

Hayle Estuary Management Plan 2010-2015



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Hayle Estuary Management Plan Vision

Working together to accommodate all users
of the Hayle Estuary while protecting the
natural and historic environment.



Front cover courtesy of RSPB.

Contents

| | |
|---|----|
| Abbreviations | 5 |
| Abstract | 6 |
| 1. Introduction | 7 |
| 1.1 The Hayle Harbour Advisory Committee | 8 |
| 2. The Need for a Hayle Estuary Management Plan | 8 |
| 3. Background to Estuary Management | 8 |
| 4. Background to Hayle Harbour | 11 |
| 5. Hayle Estuary Today | 13 |
| 6. Regulatory Designations | 15 |
| 6.1 UNESCO | 15 |
| 6.2 Site of Special Scientific Interest | 15 |
| 6.3 County Wildlife Site | 16 |
| 6.4 Hayle Harbour Byelaws | 16 |
| 7. Management Plan Area | 17 |
| 8. Implementation | 18 |
| 8. Resourcing | 21 |
| 9. Hayle Estuary Management Plan Format | 22 |
| 9.1 Monitoring and Review | 22 |
| Section A General Management | 23 |
| Section B Navigation and Moorings | 25 |
| Section C Marine Business | 27 |
| Section D Estuary User Safety | 29 |
| Section E Tourism and Recreation | 31 |
| Section F Estuary Development | 33 |
| Section G Estuary Cleanliness | 36 |
| Section H Law Enforcement | 39 |
| Section I Contingency Planning | 41 |
| Section J Coastal Protection | 43 |
| Section K Nature Conservation | 45 |
| Section L The Historic Environment | 48 |

| | | |
|------------|---|----|
| Section M | Interpretation and Education | 50 |
| Section N | Fisheries..... | 52 |
| Section O | Harbour Lands Development | 55 |
| References | | 56 |
| Appendix 1 | List of Fish Species in the Estuary | 57 |
| Appendix 2 | Links to Other Plans and Programmes | 59 |
| Appendix 3 | Hayle Harbour Byelaws 1990..... | 60 |
| Appendix 4 | Hayle Estuary and Coast Jurisdiction..... | 61 |
| Appendix 5 | Note on Conflict of Uses | 62 |

Abbreviations

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| BAP | Biodiversity Action Plan |
| CABE | Commission for Architecture and the Built Environment |
| CC | Cornwall Council |
| CCHES | Cornwall Council Historic Environment Service |
| CFMP | Catchment Flood Management Plan |
| CSFC | Cornwall Sea Fisheries Committee |
| DEFRA | Department for Environment, Food and Rural Affairs |
| EA | Environment Agency |
| EC | European Commission |
| EO | Estuary Officer |
| EMP | Estuary Management Plan |
| HAYLE EMP | Hayle Estuary Management Plan |
| HHA | Hayle Harbour Act 1989 and Byelaws |
| HHAC | Hayle Harbour Advisory Committee |
| HHAL | Hayle Harbour Authority Limited |
| HTC | Hayle Town Council |
| ICZM | Integrated Coastal Zone Management |
| ING | ING RED UK (Hayle Harbour) Ltd. |
| IPs | Interested Parties |
| LEAP | Local Environment Agency Plan |
| MCS | Marine Conservation Society |
| MLWS | Mean Low Water Springs |
| NE | Natural England |
| RE | River Ecosystem |
| ROs | Responsible Organisations |
| RQO | River Quality Objective |
| RSPB | Royal Society for the Protection of Birds |
| RYA | Royal Yachting Association |
| SAFFA | Salmon and Freshwater Fisheries Act |
| SMP | Shoreline Management Plan |
| SSSI | Site of Special Scientific Interest |
| SWRDA | South West of England Regional Development Agency |
| WHS | World Heritage Site |

Abstract

The Hayle Harbour Advisory Committee, ING Real Estate Development UK (Hayle Harbour) Ltd, Hayle Harbour Authority Limited, the RSPB, Natural England, Environment Agency, Cornwall Council and Hayle Town Council have worked together to combine their different areas of expertise to produce the Hayle Estuary Management Plan. It draws partly on information within existing management plans (For example, RSPB Hayle Estuary Management Plan 2007-12) but aims to be wider-reaching, embracing all users. It is, nevertheless, concise and has been developed with a view towards practical application.

The Hayle EMP draws together existing plans and helps clarify the roles, responsibilities and requirements of the statutory bodies, owners, occupiers and users of the estuary. It aims to promote joint working to deliver more effective outcomes through a co-ordinated and shared approach to management.

The Hayle EMP does not attempt to override existing powers or responsibilities, or prescribe the outcomes of issues. Rather it is a non-statutory document, providing guidance and support for the integrated management of the Hayle Estuary as a healthy, natural environment enjoyed by residents and visitors alike. It is advisory, not statutory.

Revisions

| Revision | Date | Summary | By |
|----------|----------|-------------------------|-----|
| 0 | 14/12/10 | First adopted version | abm |
| 1 | 11/07/12 | Minor editorial changes | jb |
| 2 | 10/10/12 | Appendix 1 updated | jb |
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1. Introduction

Britain boasts the most extensive estuarine network within Europe, and our estuaries provide valuable resource to humans and wildlife alike. Estuaries of the UK are of essential importance to the economy and have a variety of uses including commercial shipping, fishing (commercial and recreational), tourism and recreation. Many of England's estuaries are recognised nationally and internationally both for their unique habitats and the wildlife they support.

Estuaries are highly productive yet sensitive systems and therefore the pressures imposed on them can have significant negative effects. It is therefore essential to apply a holistic management strategy which will support the individual needs. The estuary management process is one used by many partnerships across the country and seeks to balance the competing demands through the principle of sustainable development.

Within the Hayle Estuary there are increasing pressures on the estuary, for space, natural resources and on water quality. Impacts arising from activities both on land and at sea have a bearing on the future management of the Hayle Estuary for its users as well as for its natural and historic environment.

Within Hayle Estuary the need has arisen to integrate existing management policies and plans into one holistic and practical document. The Hayle EMP will contain guidelines to inform, advise and guide current and future management. It is not a statutory plan and has not been designed to dictate detailed management actions or initiate new working arrangements. Instead it builds upon the successes and strengths of existing organisations by providing a framework within which decisions can be made and actions can be taken.

1.1 The Advisory Committee

The Hayle Harbour Advisory Committee (HHAC) was established under the Hayle Harbour Act 1989. Its purpose is to provide advice to Hayle Harbour Authority Ltd (HHAL) on any question in connection with the discharge of HHALs' functions. HHAC has representation from a broad range of estuary users and stakeholders and has actively helped to produce The Hayle Estuary Management Plan. The Hayle EMP has been established by HHAC and subsequently reviewed and accepted by those organisations that can support the Hayle EMP financially. It is anticipated that this working document will provide a proactive format for undertaking the actions necessary to enhance, protect and sustain the estuary.

2. The Need for an Estuary Management Plan

The Hayle Estuary is an area which has rich and diverse habitats, wildlife, landscape and historic heritage and is not only cherished by the local community but recognized and protected both nationally and internationally, by designations including a UNESCO World Heritage Site, a Site of Special Scientific Interest and a County Wildlife Site. Estuaries in general, and Hayle is no exception, provide recreational opportunities and employment for local people. The challenge set by the Hayle EMP is to conserve the unique natural and historic heritage of the estuary whilst recognising the important needs of local businesses, tourism and leisure interests through the encouragement of appropriate commercial opportunities.

Responsibility for the estuary cannot fall to one group or organisation alone; several may be responsible for one area with each having differing statutory roles to fulfil. The Hayle EMP has sought to bring all these groups together to work cooperatively for the benefit of all.

3. Background to Estuary Management

Increasing concern regarding the sustainable future of coastal areas has led Government to re-examine the way these important areas are managed and used. Internationally the UK Government has played an active part in negotiating and adopting several international conventions and European directives. An important stimulus for action has been the United Nations Conference on the Environment and Development, which introduced the concept of an environmentally sustainable agenda for action for the 21st Century (Agenda 21) which a number of governments including the UK's have since ratified. Several years ago Penwith's LA21 officer (employed to promote action on a local level) was replaced by the post of Sustainability Officer which later became vacant. Whilst Cornwall Council currently employs a number of newly appointed Sustainability Officers, none specifically act within the Hayle Estuary area.

In 1990, the House of Commons Select Committee on the Environment established a special inquiry into coastal zone protection and planning. This committee reported that management of estuarine areas had suffered from uncoordinated decisions and actions at all levels and called for an integrated management approach.

In May 2002 European Member States adopted a Recommendation on implementing Integrated Coastal Zone Management (ICZM). They were asked to undertake a national stocktaking of legislation, institutions and stakeholders involved in the management of the coastal zone and, based on this, to develop national strategies to deliver ICZM.

The objective of ICZM is to establish sustainable levels of economic and social activity in our coastal areas while protecting the coastal environment. It brings together all those involved in the development, management and use of the coast within a framework that facilitates the integration of their interests and responsibilities.

Successful ICZM needs to involve adopting the following principles:

- A long term view
- A broad holistic approach
- Adaptive management
- Working with natural processes
- Support and involvement of all relevant administrative bodies
- Use of a combination of instruments
- Participatory planning
- Reflecting local characteristics

In 2003, Defra and the devolved administrations joined together to commission the stocktaking for the UK. Workshops were held during the extensive

consultation with key UK coastal organisations to test gaps between the theory of ICZM and its practical implementation. The Stocktake Final Report was published in 2004.

The project summarised the current legal framework for managing activities in coastal areas and identified the key stakeholders. The Stocktake Report presented a mixed picture of the current level of integrated management in the UK. There were good examples at the local level where voluntary integrated action to resolve conflicts had been successful. The Stocktake Report also demonstrated that coastal forums/partnerships were an effective way of moving ICZM forward at local level.

In June 2006, Defra published consultation proposals on how ICZM might be promoted throughout England. The proposals looked at how a strategic and integrated approach to coastal management might be achieved more consistently around the coastline and how the current management systems on land might be harmonised with any new proposals at sea. The development of these proposals is being taken forward in the context of work such as shoreline management plans and the Marine and Coastal Access Act 2009.

4. Background to Hayle Harbour

Hayle's advantage as a commercial harbour has been its geography and geology. Situated on the southern side of St Ives Bay the peninsula is narrow enough to move cargoes easily overland to the channel ports which allowed traders to avoid the Western Approaches.

The estuary is formed by two tidal lakes, the East Loe fed by the Angarrack River at Copperhouse and Lelant Water to the south west fed by the Hayle River. These two water bodies combine with a small river from Penpol Creek in Hayle Harbour and flow seawards over the notorious Hayle bar into the bay. Unexpected surges created by heavy ground swell build up on the bar during bad weather and are a navigational problem. However, the inner harbour is sheltered.

Tin streaming began at least 4000 years ago and later mining activities from the 14th century to the 19th century deposited large quantities of silt in both arms of the estuary. Urgent measures had to be taken to address the increase in siltation when the foundries opened in the 18th century. These were required to enable larger vessels to enter the port and trade to increase.

In 1768 a series of sluice gates and tidal pools were built to control the silting by flushing it out on the ebb tide. This was followed in 1791 by a deep water channel linking Copperhouse Dock to the harbour.

Sixty vessels a month entered the port by 1832. This raised £1000 in port dues but these were paid to St Ives. By 1862, after persistent lobbying, Hayle was made a Statutory Port with its own Customs House.

Maritime trade decreased as industry declined and in 1973 the power station closed. The sluicing gates fell into disuse, silt built up and larger vessels could no longer use the port.



