

# Exe Estuary Management Plan 2022 - 2027

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Protecting our Estuary  
for future generations



# Preface

This Management Plan has been prepared by the [Exe Estuary Management Partnership](#). It updates the [2016 - 2021 Exe Estuary Management Plan](#) and covers the five year period 2022 to 2027. Its overriding objective is to drive the delivery of policies and outcomes that benefit the estuary.

The Plan is divided into three sections covering the topics of

- partnership
- environment
- people

Each section presents structured information on the topics, such as policies, current known issues, and five-year objectives.

The plan provides guidance on delivering statutory compliance and best practice management. It:

- Promotes the sustainable use of the estuary, balancing the demands made on its natural resources and resolving conflicts of interest where they arise.
- Provides a framework for the coordinated management of the estuary and the improvement of communications between users and organisations with authority over the Exe.

The Plan is supported and informed by the online resource, the “[State of the Exe Estuary](#)”. Reviewed and updated from the printed 2014 version, this provides easy access to the information on the current status of the Exe Estuary, including changing pressures, natural processes, varied uses and quality of the estuary, and how these aspects interact with each other. This information enables us to see how the estuary has changed over the years by comparing the present condition of the estuary with the condition of the estuary captured within our past State of the Exe reports.

## Acknowledgments

*The Exe Estuary Management Partnership would like to thank all of the people who have contributed to this report: the local people who use the estuary and have offered their time, opinions and experience; the professional officers who monitor, manage and protect the estuary and have offered their advice and views for the future; contribution from research within the NERC South West Partnership for Environment & Economic Prosperity (SWEEP) project; the organisations that manage water bodies on a national scale; and the Partnership itself who contribute daily to its successful functioning, both professionally and financially. The Management Plan review was facilitated and funded by the Exe Estuary Management Partnership.*

[All Partners of the Exe Estuary Management Partnership can be found on our website here.](#)

## Using this online Management Plan

The Exe Estuary Management Partnership has produced the Management Plan as an online resource. This means the document is easily available to everyone. Rather than replicate the information that is already available on our website, links will be provided to further information which will be relevant to each section. When referring to the State of the Exe Estuary online resource, the link will take you to the parent page. There will be several subtitles that can be clicked to reveal information which correspond to each section within the Management Plan.

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## List of Abbreviations

AONB	Area of Outstanding Natural Beauty	MCA	Maritime and Coastguard Agency
CaBA	Catchment Based Approach	MMO	Marine Management Organisation
CEFAS	Centre for Environment, Fisheries and Aquaculture Science	MSFD	Marine Strategy Framework Directive
CIL	Community Infrastructure Levy	NE	Natural England
CO2	Carbon Dioxide	NEP	National Environmental Programme
D&SIFCA	Devon and Severn Inshore Fisheries and Conservation Authority	NLO	Net Limitation Order
DCC	Devon County Council	NNR	National Nature Reserve
Defra	Department for Environment, Food and Rural Affairs	NVZ	Nitrate Vulnerable Zone
DLPG	Devon Landscape Policy Group	OS	Ordnance Survey
DWT	Devon Wildlife Trust	PML	Plymouth Marine Laboratory
EA	Environment Agency	PUG	Port User Group
EC	European Commission	RBMP	River Basin Management Plan
ECC	Exeter City Council	RSPB	Royal Society for the Protection of Birds
EDDC	East Devon District Council	RYA	Royal Yachting Association
EEMP	Exe Estuary Management Partnership	SAC	Special Area of Conservation
EEO	Exe Estuary Officer	SANG	Sustainable Alternative Natural Greenspace
EU	European Union	SEDHRP	South East Devon Habitat Regulations Partnership
F&CERMS	Flood and Coastal Erosion Risk Management Strategy	SMP	Shoreline Management Plan
FWAG	Farming and Wildlife Advisory Group	SPA	Special Protection Area
GDP	Gross Domestic Product	SRC	Shoreline Response Centre
GLA	General Lighthouse Authority	SSSI	Site of Special Scientific Interest
HMO	Habitat Mitigation Officers	SWW	South West Water
HRA	Habitats Regulations Assessment	TH	Trinity House
LiCCo	Living with a Changing Coast	UST	Upstream Thinking
LNR	Local Nature Reserve	WCO	Western Channel Observatory
LPA	Local Planning Authority	WFD	Water Framework Directive
		WRT	Westcountry Rivers Trust

### Source of the information presented in the images

Unless otherwise specified, all images used in this report are the property of the Exe Estuary Management Partnership.

## 1. Background

Exe Estuary boasts some fantastic features; it is an [internationally important site for wildlife](#), has blue flag beaches, a rich [heritage](#), miles of walking and cycling trails around the entire estuary and there are countless [activities](#) to enjoy through recreational clubs, bird watching sites and boat trips. The estuary is a fantastic place to live, work and visit.

This varied importance of the estuary is matched by the huge range of uses and interests that it has to accommodate, including those that support commercial and business interests, recreational activities, human health and wellbeing and environmental requirements. These overlapping interests inevitably give rise to competition and potential conflict. It is the role of this Management Plan to recognise the value of the natural resources provided by the estuary and the ways in which society benefits from these, whilst seeking to manage the competing demands upon them in the interest of all estuary users.

Within the Exe Estuary the habitat and species assets, including the water column, provide an array of structures and functions that, combined, provide services and benefits that are accessible to human society. These include the provision of food, raw materials and opportunities for recreation. Estuaries also have a role in maintaining our climate, transforming waste products and providing resilience to coastal erosion. By assessing the relationship between the health of the Exe Estuary and the level of provision of these ecosystem services we can examine environmental challenges in ways that can better inform the management and governance.

It is important that the Management Partnership considers the components of the estuary not only in terms of biodiversity and habitats, but also with regards to the functioning of its ecosystem and its provision of ecosystem services and benefits. Understanding the level of delivery of services and benefits and where possible, valuing ecosystem services, is a growing scientific field, this work has been incorporated into the Management Plan. Benefits, related to ecosystem services provided by the Exe Estuary, considered in the Exe Estuary Management Plan 2022-2027 include: climate regulation, water and sediment quality regulation, flood and storm defence, wild food provision and water and coastal recreation and tourism.

Further detail about the Exe, including its present condition and recent changes in aspects of the natural and human environment, can be found in our [State of the Exe Estuary](#) resource. Assessment of the links between the natural environment in the Exe Estuary and ecosystem services and related benefits is provided in the '[Enabling an Ecosystem Service and Natural Capital Approach](#)' supplementary information. The status and trends outlined in this report help to highlight that the estuary is a dynamic system, and that the people and wildlife living here will need to adapt and adjust as conditions change over time.

## 1.1. Management Plan

### Area of Study

The [principal area addressed by the Exe Estuary Management Plan](#) is the area bounded by the 5m Ordnance Survey contour line around the estuary.

The main focus of the management work is, therefore, on the sub-tidal, inter-tidal, shore and nearby areas of the River Exe between Exeter and Exmouth/Dawlish. However, consideration is given to the management of the wider catchment area where necessary.

### The need for a Management Plan

The Exe Estuary Management Plan is written to provide guidance on delivering statutory compliance and best practice in managing this special place. It will:

*Promote the sustainable use of the Exe Estuary, balancing the demands made on its natural resources and resolving conflicts of interest where they arise.*

*Provide a framework for the co-ordinated management of the estuary and improve communications between users and organisations with authority over the Exe.*

### The Scope of the Management Plan

The following sections of this Management Plan provide:

- Links to background and evidence for topics within each section
- Key achievements during the period of the previous Management Plan
- Current and potential management issues
- The key objective for each sub-theme for the next five years
- The policy framework for each sub-theme
- Indicative actions for delivery within the five-year timeframe (full detail on actions to be delivered each year will be given in an annual Delivery Plan)

The Exe Estuary Management Plan incorporates the Management Scheme for the Special Protection Area (SPA) in accordance with Regulation 34 of the Habitats Directive, as transposed into UK law. Therefore, it identifies policies which aim to achieve favourable condition of the wildlife and supporting habitats protected by the SPA. Relevant actions will apply to the Competent Authorities that have a statutory responsibility for the protection of the SPA.

### Management Plan Production, Approval and Implementation

The responsibility for the production, approval, regular review, and implementation of the Exe Estuary Management Plan rests with the Exe Estuary Management Partnership and its constituent partner organisations and local community and user representatives. These processes are routinely overseen and guided by its Executive group, with the plan formally adopted by its Partnership Committee. This latest review of the Management Plan was informed through:

- A public consultation exercise at the Partnership's Stakeholder Forum in 2021
- A six-week public consultation period from 30th August to 10th October 2021
- A questionnaire survey and one-to-one contact and input from key organisations



This Management Plan will be delivered through an annual Delivery Plan in a process coordinated by the Exe Estuary Officer. The Delivery Plan indicates how the Management Plan will be implemented and identifies who is responsible for each given action. Delivery Plan Highlight Reports are produced for each Partnership meeting to help monitor progress and feed into Partnership's Annual Review. [Delivery Plans, Annual Reviews](#) and details of the [public consultation](#) are available on the Partnership's website at [www.exe-estuary.org](http://www.exe-estuary.org).

## **The role of Key and Statutory Organisations**

The management measures specified within this plan encompass the duties that key and statutory organisations have a responsibility for when managing this designated site. [Table 1](#) lists the organisations that are involved with the management of the Exe Estuary and highlights which sections of the Management Plan they have an interest in.

## **Key Legislation and Policies**

The principle European, national, regional and local legislation, plans and policies relevant to the estuary, and the sections to which they apply, are set out in [Table 2](#).

## **Key Objective**

A management plan is developed and followed in order to drive delivery of policies and outcomes that benefit the estuary.

## 1.2. Management of the Partnership

### Exe Estuary Management Partnership: Mission Statement

The Exe Estuary Management Partnership (EEMP) coordinates management of the estuary on behalf of local authorities, government agencies, key stakeholders and conservation bodies and provides a contact point for local communities of the estuary.

