

Tamar Estuaries Management Plan



2013-2018
Tamar Estuaries Consultative Forum
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Foreword:

Since 1997, the Tamar Estuaries Consultative Forum has been working collaboratively to manage the waters of Plymouth Sound and the Tamar Estuaries. As the 2006-2012 Tamar Estuaries Management Plan comes to an end, the partners can be satisfied with what has been delivered. There is an increased level of understanding of how to manage the European Marine Site amongst the partners, information is produced and circulated on a regular basis and the single database of evidence exists as a valuable asset.

The last few years have seen significant change for the marine and coastal environment with the emergence of new legislation to safeguard and protect this precious resource.

The Marine and Coastal Access Act 2009 introduced far-reaching measures which included the establishment of the Marine Management Organisation, the introduction of marine planning, new structures for managing fisheries and the proposed establishment of a new network of Marine Conservation Zones.

Other legislation has also emerged which relates to water use and flood management whilst the implications of climate change are also becoming clearer.

The actions required to support this legislation and associated policies are still emerging and it will be important that all partners engage and adapt to reflect the new culture and way of working.

As we commence delivery of this fourth management plan, the role of Tamar Estuaries Consultative Forum remains critical to ensuring that the Plymouth Sound and Tamar Estuaries are sustainably managed so that the resources of the area are there for everyone, both now and in the future.

Carl Necker

Commander Royal Navy
Queen's Harbour Master Plymouth
Chairman Tamar Estuaries Consultative Forum

Part 1: Introduction

1.1 The Tamar Estuaries Management Plan - What is it?

The plan seeks to *provide the framework for delivering a sustainably managed estuary and coast, ensuring that the resources of the area are there for everyone, both now and in the future.*

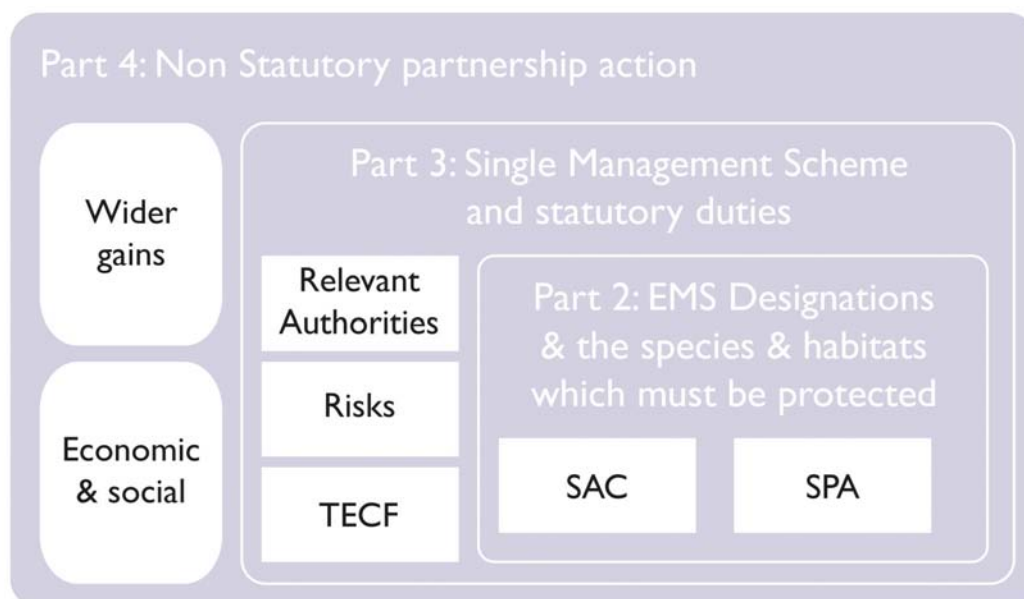
The Tamar Estuaries Management Plan is a multi-functional document with objectives to:

- maintain the European Marine Site in favourable conservation status thereby delivering statutory compliance for the European Marine Site;
- to agree, deliver, monitor and review the scheme of management for the additional economic and social benefits through an agreed 'sustainable management agenda' for the Tamar Estuaries and provide a framework for non-statutory partnership action.

This plan serves the dual purpose of addressing joint delivery of statutory duties in relation to the European Marine Site as well as providing a joint approach to delivering a wider range of partnership projects.

In order to provide the elements described above, the document is laid out with an introduction and three further parts as illustrated in Figure 1.

Figure 1: Structure of the Tamar Estuaries Management Plan 2012 - 2018.



1.2 What will the plan deliver?

For clarity this document is presented in four parts as follows:

- **Part 1:** Introduction;
- **Part 2:** describes the European designations and the specific marine species and habitats that must be protected;
- **Part 3:** delivers the first objective by setting out the activities which **must** be managed by the Relevant Authorities in order to ensure compliance for the management of the Plymouth Sound and Tamar Estuaries European Marine Site; how monitoring and reporting will be delivered, how the authorities will work together and how Tamar Estuaries Consultative Forum (TECF) will bring added value. It is informed by Natural England's Risk Assessment of all human activities⁽¹⁾. It highlights the relevant authorities responsible for leading on particular actions and details the function that TECF will have.
- **Part 4:** aligns the statutory activities with non-statutory partnership action to form a thematic plan. These themed topics have been developed by stakeholders through the management planning process and are as follows:
 1. Coordination
 2. Monitoring and information management
 3. Landscape and biodiversity conservation
 4. Historic environment
 5. Water quality
 6. Development and coastal change
 7. Fisheries
 8. Shipping, navigation and safety
 9. Public access, recreation and moorings
 10. Awareness, understanding and community engagement

The Tamar Estuaries Management Plan has been developed by the TECF with advice from the PPMLC, and the WAG.

The actions detailed in Part 4 will be updated as a rolling 3 year Business Plan, agreed by the TECF members and published on the TECF website.

1.3 What are the new challenges and opportunities?

Since the last plan was written in 2006, a number of new challenges and opportunities have emerged which have influenced the Tamar Estuaries Management Plan for 2012-18:

CHALLENGES

1 Natural England 2010. European Marine Site Risk Review. Natural England Research Report NERR038 and associated papers.

- Natural England have completed a systematic risk assessment of all human activities likely to impact on the European Marine Site. **Challenge:** how to manage human activities in order to reduce the risks.
- There is increased local recognition of the importance of the marine environment, sector and activities as reflected in the adoption of local strategies such as the Cornwall Maritime Strategy. **Challenge:** how to integrate these into estuarine management.
- Changes to the terrestrial planning system including the loss of detailed policy statements and a shift to local people shaping their neighbourhoods. **Challenge:** ensure that the importance of protecting the marine environment is fully understood and implemented.
- A large number of marine protected areas have been proposed some of which may well be established within the Plymouth Sound and Estuaries European Marine Site. The Start Point to Plymouth Sound & Eddystone candidate Special Area of Conservation (cSAC) also brings additional challenges. **Challenge:** integrate the conservation objectives into a single management plan for the European Marine Site and align with the two neighbouring SACs.
- Development and recreational pressures continue to increase on the waterfront and marine areas. **Challenge:** how best to enable development without impacting on the European Marine Site.
- There is a clearer understanding of what needs to be done to achieve the requirements of the Water Framework Directive and the Marine Strategy Framework Directive. **Challenge:** Integrate all these directives into one single plan without the plan becoming too big and cumbersome and also to integrate the work of other partnership approaches to tackling other elements of water management.
- Climate change will result in increased rainfall intensity (flooding), sea level rises, associated pollution from run-off, changes to water supply, increasing water temperatures, acidification and species migration. **Challenge:** adapting to climate change.