Figure 1. Hayle harbour in 1895, viewed from the Towans, above the later power station. North Quay is in the foreground, East Quay in the centre, and South Quay, Carnsew Dock, the railway viaduct and Harvey's Foundry are in the background. The newly built St Elwyn's church stands as a prominent feature on the left of the photograph. Note the essentially open character of all three quays (RIC photograph collection)

5. The Hayle Estuary Today

Hayle encompasses a working harbour and a biologically diverse estuary both supporting an active community. The estuary is a basis where recreational activity, fishing, conservation and local businesses co-exist and with the introduction of a Management Plan will expand and thrive.

Hayle has a rich historic heritage with many features still evident in the estuary today. Many of these relate to the industrial development of Hayle associated with mining, smelting foundries and the harbour.

Hayle Estuary supports a number of habitats and species of local and national importance. In particular it is renowned for its bird populations with more than 18,000 birds recorded in cold winters. Because of this, much of the estuary is notified as a Site of Special Scientific Interest (SSSI). A significant area was bought by the RSPB in 1992 and is now an important bird reserve. The estuary is surrounded by dynamic beaches and sand dunes which are also Sites of Special Scientific Interest and Biodiversity Action Plan (BAP) habitats.

On the estuary itself, there are over 15 recreational user groups whilst the harbour supports more than 120 boats (36 commercial) during the year, with waiting lists for both leisure and commercial berths. Without a co-ordinated approach to management, there is a possibility of conflict arising between different user groups and the natural and historic environment may also suffer. However, co-operation between the various interest groups is helping to create a workable relationship between conservation, tourism and leisure activities contributing to a viable future for Hayle.

Hayle is an area where significant growth is likely to occur in terms of jobs and housing. However such events could cause impacts to both land and sea, such as increased disturbance to wildlife and larger waste streams. It is therefore important this growth is achieved without damaging the health of the natural and historic environment. The Hayle Estuary is a significant piece of 'green infrastructure', which plays a key role in supporting sustainable development and green regeneration project principles.

The majority of the Hayle Estuary is owned and managed by the RSPB (figure 2) as a nature reserve and designated as a SSSI. The other major landowner is ING Real Estate Development UK (Hayle Harbour) Ltd. ING is proposing redevelopment and regeneration of the harbour and associated land. Hayle Harbour Authority Ltd. (HHAL) manages the harbour as a public harbour undertaking and is responsible for the harbour premises, the Hayle Harbour Bylaws (1990) and has jurisdiction over the tidal waters.

Under the Hayle Harbour Act 1989, HHAL's work is informed by the HHAC, with member's representing statutory and non-statutory interest and user groups.

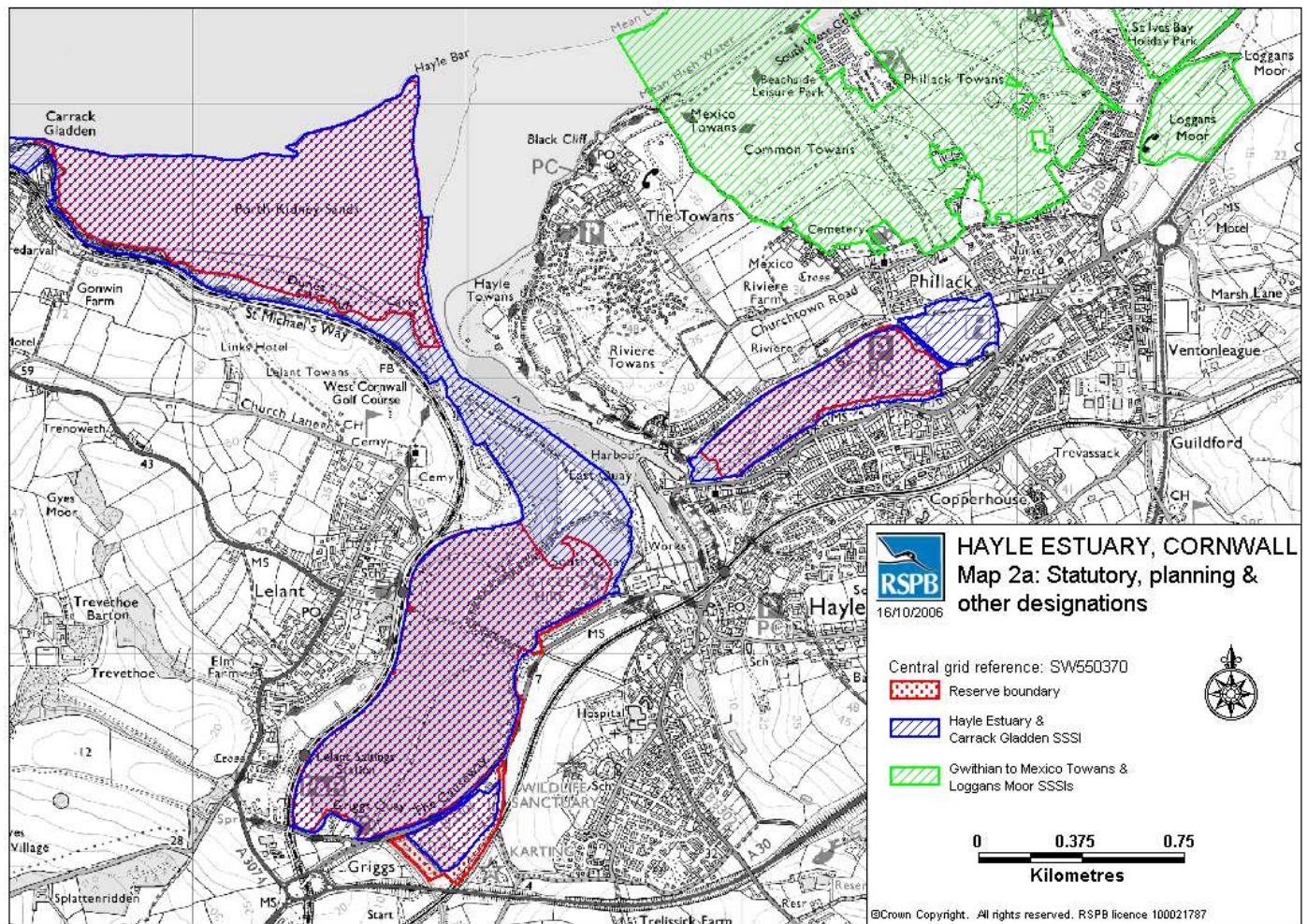


Figure 2. Map to show land SSSI areas in Hayle Estuary and the ownership of RSPB

6. Regulatory designations

Outlined below are the regulatory designations which protect the Hayle Estuary.

6.1 UNESCO World Heritage Site

“Much of the landscape of Cornwall and West Devon was transformed in the 18th and early 19th centuries as a result of the rapid growth of pioneering copper and tin mining. Its deep underground mines, engine houses, foundries, new towns, smallholdings, ports and harbours, and their ancillary industries together reflect prolific innovation which, in the early 19th century, enabled the region to produce two-thirds of the world’s supply of copper. The substantial remains are a testimony to the contribution Cornwall and West Devon made to the Industrial Revolution in the rest of Britain and to the fundamental influence the area had on the mining world at large. Cornish technology embodied in engines, engine houses and mining equipment was exported around the world. Cornwall and West Devon were the heartland from which mining technology rapidly spread and in 2006, Hayle’s role in this was formally recognised when it became a World Heritage site” UNESCO World Heritage.

6.2 Site of Special Scientific Interest

Hayle Estuary and Carrack Gladden have been designated as a Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act, 1981, as amended.

“The site consists of an extensive area of intertidal mudflats and sandflats that have accumulated over Lower Devonian slates at the mouth of the Hayle and Angarrack rivers. There is a small area of saltmarsh in the south-west corner of Lelant Water, whilst a larger area of saltmarsh and reed-bed is located at the north-eastern end of Copperhouse Pool. A central triangular spit extending into the main estuary, supports a small, denuded area of sand dune and dune grassland. Carnsew Pool is a bunded tidal reservoir with intertidal mudflats grading into deeper, open water which is retained at low tide. Copperhouse Pool, to the east, is a shallow tidal reservoir with intertidal mudflats. Porth Kidney Sands to the west of the estuary entrance are backed by dunes and dune grassland that have developed on the extensive deposits of calcareous sand at Lelant. Around the headland at Carrack Gladden, in the west of the site, 60 m high cliffs have been cut into the metamorphosed Devonian slates where the overlying acid soils exhibit a range of scrub, maritime heath and grassland habitats” Natural England.

“The Hayle Estuary is the most south-westerly estuary in Britain adjacent to the important bird migration routes that traverse the Land’s End peninsula to

the west. The site is therefore in a strategic location to provide feeding and roosting habitats for a wide variety of bird species. Furthermore, Hayle, like other south-west estuaries, normally escapes the extremes of winter weather and thus can provide alternative feeding grounds for flocks of wildfowl and wading birds when other estuaries within Britain are frozen up. The estuary is of special importance for its wintering wildfowl and wading birds. In recent years more than 90 wintering species with numbers totalling over 18,000 have been recorded at the site. The estuary is also important for several wintering species uncommon in Cornwall” Natural England.

“The open water in Carnsew Pool attracts both wildfowl and diving bird species. The dune and dune grassland on the central triangular spit provide important roosting areas for many of the birds that visit the estuary. The saltmarshes and reedbed of Copperhouse Pool and Lelant provide important roosting and feeding habitats, and also exhibit an interesting zonation and structure of vegetation. The margins of the estuary support two Red Data Book plant species, western ramping fumitory *Fumaria occidentalis*, and balmleaved figwort *Scrophularia scorodonia*. The extreme south-westerly location of the estuary has resulted in the site attracting a variety of migrant and rarer bird species with North American vagrant species being of special note. Few estuaries in Britain contain such a diversity of bird species within such a small area; a total of 274 species have been recorded at Hayle” Natural England.

Other notable monuments include the Black Road embankment and Black Bridge between Copperhouse and Wilson’s Pools and the oldest surviving standard gauge railway bridge in Cornwall at Lethlean.

6.3 County Wildlife Site

The land owned by the RSPB is managed as an RSPB Nature Reserve. However it is classified as a County Wildlife Site by the Cornwall Wildlife Trust. When SSSI came into force this took over as the statutory designation, although in this case the County Wildlife Site remains as some areas fall outside the SSSI.

6.4 Hayle Harbour Byelaws

The Hayle Harbour Byelaws stipulate acceptable protocol for operations within the harbour limits. Those byelaws directly affecting the SSSI and the penalties incurred if these are breached are listed in appendix 3.

7. Management Plan Area

The area covered by this management plan is shown on the map below (figure 3). It covers the tidal limits of the estuary, land and harbour waters under the jurisdiction of HHAL and most of the Hayle Estuary and Carrack Gladden SSSI. Not all of the harbour land has been included in order to maintain a clear focus on the main issues directly affecting the estuary. Nevertheless, factors outside the immediate plan area and in the estuary catchment will affect and influence the estuary. The aim of this plan will encourage the management of these wider issues where appropriate.