The Partnership seeks to conserve and enhance the estuary's special nature and promote sustainable economic and social activity by managing competing demands and addressing any conflicts as they arise, to ensure that interests and activities are harmonised.

[The role of the EEMP can be found here](#), along with [governance arrangements for the EEMP](#), details of our various [Partners](#) and the [structure of the Partnership](#).

The role of the Partnership is two-fold: to deliver the Management Plan for the estuary, including the European Marine Site Scheme of Management; and to work with local users and communities to find a balance of interests and work to resolve issues where they arise. The funding arrangements for the estuary Partnership are detailed in a [Memorandum of Agreement](#), which also sets out the roles of the Management Group and Officer Working Group.

### Key Achievements 2016-2021

- Review of governance of the EEMP was undertaken to achieve an improved approach to the ongoing management of the Exe Estuary.
- New online version of the State of the Exe Estuary resource produced.
- New Partners welcomed on board, achieving a more balanced approach with representatives from various sectors sitting on the Partnership Committee.

### Issues

- At a time of reducing resources, the Partnership needs to broaden its funding base for core and project work and to look for new opportunities for sponsorship, income generation and external funding, including commercial possibilities.
- The composition and operation of the Partnership is kept under regular review to ensure it remains effective, efficient and fit for purpose.
- There is an ongoing need to develop links with other local and sub-regional bodies such as the East Devon Catchment Partnership to help effective delivery of the Management Plan at a time of reducing resources.
- Opportunities should be taken to increase joint working and good practice exchange with other estuary partnerships, both in Devon and elsewhere, to avoid duplication and to optimise limited resources.
- Some user groups would like to be more regularly engaged with the work of the Partnership.

### Key Objective

The Exe Estuary Partnership is sufficiently and appropriately resourced in order to operate efficiently and effectively and to the benefit of users and the environment.



## Policies

- PO1:** Maintain effective and fit for purpose governance arrangements for the estuary Partnership which can demonstrate accountability and transparency of decision making.
- PO2:** Encourage Partnership members, individually and collectively, to actively support the implementation of the Management Plan and the reporting requirements.
- PO3:** Engage local communities and user groups in the management of the Exe through an active Forum and User Groups.
- PO4:** Find sufficient resources to maintain the employment of an Exe Estuary Officer to be hosted by Devon County Council to support the management function.
- PO5:** Support a volunteer network as an increasingly important resource for undertaking delivery of some aspects of the Management Plan.
- PO6:** Ensure that the Management Plan is reviewed every five years and is regularly reported on and monitored.
- PO7:** Maintain a clear relationship with other partner bodies which have a role in delivering the Management Plan objectives.
- PO8:** Enable partners, parish and town councils, other stakeholders, local communities and user groups to be informed of activity on the Exe Estuary through its Forum.

## Indicative Actions

- Annual Delivery Plans and Annual Reports are published each year.
- Ensure that the online State of the Exe Estuary resource is maintained and up to date.
- Produce updated Management Plan for 2028-2033.
- Promote how local stakeholders and user groups can provide input into Partnership work through representatives and explore opportunities to improve engagement.

## 2. Communication

One of the main roles of the Exe Estuary Management Partnership is to provide a communication route between local communities and those that manage the estuary. The Partnership shares information, seeks to involve local stakeholders in decision making and raises awareness about estuarine information to the people who use the estuary. The EEMP communicates with local users and communities to seek a balance of interests and aims to resolve issues where they arise.

### 2.1. Awareness, Interpretation and Education

The communication programmes run by the Partnership are intended to create various levels of awareness and understanding of the underlying interests and uses of the estuary and its management. These range from the simple dissemination of information, to more detailed site or topic-specific interpretation, through to specially designed educational activities. Engaging local communities with the estuary can have considerable benefits for both the site and the health and wellbeing of individuals. Research has shown that people who perceive more natural benefits in their environment are more likely to engage in acts that intend to protect it, such as buy sustainable fish, manage waste responsibly, volunteer in beach cleans and encourage family and friends to look after the environment. It also helps to support a feeling of local accountability and control.

Further information about education and interpretation can be found in the [State of the Exe Estuary](#).

#### Key Achievements 2016-2021

- School group visits have been facilitated at Exmouth Local Nature Reserve, working with EDDC's education rangers, and Devon and Cornwall Rail Partnership to provide free train travel along the Avocet Line to schools.
- Following the creation of the Signage Inventory and the review of signage, signage and interpretation boards were developed and installed at different sites around the entire estuary.
- Attending public events such as local festivals and organising the biannual clean-ups.
- New codes of conduct were created for the various users of the estuary, funded by SEDHRP.
- Popular suite of four Exe leaflets updated and distributed regularly around the estuary.
- New EEMP website created as a key communication tool, allowing public access to our documents, information on our partners, events, and local information relating to tourism, the marine environment and wildlife.

#### Issues

- Requirement for improved education facilities (including indoor educational space) and facilitators focused on the estuary's biodiversity and geography and implications of coastal change and management.
- Lack of co-ordination between research studies led by statutory, voluntary organisations and universities and the dissemination of results in a user-friendly manner including to the EEMP.

- Insufficient understanding by the public and businesses of the estuary's conservation and economic value, resources and capacity to support recreation, businesses and other activities.
- Lack of information for and engagement with the public about how to use the estuary and natural resources responsibly.
- Insufficient provision, restricted content (e.g., on cultural and heritage features) and lack of consistency of physical interpretation material on some parts of the estuary.
- Requirement for additional resources to raise awareness about the importance of the estuary within the recreational and tourism sectors and developing stronger links between the estuary and Exe Catchment.
- The physical and mental wellbeing benefits of using and visiting the estuary is not promoted enough.

## Key Objective

The estuary is widely promoted through various outlets including a continuing education programme and interpretation provision in order to create a greater understanding of the estuary's importance.

## Policies

- EI1:** Improve education and interpretation around the estuary, ensuring a consistent approach is taken.
- EI2:** Co-ordinate the development of a holistic and innovative promotion strategy to showcase the estuary including opportunities at locations away from the estuary, e.g. Exeter St David's station.
- EI3:** Develop a comprehensive metadatabase and improve communication of results and sharing of resources.
- EI4:** Support better integrated communications, interpretation and educational approaches with other organisations active across the estuary.
- EI5:** Improve awareness and understanding on the issues that impact on the management of the estuary.
- EI6:** Explore opportunities in developing new educational programmes, working in partnership with other organisations and the recreational and tourism sectors, and improving links with the Exe Catchment.
- EI7:** Raise awareness of the value of the Exe's habitats and designated sites to ensure local communities and visitors understand the importance of the site in terms of its natural values.
- EI8:** Promote the Natural Capital that the estuary provides including the health and wellbeing benefits that can be gained from its natural spaces.
- EI9:** Engage with local user groups businesses to provide consistent, branded, positive and seasonal messages to engage local users and visitors around responsible use.
- EI10:** Promote, encourage, and engage local users and visitors with citizen science projects.

## Indicative Actions

- Continue school group visits, exploring opportunities to expand on this work.
- The provision of signage, visitor centres and public engagement should be reviewed, ensuring a holistic approach with partners and ensuring the responsibilities of partners are made easily available.

## 3. Climate Change

Climate change refers to long-term shifts in temperatures and weather patterns. Some variations in climate are natural, for example due to variable solar activity, but human activities are recognised as the primary cause of recent directional climate change, such as increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.

Climate change is already bringing changes to some of the physical attributes of the Exe Estuary including erosion of cliffs and beaches, and longshore drift and tidal currents moving sand and sediments on a major scale. These changes are partly being caused by sea level rise and more frequent extreme weather events. Climate projections indicate more frequent and severe storms and potential increases in intensity and duration of rainfall patterns in the future which will contribute to further change.

Changes in sea temperature are likely to affect most ecosystem services provided by the Exe. Nationally, these changes are already understood to be affecting food production, wildlife populations, such as seabirds, and possibly human health through changing environmental conditions. Climate change is affecting all sectors of society, from industry and commerce to utilities, infrastructure and buildings. Climate change is also impacting the natural environment of the Exe Estuary, causing “coastal squeeze” against hard defences as sea levels rise. As this progresses, this will result in loss of habitats, which are legally protected by both UK and European law, and affect internationally important wildlife.

Further information about climate change can be found in the [State of the Exe Estuary](#).

### Key Achievements 2016-2021

- Dissemination of the LiCCo education resources.
- Dissemination of information from the Devon Climate Emergency Partnership.

### Issues

- Climate change is already affecting and will continue to have an impact on all social, environmental and economic aspects on an international scale.
- Climate change will impact many of the goods and services provided by the Exe Estuary, including food provision and coastal defence but there may be benefits in terms of tourism and recreation.
- It is difficult to manage the estuary appropriately through five-year Management Plans when the impacts of climate change are on a far longer timeframe.
- Lack of opportunities for managed realignment projects, i.e. to set back sea defences, creating new inter-tidal land to enable natural evolution of the estuary as sea levels rise and counter losses of inter-tidal habitats to coastal squeeze.
- With a lack of monitoring and evidence, it is difficult to evaluate the potential impact of climate change on social, economic, and environmental aspects of the estuary.
- Uncertainty over sand erosion and beach levels changing at Dawlish, Exmouth and Pole Sands.

- Carbon sequestration opportunities in the estuary are not identified and scale of opportunity is not known.
- Climate change and rising sea temperatures is causing an increase in marine Non-Native Species being present in the Exe.
- Sea level rise and increased storminess will impact estuarine infrastructure and habitats, e.g. breaches of the rail line causing social and environmental issues.
- Flooding impacts on local communities and businesses.

