING AIR QUALITY**

### **U.1. The Environment Act 1995**

Part IV of the Environment Act 1995 places a statutory duty on local authorities to review and assess the air quality within their area and take account of Government Guidance when undertaking such work. The review and assessment process is being carried out on a rolling three year programme, with annual reporting to Defra. If a local authority identifies a location where the air quality objectives may not be met, it must declare an Air Quality Management Area and prepare an Air Quality Action Plan.

### **U.2 The Essex Air Quality Consortium**

The Essex Air Quality Consortium was formed in 1995 to address local and strategic air quality issues across the county. The consortium is made up of representatives from the Essex County Council, District and Borough Councils, Unitary Authorities, the University of Essex, the Environment Agency, Essex Strategic Health Authority and BAA Stansted.

### **U.3. Local Air Quality**

On the north bank of the river Crouch, Maldon District Council undertook its first round of 'review and assessment' between 1999 and 2000. The results of the first round predicted that air quality objectives should be met by the target dates and that it was therefore unnecessary to declare any Air Quality Management Areas for any pollutant. The main air quality issues were found to be emissions of nitrogen dioxide and particulates from vehicles on the A414. The second round was started in 2003 and began with an updating and screening assessment which reconsidered seven health-based air quality objectives and concluded that there was still no risk that air quality targets were not being met. Maldon is now in the annual progress reporting cycle until the third round of assessment commences in 2006. The authority currently measures concentrations of air pollution at eight locations using passive diffusion tubes. This data is reported in the Annual Progress reports to Defra.

Rochford District Council which covers the south bank of the river Crouch and both banks of the river Roach undertook the first round of 'review and assessment' between 1998 and 2001. The first round predicted that air quality objectives should be met by their target dates. The main issues with respect to local air quality were found to be emissions of nitrogen dioxide and particulates from vehicles on the A127 Southend Arterial Road and A130 Chelmsford Road, but it was not necessary to declare an Air Quality Management Area for any pollutant. The second round was started in 2003 and began with an updating and screening assessment which reconsidered seven-health based air quality objectives and concluded that there was still no risk of exceeding acceptable levels. The authority has recently started to measure concentrations of air pollution at four locations using passive diffusion tubes. This data will be reported in the Annual Progress reports to Defra.

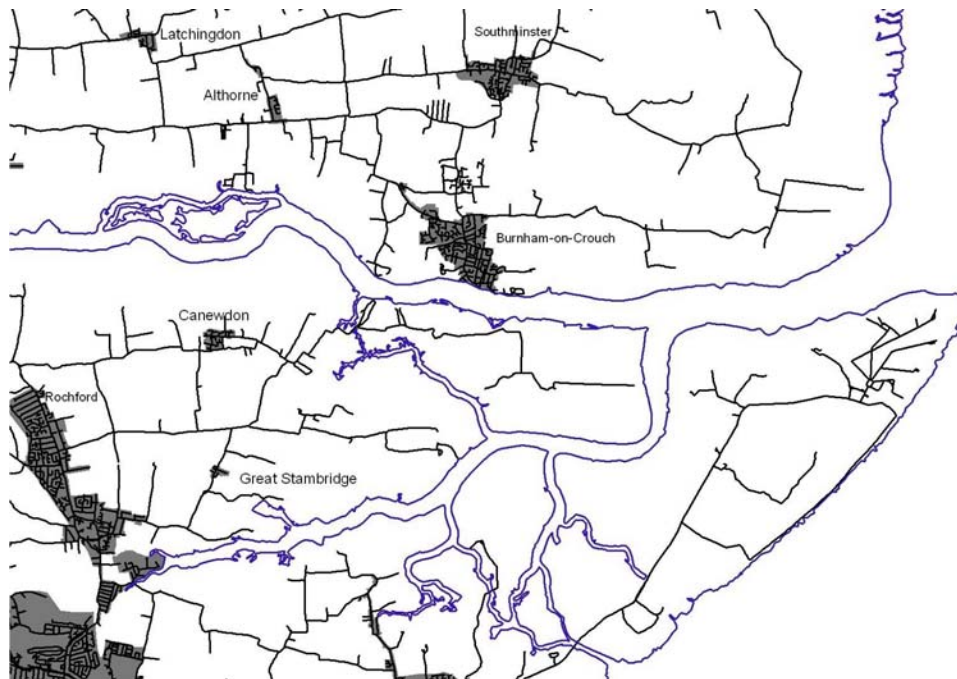
The Chelmsford Borough covers the upstream tip of the estuary, where the main source of pollution in the borough is road traffic. The major roads in the borough are the A12, A130, A1016 and A414. The town centre roads are often busy and congested. There are two large industrial processes and about 45 smaller industrial processes which are authorised by the Borough Council. Data is reported to Defra by Chelmsford Borough Council in its Annual Progress Reports.