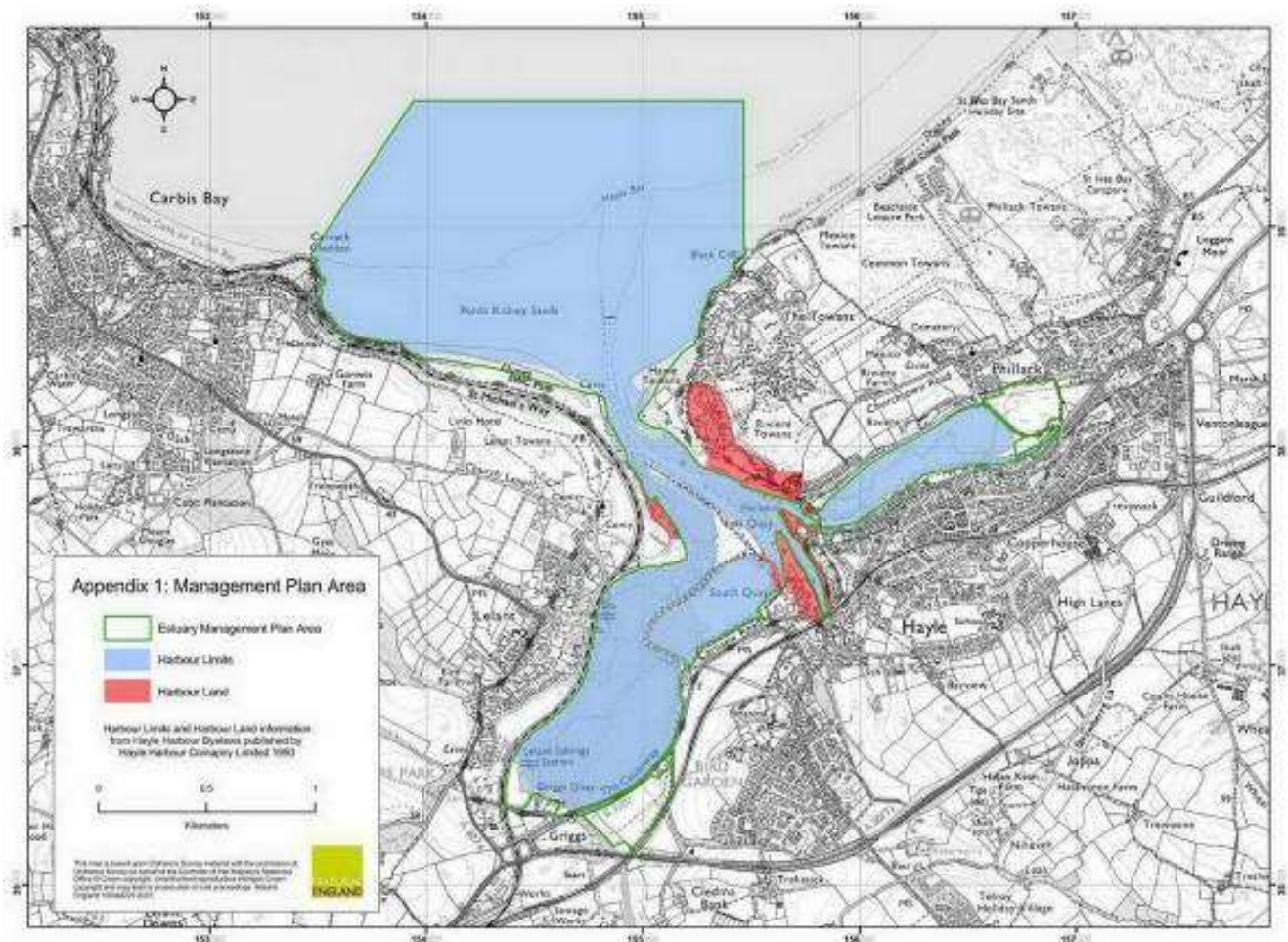


Figure 3. Map to show the Management Plan area within Hayle Estuary

8. Implementation

There are two groups with a role to play in the support of the Hayle EMP. These are the “Responsible Organisations” (ROs) who are the landowners, decision makers, statutory authorities or others responsible for the making of bylaws that are able to fund the proposed actions and the “Interested Parties” (IPs) who are the resident associations and user groups who enjoy the use of the estuary and are able to support the proposed actions.

The Hayle EMP is a collaborative agreement between the ROs and, as such, seeks to recognise roles and responsibilities for the objectives identified. It cannot, however, limit or enhance the existing statutory duties of the ROs which must retain their independence in discharging their responsibilities. They cannot delegate those duties and where responsibilities and roles are assigned in this management plan, statutory roles and responsibilities will take precedence.

For the purpose of the Hayle EMP, “Responsible Organisations” (ROs) are considered to be;

- Hayle Harbour Authority Ltd
- ING RED UK Hayle Harbour Ltd
- Cornwall Council
- Hayle Town Council
- RSPB
- Natural England
- Environment Agency
- St Ives Town Council
- Hayle Chamber of Commerce
- Hayle Fishermen Association
- Hayle Harbour Authority Ltd
- RSPB
- Hayle Harbour Users Association
- Save Our Sands
- Natural England
- Environment Agency
- Hayle Commercial Boat Owners
- One Cornwall
- South West Regional Sports Council
- South West Water Authority
- Marine and Coastguard Agency

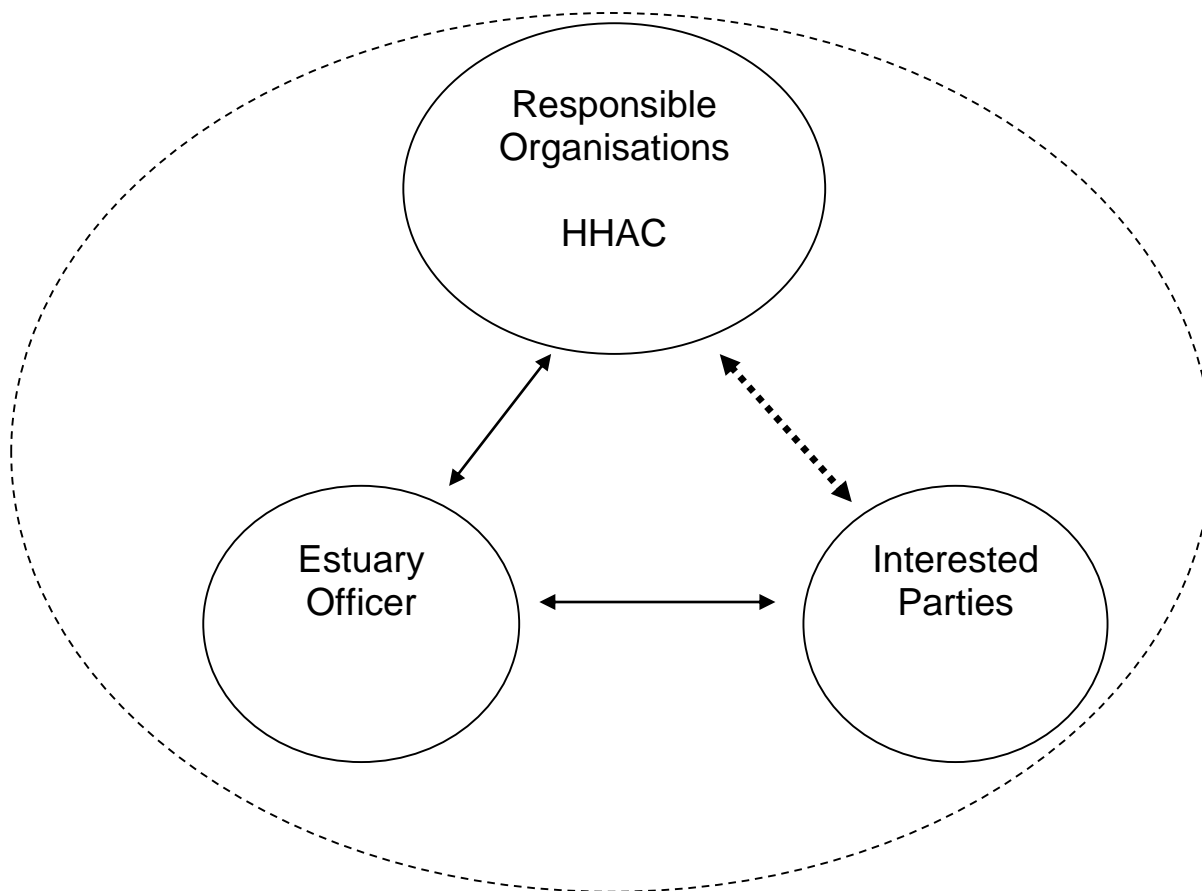
Following the publication of the Hayle EMP, the ROs will work together as a forum to implement the management of the Hayle EMP and for simplicity will be led by the HHAC. It is anticipated that the HHAC will meet to discuss the Hayle EMP on a half-yearly basis to set objectives, agree funding, discuss priorities, and monitor actions.

The employment of an Estuary Officer (EO) for the Hayle EMP will ensure that the decisions of the Forum can be discussed with the IPs (see below). The EO will need to seek or be asked to consider the input from the IPs when decisions are being made by the Forum, and thus allowing the flow of information and advice through both groups.

The IPs are considered to be as indicated as below, although it is recognised that this list may not cover all the users that currently enjoy the use of the estuary. Therefore it will be necessary for the EO to update this list and involve any new IPs, allowing them input to the Forum as and when necessary.

- Maritime and Coastguard Agency
- RNLI
- Cornwall Sea Fisheries Committee
- South West Water
- South West Regional Sports Council
- Cornwall Wildlife Trust
- Ramblers Association

The relationship between the ROs, IPs, and EO are indicated in the diagram below.



9. Resourcing

This plan provides a strategic overview of the management needs of the estuary. In order to be a practical working document, it will be necessary to secure funding from a number of sources to cover the costs of managing the Hayle Estuary as a healthy natural environment. During implementation of this plan, it will be necessary to cost proposed actions and to identify potential sources of funding. Not all management actions and solutions to some of the issues identified here involve direct costs and could be dealt with on a case-by-case basis by the appropriate ROs. This, however, is not the purpose of the Hayle EMP, as a co-ordinated action to an issue will often be of more value and deliver an improved solution.

10. Hayle Estuary Management Plan format

The issues identified below have been grouped into sections. Each section identifies 'Guiding principles' which sets out and provides the context for the Challenges. The latter addresses how to resolve the issue.

The plan indicates practical measures under the heading 'Actions' which also includes the steps that will be taken to evaluate the success of the Action. As part of the development of the Hayle EMP the method of verification of actions will need to be agreed by the ROs and the relevant tables updated by the EO.

The 'RO' section provides a guide as to the lead agency (this may vary over time) and who the primary supporting agencies are. It is up to the lead agency to enlist the assistance of others in the resolution of an issue.

The final element is 'Priority' which identifies, where possible, whether the Challenge is a high, medium or low priority and the anticipated cost associated with reasonably appraising which issues should be dealt with in a more timely manner. As part of the development of the Hayle EMP, the priority and budgets applicable to actions will need to be agreed by the ROs and the relevant tables updated by the EO.

10.1 Monitoring and Review

Annual updates on actions will be made at the HHAC meetings. It is the aim of this Management Plan to have a five yearly review, making the relevant changing to structure and content where necessary.

Section A: General Management

A primary goal of the Hayle EMP is to provide defined mechanisms for the co-ordination among the statutory bodies and users of the estuary, the consultation of involved parties and to ensure the dissemination of relevant information. There are broad headings for the Hayle EMP which have been determined through consultation and availability of information. The Hayle EMP has to be managed pro-actively and this is the role of the Estuary Officer whose position will depend on the availability of funding.