OPPORTUNITIES

- The Marine and Coastal Access Act 2009 has introduced a number of measures to improve management and increase protection of the marine environment and improve recreational access to England's coasts. **Opportunity:** Integrate the new legislation requirements.
- The establishment of the Marine Management Organisation with its new powers has formalised the way in which some elements of the marine environment is managed. **Opportunity:** Ensure the new elements are fully integrated.
- Inshore Fisheries and Conservation Authorities (IFCAs) have been established to replace the Sea Fisheries Committees. **Opportunity:** integrate their new 'conservation' function within the delivery framework.
- Marine plan making has commenced with the aim of developing a plan for England's South West marine area by 2020. **Opportunity:** to prepare the ground and support the MMO.
- Presence of the Start Point to Plymouth Sound & Eddystone cSAC adjacent to the Plymouth Sound and Tamar Estuaries European Marine Site. **Opportunity:** ensure that the plan has regard to the conservation objectives for this.

- The Shoreline Management Planning process has established long term objectives for protecting the critical parts of the coast from sea level rises. **Opportunity:** integrate the shoreline management plan with habitat creation opportunities.
- Plymouth has articulated an ambitious growth agenda through its business community and city council with a desire for a 32% increase in population and 21,000 new homes will focus pressure on resources and land use. Cornwall similarly wants to see development in Torpoint and Saltash. **Opportunity:** build into the planning process the ability to manage the impacts of increased water recreation.
- The rising demand for waterfront development sites has led to a need to ensure that appropriate amounts of port land is retained for port related use and access to the water is increased as appropriate. **Opportunity:** to ensure that land is safeguarded and new access opportunities are developed.

1.4 The Tamar Estuaries Management Framework

Estuaries are characterised by many overlapping statutory authorities and functions which means that the management of the water is not in the hands of a single organisation.

TECF, Port of Plymouth Marine Liaison Committee (PPMLC) and Wembury Voluntary Marine Conservation Area Advisory Group (WAG) provide the vehicles for co-operation and delivery in a working environment characterised by shared and overlapping interests and responsibilities. They facilitate co-operation and consultation in the performance of statutory duties and provide a clear mechanism for communication between the wide-ranging interest groups and decision-makers.

TECF's membership comprises all the organisations with statutory powers or functions relating to the estuary. PPMLC includes representatives of the various estuary users, owners and interest groups. WAG comprises organisations with an interest in the management of the Wembury Voluntary Marine Conservation Area. Figure 2 illustrates the membership and management structure of these groups.

The work will be delivered collectively by the members of the Forum with key actions delivered by staff at Plymouth City Council through a contractual arrangement with the key Relevant Authorities who will make up the membership of the TECF Core Group. Other partners will be included through arrangement.

- The plan will be delivered through the pooling of financial and intellectual resources thereby providing the most cost effective mechanism.
- It will deliver by ensuring that the relevant authorities are aware of their statutory duties and obligations towards the estuaries' natural assets, and that they are supported in undertaking these duties in a manner that achieves favourable status for the European Marine Site.
- It will deliver by ensuring that mechanisms exist for open and transparent communication in a working environment characterised by shared and overlapping interests and responsibilities.
- It will deliver by providing an open and accessible pool of relevant expertise in the form of TECF, PPMLC and WAG

- It will deliver through a contractual arrangement provided by the Green Infrastructure Delivery Team of Plymouth City Council on behalf of the TECF Core Funders.
- A Core Group of the TECF funding partners will guide the production of the annual delivery plan including the detail on individual project delivery targets and timetables and oversee the contracts.

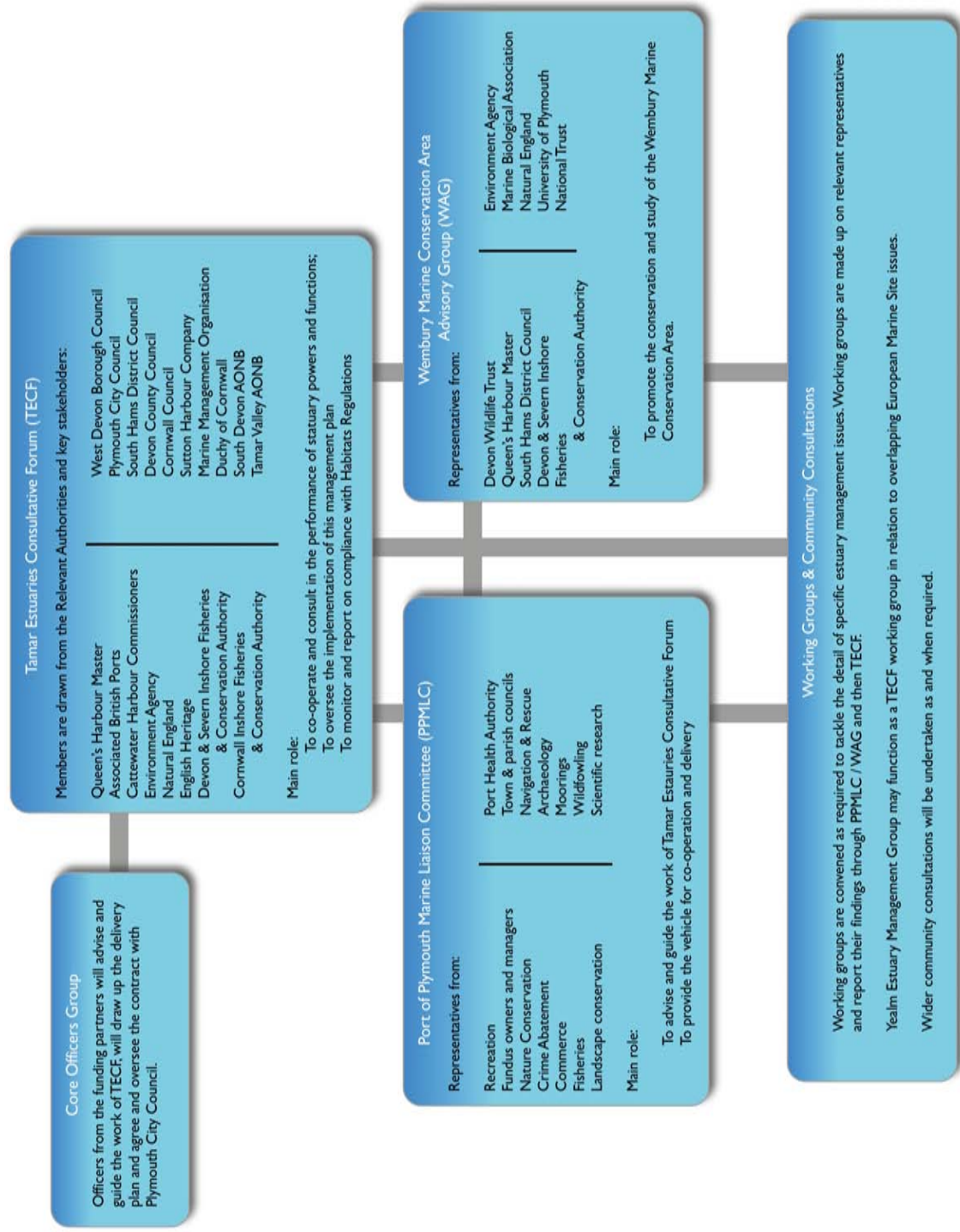


Figure 2: Management Structures for the Tamar Estuaries

1.5 Area covered by the Tamar Estuaries Management Plan

The area covered by the management plan is shown in Figure 3. It encompasses the limits of the Dockyard Port of Plymouth and the seaward extent of the Plymouth Sound and Estuaries European Marine Site. This includes Plymouth Sound, the tidal limits of the rivers Tamar, Tavy, Lynher and Plym, and the Wembury coast up to the mouth of the Yealm Estuary.

The Yealm Estuary is also part of the European Marine Site, but has a separate set of management arrangements and its own management plan to focus on these.

Throughout this plan the name 'Tamar Estuaries' will be used as an umbrella term for the Rivers Tamar, Tavy, Lynher and Plym, Plymouth Sound and the coast from Rame Head to Gara Point.