## 3.1. Climate Change Mitigation

Mitigation is avoiding and reducing emissions of greenhouse gases into the atmosphere to prevent the effects of climate change. The more we reduce emissions now, the easier it will be to adapt to the changes we can no longer avoid.

### Key Objective

Carbon emissions are minimised and opportunities for sequestration are explored in order to reduce the carbon footprint of the estuary.

### Policies

- CM1:** Identify and modify the activities within the Exe Estuary and land uses (e.g. wetland drainage and intensive agriculture is likely to release carbon stored in soil) that are the main contributors to climate change, by increasing public understanding and encouraging organisations and people to implement the Devon Carbon Plan.
- CM2:** Explore carbon sequestration opportunities through blue carbon habitat creation in line with the objectives of the Devon Carbon Plan.

### Indicative Actions

- Promotion of green travel to and around the estuary.
- Explore monitoring scheme for the Exe using key indicator species.

## 3.2. Climate Change Adaptation

Adaptation means taking action to prepare for and adjust to both the current and expected future climate change.

### Key Objective

Approaches to climate change adaptation are explored, promoted and adopted in order to achieve greater resilience to the effects of climate change.

### Policies

- CA1:** Use local knowledge and existing surveys to analyse past occurrence of climate related incidents on social, economic and environmental aspects of the estuary, identifying the areas which are the most vulnerable to climate change and suggesting adequate sustainable management.
- CA2:** Find ways to address coastal squeeze of Exe Estuary SPA habitats, allowing the coastal habitats to move and or be replaced, both within the estuary and in the wider setting of the estuary, to ensure that the important and designated wildlife and habitats are conserved and enhanced for the future.
- CA3:** Using the South West Coastal Monitoring programme, develop an integrated monitoring method for analysing the impact of climate change on the estuary in the short, medium and long term (to include impacts on historical and archaeological sites).

### Indicative Actions

- Encourage a review of, and raise awareness of, climate change/sea level predictions for estuary, particularly with the now decreased life expectancy of the Dawlish Warren Beach Management Scheme. Explore how this may impact habitats, species and flood and coastal erosion risk management in the estuary and consider whether authorities should accelerate adaptation.
- Development by EEMP of a holistic and coordinated strategy for managed realignment and compensatory habitat provision in the estuary, to provide mitigation and adaptation / resilience to climate change.
- Development of specific Exe Estuary-focused programmes to help deliver the Devon Carbon Plan and the associated Climate Adaptation Plan.



## 4. Natural and Historic Environment

Detail about Natural and Historic Environment can be found in the [State of the Exe Estuary](#).

### 4.1. Natural Environment

The Exe Estuary is recognised as a nationally and internationally important site for key habitats and the species that they support, including wintering and on passage waterbirds. Their presence can act as a good indicator of the general health of the ecosystem. As well as waterbirds, the estuary and its immediate environs are home and feeding ground to a diverse range of wildlife species, including birds of prey, invertebrates, reptiles and amphibians, fish and mammals. The Exe Estuary is protected by national and international nature designations due to the important habitats and species present, as well as geological and coastal geomorphological interests. These designations and information on why they are protected can be found [here](#).

The “Exe Estuary and Farmlands” is one of 68 Devon Character Areas that have been defined within the Devon Landscape Character Assessment. The [written profile for the Exe Estuary and Farmlands Devon Character Area](#) contains a description of the area’s character and special qualities, and contains a landscape strategy and guidelines that seek to conserve and enhance the area’s distinctive character.

#### Key Achievements 2016-2021

- Zonation review undertaken by the EEMP.
- Following public consultation through the EEMP, two voluntary wildlife refuges were put in place by the South East Devon Habitat Regulations Partnership at Dawlish Warren and Exmouth. Members of the public have predominantly respected requests to stay out of these areas, with a three-year monitoring programme recording increases in the number of birds within these important feeding and resting areas.
- Increased awareness of recreational groups of wildlife and biodiversity on the Exe through promotion by the RYA and [The Green Blue](#).
- Wildlife Wardens and SEDESMS Patrol Boat in place to patrol the SPA and engage with the public to ensure the value of the SPA is shared and understood.

#### Issues

- Lack of knowledge and management of various impacts, such as invasive species, diffuse pollution, development and sediment and hydrodynamics on the habitats and designated areas.
- Parts of the SSSIs are in unfavourable recovering / declining condition.
- Lack of enforcement of management measures on site.
- Some areas of nature conservation value fall outside present designations.
- Loss and deterioration of intertidal habitats due to development, provision of coastal defences and sea level rise against hard defences (coastal squeeze).

- Loss and disturbance of biodiversity, including wintering, farmland and breeding birds, due to a variety of impacts which are not fully understood.
- Difficult to roll out a natural capital approach.
- Limited public understanding of, and engagement with, the benefits of the natural environment, designated sites and management measures.
- Potential agricultural intensification, leading to loss of traditional field boundaries, change to existing landscape patterns, and the need for larger farm buildings.
- New development and flood defences at the fringes of urban areas and larger villages and on undeveloped estuary sides.
- Potential pressure for the estuary to be harnessed as a renewable energy source in response to government targets for climate change mitigation.
- Abandoned vessels and shipwrecks on the Exe which may have detrimental visual and environmental impacts.
- Increased sedimentation of the estuary having adverse impacts on mussels, eelgrass and other species and habitats.
- Lack of understanding of the impacts and management measure of invasive species.
- Some public concern about too much emphasis on protecting wildlife and the environment and increasing control over human activities. A balanced approach is required.
- The SSSI condition assessment is long overdue and is needed to inform action.

## Key Objective

The natural and cultural landscape, habitats and qualifying features of designated sites are conserved and where possible enhanced for the benefit of current and future generations.

## Policies

- NE1:** Identify how to increase the percentage of the SSSIs, SPAs and SACs in favourable condition status.
- NE2:** Identify, pursue and implement a programme of nature recovery at relevant locations around the estuary. Examples include the creation of a Green Corridor along the Exe Trail between Exeter and Powderham Estate, compensatory habitat within the estuary system, and the potential establishment of sea grass beds.
- NE3:** Encourage further studies to help understand why certain species are declining and how this could be managed.
- NE4:** Work with the South East Devon Habitat Regulations Partnership (SEDHRP) to minimise and manage harmful impacts of development and activities that take place on and around the Exe Estuary, developing best practice guidance to ensure that the nature conservation features of the designated sites are not adversely affected and explore opportunities to create a disturbance reporting tool.
- NE5:** Work with estuary users and groups to achieve greater appreciation of biodiversity, habitats and landscape and increase awareness and compliance of legislation for designated sites.
- NE6:** Encourage the recognition and designation of any additional areas of high conservation value.
- NE7:** Explore opportunities to review or assess the natural capital of the Exe Estuary, potentially through the Natural Capital Risk Register and linking to other tools such as the [Devon Nature Recovery Network Map](#).
- NE8:** Priority biodiversity should be appropriately monitored, with SSSI condition assessments up to date to inform action.

- NE9:** Encourage the planning process to properly consider the character of the Exe Estuary landscape and the likely visual impact of major developments (including coastal defences) and scope for mitigation of adverse effects is fully explored as part of landscape and visual impact assessments, whilst encouraging all relevant authorities to treat the estuary as a single landscape character area with reference to [Devon Landscape Policy Group Advice Note 1: A Guide to Devon's Landscape Character Assessments](#).
- NE10:** Encourage land management schemes to conserve and improve the environment, and where possible enhance the distinctive character of the estuary landscape with reference to the information contained within relevant Landscape Character Assessments.
- NE11:** Promote the wildlife refuges and share learnings from the monitoring reports.
- NE12:** Increased understanding, awareness-raising, and management of invasive species.
- NE13:** Encourage and work with relevant bodies to improve monitoring of various impacts, such as sedimentation and suspended solids input to the estuary in order that the reasons and mechanisms creating increased sedimentation are better understood and managed.

## Indicative Actions

- Work with Natural England to ensure up to date condition assessments are carried out for the Exe Estuary SSSI and then used to inform necessary conservation action.
- Improved understanding of the impacts of Pacific oysters as an Invasive Non-Native Species and explore management options.
- Creation and promotion of an Exe Biosecurity Plan, which will involve a detailed risk analysis including outlining pathways / vectors for individual species and engagement with stakeholders such as Exmouth Marina, Harbour Authority, etc.
- Work with RSPB, DWT and other partners on a nature recovery focus, built on a strategic landscape approach to compensatory habitat.
- Consideration given to habitat restoration / creation opportunities, for example, undertake a feasibility study for eelgrass planting on the Exe Estuary and gain a better understanding of management measures required for its survival.

## 4.2. History and Archaeology

The Exe Estuary contains many varied sites of archaeological and historical importance, indicating that the Exe has a significant history of settlement, trade, shipping, and use of its mineral and food resources. Recent archaeological work is revealing just how significant the lower Exe was for the Roman conquest of Britain. Exeter and its port at Topsham - were amongst the wealthiest in England during the medieval and early post-medieval eras. The Exeter Ship Canal is one of the oldest of its kind in Britain.

In addition to the Roman archaeology, there is evidence of the estuary's continuing role in the front line of defence and attack from the English Civil War siege at Powderham to Victorian fortifications at Exmouth, Second World War pillboxes at Dawlish Warren and radar at Exminster Marshes. Extensive reclamation landscapes with enclosure banks and drainage systems to create pasture from former tidal marsh are notable at Powderham, Exminster and along the lower Clyst. Reclamation is likely to have commenced in the medieval period, if not before, and was accelerated by the creation of the canal and railway.

Many historical buildings can be found alongside the Estuary, from high status residences such as Powderham Castle, which dates from the 14th century, to humbler farmsteads. A number of features of Brunel's innovative Atmospheric Railway still survive along the western bank of the estuary, notably the engine house at Starcross. Former dry land sites and preserved evidence of ancient landscapes are now submerged or in the intertidal zone. Covered by layers of silt, they can be protected from erosion, but can also be hard to identify and record. The Exe Estuary contains a significant number of abandoned vessels in relation to other estuaries in the South West, with over 20 historic vessels, the majority of which are identified as sailing trawlers or ketches and most dating from the late 19th and early 20th century.