Guiding principles

- Work towards establishing Hayle Estuary as a model for others to follow as an example for management of a small estuary.
- Ensure that those using the estuary for commercial, recreational or social reasons are involved appropriately in the process of its management.
- Ensure that all aspects of estuary management are undertaken in an environmentally sustainable manner.
- Provide the information to the public for continued involvement, consultation and education.

| Ref No. | Challenges | Action | RO | Priority |
|---------|---|---|----|----------|
| A1 | Appropriate flow of relevant information between users, owners and statutory bodies. | All ROs & IPs have points of contact. Timely exchange of information to assist management decisions. Establish a Hayle Estuary website to include Management Plan, minutes and reports. | EO | High |
| A2 | Ensure that changes to management structure are communicated effectively | Changes to named contacts and organisation structures are communicated to relevant parties | EO | High |
| A3 | Identify funding, grants and other revenue streams to allow the Hayle EMP to develop. | Monitor available grants. Identify funding opportunities with own organisations. Ensure Hayle EMP funding is separate to other activities. | EO | High |
| A4 | Ensure the guiding principles are adhered to and that overlap is recognised | Yearly review of guiding principles to be provided. Regular review of the 'challenges' to ensure they are achievable. | EO | High |

| | | | | |
|----|--|---|----|------|
| A5 | Ensure the management plan is implemented and updated regularly. | Annual updates on actions. Undertake five-yearly plan reviews. Disseminate information on the estuary via newsletters, web pages and circulars. | EO | High |
|----|--|---|----|------|

Section B: Navigation and Moorings

Safety of navigation is a primary responsibility of HHAL who has a statutory duty to conserve and facilitate the safe use of all navigable water within the estuary. Due to the variety of harbour uses, which include water sports in addition to commercial and leisure vessels, HHAL provides a number of safety-related support and advice which may include weather and tidal information, access to competency courses, guidance on vessel security and fire risk, information on surveying of vessels and assessment of seaworthiness and guidance on other aspects of sea safety. The Hayle EMP seeks to provide methods for safe use of the estuary by all parties and to seek reasonable compromises where conflicting uses arise.

Hayle Harbour has numerous leisure moorings laid along Penpol Terrace securing vessels by means of a post on the foreshore and a sunken block in the mud. All other moorings are against the harbour walls where multiple berthing (doubling up) is avoided where single berthing is available. The harbour currently holds a number of vessels of which a number are commercial, moored mainly on East and North Quays. Of the commercials almost all work on a seasonal basis, seven to eight months a year. Only a handful of the commercials use the harbour in the winter months as prevailing winds are onto the north coast and conditions over the Hayle bar at the harbour entrance prevent safe navigation.

Guiding principles

- Provide for the continued safe use of appropriate areas of the estuary by watercraft and other users.
- Allow natural processes to prevail where possible, whilst consideration will be given to maintaining a safe and navigable channel.
- Adopt best practice in the management of coastal processes to minimise impacts on the natural environment.
- Undertake works in the estuary by appropriate methods to minimise contaminant remobilisation
- Ensure that, as far as reasonably possible, there are sufficient moorings and appropriate shore-side infrastructure.
- Provide moorings without unacceptable detriment to other water users and in accordance with conservation objectives of the estuary.
- Protect the existing commercial activities that operate within the harbour.

| Ref No. | Challenges | Action | RO | Priority |
|--------------------------------|---|--|--------------------------------|------------------|
| B1 | Ensure the adequate maintenance of the navigation to meet Statutory requirements | Review accident reports and comments on safety issues at every meeting. Table any correspondence received from Trinity House or others for proactive discussion. | HHAL | High |
| B2 | Ensure maintenance dredging is undertaken without unduly damaging the natural environment or historic environment, coastal processes or disturbing contaminants | Assist, monitor and enforce the requirements of the dredging licence issued by CC. Investigate the potential and the need to restore historic sluicing arrangements to assist in the clearance of the navigation channels so far as is compatible with the other objectives for the estuary as a whole. | HHAL ING ING HHAL | High High |
| B3 | Develop a Maintenance Dredging Protocol to inform the future maintenance dredging process and licence procedures. | By way of adopting best practice a dredging protocol is to be developed which will provide historic and current dredging records and information. | HHAL ING | Med |
| B4 | Ensure that mooring management takes fully into account water users and appropriate shoreside infrastructure. | .Promote the Green Blue initiative (RYA) and identify studies for grant funding from this initiative. | EO | Med |
| B5 | Ensure that mooring management takes fully into account the estuary conservation designations. | Ensure appropriate consideration is given to sensitive environment habitats and species, landscape and historic features during the laying of new moorings or structures. Keep accurate logs of the location and condition of moorings and associated infrastructure. | HHAL | High |
| B6 | Promote the duty of care that berth holders are to have when approaching wildlife. | This should include the distribution of appropriate literature including guidance from Natural England and consideration of formal Wildlife Safe (WiSe) training and accreditation scheme (www.wisescheme.org/) or similar. | HHAL | Med |
| Refer also to relevant item J2 | | | | |

Section C: Marine Business

Hayle Harbour has a long history of commercial operation and, since the eighteenth century, has hosted shipping delivering raw materials and transporting finished goods for heavy industries. It has also been a base for ship building, received coal for a power station and shipped locally made explosives – among many other uses. Today, the commercial use is dominated by the local fishing industry. It is necessary to ensure that the protection of the estuary is considered as part of any improvement to business opportunities. Establishment or growth of the following commercial and industrial activities is currently perceived as having the potential to affect the estuary and its management:

- Wave Hub development, the growth of other renewable energy enterprises, support services and those operating in related markets which develop here subsequently.
- Operation of commercial crossings, including those which may link with the South West Coastal Path and other visitor destinations.
- Fishing, including commercial operations and recreational angling, and any subsequent processing operations.
- Other small & medium enterprises locating to industrial/commercial workspace in harbour-side locations.
- The establishment of interpretation centres, un/guided activities and ancillary commercial undertakings related to recreational or educational studies. For example, in ecology, wildlife, ornithology, photography, conservation.
- Leisure businesses, including those operating or otherwise involving various types of craft, and related training activities.
- Other commercial leisure activities including events, markets, festivals, performances and exhibitions.

Guiding Principles

- Integrate the economic activities of the estuary and encourage its development as a whole, whilst recognising the aims of the conservation objectives for the estuary.
- Assist in supporting and encouraging measures to stimulate economic benefits and maximising employment associated with marine related industry.
- Work towards ensuring the fishing industry at Hayle is secure and is actively supported.

| Ref No. | Challenges | Action | RO | Priority |
|---------------------------------|--|--|----|----------|
| C1 | Encourage and further a diverse and prosperous and sustainable marine related industry base. | Identify and support measures for consideration in economic rejuvenation strategies and other initiatives. | CC | Med |
| C2 | Ensure that existing waterfront sites are available for marine related businesses | Confirm and where appropriate improve monitoring of existing or amended planning policies and local/regional strategies. | CC | Med |
| Refer also to relevant items F2 | | | | |

Section D: Estuary User Safety

Within the harbour limits, HHAL has an obligation to conserve and facilitate the safe use of the harbour in accordance with the Port Marine Safety Code and the bylaws are provided to encourage users to act responsibly towards all other users of the estuary. This only applies to the harbour land and from a navigation responsibility up to the harbour limits. The safety of estuary users has to incorporate a significant number of users and types of use, on land and water. The Hayle EMP is provided to bring together the responsibilities of numerous parties and co-ordinate the work required to ensure the safety of users. As an example, the RSPB and Natural England have already produced a 'Recreational Code of Conduct' (held at the HHAL office) to help organisers plan and implement their own events with Health & Safety issues addressed through the standard risk assessment process. Additional information can also be found in the Cornwall Events Guidance Pack produced by Cornwall Council.

Guiding Principles

- Encourage and promote the safe and responsible use of the estuary areas.
- Identify opportunities to enhance public accessibility where appropriate and without damaging the natural environment.
- Ensure public access is controlled to minimise the impact on the heritage and ecology of the estuary.
- Identify, protect and actively conserve sensitive areas in which protection is of primary importance.

| Ref No. | Challenges | Action | RO | Priority |
|---------|---|--|----|----------|
| D1 | Promote and encourage the safe and responsible use of waters and tidal areas for all public events. | Ensure all event organisers consult the 'Recreational Code of Conduct' before any public event is launched or advertised. Update and periodically review the 'Recreational Code of Conduct' to ensure compatibility and current legislation is covered and make appropriate literature available to event organisers. | EO | Med |

| | | | | |
|--------------------------------------|---|---|------|------|
| D2 | Monitor the safe and responsible use of waters and tidal areas for all public events. | Ensure the recommendations covered by the 'Recreational Code of Conduct' are adhered to and that issues concerning public safety, litter, access, timing and placement of events are identified. Ensure all recreational events are conducted safely and responsibly with organisers identifying all hazards through the appropriate risk assessment process for the Health & Safety of both participants and onlookers. | HHAL | High |
| D3 | Promote, encourage and monitor the safe and responsible use of waters and tidal areas for all club and private use. | Encourage and promote membership of local clubs such as Penwith Water Ski Club and Hayle Canoe Club as nonmembers and 'lone users' are prohibited from many areas. For example, at Carnsew Pool, only the Hayle Canoe Club are permitted to use the "white water" at the weir for their sport, the rest of the pool being zoned for birds as a 'Sanctuary Area'. | HHAL | High |
| D4 | Ensure the public is aware that venturing out across mud/sandflats and bait digging is prohibited because of bird disturbance, damage to the estuarine substrate and disturbance of heavy metals. | Continue to monitor and update the issue. Produce appropriate literature and onsite notice boards indicating potential detrimental impacts, legislation, penalty etc. | RSPB | Med |
| D5 | Ensure that arrangements for the impoundment of water at Copperhouse Pool for recreational events are publicised for the protection of users. | Produce appropriate literature and onsite notice boards following agreement from EA for impoundment dates and times. | HHAL | Low |
| D6 | Ensure Health and Safety of public places (as possible due to it being an active port) within the harbour area. | Ensure appropriate signage is erected to inform public of any areas of danger. | HHAL | High |
| Refer also to relevant items E2 & E3 | | | | |

Section E: Tourism and recreation

Although the resident population at Hayle is just in excess of 8,000 (2007), in summer these numbers swell from visitors to its “3 miles of golden sands”. In 2005, Penwith District Council logged 478,335 visitors to the beach between May and September. With recent increase in visitor numbers to UK destinations and the proposed investment by ING for the re-development of the harbour, these figures are likely to rise substantially.

Tourism and recreation are an important consideration from both an economic and environmental viewpoint. The RSPB Management Plan for the estuary lists no fewer than 15 recreational activities and the demands and range of activities, from water-sports in particular, are increasing everywhere.

The control of the activities to ensure user safety is discussed in D above. There remains a need however to protect the estuary itself from potentially damaging impacts of increased visitor and tourism activity.

Guiding Principles

- Encourage and promote environmentally sustainable tourism without creating disproportionate adverse impacts on shore-side communities, including wildlife interests and conservation designations.
- Support recreational uses by identifying areas appropriate to the use desired which have a minimum impact on the estuary.

| Ref No. | Challenges | Actions | RO | Priority |
|--|--|---|----|----------|
| E1 | Ensure an environmentally friendly balance between local communities, conservation areas and water/tidal land users. | Encourage commercial and recreational boat users to undertake Wildlife Safe (WiSe) training and accreditation scheme. Work with the WiSE scheme to develop a long term plan to educate all boat users in the estuary. | NE | Med |
| E2 | Ensure that arrangements for the impoundment of water at Copperhouse Pool for recreational events are publicised and made available to event organisers. | Continue to monitor, update and manage through the "Three Councils Agreement" and the Environment Agency instigating impoundments via the flood alleviation gate as requested. | EO | Med |
| E3 | Maintain and, where appropriate, enhance public access on foot for quiet recreational enjoyment of the estuary and its surroundings. | Ensure existing public rights of way and permissive paths are clearly marked. Explore opportunities for enhancing the existing network of footpaths, particularly by the creation of new links. Explore opportunities for improving links to the South West Coast Path around the estuary. Ensure that access to environmentally sensitive areas is managed appropriately. | CC | Med |
| Refer also to relevant items D3, D4 & D5 | | | | |

Section F: Estuary Development

Development around the estuary has the potential to provide jobs, recreation, accommodation and business opportunities. It is important to seek a balance among these potentially conflicting objectives. The Hayle EMP may provide appropriate support to the planning procedures that are already in place or to inform those considering any development in the estuary.