Figure 3 shows the area covered by this management plan which is the largest estuarine system in southwest England. It supports some 400,000 people in the catchment, plus large numbers of visiting recreational users. The area supports landscape, biodiversity, historic assets of national and international value and it is of regional importance as a public water supply. It includes Western Europe's largest military port, 1 military harbour authority, 3 commercial harbour authorities, 5 international marinas, 26 boat yards, 2 district councils, 2 unitary authorities and 1 county council. The site is therefore complex, with a broad spectrum of stakeholders to engage and issues to be addressed.

This plan does not seek to provide a comprehensive description of the estuaries assets and characteristics. Readers seeking further information should refer to the following sources:

- Tamar Estuaries Consultative Forum website (www.plymouth.gov.uk/tecf)
- [Tamar Estuaries Management Plan 2006-2012](#)
- [South West River Basin Management Plan \(2009\)](#)
- Plymouth Sound and Estuaries Nature Conservation Review (1999)
- Tamar Valley, Cornwall and South Devon AONB Management Plans
- European Marine Site Risk Review 2010
(<http://publications.naturalengland.org.uk/publication/36006?category=41010>)
- [Ports of Plymouth Evidence Base Study \(2010\)](#)
(www.plymouth.gov.uk/homepage/environmentandplanning/planning/planningpolicy/ldf/ldfbackgroundreports/portofplymouthstudy.htm)

Figure 3 - Tamar Estuaries Management Plan Area



1.6 How and why was the management plan produced?

The roots of this plan lie in the long history of liaison and consultation between the Ministry of Defence (MoD), local authorities and responsible bodies over the management of their common water body.

In 1992 the MoD considered reducing their jurisdiction and geographical area of responsibility. The public consultation that accompanied this review created great controversy and public opposition, and led to the decision that the alternative civil water space management arrangement would be costly, unwarranted and broadly unwelcome.

It was agreed that the management of the estuaries would be continued using existing powers, but with increased involvement of other bodies and, in 1994, a Coastal Officer was employed to facilitate this.

There followed a thorough consultation process which culminated in the revitalisation of the management and advisory group structures and the production of the first 1997 Tamar Estuary Management Plan.

Since then a further two management plans have been produced through cumulative public and stakeholder consultation, these being the 2001-2006 plan and the 2006-12 plan. Both of these have gone on to consolidate and strengthen the integrated approach to the management of these waters.

The 2006-2012 Plan saw progress delivered against all 134 different work actions listed under 11 themes. This included policy work such as helping shape the Marine and Coastal Access Act, strategic work such as the adoption of a planning tariff to offset the impacts of increased recreation, the maintenance of the shared geographical information system for the Estuary, the production of information and interpretation such as the water users guide and the website and ensuring that all new plans and projects are carried out in such a way so as to avoid adverse impacts on the European Marine Site.

This latest plan builds on all that has previously been achieved and continues the tradition of stakeholder engagement and collaborative working which is at the heart of TECF whilst looking ahead to integrate the new challenges which estuaries face. This work has been augmented by:

- TECF Management Plan 2006-12 Mid Term Review, published November 2009.
- European Marine Site Risk Review published as Natural England Research Report NERR038 in November 2010.
- Tamar Officer Finance and Management Group (March 2011 – Jan 2012)
- Circulation of draft publication to stakeholders and consultation (Spring 2012)

1.7 How will it link with other plans?

This plan forms part of the management scheme for Plymouth Sound and Estuaries European Marine Site (see Figure 4). The European Marine Site also includes the Yealm Estuary. Due to the existence of a separate management structure and a discrete set of issues, the Yealm is dealt with through the Yealm Estuary Action Plan. Both plans together form the single scheme of management for Plymouth Sound and Estuaries European Marine Site.

There are also a number of other current, and emerging, statutory, and non statutory plans. The list is long and continuously growing, but includes Area of Outstanding Natural Beauty Management Plans, River Basin Management Plans, Catchment Flood Management Plans, local and neighbourhood plans, Shoreline Management Plans, Cornwall Maritime Strategy, Marine Plans, Green Infrastructure delivery plans, Biodiversity Action Plans, Local Transport Plans, Climate Change Risk Assessments and Heritage at Risk & National Heritage Protection Plans. All of these plans will have a role in delivering the sustainable management of the Tamar Estuaries and where these exist and are relevant, then the organisation(s) responsible for delivery of these plans will be cited as the lead body. In this way measures arising from this plan will therefore also inform and support existing action, as well as identifying the need for new work.

Delivery mechanisms for all of these plans have not yet been fully developed, particularly for the estuarine and water environments where public bodies are only just starting to understand their role in achieving the requirements set out in the numerous European Directives. However it is clear that there will obviously be many overlapping interests and many actions identified in this plan will also help deliver requirements under other Directives although the precise relationship will be explored as part of this management plan. For example, the Environment Agency will be looking closely at how it can integrate this Management Plan with its work to deliver the Water Framework Directive and the second round of River Basin Management Plans.

The preparation of this document has also had regard for plans and management objectives of adjacent protected areas, including the proposed Marine Conservation Zones (MCZ) and the Start Point to Plymouth Sound & Eddystone candidate Special Area of Conservation (cSAC).

Figure 4 - Plymouth Sound and Estuaries European Marine Site



Part 2: Plymouth Sound & Estuaries European Marine Site

2.1 Why is this a management consideration?

Plymouth Sound and Estuaries are designated a Special Area of Conservation (SAC) under the European Union's Habitats Directive 92/43/EEC, as implemented by The Conservation of Habitats and Species Regulations 2010. Sections of the Tamar Estuaries are also recognised as a Special Protected Area (SPA) under the Birds Directive 79/409/EEC on the conservation of wild birds, as implemented through the Wildlife and Countryside Act 1981 and through The Conservation of Habitats and Species Regulations 2010.

The aim of the Directives is to maintain the diversity of Europe's wildlife through the conservation of important, rare and threatened habitats and species. The two designated areas are collectively referred to as a *European Marine Site* (EMS). The boundaries of the SAC and SPA are shown in Figure 3.

Designation of the area as an EMS brings with it a legal requirement for the relevant and competent authorities to exercise their functions in such a way as to avoid adversely impacting on the designated habitats or species. Any one of the relevant authorities may establish a management scheme under which their functions are to be exercised but there can only be one management scheme for each European Marine Site.

This document therefore represents the single scheme of management for the Plymouth Sound and Estuaries European Marine Site. It has been written to provide guidance for the work of TECF and its partners, in delivering statutory compliance and best practice in the management of the Tamar Estuaries whilst also delivering broader economic and social benefits. The Habitat Regulations place a general duty on all statutory authorities exercising legislative powers to perform these in accordance with the Habitats Directive. An EMS management scheme is viewed to be the most cost effective way to achieve this through providing a framework for management and cooperative working with other relevant/competent authorities, especially on large or complex sites.

Previous Plymouth Sound and Estuaries European Marine Site Management Schemes have identified TECF, working with PPMLC, Wembury Advisory Group and Yealm Estuary Management Group as the most appropriate, effective, and efficient management framework for the protected area.

This chapter of the Tamar Estuaries Management Plan forms the management scheme for the sector of the Plymouth Sound and Estuaries European Marine Site shown in figure 3. It sets the legal framework within which operations and activities will be managed so as to achieve the conservation objectives of that part of the European Marine Site.

2.2 Why is it designated a European Marine Site?

The Plymouth Sound and Estuaries is a **Special Area of Conservation** (SAC) for the following habitats and species as listed in the EU Habitats Directive:

- Large shallow inlets and bays (including intertidal and subtidal reef communities and subtidal sediment communities)
- Estuaries (including intertidal and sub tidal mudflats, salt marsh and reed bed)
- Sandbanks which are slightly covered by seawater (including eelgrass beds and gravel and sand communities)
- Atlantic salt meadows (including saltmarsh communities)
- Mudflats and sandflats not covered by seawater at low tide (Intertidal mudflats, intertidal mixed muddy sediment and sandflats)
- Reefs (including Intertidal rocky shore communities, sub tidal rocky reef and kelp forest communities)
- Allis Shad

A full list of features and subfeatures are given in Appendix 2.