### **U.4. Improving Air Quality**

The seven main pollutants are Benzene; 1,3-Butadiene; Carbon Monoxide; Lead; Nitrogen dioxide, Particles (PM10) and Sulphur dioxide. The main cause of these pollutants is road traffic, industry and some forms of domestic heating. Pollutants can cause lung and throat problems, headaches and eye and nose disorders, and in large concentrations and in vulnerable people, can lead to death. The local Strategic Authorities are doing all they can to improve air quality. Individuals too can play a part in improving local air quality, by avoiding using the car except where necessary, and when

driving, by driving smoothly which will save fuel and emit less pollution. People can also avoid lighting bonfires, and compost or recycle instead, and vow never to burn plastic or rubber. Buying water-based or low-solvent paints, varnishes, glues and wood preservatives and using energy efficient appliances will all aid improvements to local air quality. The Crouch and Roach Estuary Management Project will seek to raise awareness and encourage projects designed to improve air quality and ensure that the sustainability of the estuary is paramount.

## V. MAPS



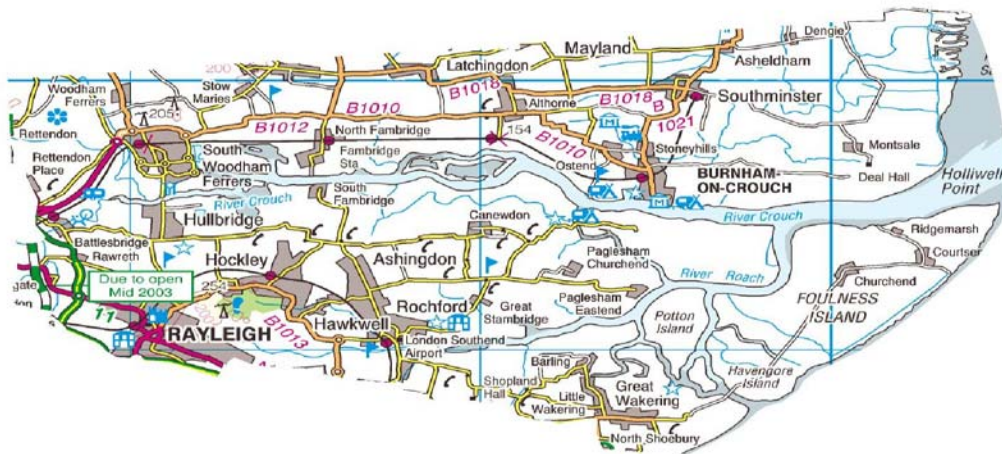
- V.1. **GEOGRAPHICAL AREA COVERED BY THE CROUCH AND ROACH ESTUARY MANAGEMENT PLAN**
- V.2. **AREA COVERED BY SAIL**
- V.3. **AREA COVERED BY THE EUROPEAN MARINE SITE (SPECIAL AREA OF CONSERVATION)**
- V.4. **THE SPEED LIMIT ZONES ON THE CROUCH AND ROACH ESTUARY**

## Maps

The Maps in this section are for illustration purposes only.

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### V.1. Geographical area covered by the Crouch and Roach Estuary Management Plan