Guiding Principles

- Ensure that any development within the estuary area occurs in a sustainable manner and respects the natural, historic and archaeological interests of the estuary.
- To ensure that the protection of the character of Hayle is reflected in local planning policies.
- To raise developer awareness of the heritage of the estuary.
- Ensure that the development of policies for land use and development flood risk management and shoreline management are consistent with sustainable development principles and contribute to maintaining a diverse and healthy estuary.

| Ref No. | Challenges | Actions | RO | Priority |
|---------|---|--|-------|----------|
| F1 | Ensure that Sites of Special Scientific Interest and interests of RSPB, English Heritage & Natural England are respected in the design and implementation of any development. | Maintain the conservation objectives of the SSSI in the estuary. Ensure any development in the estuary does not impact the features of interest in the SSSI in the estuary. | NE CC | High |
| F2 | Ensure any development is compatible with the provisions of the Hayle Harbour Act 1989 and the Bylaws. | Ensure liaison with all interested parties in any planning process for the development of the estuary. | HHAL | High |
| F3 | Take necessary measures to provide for 100 year flood levels in development proposals. | Ensure that development proposals minimise flood risk by avoidance of vulnerable areas where possible. Where development is shown to be necessary in areas at risk of flooding, ensure that the proposals take measures into account for both fluvial (100 year) and coastal (200 year) flood risk. | EA | High |
| F4 | Seek opportunities to adapt to and accommodate the effects of climate change including managed retreat and river corridor management. | Work with EA, Natural England and local authorities to explore opportunities to adapt to the likely effects of climate change and sea level rise, for example through The Green Cornwall Programme. | EA | High |
| F5 | Ensure key natural and historic features and processes that create the character of the estuary and its setting are protected, managed and enhanced in a sustainable manner. | Ensure that the preparation and implementation of all plans and projects affecting the estuary contribute to the maintenance of the character of the estuary and its setting. In partnership with all ROs, identify opportunities for enhancing natural features and the character of the estuary and its setting. Develop a study to establish the key processes which support the natural features of the estuary. | EO | High |

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|---------------------------------|--|---|-------|------|
| F6 | Ensure that any future developments or likely management requirements resulting from developments, do not negatively affect the coastal processes in the estuary. | Follow the coastal protection strategy for Hayle Estuary set out in the Shoreline Management Plan and any subsequent guidance documents (i.e. hold the line) whilst taking into account the strategy for the surrounding dunes. Undertake an integrated coastal processes study covering the whole of the Hayle Estuary and St Ives Bay, to further explore issues and opportunities for the longer term. | CC | High |
| F7 | Promote understanding of the economic and social benefits provided by the estuary and the Towans. | Investigate the feasibility of researching the economic and social benefits provided by the natural environment at Hayle. Investigate the feasibility of returning a proportion of the economic wealth generated by the natural environment to positive management and enhancement of natural features, habitats and species. | CC | Med |
| F8 | Assist the EA and others to achieve a high standard of water quality in the estuary. | Take a wider look for opportunities to incorporate Sustainable Urban Drainage Systems (SUDS) around the estuary. Ensure SUDs are implemented in any new development in Hayle | CC | Low |
| F9 | Ensure that World Heritage Site and other historic environment sites and issues are respected in the design and implementation of any design. This would require the consultation of Cornwall Council Historic Environment Service and English Heritage. | Maintain the objectives of the WHS in the estuary. Ensure any development in the estuary does not impact any monument or structure within the estuary. | EH CC | High |
| Refer also to relevant items D4 | | | | |

Section G: Estuary Cleanliness

Sea-borne litter is trapped primarily at five main areas in the Hayle Estuary: Porth Kidney beach, Hayle Harbour, Copperhouse Creek, Carnsew Pool and Lelant Water. Strong currents entering the estuary cause material to end up on the shoreline at Copperhouse, Carnsew and Lelant. Carnsew Pool is one of the worst areas for entrapment due to the rocky shore of copper slag boulders and uneven banks.

Litter washed up along the shoreline is both unsightly and a hazard to people and wildlife. Broken glass bottles/cans, scraps of metal and hypodermic needles can become buried by the shifting sands (as is the case along the shore at Porth Kidney) with lighter litter becoming washed/blown back into the sea and eventually the estuary. Much of the litter is non-biodegradable synthetic plastic or nylon such as netting, rope, fishing line and four-pack can rings, which are all a threat to seabirds and other marine life, particularly seals and turtles due to entanglement and ingestion. The estuary also receives wind-blown litter from the town, deliberate and accidental waste dropped by the public and items of fly-tipped material.

In 2009/10, the RSPB spent 212 hours clearing the estuary, but collection is not easy on the slippery substrate, especially at Carnsew – and more litter arrives with every tide. At Porth Kidney beach local volunteers have been collecting litter through the Adopt a Beach initiative (www.adoptabeach.org.uk). This is a national scheme launched and run since 1999 by the Marine Conservation Society (sponsored in part by the Crown Estate) involving local communities, groups and individuals who volunteer to take part in quarterly beach cleans and surveys to monitor coastal pollution.

Water quality of aquatic areas is managed by applying standards set in EC directives and other international commitments such as the EC Bathing Waters Directive, EC Dangerous Substance Directive and EC Urban Waste Water Treatment Directive. The Environment Agency is responsible for monitoring water quality in accordance with these directives and where areas are identified that fail to meet the directive, identify the source of pollution and improve water quality through implementation, advice and enforcement. Surface water quality is managed using the River Quality Objectives (RQO), based on the River Ecosystem (RE) classification.

In common with other Cornish estuaries, the Hayle Estuary is heavily contaminated with heavy metals from hard rock mining, which commenced in the 13th Century. Although the last tin mine closed in 1998, the estuary still receives contaminated water and sediment from the catchment, albeit less so today. At one time more than 60 mines were operating in the catchment (Swanson, undated), initially for tin, then zinc, copper, arsenic, silver, uranium, tungsten, cadmium and lead. The catchment area for the Hayle Estuary is over 70 square kilometres and sediments in some places in the estuary are 34 metres deep before bedrock is reached.

Unfortunately, the impact of mine waste on natural systems is severe and the poorly managed waste from mines operating hundreds of years ago continues to pollute today. For example, the sediments in Copperhouse Pool ‘...are among the most contaminated of any UK estuaries, especially for copper, arsenic and zinc. The surface layer of mud in Copperhouse Pool is only 20-70cm deep...This may have implications for any planned water sports or fish farming...More information is needed on water chemistry in Copperhouse Pool, especially if contact water sports or activities such as fish farming are planned (Smith1988a/b)’.

Impounding seawater over a shallow mudflat in warm conditions, such as at Copperhouse Pool for events, can cause problems associated with increases in anaerobic conditions resulting in algal blooms as well as elevated levels of bacteria and mobilisation of heavy metals.

Guiding Principles

- Work toward ensuring that the estuary remains, as far as practicable, free of litter from any source.
- Encourage education initiatives and support volunteer groups and their activities.
- Ensure the estuary is managed in a way that maintains and, where possible, enhances water quality.
- Ensure all approved activities and operations in and around the estuary do not result in pollution and, as far as possible, seek to prevent pollution from uncontrolled activities or operations.
- Ensure that activities and operations in and around the estuary minimise the risk of uncontrolled disturbance of contaminated sediments.

| Ref No. | Challenges | Actions | RO | Priority |
|---------|--|--|----|----------|
| G1 | Continue to identify and, where practicable, remove sources of litter. | Conduct surveys using new and existing information in order to draw up a programme of measures to identify sources of litter; more adequately monitor and help prevent litter originating in the estuary. Investigate the usefulness of producing supplementary planning guidance and/or design briefs in order to maximise litter prevention measure in waterfront areas. Examine the facilities for litter disposal/collection and develop project specifications for grant applications for reception facilities such as rubbish recycling/dog waste bins and skips. Support local initiatives to reduce litter entering the sea. For example, ‘Plastic Bag Free’ town campaigns. | CC | High |

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|---------------------------------|---|---|----|------|
| G2 | Work towards ensuring a coordinated and effective clean up regime for litter. | <p>Establish and seek continued funding for an improved and appropriately coordinated clean up campaign whilst ensuring that potential wildlife impacts are fully considered such as the RSPB monthly work parties.</p> <p>Contribute towards regional and national abatement efforts, for example 'Fishing for Litter'.</p> <p>Contribute towards, promote and seek further support for local volunteer collecting such as the MCS initiative 'Adopt a Beach'.</p> <p>Support 'environmentally friendly' beach cleaning regimes which do not impact on the strandline and embryonic dune communities.</p> | EO | Med |
| G3 | Maintain and, where possible, improve water quality within the estuary. | <p>Ensure that any future developments in the Hayle harbour land incorporate measures to minimise urban runoff and intercept pollutants.</p> <p>Ensure that permissions for activities and operations in and around the estuary do not result in pollution.</p> <p>Seek to minimise the risk of pollution from uncontrolled activities and operations in and around the estuary through appropriate publicity, raising awareness and, where appropriate, enforcement.</p> <p>Ensure agreed impoundments of water in Copperhouse Pool do not adversely affect water quality, and the SSSI conservation features.</p> | EA | High |
| G4 | Promote understanding of the impact and legacy of mining and related industries on Hayle Estuary. | <p>Ensure organisers of public events consider the implications of the presence of contaminated sediments when carrying out risk assessments.</p> <p>In permitting events, ensure that these will not result in disturbance of contaminated sediments.</p> | EO | High |
| Refer also to relevant items M5 | | | | |

Section H: Law Enforcement

Hayle Estuary is a small estuary with a wide range of interests and uses. It is necessary to ensure that the interest of all stakeholders and users is maintained through the firm but fair application of the legislative and voluntary controls governing activities in and around the estuary.

The Hayle Harbour Act 1989 and Hayle Harbour Bylaws 1990 provide the context for these controls as well as other legislation such as the Water Resources Act and Land Drainage Act enforced by the Environment Agency and legislation provided for the protection of habitat and SSSIs which is enforced through Natural England.

The numerous activities and types of users requires a co-ordinated response to law enforcement. This is undertaken through regular enforcement meetings with law enforcement agencies including the EA, NE, HHAL and the local police.

Guiding Principle

- To make the estuary a safe area for all users and their property
- Ensure that the estuary is policed effectively so that all users can undertake the legitimate business or activities safely and securely.
- To educate the public in reporting all aspects of estuary-related crime.

| Ref No. | Challenges | Actions | RO | Priority |
|--------------------------------------|---|---|------------|-------------|
| H1 | Ensure that publicity of existing non fisheries byelaws and byelaw making powers for the estuary are widely distributed. | <p>Ensure that all users are aware of the existence of the Hayle Harbour Byelaws 1990 and that copies of the byelaws are made available to all users through signage, newsletters, websites and flyers.</p> <p>Periodically review existing byelaws to ensure that they remain appropriate and effective. The legal process needed to update byelaws is to be considered in any review.</p> | EO HHAL | High Low |
| H2 | Ensure that all codes of conduct, protocols and other voluntary agreements covering activities on the estuary are widely understood and available. | <p>Ensure that all users are aware of relevant codes of conduct, protocols and other voluntary agreements controlling activities on the estuary and that these are publicised and made widely available.</p> <p>Periodically review all codes of conduct, protocols and other voluntary agreements controlling activities on the estuary to ensure they remain appropriate and effective.</p> | EO EO | High Med |
| H3 | Secure the support of all users for crime prevention initiatives. | <p>Responsible organisations to agree ways to make information about legal and voluntary controls available to users and ROs.</p> <p>Review existing crime prevention measures in consultation with the police.</p> <p>Develop a programme to implement crime prevention measures in partnership with all users. Publicise existing and new crime prevention initiatives.</p> | EO | Med |
| H4 | Ensure that ROs with an enforcement role are aware of each other's responsibilities and that, where appropriate, they work together in a coordinated way in undertaking enforcement action. | <p>Ensure all organisations with an enforcement role have agreed lines of communication and points of contact.</p> <p>Periodically review enforcement protocols to ensure they remain appropriate and effective (for example, Hayle Estuary Enforcement Protocol agreed between HHAL, RSPB, CC, Devon and Cornwall Constabulary and NE).</p> | EO | High |
| Refer also to relevant items B1 & C5 | | | | |

Section I: Contingency Planning

The Hayle Estuary comprises over 140ha of inter-tidal mud and sand, salt marsh and areas of open water in the form of brackish and saline lagoons. Open to the sea at the head of St Ives Bay, it is vulnerable to sea-borne pollutants such as oil, and to counter any pollution accident occurring, metal rings have been introduced near the estuary mouth to allow floating booms to be attached to prevent oil entering the estuary. HHAL have safeguards in place to tackle land-based pollution incidents on harbour land and within the harbour limits but this still leaves some areas void of appropriate contingency plans. For example, sewage spills, road spills, agricultural run-off and exacerbated algal blooms caused by contaminants.