The Tamar Estuaries complex qualifies as a **Special Protection Area** (SPA) for the following nationally important populations of the regularly occurring species listed in the Birds Directive:

- Avocet
- Little Egret

Part 3: Managing the Critical Risks to the European Marine Site

3.1 Introduction

This section looks at what the critical risks are to European Marine Site and goes on to identify the actions required to manage the risk along with the Relevant Authorities who are responsible.

It is based on Natural England's Regulation 35 Advice Package ⁽²⁾ which gives detailed advice on the site's ecological features, the operations that may impact upon them and sets the standards by which their status (favourable or otherwise) can be determined.

It also draws on the risk assessment carried out by Natural England 2010. ⁽³⁾ which looked at all human activities, their likely risk of causing detrimental impacts on the sites and features of the European Marine Site and the actions required. It takes an adaptive management approach whereby human activity must be constantly reviewed and monitored in the light of new knowledge in order to minimise its detrimental impacts on the species and features that make up the European Marine Site.

This section therefore sets out the statutory requirements for each Relevant Authority in order to ensure compliance with the Conservation of Habitats and Species Regulations 2010 and highlights where this can be achieved through joint delivery.

3.2 What do we want to achieve?

The objectives for this Plan are:

- 1. To maintain the Plymouth Sound and Estuaries European Marine Site in favourable status and thereby deliver statutory compliance for the European Marine Site.**
- 2. To agree, deliver, monitor and review the scheme of management for additional economic and social benefits through an agreed 'sustainable management agenda' for the Tamar Estuaries and provide a framework for non-statutory partnership action.**

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- 2 This management plan draws heavily upon Natural England's Regulation 35 Advice Package and anyone wishing to gain a detailed understanding should refer to it: Plymouth Sound & Estuaries European Marine Site - English Nature's Guidance given under Regulation 33 of the Conservation (Natural Habitats &c.) Regulations 1994 (2000). This is due to be updated by 2015. www.naturalengland.org.uk/marine for more information.
 - 3 European Marine Site Risk Review. Natural England Research Report NERR038 and associated papers. www.naturalengland.org.uk

3.3 How must we deliver it?

Table 1 gives the actions which are necessary to maintain the European Marine Site in favourable status and as such are the statutory requirements for the organisations identified. The table is based on advice provided under Natural England's Reg 35 Advice package which outlines the key activities and operations, which, if not suitably managed, threaten the favourable status of the European Marine Site.

The table is presented so that the first column relates to the thematic activity, the second column identifies the activity or challenge which if not managed or addressed is known to impact on the European Marine Site. The third column identifies the scale of risk of not managing the activity effectively based on Natural England's risk assessment. The fourth column sets out the Relevant Authorities that have a legal responsibility for managing the activity (see Appendix 1) whilst the sixth column gives TECF Service's role in delivering this. The final column cross references to other related actions elsewhere in the management plan where more detail is provided on how this might deliver added value.

These ongoing work items remain critical to the protection of the European Marine Site and can therefore be regarded as the work items of primary importance having a statutory requirement for delivery.

Potentially Damaging Activity / Challenge	Scale of risk	Action Required	Relevant Authorities	Link to actions	Role of TECF Service for 2012-2018
Coordination	Not assessed	<p>i. Review current structure of TECF and PPMLC and implement recommendations.</p> <p>Implement and maintain current structure for TECF and PPMLC until review completed.</p>	All TECF & PPMLC partners	1-9	Lead
	Not assessed	<p>ii. Maintain functional relationship between Yealm Estuary Management Group, the competent authorities and user groups.</p>	TECF / YEMG members	1-9	Lead
Lack of capacity within individual Relevant Authorities to deliver required management scheme actions	Not assessed	<p>iii. Pool resources through Partnership working and provision of dedicated shared staff (see Chapter 2).</p>	All TECF member organisations	1-9, 11-15	Lead
Need to investigate the implications of the	Not assessed	<p>iv. Identify whether there are any advantages in jointly managing these two adjacent SACs.</p>	TECF / NE / MMO / D&SIFCA	1,2	Drive debate and bring partners together.

Potentially Damaging Activity / Challenge	Scale of risk	Action Required	Relevant Authorities	Link to actions	Role of TECF Service for 2012-2018
designation of the Start Point to Plymouth Sound & Eddystone cSAC.					
Monitoring & Review	Not assessed	v. Included within the annual TECF Work Programme, progress reports and mid term review. Both monitoring and review will be formalised against the statutory elements below.	TECF / PPMLC / WAG	5,10-16, 66	Coordinate, bring together and present data.
Habitat Loss & Invasive Species	Moderate – High	vi. Survey the extent and distribution of non-native / invasive species	Natural England/ IFCA's/ EA	24, 25	Coordinate survey programme
		vii. Implement strategically targeted control measures on species shown to have negative impacts		24, 25	Coordinate local rollout of projects to control invasive
	High	viii. Quantify potential losses and gains ix. Develop & implement plan for mitigating loss of habitat.	EA /Natural England / LAS	20, 21	Coordinate research project Produce plan
Water Quality	Moderate	x. Strategic targeting of agri-environment Schemes in the catchment.	Natural England/ Environment Agency	35	Monitor progress, sharing data and providing information on the importance of the EMS.

	Potentially Damaging Activity / Challenge	Scale of risk	Action Required	Relevant Authorities	Link to actions	Role of TECF Service for 2012-2018
	sewage works, road runoff and agriculture		<p>xi. Integrate work of TECF into second round of River Basin Management Plans and Catchment Management Plans.</p> <p>xii. Undertake mine discharge review through Mine Waste Directive and Water Framework Directive.</p> <p>xiii. Continue with Waterbody Implementation Plan actions driven by the Water Framework Directive for the Upper Tamar, Tavy, Plym & Yealm catchments. Continue to monitor water quality.</p> <p>xiv. Consider impact of runoff from all developments and operations on European Marine Site and introduce measures including sustainable drainage systems and operations.</p>	<p>Environment Agency / Natural England/ PCC</p> <p>Environment Agency/CC/ DCC/WDBC</p> <p>Environment Agency</p>	<p>39, 40, 47, 57, 58</p> <p>36</p> <p>47</p>	<p>Drive debate and bring partners together.</p> <p>Monitor progress and share information</p> <p>Support as required</p>
Development	Coastal Development	Low - Medium	<p>xv. Local and neighbourhood plan documents (and other appropriate management plans) to be assessed as a 'Plan or Project' under the Habitats Directive</p> <p>xvi. Produce planning policy and guidance on assessing, limiting and mitigating impacts of coastal development including cumulative impacts arising from increased recreational pressures.</p>	<p>Local authorities, Environment Agency</p> <p>Local Authorities</p> <p>Local Authorities</p>	<p>46,54</p> <p>48, 49, 50, 55, 56</p> <p>51, 52, 53, 54, 56</p>	<p>Monitor progress</p> <p>Ensure consistent approach is adopted to Habitats Regulations Assessment.</p> <p>Produce planning policy for CC, WDBC and SHDC based on that produced for PCC. Coordinate responses from stakeholders to key waterfront applications.</p>