Further detail about the history and archaeology of the Exe can be found in the [State of the Exe Estuary](#).

### Key Achievements 2016-2021

- Interreg Atlantic Area TIDE Project (Promoting shared maritime heritage) launched at Exeter Quay in May 2019.
- Erection of new interpretation panel commemorating the role of Countess Wear and Exe Canal bridges in training for D-Day, 1944.
- Publication of The Medieval Exe Bridge, St Edmund's Church and Excavation of Waterfront Houses, Exeter.
- Completion and publication of archaeological Aerial Investigation and Mapping Survey of the Haldon Ridge to Dart Valley.
- New developer-funded excavations along Exeter Road, Topsham and reinterpretation of earlier work on Topsham Road, Exeter, adding to emerging picture of Exe estuary as a key front in the Roman conquest of Britain and also extent of early and later Romano-British civilian settlement.
- Completion of the Exeter a Place in Time project and Publication of Roman and medieval Exeter and their Hinterlands: From Isca to Excester and Studies in the Roman and Medieval Archaeology of Exeter.

- Some public engagement prior to COVID with The Museum of London's CITiZAN project on intertidal archaeology.
- Research undertaken on the medieval reclamation of Exminster Marshes by Stephen Rippon, University of Exeter.

## Issues

- Potential exposure, damage and/or loss of historical and archaeological features due to pressures such as development, dredging, coastal defence management, changing land use, agricultural practices, habitat creation and climate change (including coastal erosion, sea level rise and increased frequency of storms).
- Unknown impact of potential water level changes likely to alter archaeological preservation conditions.
- Lack of information concerning the extent of the estuary's archaeological and historical resources and features, with potential under-reporting of archaeological finds on land, in the intertidal zone and at sea.
- Lack of promotion of existing cultural and heritage features along public access routes, which leads to lack of understanding of the value of historical and archaeological sites and the need to protect them.
- Loss of historical features perceived as an "eyesore".
- Although much historical and archaeological information is available, and also links to the environmental changes over the past year, there appears to be little communication with stakeholders about these issues. It would be good to profile this in order to provide baselines for further works and impact assessments. More focus needs to be provided from relevant authorities.
- Understandable emphasis on climate and biodiversity crises is resulting in a reduction of resources available for conservation of the historic environment within e.g. Environmental/Countryside Stewardship schemes. Need to be alert to opportunities to promote wider/multiple environmental outcomes wherever possible.

## Key Objective

The historical, landscape and archaeological resources of the estuary are safeguarded, conserved, and promoted in order to protect their value.

## Policies

- HA1:** Ensure appropriate consideration of historical, landscape and archaeological interest when assessing development, dredging, coastal defence and habitat creation proposals, and ensure early implementation of existing consultation procedures, ensuring appropriate action is taken following archaeological consultation results.
- HA2:** Improve the general level of understanding of the value and sensitivity of historical and archaeological sites, features and related evidence, taking opportunities to celebrate the historic heritage of the Exe.
- HA3:** Raise awareness of available information and existing reporting schemes when archaeological or historical discoveries are made on land, at sea or in the inter-tidal zone.
- HA4:** Support continued monitoring of the condition of historical and archaeological sites, especially those threatened by erosion, sea level rise or potential development.
- HA5:** Promote designed heritage landscapes such as Exminster Marshes.

- HA6:** Publicise and facilitate opportunities for public engagement with forthcoming community / volunteer heritage projects (potential relaunch of the CITiZAN project and forthcoming Exeter University projects).
- HA7:** Adopt greater integration of nature and history when considering management and interpretation of the estuary; recognising / maximising the contribution that the estuary's heritage and historic landscape can make to mental and physical health and wellbeing.
- HA8:** Promotion of economic opportunities provided by the estuary's heritage, e.g. ensuring that heritage attractions such as Topsham Museum and Powderham Castle are appropriately covered.
- HA9:** Considering and taking appropriate steps to recognise, celebrate, conserve and adapt the estuary's high quality historic and built environment when looking at climate and biodiversity adaptation initiatives.

## Indicative Actions

- Revise / update sections on historic Environment in the State of the Exe Estuary / Management Partnership documents – in light of recent work / research.
- Explore promotion opportunities for heritage attractions such as Topsham Museum and Powderham Castle, e.g. through DCC's Explore Devon and the TIDE (European Maritime Tourism project) platform.



## 5. Environmental Quality and Management

Improvements in the environmental quality of the Exe Estuary will lead to improvements in the quality of life for the local human and wildlife populations. In order to gain maximum benefit from the Exe Estuary, environmental quality must be maintained or improved, which is particularly challenging in the face of increased pressures from growing populations around the estuary.

There are a number of relevant policy documents which inform appropriate environmental management of the Exe Estuary, including the [25 Year Environment Plan \(2019\)](#) and the [Environment Bill \(2020\)](#). More detail of these policies, as well as further information for all of the Environmental Quality and Management sub-themes listed below, can be found in the [State of the Exe Estuary](#).

### 5.1. Water Quality

Water quality is crucial to life in and around the estuary. Poor water quality affects people and wildlife and has serious consequences for the local economy. To ensure that the water quality of the Exe Estuary remains “good”, international, national and local statutory requirements are in place and implemented around the estuary. It is important that the water quality of the entire Exe Catchment is considered, from the source at Exmoor to the sea at the mouth of the estuary. The status of water quality in the Exe Estuary is detailed in the [State of the Exe Estuary](#).

#### Key Achievements 2016-2021

- Establishment of a marine sub-group of the East Devon Catchment Partnership (EDCP) to provide a focus on addressing estuarine, marine and TraC waters related issues in the Partnership area.
- Increased awareness amongst recreational users of impacts their activities can have on the estuary and promotion of ways to remove or reduce that impact through initiatives such as [The Green Blue](#).

#### Issues

- Impact of water quality on biodiversity and habitats, farming, fisheries and recreation activities.
- Impact of catchment land use on water quality and dilution in the estuary and difficulty in identifying the source of diffuse pollution.
- Effects of nutrient enrichment and potential eutrophication from run-off, sewage outfalls and sewage discharge from sewage treatment works around the estuary and boating activities on the estuary. The Environment Act 2021 is of importance for sewage outflows.
- Potential for hydrocarbon and heavy metal pollution associated with adjacent roads and railways, boating activities and oil storage.
- Low level of public understanding of water pollution causes and consequences.
- Impact of storm and flood events on water quality, combined with unknown impact of climate change on regularity of flood incidents.
- Lack of integrated working between the EEMP and water quality related projects.

- Water quality monitoring by regulators should be increased, expanded to include other pollutants such as suspended solids / contaminants as well as better resources to educate and enforce.
- Sources of pollution need to be better understood, and there is lack of clarity of impacts from man-made developments, activities and various projects (for example, Dawlish Warren Beach Management Scheme potentially causing sedimentation issues).
- Importance of wetlands for cleansing water on route to the sea should be highlighted (e.g. Exminster Marshes).

## Key Objective

Measures to improve water quality are identified and promoted in order to achieve better water quality

## Policies

- WQ1:** Develop or co-ordinate partnerships to identify, manage and improve water quality within the Exe Estuary and its catchment.
- WQ2:** Encourage South West Water through its National Environment Programme to continue to improve the sewage treatment discharge programme and exceed consented conditions.
- WQ3:** Continue sustainable management of water abstraction by implementing the Catchment Abstraction Management Strategy.
- WQ4:** Promote the reduction of oil and hydrocarbon pollution from storage on land and boating activities.
- WQ5:** Educate and inform about the impact of human activities on water quality.
- WQ6:** Plans established and implemented to complete all required reviews of water quality consents affecting the SPA.
- WQ7:** Implement the Water Framework Directive and incorporate new research findings into management decisions.
- WQ8:** Explore which areas of the Exe are affected by 'Nitrate Vulnerable Zones' and work with farms to ensure adherence to the associated Action Programme of measures.
- WQ9:** Explore opportunities for the improvement of sewage and storm water systems.
- WQ10:** Promote and explore the use of pollution alert systems such as the Surfers Against Sewage system to alert users
- WQ11:** Explore opportunities for targeted and robust water quality monitoring data to be obtained through coordinated effort by stakeholders and regulators, so that probable sources of contamination are identified (and verified by EA) and appropriate remedial measures are put in place.
- WQ12:** Share existing data such as the South West Coastal Monitoring Programme and explore potential survey and project opportunities to investigate sedimentation issues.
- WQ13:** Develop and deliver programmes of work that, working with other partners, tackle urban and rural catchment pollution and the processes these may affect, e.g. geomorphological changes in the river and estuary due to sediment movements, which may impact biodiversity, navigation and shellfisheries among others.

## Indicative Actions

- Continue to collaborate with the East Devon Catchment Partnership and other relevant organisations through the Marine Sub-group and develop projects to address water quality issues in the estuary area.
- Develop a project proposal to understand sources of sedimentation in the estuary and identify locations in the catchment where work could be targeted to help address this.
- Mapping and listing of current water purity sites, licenced effluent discharges to the river, etc.

## 5.2. Waste Management and Recycling

The UK has committed to recycle 65% of municipal waste and reduce the amount of waste sent to landfill to 10% by 2035. [The Circular Economy Package](#) (CEP), as part of the [Environment Bill](#), introduces further steps to move the UK to a more circular economy in line with the Government's [Resources and Waste Strategy](#) and its target of reaching net zero greenhouse gas emissions by 2050. The [European Waste Framework Directive \(2008\)](#) sets the basic concepts and definitions related to waste management. Locally, the Devon Carbon Plan sets out actions to achieve circular economy and to reduce waste and resource related emissions towards net-zero. (section 7 of the Devon Carbon Plan).