Guiding Principles

- Ensure proper contingency arrangements for oil/chemical spillage are maintained and developed further.
- Minimise exposure of the estuary to accidental spillages by discouraging oil/chemical use or deliveries taking place near the water's edge.
- Identify key drainage routes into the estuary and the possible contingency plans or works that can be undertaken to protect the estuary.
- Review opportunities to reduce flood risk and have contingencies in place to protect vulnerable areas, where possible.

| Ref No. | Challenges | Actions | RO | Priority |
|--------------------------------------|---|--|------|----------|
| I1 | Ongoing development of Oil/Chemical Spill Countermeasures Plan. | Sustain discussions with relevant partners to ensure that appropriate plans and response structures are reviewed, updated and appropriately tested. Assist with the development of a programme of ongoing training and response structures that are regularly tested. | HHAL | High |
| I2 | Develop flood contingency plans. | The EA to maximise opportunities for flood protection of the town as a whole. | EA | High |
| I3 | Where appropriate, assist the EA and others in minimising or preventing the risks from flooding and climate change. | Contribute to the preparation and reviews of the West Cornwall Catchment Flood Management Plan and the Shoreline Management Plan. Encourage close working between the planning authority and EA to achieve development around the estuary that does not increase the risk of flooding. | EA | High |
| Refer also to relevant items F3 & F4 | | | | |

Section J: Coastal Protection

Hayle Estuary lies within the dynamic, yellow shell sand dominated St Ives Bay sediment cell, one of only 2 sediment sinks along Cornwall's north coast. It is contiguous with the nationally important, extensive Towans dune system and Lelant dunes. The estuary is a small multibranched drowned river valley, where sand blows shoreward and mixes with sediment and stones from past mining and industrial activity which has filled the area to mid-tide level creating mud and sand flats which are important feeding grounds for birds. Quays, sluicing pools and dredging add complication to the already dynamic system within the harbour itself.

The dunes, beaches and sand bars form effective natural coastal protection from the north-westerly wave attack. They are in a constant state of flux, with areas of accretion and erosion occurring close to each other. This natural coastal protection is highly constrained by existing built development such as the quays, roads, the railway, flood defence structures etc - there is little scope for any natural retreat or evolution of habitats due to what is termed 'coastal squeeze'. With sea-level rise due to climate change and little scope for the natural retreat or evolution of the coast, the effects of coastal squeeze are likely to become increasingly pronounced.

The Hayle EMP cannot stop the natural processes occurring but can be used to inform land owners of how their actions might impact on the natural processes with a view to promote any activity that will help maintain the existing dune system.

Guiding Principles

- Ensure that the coastal processes in the estuary are managed in such a way that they do not negatively affect the important habitats and natural coastal processes.
- Monitor and report on the ongoing changes to the estuary due to the coastal processes.
- Undertake dredging activities in line with guidance provided by all consultees and within any licence provisions.

| Ref No. | Challenges | Action | RO | Priority |
|--|---|--|-----------------------------------|-----------------------------------|
| J1 | Ensure that the understanding of the dynamic coastal processes of the Hayle Estuary and St Ives Bay, are recorded and monitored, within the context of the St Ives Bay sediment cell. | <p>Monitor the fluctuations and sediment dynamics within the estuary through aerial and Fixed Point Photography (or LIDAR data) at low tides and by periodically measuring beach profiles and bathymetry of the channels and sandbanks.</p> <p>Monitor the amount of bare sand and status and extent of the sand dune habitats at the mouth of estuary. Take measures to restore dune habitats where appropriate to maintain natural coastal protection.</p> <p>Explore opportunities for managed realignment in conjunction with the EA, NE and RSPB, to allow for future losses due to predicted sea level rise.</p> <p>Use knowledge of coastal processes; explore the best method of coastal habitat recreation or enhancement to replace dredged sediment back into the cell.</p> | CC | High |
| J2 | Allow natural processes to prevail where possible, whilst maintaining a safe and navigable channel for estuary users. | <p>Keep an accurate annual record of action taken to manage the channel and adjacent sediments (if any).</p> <p>Use the coastal processes monitoring data to inform the management of the harbour channels and surrounding mobile habitats.</p> <p>Consult with experts, organisations and local users in order to inform management decisions in relation to dredging, sluicing or other measures which might alter the channels, sand banks, beaches, mud flats or sand dunes</p> | <p>HHAL</p> <p>HHAL</p> <p>CC</p> | <p>Med</p> <p>Med</p> <p>High</p> |
| J3 | Undertake dredging of the harbour in accordance with any licence conditions. | <p>Monitor dredging performance within the licence conditions provided.</p> <p>Provide a dredging protocol to inform future licensing conditions.</p> <p>Work with other agencies to identify the most beneficial reuse of dredged materials in terms of both economics and the integrity of the estuary as a whole.</p> <p>Seek to maintain the finite resource of sediment in the cell, as far as possible.</p> | HHAL | High |
| Refer also to relevant items B2, B3 & B6 | | | | |

Section K: Nature Conservation

The natural environment of Hayle Estuary and the adjoining Towans is widely recognised to be special, enjoyed by residents and visitors to the area. The estuary and Towans are nationally important for their wildlife being designated Sites of Special Scientific Interest. The estuary includes a variety of habitats including sand and mudflats, sand dunes, intertidal rock, saltmarsh, small areas of reedbed and, at Carnsew Pool, water at all states of the tide. This diversity of habitats supports a wide range of plants and animals, including rare and protected species such as petalwort. The primary nature conservation interest of the estuary is in its populations of wintering and migrating birds which depend on the estuary for roosting, resting and feeding. Owing to its westerly location, the estuary is particularly important during periods of cold weather, providing significant numbers of birds with a refuge from freezing conditions on other estuaries in the country. The westerly location close to migration routes means that, in stormy conditions, the estuary provides migrating birds with shelter. As a result a high number of rare and unusual species not normally found in Britain have been recorded at Hayle.

Hayle Estuary comprises about 140 hectares of inter-tidal sands, mud flats, salt marsh, deep water channels and several residual saltwater pools with over 52 recorded species of fish. Geographically Hayle is the most western estuary in England where the sea area holds species from two major groupings; 'Cold-Temperate Eastern Boreal' and 'Warm-Temperate Mediterranean-Lusitanian' described as 'Temperate Eastern Atlantic'. Although not as extensive as other estuaries in Cornwall, it provides a much wider variety of habitats for marine life. This is partly due to historical, commercial influences that created the structures that shaped the port from the existing heavily silted river mouth in the early 19th century.

Guiding Principles

- Ensure the protection and enhancement of the natural features, habitats and species occurring at Hayle Estuary, including and in addition to the habitats and species afforded national protection by designation as a SSSI.
- Ensure the environmental value of the estuary is widely communicated in order to minimise ecological damage and disturbance.
- To promote public understanding and appreciation of the area's natural wealth.

| Ref No. | Challenges | Actions | RO | Priority |
|---------|--|--|-------------|----------|
| K1 | Ensure an appropriate flow of relevant and timely information between users, owners and statutory bodies. | Secure the positive management of areas not covered by a management plan through a partnership approach with all relevant organisations, landowners and managers. Implement existing management plans (for example, the RSPB management plan for Hayle Estuary Nature Reserve 2007-12). | RSPB | High |
| K2 | Ensure management for key features, habitats and species is effective | In partnership with all relevant organisations, monitor and review management undertaken and agree revision of management actions as necessary. | RSPB/ NE | High |
| K3 | Research and review effects of public access, recreational activities and disturbance on key natural features, habitats and species. | Investigate establishing a programme of monitoring disturbance on migrating and overwintering birds and other wildlife. Periodically review existing literature on the effects of public access, recreational activities and disturbance on nature conservation interests. | RSPB | Med |
| K4 | Promote and, where appropriate, update existing or develop new environmental codes of conduct. | Review and where necessary update existing codes of conduct. Through a partnership approach consider the need for new codes of conduct. Ensure existing codes of conduct are made widely available and target to appropriate users and user groups. | All | Low |
| K5 | Promote care for the natural environment during use of the estuary for recreational events | Where possible ensure an environmentally friendly balance between local communities, conservation areas and water/tidal land users. Encourage activities that do not have an impact on the natural environment. | HHAL | Med |

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| K6 | Continue to conserve, protect, enhance and raise awareness of the diversity of habitats and species. | Ensure that water levels and flows are controlled to enhance and protect the environment to avoid the further accumulation of land derived pollutants. Have in place mitigating measures to ensure no contamination of the system due to resuspension of contaminated sediments from any plan or project. In partnership with all relevant organisations, landowners and managers identify opportunities for enhancing natural features, habitats and species. Secure the positive management of areas not covered by a management plan through a partnership approach with all relevant organisations, landowners and managers. | EA | High |
| K7 | Ensure the public is aware that bait digging is prohibited within SSSI under Hayle Harbour Bylaw 56e. | Publicise relevant Hayle harbour bylaws. Place and maintain signage to show exact location of bait restricted bait digging in estuaryTake appropriate enforcement action in cases of persistent offences. | HHAL | High |
| Refer also to relevant items B5, D4, E4, F5, F7 & M7 | | | | |

Section L: The Historic Environment

The setting of Hayle Estuary in St Ives Bay with its associated extensive sandy beaches backed by sand dunes dotted with ad-hoc chalets creates a dramatic and imposing landscape appreciated by residents and visitors alike. This is contrasted with the fascinating post-industrial features, harbour infrastructure, pylons and old power station and areas of low-key industry.

The historic environment of the Hayle Estuary and its immediate hinterland is crucial to the understanding of how people have used the land and waters over millennia and, in doing so, have helped to shape the landscape of today. It contributes fundamentally to the special sense of place and local identity of the area and to enjoyment of Hayle/Copperhouse and the surrounding hinterland.

The historic environment at Hayle is of international, national and local importance, recognised by its inclusion in the Cornwall and West Devon Mining Landscape World Heritage Site, and status of individual features such as Scheduled Monuments and Listed Buildings. All features of the historic environment are both vulnerable and irreplaceable. Their management, and the management of change which may affect them, is important and needs to be addressed at all levels.