Potentially Damaging Activity / Challenge	Scale of risk	Action Required	Relevant Authorities	Link to actions	Role of TECF Service for 2012-2018
Commercial Fisheries	Low - Medium	<p>xvii. Undertake assessment of all active fisheries within and adjacent to the SAC. Identify appropriate management actions where they are shown to be having an adverse effect.</p> <p>xviii. Review IFCA bylaws.</p>	IFCAs/ EA/	63, 64, 65, 67, 68	Support IFCAs in assessment and implementation of management actions.
Shipping and Navigation	Moderate	xix. Continue exercises to test pollution contingency plans, review and update as necessary.	Harbour Authorities / Local Authorities/ MCA	38	Update and share environmental data, take part in exercises and review and monitor progress.
	Moderate	xx. Quantify scale and levels of impacts of shipping related sewage discharges, contaminants from repairs etc on local features and abandoned vessels.	Environment Agency / Harbour Authorities	76, 77	Provide environmental data and advice on minimising impacts of marine works, and monitor progress
	Moderate	xxi. Quantify threat caused by re suspension of contaminated sediments due to dredging and develop plan if necessary.	Harbour Authorities / Natural England / MMO	70	Complete research project
Maintenance and capital dredging – potential impacts including	Moderate	xxii. Update maintenance dredging baseline document and follow protocol.	Harbour Authorities / Natural England/ DEFRA /MMO	43, 71	Provide environmental data & supportHarbour Authorities as required

Potentially Damaging Activity / Challenge	Scale of risk	Action Required	Relevant Authorities	Link to actions	Role of TECF Service for 2012-2018
Recreation	Moderate	xxiii. Review capital dredging practices and apply best practice.	MMO / DEFRA / Harbour Authorities / Natural England	72	Provide environmental data & support Harbour Authorities as required
		xxiv. Quantify scale of threats to Seagrass beds and other key habitats or species due to anchoring and/or mooring.	Natural England / Harbour Authorities / IFCA's	22, 23, 53, 54, 81	Coordinate research project
		xxv. Identify and implement actions to limit impacts, if required.		22, 23, 44, 51, 53, 54, 81	Lead roll-out of actions to minimise impacts.
Angling	Moderate	xxvi. Assess scale and distribution of impact of recreational angling.	IFCA / Natural England / EA	22, 23, 68	Support IFCA in assessment and implementation of management actions.
		xxvii. Ensure increases in public access to waterside locations do not conflict with needs of Avocet / Little Egret.	Local Authorities / Natural England	22, 23, 49, 50, 78, 79, 80, 82,	Input as required
Awareness	Not assessed	xxviii. Develop understanding of the European Marine Site's environmental value through targeted education and interpretation efforts.	All competent authorities	85-88	Maintain and enhance on-site interpretation at key locations around the

Potentially Damaging Activity / Challenge	Scale of risk	Action Required	Relevant Authorities	Link to actions	Role of TECF Service for 2012-2018
					estuary, plus list of other actions covered in chp 10

Table 1: Actions for maintaining favourable status & coordinated management

Part 4: Thematic Management Plan

This Part translates the statutory requirements outlined in Part 3 into actions under 10 themed topics as well as introducing new activities to achieve the sustainable management of the Plymouth Sound and Tamar Estuaries.

Each of the ten themes are dealt with in the same way; first of all there is a section on the critical issues for that theme. There follows a section stating the objectives for each theme under the title 'what do we want?' and finally a table shows the list of actions by which this will be achieved. The table also shows which actions will be taken forward by the TECF Service subject to funding.

It is worth explaining the various elements of the "TECF" resource identified in this Part:

TECF: This refers to the TECF Forum

TECF Service: This refers to the contracted service provided by Plymouth City Council for delivering elements of this document to the contributing partners of TECF.

A full list of abbreviations used is provided in the Appendix.

4.1 Coordination

What are the issues?

The Tamar Estuaries support a large range of commercial, naval and recreational activities. Combining these activities in an area valued for its natural and built heritage will result in conflicting interests. To ensure sustainable management of the estuary as a common resource, there is a need to coordinate these differing interests.

Since the production of the first management plan in 1997, TECF has brought those with an interest in Plymouth Sound and its estuaries into a beneficial partnership.

The Marine and Coastal Access Act 2009 has introduced further legal duties on new organisations in order to protect the marine environment whilst introducing additional designated marine sites which could overlap with the European Marine Site. This requires even more coordination to ensure the effective management of the Estuary and integration with other initiatives.

TECF is now a mature and effective partnership, providing a unique, responsive vehicle for coordination, planning and management. The Partnership's employment of a dedicated member of staff has enabled the efficient delivery of the relevant authorities' statutory duties, and the pursuit of external resources to allow continued investment in the Estuary. It is therefore well placed to continue delivering considerable social, economic and environmental achievements for which it has a proven track record and will now need to work hard to secure the funding in the current difficult times.

What do we want?

- To coordinate those authorities with an interest and responsibility in the Tamar Estuaries through the provision of a forum for communication and debate.
- To provide a mechanism for ensuring compliance by relevant authorities with their statutory duties of care for the estuary, its wildlife and habitats.
- To provide and oversee an effective framework for the management of the Tamar Estuaries that resolves issues, delivers added value through partnership and collaboration and integrates with other protective designations.
- To deliver 'added value' coastal management projects that support the new generation of plans such as green infrastructure and river catchment plans.

How do we deliver it?

In considering how these objectives may be achieved, consultation has highlighted the following challenges and requirements for action:

Challenge	Action	Organisational Involvement	TECF Service Actions 2013 - 18
Coordination of the estuaries' users and managers.	1. Maintain current structure of TECF and PPMLC & Yealm Estuary Management Group and secure funding; review to ensure best practice.	TECF/ PPMLC / YEMG	Lead
	2. Integrate the new MMO, IFCA's and new designations into TECF and have regard for Start Point to Plymouth Sound & Eddystone SAC.	TECF / MMO / IFCA / EA	Lead
	3. Integrate the relevant requirements arising from the Water Framework Directive.	TECF / EA	Lead
	4. Continue to co-ordinate with the Yealm Estuaries Management Group and other interest groups in relation to the management of the River Yealm.	SDAONB, SHDC, DCC, Harbour Authority	Support
To produce a plan that informs users and managers of the agreed priorities for joint action with a clear delivery mechanism through Plymouth City Council funded by partners.	5. Publish 6 year management plan, mid term review, annual work programme and budget with regular reporting statements and annual report and delivery plan.	TECF	Lead
	6. Delivery through an agreed contract with Plymouth City Council	PCC / TECF	Lead

Challenge	Action	Organisational Involvement	TECF Service Actions 2013 - 18
Fragility of funding – the delivery of Tamar Estuaries Management Plan is dependent upon the employment of a dedicated officer, funded through partnership contributions with additional funding secured to deliver 'added value' projects.	7. Seek commitment to core funding contributions and produce Memorandum of Agreement between relevant organisations	TECF	Lead
	8. Continue to increase awareness of TECF through a website and education and awareness raising events and products. (Chapter 11)	TECF	Lead
	9. Secure additional resourcing from partners and other sources.		

4.2 Monitoring & Information Management

What are the issues?

High quality research and monitoring continues to be vital to the on-going management of the estuary. There is a constant need to improve our understanding of the ecological dynamics of the Tamar estuaries, and to monitor the progress of specific management decisions. A robust evidence base forms the corner-stone for planning so the relevant data is critical. Data sharing amongst organisations is becoming more common place but common approaches still need to be adopted.

What do we want?

- To build on the integrated estuary-wide monitoring and research programme by sharing data and resources.
- To secure best available data, collected economically, to form the basis of a decision making tool for the management of the estuary.
- To ensure that management action is informed by good quality current data.

How do we deliver it?

In considering how these objectives may be achieved, consultation has highlighted the following challenges and requirements for action:

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Develop and implement a coordinated programme of research and monitoring.	10. Establish and support TECF Scientific Monitoring Group and those of the new IFCAs and MMO, and coordinate the delivery of the required research actions.	TECF / NE / EA / LAs / SWW	Lead
Improve understanding of information needed for assessment of “in combination and/or cumulative effects” as part of Appropriate Assessment and Strategic Environmental Assessment	11. Provide signposting service to existing data holders. 12. Implement mechanisms to enable effective data sharing	TECF	Lead

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Centralising data for assessing the condition of the European Marine Site and other areas of interest within the estuary.	13. Develop a plan for managing data and create and maintain an evidence base housed by an organisation capable of responding to enquiries.	TECF/ NE	Lead
Coordinated approach to condition assessment of the European Marine Site features	14. Develop and deliver integrated monitoring plan to inform future management and meet TECFs EMS reporting requirements	TECF/NE / EA / IFCAs / HAs	Lead
Cumulative / in combination impacts	15. Develop a GIS project or model to identify locations where cumulative /in combination effects are of greatest concern.	TECF / NE / LA EA/IFCAs	Lead

4.3 Landscape & Biodiversity Conservation

What are the issues?