Various clean-up events and campaigns which aim to tackle waste issues take place around the Exe Estuary. Further details can be found in the [State of the Exe Estuary](#).

### Key Achievements 2016-2021

- EEMP Clean-Ups have grown into large successful events, with approximately 100 volunteers attending each event and ongoing sponsorship from local businesses such as Stuart Line Cruises, Krispies Fish and Chips, McDonald's, ACE Music and Clear Reach Cleaning Specialist, as well as support from EDDC.
- Support and promotion of local initiatives such as Plastic Free Communities, Ocean Recovery Project, 2 Minute Beach Clean and the Great British Beach Clean.
- Engagement with The Green Blue, a joint environment programme created by the Royal Yachting Association and British Marine which aimed to help boat users, businesses and clubs to reduce their impact on coastal and inland waters to make boating in the UK as sustainable as possible.

### Issues

- Impact of waste and disposal on habitats and biodiversity.
- Visual impact of litter and other waste, including its impact on tourism.
- Fly tipping.
- Excessive amount of waste packaging on site and high costs of disposal.
- Increasing demand for recycling facilities.
- Low level of public understanding of waste related issues.
- Abandoned boats, moorings and waste from leisure craft.
- Lack of pump out facilities for boat holding tanks.
- Inadequate waste bins on seafront.
- Possible leakage from historic landfill sites under industrial estates such as Shutterton Brook.
- Although clean-ups are good, prevention is better so measures to avoid / reduce waste should be considered.

### Key Objective

Responsible use and sustainable choice of resources is encouraged in order to reduce the adverse effects of waste on the estuary.

## Policies

- WMR1:** Work with the DCC Waste Management Team and other partners to reduce the amount of waste, litter and fly tipping on the estuary with benefits for wildlife and tourism.
- WMR2:** Identify new guidance on disposal and handling of waste on site.
- WMR3:** Re-invest recycling savings into relevant area.
- WMR4:** Work with the harbour authority and water users to ensure good waste recycling facilities exist and encourage marinas to produce their own strategies on waste management and pollution prevention.
- WMR5:** Actively raise awareness of the threats posed to wildlife by the presence of litter and waste on the estuary and promote the waste hierarchy: reduce, re-use, recycle, energy recovery, disposal.
- WMR6:** Specify or encourage sustainable packaging when purchasing or contracting services and suppliers.
- WMR7:** Engage with and promote local beach clean groups, plastic free / recycling initiatives and good practice adopted by local businesses and groups.
- WMR8:** Work with organisations such as the Marine Conservation Society to identify sources of waste and help coordinate measures to avoid / reduce this.
- WMR9:** Explore opportunities to create a circular economy for plastics.

## Indicative Actions

- Work with other organisations to explore and promote measures to avoid / reduce waste.
- Engage with and promote local beach clean groups, plastic free / recycling initiatives and good practice adopted by local businesses and groups.

## 5.3. Pollution Response

There are various risks to the Exe Estuary and its environment. Local authorities and organisations have identified the main risks and have produced a number of different contingency plans in an attempt to mitigate these risks. Some of these plans are required by law whilst others have been prepared in response to a specific threat. The key plans for the Exe are detailed in the [State of the Exe Estuary](#).

### Key Achievements 2016-2021

- Exeter Port Authority Waterways Team have completed oil spill response training and undertaken an exercise at Exeter Quay.

### Issues

- Risk of uncontrolled pollution, including oil and chemical spills especially from shipping traffic, but also from riverside workings.
- Pollution from incidents can potentially damage wildlife, habitats, human health and water quality, and will have an economic impact on related industries, including tourism.
- Absence of an international convention to cover inert pollution and regulations to control ship to ship transfer.
- Changes in waste regulations have affected the management and disposal of contamination from shipping incidents and are yet to be accommodated.
- Lack of structures and procedures for the management of volunteers.
- Risk of shore-based sources of pollution from industrial plants or transport derived.
- The narrowing of the estuary entrance has increased the speed of the current, so booming is unlikely to be effective around HW spring tides.
- No Pollution Contingency Plans in place for the Exe.

### Key Objective

Engage and liaise with key partners to ensure that pollution incidents are responded to and addressed through measures such as contingency plans in order to protect the estuary and its users.

### Policies

- PR1:** Ensure contingency plans are in place, supporting the implementation of the reviewed Devon Coastal Pollution Contingency Plan, and explore opportunities to create a joint pollution contingency plan bringing together existing plans from the District Authorities.
- PR2:** Encourage relevant authorities to carry out regular pollution contingency planning exercises.
- PR3:** Support research on wildlife and habitat recovery, and the impact of pollution on human health.
- PR4:** Investigate ways to increase legal protection covering pollution from shipping.
- PR5:** Improve awareness of the hazards that pollution poses for local people, volunteers and wildlife species and habitats.
- PR6:** Identify new guidance on disposal and handling of waste on site.
- PR7:** Identify and implement structures and procedures for the management of volunteers.
- PR8:** Support the work of wildlife protection organisations and provide resources in the event of an incident.
- PR9:** Identify new guidance on responding to shore-based sources of pollution.



**PR10:** Support the work of the Exeter Port Authority in responding to removal of hazardous items such as wrecks.

## **Indicative Actions**

- Support creation of a joint pollution contingency plan bringing together existing plans from the District Authorities.

## 5.4. Flood and Coastal Risk Management

With sea levels predicted to rise and increased frequency and severity of storms, coastal management is required to reduce the risks of flooding and erosion to people, property, infrastructure and the natural environment. This will become increasingly challenging and costly, so requires a partnership approach between organisations, taking a proactive approach to manage risks. Estuaries and their wetlands, sand dunes, mudflats and intertidal reefs provide valuable natural flood and storm defences by attenuating and dissipating tidal and wave energy. Projections and policy documents can be found in the [State of the Exe Estuary](#).

### Key Achievements 2016-2021

- Flood risk schemes developed around the estuary to protect the communities built around the Exe including Exeter, Exmouth, Dawlish Warren, Starcross and Cockwood.
- Managed realignment on the [Otter Estuary](#) to provide mitigation for loss of habitat on the Exe.

### Issues

- Impact of flooding and coastal processes on the local population and built environment.
- Loss of intertidal habitats to coastal squeeze arising from sea level rise against hard sea defences.
- No managed realignment projects being pursued on and around the Exe to compensate for habitat losses to coastal squeeze.
- Uncertainty of risk linked to storm surges, flood and erosion.
- Limited understanding of the impact of climate change and the value of natural habitats for flood and storm defences.
- Lack of information on, and consistency of monitoring of, coastal processes within the estuary.
- Deterioration and potential damage or loss of habitat, biodiversity, archaeological features.
- Potential impact of coastal defence on economic activities.
- Low level of public awareness of the causes and effects of coastal processes on people, property, and the environment.
- Increasing awareness of the need for a sustainable approach to coastal protection and flood defence.
- Better communication is required about the effectiveness, longevity and future prospects of the Dawlish Warren Beach Management Scheme, including long term impacts of breach of the Warren on the features of the SSSI and communities around the estuary, and predictions with regards to future sea level rise.
- Drainage from housing development could potentially increase the flashiness of water response in the catchment which will impact farming operations, e.g. at Exminster Marshes (the Exminster Marshes water level management plan is overdue a review and provides opportunity to think about best catchment management given climate change impacts and local development pressure).
- Vulnerability of railway embankments which act as an important flood defence (e.g. Powderham Banks).

## Key Objective

Coastal defence strategies are planned, maintained, and implemented in order to contribute to the sustainable use of the environment whilst minimising flooding and erosion risks.

## Policies

- FM1:** Evaluate and manage the risk of erosion and flooding on the estuary's built areas through regular review of the coastal monitoring and asset surveys carried out by the Plymouth Coastal Observatory and produce improved flood and coastal erosion maps.
- FM2:** Where possible, avoid further development on floodplain and areas at risk, and encourage the use of sustainable drainage systems and environmental flood management to improve water quality in the Exe Catchment.
- FM3:** Understand and continue to evaluate impacts of climate change for flood and coastal risk management.
- FM4:** Implement the recommendations in the current Shoreline Management Plan and other associated relevant plans, including the Exe Estuary F&CERMS, the Exe Catchment Flood Management Plan and the recommendations of the Exe Estuary Coastal Management Study.
- FM5:** Identify and address any local gaps in the knowledge of coastal processes on the estuary and share results with other studies.
- FM6:** Ensure that biodiversity, archaeology and landscape policies and guidance are adhered to when considering new coastal development.
- FM7:** Consider the impact of coastal defence and coastal management on economic activities.
- FM8:** Ensure all flood and coastal defence plans adhere to nature conservation legislation and, wherever possible, intertidal habitats (existing or newly created) are seen as a natural form of sea defence.
- FM9:** Promote relevant plans, revised flood risk predictions and involve local communities and businesses in the development of flood risk management schemes.
- FM10:** Continue to work with the Environment Agency and represent stakeholder views on the Dawlish Warren Beach Management Scheme in order to find suitable and sustainable solutions for the future of the Warren and the wider estuary.
- FM11:** Explore Nature Based Solutions for climate related flood and coastal erosion risk.
- FM12:** Ensure a holistic approach is taken to managed realignment, coastal planning and compensatory habitat.
- FM13:** Refer to the Devon, Cornwall and Isles of Scilly Adaptation Plan when it has been developed, which will include consideration of flooding.
- FM14:** Explore opportunities to address and compensate for habitat loss due to coastal squeeze.

## Indicative Actions

- Engage with the Environment Agency's Dawlish Warren Beach Management post-scheme review, provide input on options, share progress and predictions with partners and stakeholders, and ensure public consultation is undertaken.
- Exminster Marshes Water Level Management Plan should be reviewed.
- Provide input to any review of the Shoreline Management Plan and other associated relevant plans, including the Exe Estuary F&CERMS.

