

8. Conclusions

The Exe Estuary is an internationally important resource for both people and wildlife. It is treasured by residents and visitors alike for many different reasons, including its landscape, tranquillity, diverse wildlife, heritage and natural facilities. It is also a lively busy place, supporting a wide range of activities including recreation, tourism, farming, fishing, transport, local commerce and many others.

This document is the second in a series that reports on the present condition and recent changes in aspects of the natural and human environment of the Exe Estuary. Where possible, the causes and implications of any significant changes have been related to the usage and management of the Estuary. The report also highlights the physical processes and coastal changes which occur daily and over longer periods, and which combine with the natural and social changes to shape the Estuary we know today. All the changes described remind us that the Estuary is a dynamic system, and that the people and wildlife living here will need to adapt and adjust.

Information from a wide variety of sources and contributors has been updated and brought together during the production of this report. A summary of the main findings of each section is presented below.

1. Background to the Exe

Seven fundus owners own the bed of the Exe Estuary, and several lease agreements have been made between the formal owners and other organisations for its use. A better understanding of the existing agreements, and the rights and responsibilities retained and transferred by the fundus owners to their leaseholders, might help the Exe Estuary Management Partnership (EEMP) to implement more effective management in some instances.

The new Local Development Plans for Exeter, East Devon and Teignbridge include proposals for housing development that will result in thousands more people living close to the Estuary in future years. This expansion of the local population will result in more people visiting and using the Estuary, which is likely to cause adverse effects – particularly increased disturbance – for the legally protected wildlife of the Estuary. The potential impacts of this increase in population are being considered by the three local authorities and the EEMP, and a suite of potential future management measures is being drawn up for mitigating and offsetting additional disturbance. There may be a role for the EEMP in planning, delivering or monitoring these measures. In the context of all these new developments, the Partnership aims to balance the effects of growth with the conservation status of the Estuary.

With an increasingly busy Estuary, there are also implications for the safety of recreational and commercial users of the Estuary, and the EEMP could have a future role in actions to address any safety concerns that arise.

2. Climate Change

Global warming is resulting in changes in climate around the world, which are impacting on natural and human systems. The impacts of recent extreme climate events at a local level, such as storms and floods, demonstrate the vulnerability and exposure of some areas within and in the vicinity of the Exe Estuary. Mean sea levels around the South West of England are rising, and within the physically enclosed Exe Estuary, coastal squeeze will lead to a reduction in the area of intertidal habitat. The habitat loss and associated compensatory measures required will have significant implications for the people and wildlife of the Estuary.

The ongoing European project LiCCo - Living with a Changing Coast – and the long-term Exe Estuary Flood and Coastal Erosion Risk Management Strategy are examples of Environment Agency-led initiatives undertaken on the Exe Estuary with the aim of preparing local communities for the likely effects of climate change whilst managing the risks of sea level and coastline erosion. The Exe Estuary Management Partnership is a partner in the LiCCo project and has assisted with local communication on both of these initiatives.

3. Natural and Historic Environment

The national and international protected areas on the Exe Estuary have been facing both positive and negative changes since the publication of the first State of the Exe. The current biological, physical and chemical condition assessments (undertaken by Natural England) indicate that overall the Exe Estuary and Dawlish Warren SSSIs have improved since the previous assessment in 2006. In particular, improvements have been recorded in the SSSI units of the upper Estuary that include Exeter canal and Exminster marshes, although deterioration has been observed in the unit that covers the Exmouth Local Nature Reserve. All habitats located in the upper and middle Estuary are currently classified as “favourable”, while the habitat units around Dawlish Warren SSSI are classified as “unfavourable recovering” and “declining”. The main reasons for the ‘unfavourable.’ condition include the non-understood decline of some wintering bird species (oystercatcher in particular), and coastal erosion due the presence of coastal defence structures (i.e. groynes and gabions).

Recognition of the environmental importance of the Estuary has been strengthened, and many issues relating to maintenance of its conservation status have been addressed by several organisations with legal responsibilities on the Exe Estuary. A clear understanding of the scale and magnitude of existing and future pressures, and of how these could affect the Estuary’s protected wildlife and habitats, would help the management authorities to develop and apply successful mitigation measures. There is a legal duty to apply the precautionary principle to ensure that any proposed plan or project will not adversely affect the integrity of any protected site.

4. Use of the Exe

Usage of the Estuary is likely to increase significantly in future years, mainly as a result of an anticipated increase in local population. There is also considerable scope for extending the visitor season of the Estuary beyond the summer months, for example by marketing the area as a nature tourism destination. However, the provision of tourist and recreational facilities and services needs to be balanced with consideration of the international importance of the Estuary’s wildlife, and protection of its high quality landscape, otherwise its appeal as a tourism destination will gradually dwindle. It would be beneficial if promotion of the Estuary as a tourism and water sports destination could be combined with messages about its special environmental qualities and sensitivity. An additional level of visitor management at the more sensitive destinations on the Estuary may be needed in future (e.g. Dawlish Warren) to minimise damage such as trampling caused by visitor pressures.