The valleys created by the waters of the Tamar, Tavy, Lynher and Plym combine to form one of the most dramatic landscapes of the South West. The rivers are an intrinsic and valuable component of the landscapes of Cornwall and Devon, and a contrasting feature from the plunging and exposed sea cliffs of South Devon and the Rame Peninsula, to the rolling valleys of the upper estuaries and wild Dartmoor. The quality of these landscapes is recognised through their designation as Areas of Outstanding Natural Beauty (AONB).

The area is highly designated with Sites of Special Scientific Interest as well as additional marine designations being introduced through the national programme to create a coherent network of Marine Conservation Zones throughout UK waters which will require integration with existing management practices.

Nationally the marine environment has seen a sustained decline in its condition which continues with loss of habitat and functionality as evidenced in the National Ecosystem Assessment 2011 (<http://uknea.unep-wcmc.org>). This has led to an increased understanding of the significance of safeguarding our ecosystems goods and services and the usefulness of an ecosystem based approach for management. Whilst this work has started within the Tamar area there is still much to do to assess the Estuaries as a whole and to put this management tool into practice.

http://www.plymouth.gov.uk/green_infrastructure_delivery_plan.pdf

Development pressures continue to affect the landscape and biodiversity and new approaches to biodiversity offsetting will need to be explored. Given that the Tamar has some real opportunities for habitat creation this is an area that will need considerable focus.

Recreational human activities also impact and careful monitoring and appropriate action is needed to reduce the effect on the natural environment.

The pressures for further coastal change brought about by climate change bring added complexity. The understanding of how the management of this coastal change will impact on the European Marine Site is emerging as an important requirement.

Increases in temperature and poor mariculture management are factors which are thought to be resulting in invasive non-native species moving into our waters. DEFRA's 'Invasive non-native species framework strategy' sets out key actions relating to understanding and managing the risks. Given the impact these species can have on our native plants and animals, careful monitoring will be crucial and actions will be delivered where appropriate.

What do we want?

- To conserve, enhance and restore the distinctive character, biodiversity and beauty of the Tamar Estuaries.

- To achieve ‘joined up’ management of the neighbouring protected landscapes and marine designations.
- To raise awareness and understanding of the landscape and biodiversity of the Tamar Estuaries.

How do we deliver it?

In considering how these objectives may be achieved, consultation has highlighted the following challenges and requirements for action:

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Integrate the management of the Tamar Estuaries in order that the conservation objectives of all the marine designations can be met.	16. Complete the designation of any potential Marine Conservation Zones within the Tamar Estuaries and ensure that their requirements are fully integrated into the management plan.	All	Support by providing data and coordinating responses.
Use an ecosystem approach to protect ecosystem and habitat functionality	17. Implement actions of the Green Infrastructure strategies to support the functionality of habitats.	TECF /Local partner authorities / NE	Support as required
	18. Support the VALMER project to quantify ecosystem goods and services for the Tamar Estuaries.	TECF NE, EA, DCC	Support as required
Inappropriate development of key landscape sites	19. Ensure development plans and coastal defences are sensitive to the seascape’ and provide no net biodiversity loss as a minimum wherever possible and undertake a seascape assessment.	Local Authorities / EA/ TECF	Provide advice, data and information as required. Coordinate response to Relevant Authorities
Overall decline in the condition of the marine environment leading to the continuing loss of scarce or declining habitats and species	20. Identify and promote biodiversity enhancement and restoration projects in line with habitat creation schemes and exploration of use of landbanking as a means of biodiversity mitigation	TECF /EA / NE / WCRT	Lead
	21. Identify appropriate managed realignment sites to mitigate for losses due to sea level rise, coastal squeeze and development impacts and support regional habitat creation schemes.	TECF / NE / LA/ EA/ AONB	Support as required

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Disturbance to wildlife by recreational activities	22. Quantify scale and distribution of recreational impacts on wildlife and develop risk register.	TECF /NE / HA / IFCAs / LAs / AONBs / CWT	Lead
	23. Develop and implement plan for minimizing recreational disturbance ie zoning of activities, sign boards, codes of practice, charts.		
Invasive non-native species	24. Assess and map the extent of invasive species and support projects to control them where appropriate.	TECF/ NE / EA / IFCAs	Lead
	25. Raise awareness about marine aliens and best practices in their control and implement appropriate measures.	TECF / NE / EA / HA	Lead

4.4 Historic Environment

What are the issues?

The Tamar Estuaries are nationally recognised as one of the richest maritime archaeological environments in the UK. In common with other estuarine and coastal locations the area has been used in a broad variety of ways. Estuaries can act as barriers, boundaries, places of entry and exit, highways, a means of communication and as a source of raw materials and on-shore and off-shore food resources.

Archaeological sites within such areas are often specialised in nature, relating to these estuarine/coastal specific functions (such sites may include wrecks, fish weirs, boat-building yards, quays, mills and military defences). Some of these sites have statutory protection including many Listed Buildings, Scheduled Monuments and a Protected Wreck in addition to a very large resource of undesignated historic environment assets. The estuaries also have the potential to preserve a long record of post-glacial environmental change within the inter and subtidal sediments. Part of the Tamar is within the Cornwall and West Devon Mining Landscape World Heritage Site. However much of the intertidal and sub-tidal heritage is still poorly understood and protected. This is a vulnerable resource subject to many threats and under the Marine and Coastal Access Act 2009, all applications for marine licenses must have regard for the historic environment.

What do we want?

- To improve the conservation and management of the maritime historic environment.
- To promote awareness and understanding of the character and extent of the maritime historic environment.

How do we deliver it?

In considering how these objectives may be achieved, consultation has highlighted the following challenges and requirements for action:

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Lack of baseline information on intertidal and sub tidal historic interest features. Existing data on wrecks is not sufficiently accurate	26. Audit, collate and share existing information, identify information gaps and survey.	EH / DCC / CC / PCC / UoP	Monitor progress
	27. Establish a coordinated process(es) for recording maritime historic finds.		Monitor progress
	28. Audit those sites or remains under threat due to marine or coastal development, sea level rise, coastal erosion or neglect and feed through to the Heritage at Risk Register.		Monitor progress
Ensure sufficient consideration of marine historic environment as part of development planning and licensing	29. Ensure consultation with relevant data holding organisations.	MMO/ EH / DCC / CC / PCC	Monitor progress
	30. Raise awareness of existing protocols and best practice within planning and licensing authorities and encourage use of rapid assessments where appropriate.		Monitor progress
	31. Secure closer engagement of local authorities' Historic Environment Services and Historic Environment Records to provide locally informed HE advice.	EH / PCC / CC/ DCC	Support as required
Neglect of historic sites and remains	32. Promote lessons learned / best practice eg Liverpool Bay Seascapes Project.	EH / TECF	Monitor progress
	33. Support work to improve the condition of designated marine heritage assets, particularly those on the Heritage at Risk register and to maintain or enable public access.		Monitor progress
Impacts of diving on historic ship wrecks	34. Secure additional resourcing from partners and other sources.Promote codes of conduct regarding Maritime Archaeology.	TECF /EH	Support as required.

4.5 Water Quality

What are the issues?

In the Plymouth Sound and Tamar Estuaries management area there are

- Six of the South West's 187 bathing waters;
- One of the South West's 40 water dependent SACs ;
- One of the South West's 9 water dependent SPAs;
- Designated shellfish waters.