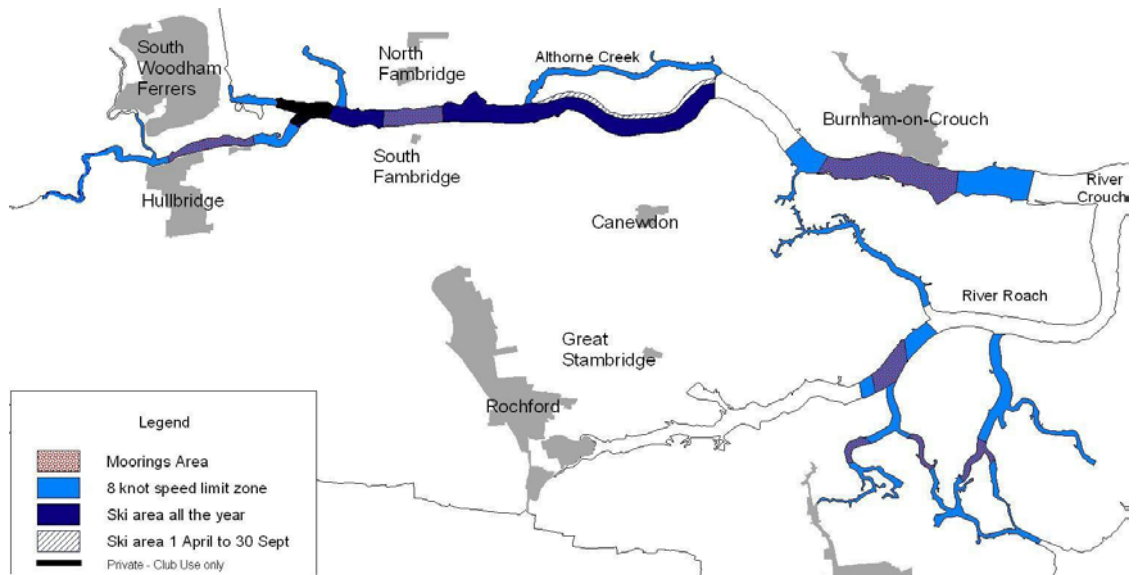
### V.2. Area covered by SAIL



### V.3. Area covered by the European Marine Site (Special Area of Conservation)



### V.4. The Speed Limit Zones on the Crouch and Roach Estuary





**W. GLOSSARY OF TERMS AND ABBREVIATIONS  
(IN ALPHABETICAL ORDER)**



**NORTH FAMBRIDGE**

**W.1. TERMS**

**W.2. ABBREVIATIONS**

### **W.1. Terms**

Biodiversity	The diversity of plant and animal life
Byelaw	Laws introduced by local authorities and other statutory bodies to control certain actions that are not otherwise subject to legal regulatory process
Borrow dyke	A ditch created behind the sea wall from which earth was taken for banking up the sea wall.
Coastal Defence	Defending the coastline against erosion and flooding
Eco System	Relationship between living organisms and their natural surroundings
Estuary	Tidal mouth of river
Intertidal	The area between high and low water marks, covered by the sea at high tide and exposed at low tide
Intertidal habitat	The natural home for all life in intertidal areas
Invertebrate	Not having a back bone, eg., insects and snails etc.,
Managed retreat	The creation of new intertidal areas by removal of part of original sea wall
Ramsar Site	An internationally important wetland habitat designated under the Convention on Wetlands, held in Ramsar, Iran in 1971
Recharge	Rebuilding foreshore with sand or other natural materials to control erosion

### **W.2. Abbreviations**

AE	Agri-Environment
CARP -	Crouch and Roach (Estuary) Project
CA -	Countryside Agency
CBC -	Chelmsford Borough Council
CEFAS	Centre for the Environment Fisheries and Aquaculture Science
CHA -	Crouch Harbour Authority
Defra -	Department of Food and Rural Affairs
ECC -	Essex County Council
ELS -	Entry Level Stewardship
ERDP -	England Rural Development Programme
EA -	Environment Agency
ESAs -	Environmentally Sensitive Areas
ESS -	Environmental Stewardship Scheme
GQA -	(Environment Agency) General Quality Assessment scheme
ICZM -	Integrated Coastal Zone Management
MDC -	Maldon District Council
MOD -	Ministry of Defence
NFU -	National Union of Farmers
OELS	Organic Entry Level Stewardship

RQO -	River Quality Objectives
RDC -	Rochford District Council
ROW -	Rights of Way
RNLI -	Royal Naval Lifeboat Institute
SFP	Single Farm Payment
SAIL-	Schéma d'Aménagement intégré du Littoral
SNSA -	Southern North Sea area
SSSI	Site of Special Scientific Interest
UN –	United Nations