Guiding Principles

- Ensure the protection and enhancement of the historic environment of the estuary and its immediate hinterland, whether statutorily protected or not.

| Ref No. | Challenges | Actions | RO | Priority |
|---------|--|--|----|----------|
| L1 | Improve understanding of the historic character and constituents of the historic environment of the estuary. | Continue to improve the understanding of the character and extent of the subtidal, intertidal and immediate shoreline historic environment through survey. Establish a mechanism for reporting finds and possible snags, hulks and wrecks to the Historic Environment Record, CC. | CC | Low |

| | | | | |
|--------------------------------------|---|--|------------|------|
| L2 | Ensure that key features of the historic environment, including and in addition to those with statutory protection, are protected and managed in a sustainable and effective way. | In a partnership among the ROs, monitor the condition of the historic environment and review management as necessary. Through partnership with owners and managers, establish positive management agreements/projects to conserve and enhance sites and features. In partnership with Cornwall Council's Spatial Planning Team and Historic Environment Service, manage change and protect key features through Development Control. | CC (EH) | High |
| L3 | Research and review the effects of public access and recreation on key historic features. | In partnership with IPs and the Cornish Mining World Heritage Site Office, develop projects and interpretation strategies to raise awareness and increase understanding of the features, extent and management of the historic environment of the estuary and its hinterland. In partnership with the WHS Office, raise awareness of the international significance of Hayle/Copperhouse as historic ports and centres of industry. | CC (EH) | Med |
| L4 | Promote understanding of the economic and social benefits provided by the estuary and its immediate hinterland. | In partnership with the World Heritage Site Office and other bodies, research and demonstrate the economic and community benefits of the historic environment of the estuary and its immediate hinterland | CC (EH) | Low |
| L5 | Ensure that the World Heritage Site is respected in the design and implementation of any Development. | Maintain historic artefacts wherever possible and develop a Conservation Management Plan | CC (EH) | Med |
| Refer also to relevant items B5 & F1 | | | | |

Section M: Interpretation and education

Hayle Estuary is an area that needs its heritage and ecological importance explained to locals and visitors if the area is to be respected and protected against abuse and inappropriate management. Currently, there is only a limited amount of information available to the passer by which needs to be enhanced through the Hayle EMP. It will be possible to enhance the estuary and reduce damaging activities through careful selection of the promotional material, information distribution and education.

Guiding Principles

- To raise environmental awareness of the estuarine system and promote responsible uses of resources through education and interpretation.
- Ensure that through public awareness and appreciation, the historic environment of the Hayle Estuary, above and below water, is valued and damage is minimised.
- To use interpretation to develop tourism and business within Hayle.
- To provide education to all users and volunteers to ensure the management of the estuary can be co-ordinated and resources used effectively.

| Ref No. | Challenges | Actions | RO | Priority |
|---------|--|--|-------|----------|
| M1 | Promote public understanding and enjoyment of the historic environment of the estuary and its immediate hinterland. | In partnership with IPs and the Cornish Mining World Heritage Site Office, develop projects and interpretation strategies to raise awareness and increase understanding of the features, extent and management of the historic environment of the estuary and its hinterland. In partnership with the WHS Office, raise awareness of the international significance of Hayle/Copperhouse as historic ports and centres of industry. | CC/EH | Med |
| M2 | Foster the wider understanding of the estuary landscape, natural processes and human influences that have contributed to the development of the natural features and character of the estuary. | Through a partnership approach with all ROs, provide facilities and information for the public and specific interest groups. Through a partnership approach with all relevant organisations, seek to enhance opportunities for the public and specific interest groups to experience directly the special character of the estuary | NE | Med |

| | | | | |
|--|--|---|------|------|
| | | where this does not damage other interests. Spatial Planning Teams | | |
| | | and Historic Environment Service, manage change and protect key features through Development Control. | | |
| M3 | Maintain and raise awareness of the likely affects of climate change and sea level rise on the estuary. | Contribute to promoting better public understanding of the likely implications for Hayle Estuary of climate change and sea level rise. | EA | Med |
| M4 | Promote the use of volunteer groups to educate the general public and tourists about the estuary and its environs. | Provide access to individual company meeting rooms to facilitate meetings on a regular basis. | All | Med |
| M5 | Promote the need to reduce rubbish and water pollution. | Develop and implement educational campaigns to raise awareness of the problems of litter with local schools and community groups. Promote an ethos that all user groups and the general public take their litter home or dispose of it appropriately. | CC | High |
| M6 | Educate and receive the support of the general public in recognising marine related crime and provide an easy method of reporting any incident. | Actively support a neighbourhood watch scheme. | EO | Med |
| | | Review signage and incident reporting procedures to port security. | HHAL | Low |
| | | Examine the usefulness of user based systems such as Marine Watch or Boat Watch. Obtain the insurance industries ideas on this. | HHAL | Med |
| M7 | Raise the profile and improve understanding of the natural features, historic environment and wildlife of the estuary and adjoining Towans and their designations. | Through a partnership approach with all relevant organisations, provide facilities and produce information for the public and specific interest groups. | NE | High |
| M8 | Foster the wider understanding of the significance of sensitive sites, habitats and species in and around the estuary. | Identify sensitive sites, habitats and species. Investigate producing specific advisory notes targeted to users and/or user groups. Improve the onsite and remote interpretation of the estuary and its special features. | NE | High |
| Refer also to relevant items C5, D4, F7 & L3 | | | | |

Section N: Fisheries

Hayle Estuary comprises 140 hectares of intertidal sands, mud flats, saltmarsh, deep water channels and several residual saltwater pools with over 50 recorded species of fish (appendix 1). Geographically, Hayle is the most western estuary in England where the sea area holds species from two major groupings; 'Cold-Temperate Eastern Boreal' and 'Warm-Temperate Mediterranean-Lusitanian' described as 'Temperate Eastern Atlantic'. Although not as extensive as other estuaries in Cornwall, it provides a much wider variety of habitats of marine life. This is partly due to historical commercial influences that created the structures that shaped the port from the existing heavily silted river mouth in the early 19th century.

DEFRA is the Government Department with overall responsibility for the conservation of fish stocks and the management of marine fisheries in UK waters.

In November 2009, the Marine and Coastal Access Act (MCA, 2009) received Royal Assent. This Act will ensure clean healthy, safe, productive and biologically diverse oceans and seas, by putting in place better systems for delivering sustainable development of marine and coastal environment. Fisheries and environmental management arrangements are strengthened by the Act so that more effective action can be taken to conserve marine ecosystems and help achieve a sustainable and profitable fisheries sector. The MCA Act also modernises powers for the management of migratory and freshwater fisheries. In particular it introduces a new licensing and authorisation system for fishing activities, gives the Environment Agency powers to make emergency byelaws to respond to unforeseen threats to fish stocks and allow for the introduction of a new authorisation scheme for the movement of live fish in order to better protect national and local biodiversity. Under the MCA (2009), the Environment Agency will retain its powers for regulating and managing migratory salmonid fisheries out to 6 miles.

As a consequence of the new Act, from April 2011 sea fisheries within Cornish estuaries, including Hayle, and inshore coastal areas out to 6 miles will be managed by a new organisation, Cornwall Inshore Fisheries and Conservation Authority (IFCA). This will effectively replace the current Cornwall Sea Fisheries Committee.

Until April 2011, the Environment Agency will remain as the local Sea Fisheries Authority within the estuary and be responsible for managing and regulating migratory salmonids within the estuary and inshore coastal waters out to 6 miles. Cornwall Sea Fisheries Committee will remain responsible for managing and regulating sea fisheries within inshore coastal areas outside of the Hayle estuary limits out to 6 miles.

Netting restriction byelaws covering the Hayle estuary and St Ives Bay are provided in Appendix 4. These byelaws will be transferred across to the IFCA from April 2011.

In addition to these byelaws, specific CSFC and national legislation covers size limits and the removal of fin and shell fish from the Hayle estuary and associated inshore coastal waters. Details of these size limits and removal restrictions can be found on the CSFC website or by contacting the local CSFC office. <http://www.cornwall.gov.uk/seafisheries>

The whole estuary is a valuable nursery area for the juveniles of both demersal and pelagic commercial species caught offshore. At Carnsew Pool, in a survey carried out by the EA in August 2001, no fewer than 21 species of fish were recorded, including two rare species, gilthead bream and golden-grey mullet. Another survey conducted by the EA in October 2001 around the harbour, Copperhouse Pool and Lelant Water found 32 species of fish.

The Angarrack Stream has a self sustaining population of brown trout, eel and three-spinned sticklebacks as does the Hayle River which also has sea trout. Bass are fished in the area with a current minimum landing size of 37.5cm within the estuary and out to the 6 mile limit, according to EA and CSFC sea byelaws. There are approximately 200 recreational anglers who use the site at differing times of the year targeting thirty main species in season.

There are no estuarine net fisheries for salmon, sea trout or freshwater fish in the area restricted under the Salmon and Freshwater Fisheries Act 1975 (SFFA 1975) Section 6 (1) as amended by the Salmon Act 1986 Section 33. Furthermore no licences have been granted or intend to be granted for the estuarine net fisheries under Section 27 of SFFA 1975 in order to protect fish stocks.

Surface Fixed Nets (>3m below surface at any tide) are restricted within the waters between St Ives Head and Godrevy Point to protect salmonids migrating around the coast prior to entering the estuary and rivers. There are also many more other legal requirements relating to fisheries matters and further information is available from the Fisheries Department, EA, Bodmin.

Fishing for marine creatures of any type from HHAL premises is prohibited as stated in section 52 of Hayle Harbour Byelaws, except in places designated by the company or with permission from the harbour master. See appendix 4

Guiding Principles

- Ensure that the exploitation and development of the fisheries resources in the estuary is carried out at a sustainable level without undue harm to other users, owners, or the natural environment.
- Ensure an integrated approach with other Guiding Principles to conserve, protect, enhance and raise awareness of the diversity of fisheries, habitats and species that are present in the Hayle Estuary.

| Ref No | Challenges | Actions | RO | Priority |
|--------|---|---|-----------------------------|----------|
| N1 | Continue to monitor, maintain, improve and develop fisheries. | Regulate fishing through licensing. | EA | Med |
| | | Assist the police of the illegal taking of fish and the sale and export of wild salmon and trout. Ensure the unobstructed migration of , sea trout and eels (flood defence gate at Angarrack Stream is impassable when closed). | EA/police | High |
| | | Ensure suitable water quality that meets EC Freshwater Fish Directive (76/659/EEC). | EA | High |
| N2 | Continue to conserve, protect, enhance and raise awareness of the diversity of habitats and species | Ensure that water levels and flows are maintained as close as possible to those present that meet statutory and local agreement requirements such as those outlined for the flushing of Copperhouse Creek. | EA EO RSPB HHAL CC | High |
| | | Ensure that flushing rates are maintained in the event of any impoundments (temporary or permanent) to avoid the further accumulation of land derived pollutants. | EA EO RSPB HHAL CC | High |
| | | Have in place mitigation methods to ensure no contamination of the system occurs due to re-suspension of contaminated sediments. | NE EA | Low |
| | | Assess the feasibility and impact of aquaculture of fish or shellfish in the estuary. | NE EA | Low |

Section O: Harbour Lands Development

The ING proposals for the harbour lands must not deter the Hayle EMP Forum from their responsibilities to manage the estuary through the guiding principles that are provided above. Although relevant, the harbour lands development must remain separate whilst still recognising the guidelines, legislation and other agreements made within this Estuary Management Plan.

The ING Development proposals are currently being determined through the planning process. The proposals are at their outline planning phase and a significant amount of consultation has been undertaken in order for the planning authority to take into account the numerous concerns of residents and stakeholders.

Many of the planning concerns are reflected within the Hayle EMP and could be carried over to any development on any land within the estuary.