Concerns about the effects of the anticipated growth in population around the Estuary have led the EEMP and some individual Partner organisations to commission several studies to assess the impact of increasing recreation on wildlife and on the safety of water users. The findings of these studies are being used to inform the suite of potential future management measures intended to mitigate and offset the impacts of increased disturbance referred to in Chapter 1 above.

As demand for facilities to access the water increases (particularly slipways), there will be a need for Estuary managers to consider how best to increase access provision and associated infrastructure whilst maintaining safety, minimising inconvenience to local residents and diverting water users away from the more sensitive wildlife locations within and around the Estuary.

5. Environmental Quality

Despite the increasing pressures from an expanding population, and a greater variety of activities taking place on and around the Estuary, the environmental quality of the Exe Estuary is generally good. However, the Estuary is not an isolated site and the quality of surrounding areas (notably the Exe river catchment) affects, and to an extent is in turn affected by, the environmental status of the Estuary.

In all of the three government tiers (European, National, County) the existing Environmental Directives and Strategy Plans have been recently revised and in some cases more rigorous standards and monitoring requirements set out. Moreover, air and water quality and waste management local plans are continuously monitored and improved by the three Local authorities (ECC, EDDC and TDC). Nationally and internationally defined environmental standards levels and target values are being applied, and where failures exist co-management measures are put in place. A good example is the significant improvement in bathing water quality at Dawlish Town Beach since 2005. The local authorities, together with the Environment Agency, have carried out investigations and land works to ensure that the potential sources of pollution are below acceptable levels.

In order to maintain the Exe Estuary's well-being and certify that all the existing failures are being addressed and monitored, it is important that the responsible authorities of the Exe Estuary continue working together in co-operation to detect and respond to any changes in environmental quality that are causes for concern.

6. Promoting Understanding of the Exe

The future sustainability of the Exe Estuary depends on an understanding and appreciation of its natural, social and economic value, and the linkages between these. The different types of promotional and educational activities carried out by the Exe Estuary Management Partnership and partner organisations help local users and visitors to better understand the Estuary ecosystem – as well as the benefits it brings to the local community and the challenges of its management.

Ongoing promotion and provision of educational activities covering all relevant issues of the Exe Estuary will in the long term ease communication between Estuary managers and users, facilitate stakeholder engagement, and improve the effectiveness of any management measures that are introduced.

7. Estuary Management

The Exe Estuary is sensitive to many factors that pose a potential threat to: the well-being of the local community living around its shores; the ways that it is used and contributes to the local economy; its wildlife and environmental quality, and its landscape. Local authorities and organisations have identified the main risks and drawn up a number of plans and strategies containing preventative measures, monitoring regimes and, in the event of a harmful event occurring, plans for a rapid and coordinated response.

Examples of such hazards and threats include maritime pollution incidents, flooding and coastal erosion, and inappropriate or excessive development.

Both historically and recently, the Exe Estuary has experienced and suffered the consequences of coastal erosion and flooding. Coastal and flood defence schemes have been built in many parts of the Estuary to protect people and limit damage to properties, but in some cases they have significantly affected the operation of natural systems by altering fundamental geomorphological processes – for example by interrupting natural

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sediment supplies. New coastal and flood management actions on the Exe Estuary have been proposed by the Environment Agency, with the EEMP helping with communication. The recently published “Exe Estuary Flood and Coastal Erosion Risk Management Strategy” identifies appropriate coastal and flood schemes for each Estuary community taking into account social, economic and environmental aspects. The aim is to ensure that the risks are managed before they cause serious problems for local populations and for the protected habitats of the Exe.

Two of the most important lessons learned from work on the LiCCo project and the planning of coastal management within the Estuary are, firstly, that any management proposals must consider the Estuary as a whole, interconnected system. Measures aimed at addressing an issue at one location will almost certainly affect other parts of the Estuary. Secondly, the dynamic nature of the Exe Estuary calls for a flexible and adaptive approach to coastal management, rather than one based around long term, one-off fixes.

This State of the Exe report provides a description of the Exe Estuary in 2014, but it presents only a static perspective – a snapshot. In order to ensure effective and balanced management of the Estuary it is important that Exe Estuary Management Partners remain collectively aware of relevant studies, surveys and initiatives as they arise, along with associated findings and recommendations or actions. The work does not end with publication of this document (which is already out of date!) – this State of the Exe is just a milestone along the way towards greater sustainability for Exe Estuary management.