## 5.5. Spatial Planning and Development

The three current Local Plans relevant to the Exe are produced and administered by Teignbridge District Council, East Devon District Council and Exeter City Council. Under the Localism Act, 2011, town and parish councils and community groups are able to produce their own Neighbourhood Plans. In March 2012 the Government published the National Planning Policy Framework which sets out national planning policies.

As the marine planning authority for England, the MMO is responsible for preparing the South Inshore Marine Plan in order to inform and guide decision makers on development in marine and coastal areas in the South Inshore Area. Therefore, planning documents for the Exe Estuary area may make reference to the MMO's licensing requirements and South Marine Plan to ensure that necessary regulations are adhered to.

Additionally, under the Conservation of Habitats and Species Regulations 2010 all competent authorities are required to carry out a Habitats Regulations Assessment of plans and projects in order to ensure that there is no adverse effect on European Sites such as the Exe Estuary SPA and Dawlish Warren SAC.

Spatial planning encompasses a very wide range of issues and is guided and informed by a range of documents, which are covered in more detail in the [State of the Exe Estuary](#).

### Key Achievements 2016-2021

- Establishment of the South East Devon Habitat Regulations Executive Committee to deliver the South East Devon European Site Mitigation Strategy (SEDESMS).
- Delivery of 26ha of new, publicly accessible green space at Dawlish Countryside Park, through the SEDESMS.
- Establishment of first phase of 38ha (when complete) new, publicly accessible green space at Ridgetop Park, South West Exeter, through the SEDESMS.

### Issues

- Potential damage or loss of habitat, biodiversity, archaeological features, and the impact of increased development pressures on landscape character, water quality, increased use of the estuary and green spaces.
- Vulnerability of development, and the potential cost of defending built areas in the flood plain and eroding areas.
- Low public awareness of the potential impacts of coastal processes, floods and climate change on existing properties and built environment, and restrictions on the availability of sites suitable for development.
- Past and recent development and approaches to planning have limited the opportunities for access to and enjoyment of the estuary, for example, the development of the railway line, flood defences and the way that some of the settlements have grown.
- Split administrative responsibility across the estuary with three separate local planning authorities and Devon County Council, with the potential for differing approach and priorities.

- The estuary sits within one of the principal growth areas in the county but is insufficiently benefitting from investment linked to the development that is taking place.
- Implications for the Exe Estuary of planning reform, updated planning policy and related environmental legislation (i.e. forthcoming Environment Act).

## Key Objective

Planning and Regulatory Authorities adhere to and promote sustainable development in order to achieve environmental net gain and maintain the Favourable Conservation Status of the estuary.

## Policies

- SP1:** Ensure the views and objectives of the Exe Estuary Management Partnership are incorporated into the Local Plan processes.
- SP2:** Encourage a sustainable and long-term approach to development management and ensure developer contributions through Section 106 or Community Infrastructure Levy (CIL) are used for the long-term benefit of the estuary.
- SP3:** Explore opportunities to work with planning authorities to identify a suite of projects which will improve people's enjoyment and understanding of and access to the estuary which might benefit from investment facilitated by new development (i.e. through the Community Infrastructure Levy, S.106 agreements or any other relevant funding sources).
- SP4:** Ensure that Local Plans and developments consider the policies of the Shoreline Management Plan and Exe Estuary F&CERMS.
- SP5:** Promote the biodiversity, historic environment, water quality and landscape policies and guidance for incorporation into the neighbourhood planning processes.
- SP6:** Ensure that the Marine Policy Statement and the South Marine Plan are referred to when planning development in marine and coastal areas.
- SP7:** In reviewing Local Plans or developing Neighbourhood Plans, opportunities should be explored for facilitating new or improved access to and enjoyment of the estuary environment in a manner compatible with its conservation status and environmental interest.
- SP8:** Identify opportunities for the potential delivery of Biodiversity Net Gain around the wider estuarine environment as well as the mitigation approaches promoted by the South East Devon Habitats Regulations Partnership.
- SP9:** Assess and co-ordinate where appropriate with other agencies, and support Local Planning Authorities in spatial planning around the estuary that supports adaptation.

## Indicative Actions

- Explore options for joint working between the EEMP and the South East Devon Habitat Regulations Partnership to deliver the South-east Devon European Site Mitigation Strategy.

## 6. Use of the Estuary

The Exe Estuary is a vibrant and thriving estuary. The estuary attracts a variety of users, both on land and on water, from bird watchers to boaters. As well as a great site for a large variety of recreational activities, the Exe is also important for several local businesses, many of which are linked to tourism. Resources have been extracted from the estuary for thousands of years, including fish, waterfowl, reeds, seaweed, sand, clay and salt.

With so many different interest groups, it is important to manage the estuary in a way which reduces conflict between the different users and between the best interests of wildlife and human use, to ensure people can continue to enjoy the estuary in the future without having detrimental effect on other users or wildlife.

### 6.1. Farming

The agricultural catchments associated with the Exe Estuary management boundary are the Clyst, Exe Tidal and Exe Lower. The area covered by the Exe Estuary Management Plan boundary is mainly characterised by mixed farming.

In the past, large areas of former salt marsh were reclaimed to create pasture in many areas including on Exminster and Powderham marshes, as a site for summer grazing of cattle and early spring lamb.

Fertiliser use and agrochemicals can increase food production, but excess nutrients run off the land into river, estuarine and coastal waters. Excessive enrichment of water by nutrients can reduce the flow of oxygen and nutrients to the seabed, with a deleterious effect on the water quality and other organisms. Eutrophication is not considered to be a significant threat on the Exe but the Partnership is conscious of the risks it poses.

As well as food and employment, with the right practices, farming has the potential to enhance wildlife and biodiversity, and improve water quality and flood alleviation. Schemes are available to support farmers to develop catchment sensitive farming practices.

Further detail is available in the [State of the Exe Estuary](#).

#### Key Achievements 2016-2021

- Long term vision created for the East Devon Catchment Partnership (EDCP).
- Headwaters of the Exe catchment Programme: farm management advice and habitat work to address the mobile pesticide pressures on the Exe catchment through the EDCP.



## Issues

- Impact of existing farming practices on the decline of farmland species and other breeding bird populations.
- Research available on the impact of farming practices on water quality through diffuse water pollution and soil erosion is not specific to the area.
- Farming practices and rapid changes in farming practices as they follow the market or price changes, which affects the landscape as well as water and soil quality.
- In many cases, farming activity is only viable through financial support, such as payment subsidies or funding schemes. Changes to agricultural subsidies through the Agriculture Act 2020 has resulted in a shift from area-based payments to payments for environmental measures, such as Sustainable Farming Incentive and local nature recovery, which may be beneficial to the Plan.
- Uncertainty of continued economic viability to support the current mixture of farming.
- Impact of natural and physical processes on agriculture and farming around the estuary.
- The land around the Exe is designated as a Groundwater Nitrate Vulnerable Zone (NVZ) Area, which means that it is at risk from agricultural nitrate pollution.
- Lots of maize farming in the catchment resulting in significant loss of topsoil affecting the water quality of the Exe.
- Farming practices need to be sustainable within the catchment, delivering more for nature and reducing harmful agricultural run-off into the estuary.

## Key Objective

Agri-environment schemes and regulatory programmes are supported in order to improve the environmental quality of the estuary.

## Policies

- FA1:** Identify the effects of agricultural and farming on the estuary.
- FA2:** Promote agri-environment schemes to achieve Favourable Condition, help halt the decline in the populations of farmland bird species and increase populations of key species.
- FA3:** Continue to identify and improve understanding about the link between catchment land use, water quality and sediment deposition in the estuary (Water Framework Directive activities).
- FA4:** Promote and support sustainable farming activity through the sustainable farming incentive.
- FA5:** Promote available funding schemes to landowners and farmers to ensure continued viability and sustainable practices.
- FA6:** Guidance for farming practices should make reference to the [Agriculture Act](#) to ensure that necessary regulations are adhered to.

## Indicative Actions

- Better understand the effects of catchment farming on water quality and sedimentation in the Exe Estuary.

## 6.2. Fisheries

The Exe Estuary supports a wide variety of shellfish, including mussels, shore crabs, cockles, clams, oysters and winkles, with the Exmouth Mussel Company harvesting mussels and re-laying seed mussels in the estuary. Winkles are commercially gathered on a low level, and cockles and mussels are gathered recreationally. Bait digging takes place on the Exe, and crab tiling has been present on the Exe for generations, particularly in the Starcross area. There is currently no oyster harvesting in the Exe but opportunities for oyster farming are currently being explored. Further detail and management of fisheries can be found in the [State of the Exe Estuary](#).

### Key Achievements 2016-2021

- Initial scoping study undertaken which explored the extent of the Invasive Non-Native Species (INNS), Pacific oyster, on the Exe Estuary, which was included in the Natural England report “Partnership led strategy to monitor and manage the spread of Pacific oyster populations in south Devon and Cornwall”.
- Data collected on INNS on the Exe which will feed into a Biosecurity Plan.
- Revised code of conduct for bait collectors created with local crab tilers and bait diggers.

### Issues

- Complex consenting processes and regulation.
- Lack of data on the existing resource to facilitate the development of a strategy to improve economic viability of the fisheries sector.
- Lack of locally caught and sustainable fish being used in restaurants and eateries around the estuary.
- Fishing infrastructure falling into disrepair (oyster racks / crab tiles).
- Conflict with other users and wildlife and potential fishing impact on habitats and maritime archaeology.
- Impact of water quality on shellfish quality and price, but limitations in the current water quality testing system and understanding of associated economic impacts.
- Decrease in salmon stock population.
- Impact of climate change on fishery resources not fully understood.
- Unknown impact of water quality and sewage discharge on migrating salmon during low summer flows.
- Illegal removal of shellfish including from mussel beds that are closed to the public.
- Water quality, sedimentation and discharge impacts on fish, shellfish as well as dependent fisheries.
- Loss of mussel beds, particularly on Bull Hill.
- The spread of the Invasive Non-Native Species, the Pacific oyster.
- High volume of hand gathering taking place.
- Effects of decreasing shellfish numbers on wildlife which use them as a food source.