Guiding Principles

- Monitor any changes to the proposals as already submitted for consultation.
- Identify opportunities for integrated improvements to the estuary as a result of the proposals.

| Ref No. | Challenges | Action | RO | Priority |
|--------------------------------------|--|--|----|----------|
| N1 | Advise of any changes to previously submitted or published plans and documents. | To be undertaken by the developer and advised to IPs on a periodic basis. Ensure a continual and transparent communication on plans, changes and timing. | CC | |
| N2 | Without prejudice to the ING development plans, Work with IPs to promote the integrated management of the estuary. | Promote the ongoing liaison between IPs and ING to maximise current and future proposals for the Harbour Lands as and when funding opportunities arise. | EO | |
| Refer also to relevant items F (all) | | | | |

References

Natural England. Hayle Estuary and Carrack Gladden. Available at:
http://www.sssi.naturalengland.org.uk/citation/citation_photo/1003229.pdf

UNESCO World Heritage. Cornwall and West Devon Mining Landscape.
Available at: <http://whc.unesco.org/en/list/1215/>

Appendix 1

The list of fish species found within the Hayle Estuary (updated July 2012)

| SPECIES: | COMMON NAME: |
|---------------------------------------|--|
| 1. <i>Alosa falix</i> | (Twaite shad) |
| 2. <i>Allosa alosa</i> | (Allis shad) |
| 3. <i>Ammodytes tobianus</i> | (Lesser sandeel) |
| 4. <i>Anguilla anguilla</i> | (European eel) |
| 5. <i>Atherina presbyter</i> | (Sand smelt) |
| 6. <i>Balistes capriscus</i> | (Grey triggerfish) |
| 7. <i>Belone belone</i> | (Garfish) |
| 8. <i>Callionymus lyra</i> | (Common dragonet) |
| 9. <i>Chelon labrosus</i> | (Thick lipped mullet) |
| 10. <i>Ciliata mustela</i> | (Five bearded rockling) |
| 11. <i>Clupea harengus</i> | (Herring) |
| 12. <i>Conger conger</i> | (Conger eel) |
| 13. <i>Crenilabrus melops</i> | (Corkwing wrasse) |
| 14. <i>Ctenolabrus rupestris</i> | (Goldsinny) |
| 15. <i>Dicentrarchus labrax</i> | (Bass) |
| 16. <i>Echiichthys vipera</i> | (Lesser weever) |
| 17. <i>Engraulis encrasicolus</i> | (Anchovy) |
| 18. <i>Entelurus aequoreus</i> | (Snake pipefish) |
| 19. <i>Eutrigla gurnadus</i> | (Grey gurnard) |
| 20. <i>Gaidropsarus mediterraneus</i> | (Shore rockling) |
| 21. <i>Gaidropsarus vulgaris</i> | (Three bearded rockling) |
| 22. <i>Gasterosteus aculeatus</i> | (Three spined stickleback) |
| 23. <i>Gobius paganellus</i> | (Rock goby) |
| 24. <i>Gobius niger</i> | (Black goby) |
| 25. <i>Gobiusculus flavescens</i> | (Two spotted goby) |
| 26. <i>Hippocampus ramulosus</i> | (Long snouted seahorse, Maned Seahorse) |
| 27. <i>Hyperoplus lanceolatus</i> | (Greater sandeel, Snake) |
| 28. <i>Labrus bergylta</i> | (Ballan wrasse) |
| 29. <i>Lepadogaster pupurea</i> | (Cornish sucker) |
| 30. <i>Liza aurata</i> | (Golden grey mullet) |
| 31. <i>Liza ramada</i> | (Thin lipped grey mullet) |
| 32. <i>Merlangius merlangius</i> | (Whiting) |
| 33. <i>Mullus surmuletus</i> | (Red mullet) |
| 34. <i>Nerophis lumbriciformis</i> | (Worm pipefish) |
| 35. <i>Osmerus eperlanus</i> | (Smelt) |
| 36. <i>Pholis gunnellus</i> | (Gunnel, Butterfish) |
| 37. <i>Platichthys flesus</i> | (Flounder) |
| 38. <i>Pleuronectes platessa</i> | (Plaice) |
| 39. <i>Pollachius pollachius</i> | (Pollack, Blackjack) |
| 40. <i>Pomatoshistus minutus</i> | (Sand goby) |
| 41. <i>Pomatoshistus pictus</i> | (Painted goby) |

| | |
|------------------------------------|------------------------------|
| 42. <i>Raniceps raninus</i> | (Tadpole fish) |
| 43. <i>Salmo trutta</i> | (Brown trout) |
| 44. <i>Salmo trutta</i> | (Sea trout) |
| 45. <i>Sardina pilchardus</i> | (Pilchard) |
| 46. <i>Scomber scombrus</i> | (Mackerel) |
| 47. <i>Scophthalmus rhombus</i> | (Brill) |
| 48. <i>Scyliorhinus canicula</i> | (Lesser spotted dogfish) |
| 48. <i>Solea solea</i> | (Common sole) |
| 49. <i>Solea lascaris</i> | (Sand sole) |
| 50. <i>Sparus aurata</i> | (Gilthead bream) |
| 51. <i>Scyliorhinus stellaris</i> | (Greater spotted dogfish) |
| 52. <i>Spinachia spinachia</i> | (Fifteen spined stickleback) |
| 53. <i>Spondyllosoma cantharus</i> | (Black bream) |
| 54. <i>Sprattus sprattus</i> | (Sprat) |
| 55. <i>Syngnathus acus</i> | (Greater pipefish) |
| 56. <i>Syngnathus typhle</i> | (Deep snouted pipefish) |
| 57. <i>Taurulis bubalis</i> | (Long spined sea scorpion) |
| 58. <i>Trachurus trachurus</i> | (Scad) |
| 59. <i>Zeugopterus punctatus</i> | (Topknot) |

Appendix 2

Links to other plans and programmes

Cornish Mining World Heritage

<http://www.cornish-mining.org.uk/>

Marine and Coastal Access Act 2009

http://www.opsi.gov.uk/acts/acts2009/pdf/ukpga_20090023_en.pdf

Hayle Area Action Plan

<http://www.hayletowncouncil.net/documents/SEE300708-AppendixHayleAAP-FINAL.pdf>

Hayle Historical Assessment

http://www.historic-cornwall.org.uk/cisi/hayle/hayle_historic_assessment_report.pdf

Management of Beaches and Coastal Areas in Cornwall

<http://www.cornwall.gov.uk/default.aspx?page=19944>

Shoreline Management Plan

<http://www.cornwall.gov.uk/default.aspx?page=23270>

Hayle Towans Partnership

<http://www.hayletowncouncil.net/>

Appendix 3

Hayle Harbour Byelaws 1990

Part VII – Site of Special Scientific Interest

56. In the Site of Special Scientific Interest, no person shall-

- a) launch or navigate any kind of vessel except with the permission of the harbour;
- b) moor, anchor or lay up any vessel except with the permission of the harbour and at such place or places as he may direct;
- c) Drive, ride propel or leave any vehicle on the foreshore except with the permission of the harbour master;
- d) Sail model boats except with the permission of the harbour master;
- e) Take fauna for use as bait.

Part VIII – Penalties

Penalties

57. (1) Any person who contravenes or otherwise fails to comply with any of these Byelaws, or any condition, requirement or prohibition imposed by the harbour master in the exercise of the power conferred upon him by these Byelaws, shall be guilty of an offence and be liable, on conviction before a court of summary jurisdiction, to a fine not exceeding level 3 on the standard scale.

(2) Where the commission by any person of an offence under these Byelaws is due to the act or default of some other person, that other person shall be guilty of an offence; and that other person may be charged with, and convicted of, the offence by virtue of the Byelaw whether or not proceedings for the offence are taken against any other person.

(3) In any proceedings for an offence under these Byelaws, it shall be a defence for the person charged to prove -

- (a) that he took all reasonable precautions and exercised all due diligence to avoid the commission of such an offence; or
- (b) that he had reasonable excuse for his act or failure to act; or
- (c) that he was exercising a statutory right.

(4) If in any case the defence provided by paragraph (3) of this Byelaw involves the allegation that the commission of the offence was due to the act or default of another person, the person charged shall not, without leave of the court, be entitled to rely on that defence unless, within a period ending seven clear days before the hearing, he has served on the prosecutor a notice in writing giving such information identifying, or assisting in the identification of, that person as was then in his possession. Given under the Common Seal of the Hayle Harbour Company Limited this 25th day of July 1990.

Appendix 4

HAYLE ESTUARY AND COAST JURISDICTION

The Environment Agency is the sea fisheries authority with the seaward extremity being the general line of the mean low water at all states of the tide.

Under the Salmon and Freshwater Fisheries Act 1975 (SAFFA), the Environment Agency enforces the salmon and sea trout legislation within the estuary and out to a 6 nautical mile limit off the coast.

AREA A – (WATERS ENCLOSED IN A LINE ACROSS THE MEAN LOW WATER MARK AT ALL STATES OF THE TIDE AT THE MOUTH OF THE HAYLE ESTUARY UP RIVER TO THE UPPER TIDAL LIMIT)

PROHIBITED NETTING:

- (i) Any gill or similar enmeshing nets with a mesh size between 71mm and 89mm stretched are prohibited in this area. (DEFRA ORDER).
- (ii) Fixed engines (a net or other implement fixed stationary by anchors or in any other way) and unattended drift nets are prohibited in this area (SAFFA 1975 SECT 6(1) as amended by section 33 of the SALMON ACT 1986).
- (iii) Any form of trawling or trammel netting is prohibited in this area (CORNWALL RIVER AUTHORITY BYELAW 3 – FISHERY DISTRICT).
- (iv) Netting for salmon or sea trout is prohibited in this area.
- (v) All drift and seine nets used must have a minimum mesh size of 1½ inches knot to knot or 6 inches around the mesh when wet. Any Salmon or sea trout caught must be immediately returned to the water alive or dead. (CORNWALL RIVER AUTHORITY BYELAW 5 – CAMEL FISHERIES DISTRICT).
- (vi) All bass caught under 37.5cm in length must be immediately returned to the water. (EA BYELAW)

AREA B: (WATERS ENCLOSED OUTSIDE OF A LINE DRAWN ACROSS THE MEAN LOW WATER MARK AT THE MOUTH OF THE HAYLE ESTUARY AND INSIDE OF A LINE DRAWN FROM GODREVY POINT TO ST IVES HEAD)

Cornwall Sea Fisheries Committee (CSFC) are the authority for sea fish in this area. The Environment Agency has powers under SAFFA (see jurisdiction section) in this area and up to a 6 nautical mile offshore limit.

Regulations are as follows:

- (i) The headline of any fixed engine shall be at least 3 metres below the surface of the water at any state of the tide when set in AREA B.
*Provided that in this area a fixed engine comprising of non-monofilament nets with a mesh size of 29-32 rows/yard set on the sea bed and used for fishing for Herring may be used between 1 October and 31 December in any year within 3 metres of the surface.
- (ii) Any salmon or sea trout caught must be immediately returned to the water alive or dead when caught in AREA B or in any coastal waters out to a 6 nautical mile offshore limit. (SAFFA 1975 SECT 27).

AREA C: (WATERS TO THE LANDWARD SIDE OF A LINE DRAWN 119° TRUE FROM ST IVES HEAD TO THE NORTHERN EXTREMITY OF THE BALCK CLIFFS TO THE EAST OF THE HAYLE ESTUARY)

- (i) Temporary closures of the fishery in this area may be implemented by the Chief Fishery Officer of Cornwall Sea Fisheries Committee. Notices will be posted in prominent location around St Ives and Hayle Harbours.

CSFC HAVE VARIOUS BYELAWS RELATING TO NETTING FOR SEA FISH OFF THE COAST – PLEASE CONTACT THEM FOR DETAILS ON 01736 369817.

Please note that the information contained in this publication was correct to the best of our knowledge at the time of printing and is intended for guidance only. It is not a comprehensive statement of the law, which is subject to change.

Appendix 5

In agreement with the RSPB, NE and HHAL, the estuary has been zoned to accommodate both birds and watercraft. At Lelant Water, part of the RSPB Nature Reserve has been allocated for water sports such as water skiing and jet skiing and the area marked off with buoys and signs. The HHUA does not accept these “restrictions” and want use of the whole area. HHUA have asked for this to be noted in this document.