## **X. LEGAL FRAMEWORK**



**VIEW OF BURNHAM-ON-CROUCH FROM THE RIVER**

### **X.1. STATUTES, DIRECTIVES, POLICY AND BYELAWS**

### **X.2. STATUTORY AUTHORITIES (MENTIONED IN THE PLAN)**

### **X.1. Statutes, Directives, Policy and Byelaws**

Countryside and Rights of Way Act 2000  
EC Nitrates Directive (91/676/EC)  
Environmental Impact Assessment  
Essex County Council's Minerals Local Plan  
EU Birds Directive – Council Directive (79/409/EEC)  
EU Habitats Directive (92/43/EEC)  
EU Shellfish Waters Directive (79/923/EEC)  
Food and Environmental Protection Act 1995  
International convention for the Prevention of Marine Pollution from Ships 1973  
Natura 2000 (The European Network of Special Areas of Conservation and Special Protection Areas)  
Planning Policy Guidance 16: Archaeology and Planning.  
Planning Policy Guidance - PPG 20 -The Coast 1992  
Planning Policy Guidance - PPG 25 - Development and Flood Risk 2001  
Prime Minister's Strategy Unit Report on the future of the fishing industry – 2004  
Ramsar Convention 1971  
Regional Planning Guidance 9 for the South East  
Regional Planning Guidance (RPG14 East of England)  
Regional Spatial Strategy for the East of England RSS 14  
The Conservation (Natural Habitats) Regulations 1994  
The Environment Act 1995  
The Essex and Southend-on-Sea Replacement Structure Plan  
Essex and Southend Waste Local Plan  
The Essex Minerals Local Plan Adopted First Review  
The Habitats Directive  
The Harbour Act 1974  
The Rio Declaration and Local Agenda 21  
The Rural White Paper 2000  
The Water Framework Directive (2000/60/EC)  
Wildlife and Countryside Act 1981

### **X.2. Statutory Authorities (mentioned in the Plan)**

Chelmsford Borough Council  
Contact: Mr P.McBride  
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Countryside Agency  
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2nd Floor, Floor City House  
Hills Road, Cambridge, CB2 1PT  
Email: claire.sparkes@countryside.gov.uk

Crouch Harbour Authority  
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Crouch Harbour Master  
The Crouch Harbour Office, The Quay,  
Burnham-on-Crouch, Essex CM0 8AS  
Email: Ian.Bell@cha.valiant.co.uk'

Crown Estates Commissioners  
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Morley Riches and Ablewhite  
John Cole House, 20/22 Crouch Street,  
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Email: peter@mrallp.co.uk

Defra  
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English Nature  
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Environment Agency  
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Ipswich, Suffolk, IP3 9JE  
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Essex County Council  
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Maldon District Council  
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MOD Defence Estates  
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Defence Estates East  
Stirling House, Denny End Road

Waterbeach, Cambridge, CB5 9QE  
Email: twm.wade@de.mod.uk

Rochford District Council  
Contact: Andrew Meddle  
Team Leader (Policy)  
Rochford District Council,  
Council Offices, South Street  
Rochford, Essex, SS4 1BW  
Email: andrew.meddle@rochford.gov.uk

## **Y. OTHER INTERESTED STAKEHOLDERS**



**BRIDGEMARSH ISLAND**

**Y.1. INTERESTED STAKEHOLDERS (MENTIONED IN THE PLAN)**

**Y.1. OTHER INTERESTED STAKEHOLDERS (NOT MENTIONED IN THE PLAN)**



**Y.1. Interested Stakeholders (mentioned in the Plan)**

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Burnham-on-Crouch, Essex CM0 8AS

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Essex Estuaries Initiative

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Project Co-ordinator

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Kent and Essex Sea Fisheries

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CO7 0AR

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SAIL II

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Project Manager

Essex County Council,

(Environmental Strategy)

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Chelmsford, Essex

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The Rural Community Council of Essex

Contact:

Field Officer

Mackmurdo House, 79 Springfield Road,

Chelmsford, Essex, CM2 6JG.

Email: erdc@essexrcc.org.uk

**Y.2 Other interested Stakeholders (not mentioned in the Plan)**

RSPB

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1, Old Hall Lane , Tolleshunt D'Arcy

Maldon, Essex, CM9 8TP

Email: Chris.Tyas@rspb.org.uk

Essex Wildlife Trust  
Contact Alan Shearring  
The Joan Elliot Visitor Centre  
at Abbots Hall Farm  
Great Wigborough  
Colchester  
Essex  
CO5 7RZ  
Email [alans@essexwt.org.uk](mailto:alans@essexwt.org.uk)