### Key Objective

Commercial and recreational fisheries activities are appropriately managed with a view to (i) enable achievement of the objectives of the designated sites of the Exe Estuary, and (ii) maximise long-term ecosystem service provision by the resources on which these activities depend.

## Policies

- F1:** Regularly assess intertidal shellfish (mussel and cockle) beds and crab tiling to underpin management decisions, with a view to securing a sustainable marine environment and inshore fisheries.
- F2:** Encourage sustainable fishing practices within the Exe, ensuring they have no adverse effect on the SSSI or SPA, and continued implementation of the present flexible and responsive management framework, considering appropriate, flexible and proportionate management of bait collection and other hand working activities.
- F3:** Work with local groups to raise awareness of the implications of recreational and commercial fisheries on biodiversity by promoting the Code of Conduct.
- F4:** Work with Regulatory Authorities to safeguard and improve shellfish water quality, exploring options for improved water quality testing.
- F5:** Improve the viability and productivity of the Exe fishery through working with the local industry and within environmental limits.
- F6:** Encourage the removal of fishing gear and infrastructure (e.g. oyster trestles) that is not being actively used, with appropriate permissions.
- F7:** Continue to protect and enhance the salmon fishery.
- F8:** Explore opportunities for fisheries projects focused on increasing the use of local and sustainable seafood in the area.
- F9:** Support enabling of fish passages through the estuary to spawning grounds.
- F10:** Work with the relevant authorities to minimise the illegal hand gathering and use of shellfish from the foreshore.
- F11:** Engage with water companies and sewage treatment plants to improve water quality and mitigate against its impacts on fisheries.
- F12:** Promote existing data (i.e., South West Coastal Monitoring Programme) and explore potential project and survey opportunities to investigate sedimentation issues in order to understand its impact on fisheries.
- F13:** Promote IFCA Fisheries Research and Management Plans on specific species.
- F14:** Work with relevant authorities to help coordinate and inform management.
- F15:** Continue to work with recreational fisheries stakeholders (including angling organisations, fishing charter vessels and participants, and individuals with recreational permits for various fishing related activities) to optimise opportunities, increase awareness and understanding of other user's needs and to minimise conflict and environmental damage.

## Indicative Actions

- Continue to work with Natural England to ensure effective coordination of Pacific oyster management actions at landscape level. There should be clear direction from Natural England on what further action needs to be taken to manage Pacific oysters.
- Explore opportunities for fisheries projects focused on increasing the use of local and sustainable seafood in the area.

## 6.3. Water Based Recreation

Water based recreation is important for tourism and is a benefit for local businesses, shaping the boatyards, moorings, quays and slipways along estuary. It also provides an excellent way for the public to enjoy the open spaces, to appreciate the environment, and to engage in a healthy lifestyle.

Growth of the popularity of water based recreational activities has led to increased competition for space on and around the water, leading to the potential for conflicts between users and with wildlife. It is important to ensure all water users of the estuary are given optimum space to enjoy their recreational activity without threatening or causing undue damage to the wildlife, the estuary's conservation status, or other users. Several of the local authorities around the Estuary – notably Exeter City Council as Harbour Authority – have created byelaws intended to manage the impacts of recreational use on the water, with several voluntary measures also in place, such as codes of conduct and voluntary wildlife refuges. The [State of the Exe Estuary](#) contains further information about these activities.

### Key Achievements 2016-2021

- Exe Codes of Conduct review, consultation and publication.
- Improved input into the work of the EEMP from water based recreational interests, with representatives from the RYA and British Canoeing now sitting on the Partnership Committee.

### Issues

- Increase in both the amount and variety of water-based recreational activities (e.g. paddleboarding) taking place resulting in increasing competition for space and cumulative negative impacts for wildlife and all users.
- Lack of consideration and lack of awareness of restrictions by some users of the estuary, with insufficient publicity, policing and enforcement, leading to conflicts with other users and impacts on wildlife.
- Codes of Conduct are not widely promoted enough.
- Lack of safe and well-managed access to the water, with poor facilities for recreational users.
- New recreational activities, such as the use of drones, will have unknown effects on the features of the site.
- Anti-social behaviour on the water and lack of knowledge of safety issues.
- Need to improve communication between key partners particularly around safety messaging.
- Excessive weed on the canal.
- Misleading public documentation such as leaflets regarding the use of slipways.
- Existing watersport areas require amendment to make them more fit for purpose, whilst causing minimal disturbance to wildlife.
- Lack of a holistic recreational strategy that takes into account the roles of the EEMP and SEDHRP.
- Lack of clarity on the effectiveness of existing water-based recreation management measures.
- Channel depth is causing issues for craft on the estuary.
- Conflicting views over management of water based recreation, with some concerns expressed over the amount of restrictions in place, and others suggesting that more education and enforcement is needed.

- Concern over buoyage and natural movement of the navigation channels.

## Key Objective

Sustainable and responsible water-based recreation is promoted and effectively managed in order to enhance user experience without causing negative impacts to other users or the environment.

## Policies

- WBR1:** Continue to work with recreation organisations (e.g. those representing sailing, mooring and angling) to optimise opportunities, increase awareness and understanding of other user's needs and to minimise conflict and environmental damage.
- WBR2:** Develop a flexible, responsive and effective framework for recreation management to address activities that are causing disturbance or have an adverse effect on the SPA, SSSI or SAC, through appropriate controls, codes of conduct and speed limits within the Exe Estuary.
- WBR3:** Encourage appropriate enforcement of controls through working in partnership with the Exeter Port Authority.
- WBR4:** Promote a comprehensive approach to water safety, addressing antisocial behaviour and issues with vandalism through increased involvement of local communities.
- WBR5:** Identify and promote further water-based recreation opportunities and facilities and well-managed access to the water.
- WBR6:** Investigate the issue of weed in the canal and how it will be addressed in the short, medium and long term.
- WBR7:** Promote the regular sounding data and prompt action by the Harbour Master to organise the correct location of the navigation buoys and maintain a navigable channel.
- WBR8:** Encourage the uptake of education and training sessions of users through clubs and RYA type training courses.
- WBR9:** Investigate the potential to coordinate the information displayed on various public documents regarding the use of slipways.
- WBR10:** Engage with new user groups to create Codes of Conduct that cover new emerging activities.
- WBR11:** Ensure watersport areas are fit for purpose and allow safe and environmentally responsible undertaking of activities.
- WBR12:** Ensure a balanced approach to management of the estuary is achieved, by involving and taking into consideration the needs of all stakeholders (including recreational users) whilst delivering management of the estuary.

## Indicative Actions

- Review and reprint codes of conduct, including creation of personal aircraft code.
- Continue to promote activities and recreational businesses on the Exe by reviewing, reprinting and distributing the Exe Activities leaflet, alongside the other Exe leaflets.
- Review existing watersport areas to ensure they are safe and fit for purpose.

## 6.4. Tourism

A unique place, with stunning scenery, diverse wildlife and lots of activities on offer, the Exe Estuary is a popular tourist destination. The majority of accommodation is in hotels and guest houses in Exmouth, Dawlish Warren and surrounding villages, together with large caravan and camping parks at Dawlish Warren, alongside the estuary. Dawlish Warren attracts families and birdwatchers alike, whilst Exmouth is a hub for many recreational activities. Tourism is busier in summer, with designated bathing areas and sandy beaches at the mouth of the Estuary at Exmouth and Dawlish Warren. However, visitors are attracted to the Exe all year around by the draw of the thousands of birds that visit the Estuary every winter.

Tourism acts as a driving force to maintain a beautiful environment to attract tourists and provides a boost to the local economy, generating employment and ensuring local facilities are maintained. It is important to ensure that tourism is managed so that it does not negatively affect the quality of life of local residents. Further information about tourism can be found in the [State of the Exe Estuary](#).

### Key Achievements 2016-2021

- Suite of Exe leaflets updated and distributed, along with Exe Press newsletters.
- Improved promotion of the Exe Estuary as a tourist destination, whilst highlighting responsible behaviour, through the new EEMP website.

### Issues

- The Exe Estuary could be better promoted as an all-year round destination, emphasising low impact and sustainable ecologically based activities and suitability for all ability access to the natural world.
- Need to address the negative impacts of tourism such as disturbance to wildlife, overcrowding, congestion, pollution and litter.
- Concerns that promotion of the estuary to tourists can lead to high numbers of visitors to the estuary (or certain parts of the estuary) which might lead to additional management measures needing to be developed.
- Unknown impact of natural and physical changes, such as coastal defences on the amenity value of beaches or poor water quality incidences, on the tourism economy throughout the estuary.
- The limited opportunities and sites along the waterfront for tourism development.
- Safety issues related to the proximity of numerous personal water craft (PWC) to Exmouth beach and continuous launch / recovery activities at Orcombe Point during the tourist season.
- Promotion and publicity of The Exe Estuary does not cover many of its outstanding features such as the Exeter Ship Canal.
- Impact of moorings on sensitive habitats such as eelgrass beds.
- Economic issues driving growth need proper planning, and so need to be in context to other plans.
- The Exe Estuary can appear to be unwelcoming to visiting craft (e.g. the first sign on entry states "Private Property, Mooring Prohibited").

## Key Objective

The estuary is widely and responsibly promoted in order that it is recognised and enjoyed as a sustainable tourism destination.