Water quality is also one of the headline indicators for sustainable development. The need for 'clean' water underpins the estuaries' ecological functions and will determine the quality of many of the commercial and recreational opportunities.

The River Basin Management Plan ⁽⁴⁾ produced by the Environment Agency, sets clear targets for water quality for the waters of Plymouth Sound and the Tamar Estuaries as required under the water related European directives including the Water Framework Directive, Bathing Waters Directive and Shellfish Waters Directive. There are challenges meeting the requirements for the six designated bathing beaches at Plymouth Hoe and the shellfish waters on the Lynher and the Tamar, Tavy and South Devon are priority areas for Catchment Sensitive Farming.

Whilst the legislation that drives water quality is different from that controlling the management of the European Marine Site, nevertheless the outcomes are the same as the River Basin Management Plan has identified that water quality is being impacted by agricultural runoff, particularly higher up in the Basin, as well as other pollution discharges into the water.

Marine litter continues to be a problem which has an environmental, economic and social impact and innovative solutions are needed to prevent litter entering the water and to clear it up.

What do we want?

- To achieve a water quality that is compatible with the estuaries' nature conservation interest and commercial and recreational usage as stated in the Water Framework Directive and the Marine Strategy Framework Directive.
- To ensure that the estuaries remain, as far as practicable, free from marine litter.
- To raise awareness and understanding of the water quality issues relevant to the Tamar Estuaries.
- To assist with the implementation of the Water Framework Directive

4 Environment Agency 2009. "South West River Basin Management Plan". <http://www.environment-agency.gov.uk/research/planning/125027.aspx>

How do we deliver it?

In considering how these objectives may be achieved, consultation has highlighted the following challenges and requirements for action:

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Diffuse Pollution	35. Targeting of Agri-Environment Schemes in the Tamar, Tavy, Lyhner & Yealm river catchments to address diffuse agricultural pollution.	EA / WCRT / NE / CFS Officers	Support as required
	36. Undertake mine discharge review through the Mine Waste Directive and Water Framework Directive.	EA / CC / DCC	Support as required
	37. Assessment of all new discharge consents in the water course and investigate and remedy missed connections through the Urban Streams project.	EA / NE / LAs	Support as required
Potential Oil Spill	38. Ongoing testing, review and development of the Tamar Estuaries Oil Spill Countermeasures Plan.	Harbour Authorities / Local Authorities /EA	Monitor progress
Implementation of European Bathing Waters Directive & Shellfish Waters Directive	39. Deliver bathing waters action plan and also plan for shellfish waters.	EA / SWW / PCC / SHDC	Support as required.
	40. Establish and deliver communications plan for bathing waters quality.	PCC / CC/ EA / SWW / TECF	
Marine Litter	41. Promote Marine Conservation Society's 'Beachwatch' Campaign, through TECF website and publications and support and promote clean up campaign.	TECF /PPMLC / WAG	Lead the promotion through the website.
	42. Promote and Review Port Waste Management Plans	Harbour Authorities / EA	Monitor progress
	43. Monitoring conditions to ensure no debris disposed of as part of dredging activities.	MMO / HA / EA	Monitor progress
Emissions from recreational vessels	44. Promote codes of conduct / best practice.	TECF / EA / HAs	Lead awareness campaign
Pollution due to storm run off eg suspended solids from land, run-off from shore side	45. Implement requirement for Sustainable Urban Drainage schemes as part of development planning process through the Lead Local Flood Authority.	Local Authorities	Monitor progress & support as required

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
development sites or storm sewer overflows	46. Consider impact of runoff from all developments and operations and advocate use of standard planning conditions in relation to run off management from shore side development sites.		Lead production of model conditions
Integrating water quality improvements	47. Integrate with River Basin Management Plans and Catchment Management Plans, securing additional resources from partners and other sources.	EA	Support as required

4.6 Development and Coastal Change

What are the issues?

The Tamar Estuaries are the focus of significant development pressure and commercial opportunity. Plymouth already has a high urban concentration and Plymouth City's stated vision is to become one of Europe's most vibrant waterfront cities. The waterfront is therefore under particular pressure from development. This new development can have both direct and indirect economic, social and environmental impacts on the estuary.

The urban areas of Plymouth have a strong growth agenda which has seen major developments within the city and particularly near the waterfront. During the period 2000 - 2010 the population of Plymouth increased by 7% to 258,700 and between 2006 - 2011 Plymouth has built 4,045 homes many of which are in the waterfront regeneration area (Plymouth City Council. 2011. Local Development Framework Annual Monitoring Report).

The estuaries already support an active marine sector that is major contributor to the local economy, supporting 12% of all employment in the city and 10% in the wider area. The commercial ports handles over 2 million tonnes each year; the largest quantities of bulk goods in the south west and a major cross channel ferry terminal with regular services to the Continent (DfT 2008) and it is highlighted as having the potential to contribute to the region's sustainable transport through investment in short sea shipping.

The waterfront and estuaries attract a wide range of local and foreign visitors and Plymouth now has a strategy in place to further increase visitor numbers by 800,000 (20%) by 2020 (Plymouth Visitor Plan 2011).

The marine and renewables sector is one of six identified as economic priority sectors for the City. Based around Plymouth's internationally respected academic institutions and naval related businesses, it has the potential to bring substantial economic benefits to the sub region.

Below high water, the Marine Management Organisation is tasked with developing plans for marine areas which will include the estuaries.

Climate change, including increased storminess and sea-level rises will impact on erosion, flooding and potentially alter the tidal flow regime in the estuary. Coastal protection works will need to have regard for the natural environment opportunities provided by funds such as the Flood Defence grant in aid scheme.

These trends and activities continue to bring increased development pressure within the area's coastal zone. Business must be allowed to flourish, but in a manner that respects the sensitivities of the surrounding environment. However, due to the complexities of both the regulatory framework and the estuarine environment, decision-making in this area is frequently challenging. TECF, PPMLC and WAG are well placed to provide a readily accessible pool of local knowledge, expertise and guidance to inform development and commercial decision making.

What do we want?

- To ensure that the interests and integrity of the Tamar Estuaries are not compromised by inappropriate development and that net biodiversity gain is achieved wherever possible.
- To ensure that development occurs in a sustainable manner, in accordance with the overall needs of the local community and with full regard for conservation interests of the estuary as a whole.
- To support sustainable marine transport, commerce and tourism initiatives.
- To integrate the coastal erosion and flood risk management schemes into the wider estuarine management.

How do we deliver it?

In considering how these objectives may be achieved, consultation has highlighted the following challenges and requirements for action:

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Confusion over planning responsibilities and controls below the high water mark	48. Promote a simplified guide to responsibilities / controls through TECF website.	TECF	Lead
New Planning Policy Framework and Marine Planning	49. Provide specialist input regarding the production of local and neighbourhood plan documents. Secure a policy framework which supports the conservation and enhancement of the Tamar Estuaries.	LAs/TECF /Natural England/ EA / MoD / AONB	Provide data and input as required in order to achieve a consistent approach, having regard for marine issues.
	50. Local and neighbourhood plan documents and other appropriate management plans to be assessed as a 'Plan or Project' under the Habitats Directive.		Produce model response for use by all specific to EMS.
	51. Provide specialist input regarding the production of regional Marine Plans ensuring that any such plan integrates fully with the Tamar Estuaries Management Plan and local planning documents	MMO/Local Authorities/TECF	Provide data and input as required in order to achieve a consistent approach.
The assessment of in-combination and / or cumulative effects (particularly	52. Produce planning and design guidance on assessing, limiting and mitigating impacts of coastal	TECF/LAs	Lead