## **Z. BIBLIOGRAPHY**



### **Z.1. FURTHER READING**

### **Z.2. WEB SITES**

## **Z.1. Further reading**

An Archaeological Research Framework for the Greater Thames Estuary  
Burnham on Crouch Conservation Area Review and Appraisal  
Crouch Harbour Authority Management Plan  
Essex Biodiversity Action Plan  
Essex County Council – The Essex Coastal Strategy 1994  
The Essex and Southend-on-Sea Replacement Structure Plan  
Essex and Southend Waste Local Plan  
The Essex Minerals Local Plan Adopted First Review  
English Heritage guidance document ‘Coastal Defence and the Historic Environment’  
English Nature – The Essex Coast  
Maldon District Community Strategy  
Rochford District Community Strategy  
Chelmsford Borough Community Strategy  
Chelmsford Borough Local Plan  
Maldon District Local Plan  
Maldon District Local Plan First Review Adopted 1996  
Regional Planning Guidance 9 for the South East  
Regional Planning Guidance (RPG14 East of England)  
Regional Spatial Strategy for the East of England RSS 14  
Rochford District Local Plan

## **Z.2. Web sites**

Chelmsford Borough Council	<a href="http://www.chelmsfordbc.gov.uk">www.chelmsfordbc.gov.uk</a>
Crouch and Roach Estuary Project	<a href="http://www.crouchandroach.org">www.crouchandroach.org</a>
Countryside Agency	<a href="http://www.countryside.gov.uk">www.countryside.gov.uk</a>
Crouch Harbour Authority	<a href="http://www.crouchharbour.org">www.crouchharbour.org</a>
Dengie Cycle Centre	<a href="http://www.dengiecyclecentre.co.uk">www.dengiecyclecentre.co.uk</a>
Department of Environment, Food and Rural Affairs (Defra)	<a href="http://www.defra.gov.uk">www.defra.gov.uk</a>
Department of Media, Culture and Sport	<a href="http://www.dcms.gov.uk">www.dcms.gov.uk</a>
Department for Transport	<a href="http://www.dft.gov.uk">www.dft.gov.uk</a>
Department of Trade and Industry (DTI)	<a href="http://www.dti.gov.uk">www.dti.gov.uk</a>
East of England Development Agency	<a href="http://www.eada.org.uk">www.eada.org.uk</a>
East of England Tourist Board	<a href="http://www.eastofenglandtouristboard.com">www.eastofenglandtouristboard.com</a>
English Heritage	
<a href="http://www.dcms.gov.uk/heritage/index.html">www.dcms.gov.uk/heritage/index.html</a>	
English Nature	<a href="http://www.english-nature.gov.uk">www.english-nature.gov.uk</a>
Environment Agency	<a href="http://www.environment-agency.gov.uk">www.environment-agency.gov.uk</a>
Essex Chambers of Commerce	<a href="http://www.essexchambers.co.uk">www.essexchambers.co.uk</a>
Essex County Council	<a href="http://www.essexcc.gov.uk">www.essexcc.gov.uk</a>
Essex Estuaries Initiative	<a href="http://www.essexestuaries.org.uk">www.essexestuaries.org.uk</a>
Essex Wildlife Trust	<a href="http://www.essexwt.org.uk">www.essexwt.org.uk</a>
Federation of Small Businesses	<a href="http://www.fsb.org.uk">www.fsb.org.uk</a>
Learning Skills Council	<a href="http://www.lsc.gov.uk">www.lsc.gov.uk</a>
Listed Buildings Online	<a href="http://www.greatbuildings.com">www.greatbuildings.com</a>
Maldon District Council	<a href="http://www.maldon.gov.uk">www.maldon.gov.uk</a>
National Playing Fields Association	<a href="http://www.npfa.co.uk">www.npfa.co.uk</a>
Office of the Deputy Prime Minister	<a href="http://www.odpm.gov.uk">www.odpm.gov.uk</a>
Open Spaces Society	<a href="http://www.oss.org.uk">www.oss.org.uk</a>
Ramsar Treaty	<a href="http://www.ramsar.org">www.ramsar.org</a>
Royal Town Planning Institute	<a href="http://www.rtpi.org.uk">www.rtpi.org.uk</a>
Rochford District Council	<a href="http://www.rochford.gov.uk">www.rochford.gov.uk</a>
Rural Action East	<a href="http://www.ruralactioneast.org.uk">www.ruralactioneast.org.uk</a>

Rural Community Council of Essex  
SAIL  
Sport England  
The Essex Air Quality Consortium  
United Nations Agenda 21  
Joint Nature Conservation Committee

[www.rcce.org.uk](http://www.rcce.org.uk)  
[www.sailcoast.org](http://www.sailcoast.org)  
[www.sportengland.org](http://www.sportengland.org)  
[www.essexair.org](http://www.essexair.org)  
[www.un.org/esa/sustdev/agenda21](http://www.un.org/esa/sustdev/agenda21)  
[www.jncc.gov.uk](http://www.jncc.gov.uk)