## Policies

- TO1:** Highlight the estuary as an eco-tourism site and promote the implementation of sustainable tourism opportunities.
- TO2:** Maintain the local tourism potential by protecting the estuary from over-development.
- TO3:** Encourage tourism development to be in keeping with all the qualities and designations on the estuary.
- TO4:** Ensure measures are taken to minimise the effects of natural, physical changes, extreme events, and the measures taken to address them, on the tourism industry.
- TO5:** Explore ways to promote the Exe Estuary as a whole and how it can cater for a wider range of people, across the entire estuary, over the whole year, whilst informing on the wide variety of qualities that the estuary offers resulting in improved understanding and appreciation of what is here.
- TO6:** Explore opportunities to ease environmental pressures from moorings such as promoting the use of eco-moorings.
- TO7:** Promote responsible and safe practice to visitors to the Exe.

## Indicative Actions

- Proactively support national guidance on activities and promote to visitors, such as outputs from the government's personal watercraft consultation.



## 6.5. Public Transport, Access and Land Based Recreation

Both sides of the Exe Estuary are excellently served by public transport including a range of very regular train, bus and ferry services. Generally, most places of interest along the estuary are easily accessible, aided by the 26 mile, multi-use Exe Estuary Trail, which has significantly increased the land-based recreation opportunities available around the whole estuary. As well as a scenic route for walkers including those with limited mobility and wheelchair users, the trail is a popular commuter route and provides an excellent opportunity for the public to enjoy the open spaces, to appreciate the environment, and to engage in a healthy lifestyle. There are also several long-distance walking routes which converge on the Estuary, including the South West Coast Path National Trail, the East Devon Way and the Exe Valley Way regional routes. More information can be found on [the State of the Exe Estuary](#).

### Key Achievements 2016-2021

- Accessibility project: working with the Devon Wheeled Access Group and the Disabled Ramblers UK to create route cards for accessible routes around the Exe Estuary.
- Promotion of the “Share this Space” messages to users of the Exe Estuary Trails through our communication material.
- Facilitated discussions to enable Powderham Estate to undertake clearance work to reinstate access at Painters slipway in Starcross.
- Repair, modifications and reopening of Mamhead slipway.

### Issues

- Lack of ferry services (seasonal, infrequent or non-existent) to provide cross-estuary access, partly due to the lack of maintenance of passages on the estuary which could have an effect on the use of the historic waterway.
- Insufficient promotion and information for use of public / sustainable transport to access the estuary including to those with disabilities.
- Concern on volume of vehicles being used to access the estuary and the resulting scale of CO<sub>2</sub> emissions.
- Integration of Exe Estuary Trail with other public transport facilities, e.g. limited space for bicycles on trains and poor accessibility for cyclists, wheelchairs and pushchairs at the Starcross ferry bridge.
- Impact of natural and physical changes on public transport and access provision.
- Unknown impact of rail, water and road transport on the estuary quality and wildlife.
- Lack of promotion of accessibility of Exe Estuary Trail.
- Lack of availability of disabled toilets and poor design of some existing facilities deters use of the trail and needs to be addressed.
- Accessibility through “kissing” gates is an issue.
- With increasing popularity of the Exe Estuary Trail, more needs to be done to encourage responsible and considerate use to ensure a positive and enjoyable experience.
- Poor safety of on-road segments of the Exe Estuary Trail, better off-road provision should be explored.
- Lack of safe, suitable launch sites onto the estuary.

## Key Objective

Sustainable access and use of the estuary is improved, managed and promoted in order to enhance user experience without causing negative impacts on other users or the environment.

## Policies

- PTA1:** Promote use of the bus and train networks to access the estuary from outside the area.
- PTA2:** Encourage walking and cycling as a means of accessing and exploring the estuary (including health and well-being benefits) through improved information and signage, including promotion of accessibility of the Exe Estuary Trail for people of varied abilities, health condition groups and ages.
- PTA3:** Develop partnerships to make the best of opportunities presented by the completion of the Exe Estuary Trail including integration with public transport and ferry service improvements.
- PTA4:** Investigate and mitigate the effects of public transport on the SPA, SSSI and SAC.
- PTA5:** Identify and provide input into addressing the effects of natural and physical changes on public transport and access provision, including extreme events.
- PTA6:** Promote and encourage greater access and the provision of facilities for less able users of the Exe Estuary Trail, for example, wheelchair accessible toilets, working with local businesses and authorities.
- PTA7:** Support improved access and additional water-based transport which does not negatively affect the site.
- PTA8:** Achieve a balance of encouraging use and access, whilst promoting responsible and considerate behaviour on the trail and the importance of wildlife and the natural environment.
- PTA9:** Work with relevant authorities to ensure that the trail, interpretation panels and furniture are maintained in a fit and safe condition, exploring opportunities of improvement when possible.

## Indicative Actions

- Continue working with disabled and wheelchair groups to improve accessibility on the Exe Estuary Trail.
- Update the Exe Estuary Trail signage inventory.
- Continue to support the allocation of new Suitable Alternative Natural Green Space (SANGS).

## 6.6. Navigation

The banks of the Exe Estuary are largely influenced by human factors, and its many defining features are evidence of a flourishing and historically important commercial trade, that made use both of the flat land alongside the estuary, and the transportation on the water itself, with Exeter canal as the first canal in England built since the Roman times. The Exe Estuary was historically one of the most important commercial lifeblood of Devon and has been hugely important in creating the communities that surround it.

The management of navigation is important for both the environment and safety of users of the Exe. Exeter City Council (ECC) is the Harbour Authority for the River Exe and Exe Estuary, responsible for navigation of the estuary seaward from Exeter to Start Point, and over the extent of the navigable channel out to Straight Point and Orcombe Rocks. ECC applied to the Department for Transport for designation of power to make Harbour Directions, which are distinct from the current authority to make General Directions. Enshrined within new powers is the requirement for consultation with a representative group, prior to the making of a Harbour Direction. The Council recognises the Port User Group (PUG) in this context and as a broader vehicle for consultation and dialogue in matters concerning the wider use of the waterways.

Further information about navigation and its history on the Exe can be found in the [State of the Exe Estuary](#).

### Key Achievements 2016-2021

- Appointment of Harbour Master, Harbour Board and Harbour Staff, with new patrol boat launched.
- Increased proactive management of lower estuary (e.g. navigation buoys re-sited, wrecks removed).

### Issues

- Sedimentation affecting the depth of the channel and estuary approach.
- Concern over buoyage and natural movement of the navigation channels.
- Limited safe access onto the estuary (covered in “Public Transport, Access and Land Based Recreation” section).
- Improved education required for water users who breach byelaws.
- A risk assessment of the estuary byelaws is requested as a requirement of the Marine Safety Code.
- Lack of feedback or opportunity for stakeholders to provide comment to the Harbour Authority through the Port User Group.
- Wrecks and abandoned vessels.

### Key Objective

Relevant authorities and organisations are supported in order that marine operations and activities are undertaken in a safe and reasonable manner.

## Policies

- N1:** Work in partnership with the Harbour Authority.
- N2:** Work with the relevant authorities to maintain a navigable channel throughout the calendar year.
- N3:** Better understand sources and movement of sediment in the estuary (e.g. from Dawlish Warren Beach Management Scheme) and address associated effects on navigation.
- N4:** Education and enforcement to promote responsible use of the river and estuary.
- N5:** Work with partners and local users to address issues as they arise, including improvement of safe access, sedimentation, and surveying / removal of wrecks and abandoned vessels.

## Indicative Actions

- Improved communication via the Port User Group.
- Estuary byelaws will be amended as part of the application to the Department for Transport for a Harbour Revision Order (HRO).
- The HRO process will give Exeter City Council the correct powers to become compliant with the Port Marine Safety Code: as part of this process, a new Marine Safety Management Plan will be created, as directed by the newly appointed Harbour Board.

## 6.7. Commercial and Other Uses

The commercial uses currently found on the Exe Estuary are relatively low impact marine business and commercial transport (shipping and rail transport). With no significant industrial processes along the estuary, industrial air pollution is not really considered to be an issue. Since 1939, the Exe Estuary has also accommodated military activity, in the form of the Lympstone Commando Training Centre. Small scale commercial opportunities are arising from the increased interest in water sport activities and the development of the Exe Estuary Trail such as cycle and kayak hire, watersport businesses, cafes and refreshments.

Human activities such as trawl fishing, aggregate extraction, coastal defences, ports and coastal developments, can potentially have a physical impact on the seafloor and associated benthic species. As the Exe is a fairly small estuary, uses and developments of this type are minimal but the Partnership is mindful of the impacts of activities that disturb the seabed. More detail can be found in the [State of the Exe Estuary](#).

### Key Achievements 2016-2021

- Improved engagement with local businesses, with ongoing involvement of Clean-Up sponsors, including Stuart Line Cruises and Krispies Fish and Chips, as well as new business representation on the Partnership Committee from Powderham Estate and Exmouth Marina.

### Issues

- Unknown effect of the military activity, marine related businesses and commercial and transport uses on the estuary.
- Lack of awareness by some local businesses of the importance of the estuary and its special designations.
- Failure to invest in marine related industries and lack of analysis of the economic benefits of marine industry.
- Conflict between conservation interests and inappropriate industries sited next to the estuary.
- Shortfall in communication between some commercial businesses / local users of the estuary and those that manage the Exe.

### Key Objective

Commercial, industrial and military use of the estuary is effectively managed or influenced in order to maintain a sustainable level of activity.

### Policies

**CO1:** Increase understanding of the marine related business activity on the estuary and the economic benefits.

**CO2:** Facilitate systematic means of communication with the military, industry and commercial businesses to help better understand their effects on the estuary, mitigate negative impacts and influence their decisions, encouraging them to use sustainable methods and processes in their activities and help their understanding of the estuary's natural environment and its economic value.

- CO3:** Seek to support suitable enterprises and commercial opportunities which promote the natural value of the estuary.
- CO4:** Improved engagement between local users and commercial businesses and those that manage the Exe.

## **Indicative Actions**

- Explore new opportunities to engage commercial businesses with management of the Exe Estuary.