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
in respect to small scale land reclaim developments)	development. Promote adoption of guidance or planning policy.		
	53. Ensure accessible records on past, current and future coastal planning proposals to facilitate cumulative effects assessment.	TECF/LAs	Lead
	54. Develop common approach through Community Infrastructure Levy and s106 to secure contributions from developers in order to offset the increased estuary management costs caused by the rise in population.	TECF / LAs	Lead
	55. Develop mechanisms for post-development impact monitoring to assess actual impact of development projects.	TECF / LAs	Lead
Inappropriate waterfront development	56. Coordinate response to consultations on planning applications.	TECF / EA / Natural England / Harbour Authorities/LAs	Lead the Planning Group
	57. Produce best practice and design guidance for planning authorities and developers. Where suitable promote the guidance or planning policy for adoption.	TECF /Natural England/ EA / LAs	Lead
Climate Change / Coastal Defence / Flood Risk	58. Secure wider environmental, economic and social benefits from coastal defence schemes.	EA / TECF / LAs	Input as required
	59. Support implementation and review of catchment flood management plans.	EA / TECF	Input as required
Fulfill the potential for water borne public transport	60. Support the development of an integrated and sustainable water transport system for the Plymouth Sound and Estuaries.	TECF / LAs	Input as required
Provide the framework for commercial shipping activities to grow and develop within environmental limits.	61. Investigate the best option for ensuring the needs of the ports are recognised and understood.	TECF /PCC	Lead
	62. Support the production of a cruise market feasibility plan.	TECF/ PCC / HAs	Input as required

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Loss of waterside maritime business space	63. Advocate appropriate marine industry land allocations as part of both development planning and marine planning processes.	TECF / LAs / MMO	Provide data and input as required

4.7 Fisheries

What are the issues?

The fisheries of the Tamar Estuary are characterised by a mixture of commercial, recreational, and environmental concerns and interests. In 2009 over 10,000 tonnes were landed at Plymouth Fish Market worth nearly £9million (MCA figures from the Port of Plymouth Evidence Base) although little is caught within the European Marine Site itself.

There has been much change in the regulation of fisheries and it is now an area of shared responsibility between the Marine Management Organisation (MMO), Queens Harbour Master, Environment Agency, the Cornwall Inshore Fisheries and Conservation Authority (IFCA) and the Devon and Severn IFCA. As fisheries are an activity with the potential to impact on the European Marine Site, there is also a need for liaison with Natural England. Much work is needed to increase awareness of the regulations that govern fishing in the Estuary.

Under the Marine and Coastal Access Act 2009, parts of the Tamar Estuaries have been proposed as a Marine Conservation Zone in order to protect the South West's only known spawning ground for Smelt, a fish of which very little is known. This is in addition to the Upper Tamar Estuary also being the only known spawning site for Allis Shad in the UK

Concerns have been raised about the ecological impacts associated with intertidal bait digging and the shore crab fishery (crab tiling). Also recreational angling has grown significantly in popularity delivering social and economic benefits, but the possible impacts on estuaries are currently poorly understood and unquantified.

Finally climate change will result in changes to our fish species. More work is required to understand the impact this will have on our fishing industry.

What do we want?

- To achieve the sustainable management of the Tamar Estuaries fishing resource

How do we deliver it?

In considering how these objectives may be achieved, consultation has highlighted the following challenges and requirements for action:

Challenge	Action	Organisational Involvement	TECF Service Actions 2013 - 18
Develop integrated management of fisheries on Tamar Estuaries.	64. Review fishery bylaws and introduce new ones as appropriate.	CIFCA / D&SIFCA / EA/ QHM / MMO	Support IFCA's in assessment and implementation of management actions.

Challenge	Action	Organisational Involvement	TECF Service Actions 2013 - 18
	65. Undertake a test of likely significance on all fisheries currently operating within the European Marine Site with a subsequent Appropriate Assessment if required. Introduce measures as necessary.	CIFCA / D&SIFCA / EA/ QHM / MMO	Support IFCAs in assessment and implementation of management actions.
Management of Shore Crab fishery and bait digging	66. Review extent and scale of impacts from shore crab fishery and bait digging and implement recommendations of review.	CIFCA / D&SIFCA/ EA/ TECF / MMO	Support
Marine Conservation Zone Management	67. Support the establishment of the Tamar Estuaries MCZ for Smelt and integrate into wider management objectives.	CIFCA / D&SIFCA/ TECF / PPMLC / EA / NE / QHM / MMO	Support
Low awareness of voluntary rules and statutory regulations governing fishing	68. Develop and publish information leaflet about fishery regulations and continue to promote best practice.	TECF/ CIFCA / D&SIFCA /EA / MMO	Lead
Angling	69. Assess scale and impact of recreational angling and implement actions to manage impacts if found to be necessary.	IFCAs / Natural England / EA / MMO	Support IFCAs

4.8 Shipping, Navigation & Safety

What are the issues?

The Port of Plymouth is the largest naval base in Western Europe and sees 60,000 vessel movements every year⁽⁵⁾. The commercial ports of Cattewater, Sutton Harbour and Millbay handle over 2 million tonnes per year, the largest quantities of bulk goods in the South West (DfT,2008) and it is has the potential to appreciably contribute to the regions sustainable transport through investment in short sea shipping.

The statutory duty to protect the port and maintain safe navigation rests with the Queen's Harbour Master and civilian port authorities. In carrying out these duties there is need to ensure that any damaging impacts on environmental assets are minimised and conflicts with other users avoided.

The legislation controlling dredging activity has recently been tightened with additional controls being brought in for water injection dredging as well as maintenance dredging. The Dredging Protocol Baseline Document, as produced in 2011, provides the evidence base to inform the consenting process.

What do we want?

- To provide for the continuing safe use of the estuaries by all types of vessel.
- To protect the public right of free navigation within the constraints of the relevant legislation.

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Maintain navigational safety	70. Review the Dockyard Port of Plymouth Order	QHM	Support QHM as required
Dredging management including reducing impacts of dredging	71. Monitor rates of sedimentation and levels of contamination within the estuary and better understand the sediment budget and geomorphology of the estuary.	Harbour Authorities / EA / NE	Support HAs as required
	72. Update maintenance dredging baseline document and produce protocol.	QHM /Natural England / MMO	Support as required
	73. Review capital dredging practices and apply best practice.	HAs / MMO / DEFRA /Natural England (NE)	Support as required
	74. Support projects to research the beneficial use of dredged spoil.	Harbour Authorities / TECF	Support as required

5 Port of Plymouth Evidence Base Study 2010.

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
	75. Address community concerns regarding environmental impacts arising from use of Rame Head disposal site.	MMO / Harbour Authorities / Parish Council / CIFCA / CC / NE	Support as required
	76. Assess all dredging applications in order to avoid mobilisation of contaminated sediments or loss of habitats and to ensure compliance with Habitats Regulations.	MMO / NE / Harbour Authorities / EA	Support as required
Impact from shipping activity	77. Quantify scale and levels of impacts (eg shipping related sewage discharges, transfer of invasives, ballast water management, litter and contaminants from repairs etc) on local features.	Harbour Authorities / Natural England / MMO	Support as required
	78. Assess number of abandoned boats, develop a strategy for dealing with them and implement.	Harbour Authorities / Fundus Owners	Support as required.

4.9 Public Access, Recreation & Moorings

What are the issues?

The waters of Plymouth Sound and the estuaries provide a highly valuable resource for public enjoyment, be it for watersports, angling, wildfowling, walking next to it or simply enjoying the view from the land. However these access opportunities to the water can be threatened by development and poor management. Slipways, wharves, piers, jetties, footpaths, roads and car parks form the critical infrastructure which enables this access.

The waterways of the Tamar are crucial to the public enjoyment of the recreational resource found within the estuaries. Promoting sustainable access to the estuaries must also be a primary approach to delivering wider understanding and awareness of the estuaries' value. There is a need to encourage access for both shore based and water based recreation.

The Tamar Estuaries and adjoining land accommodate a wide range of recreational activities such as walking and cycling, wildlife watching, sailing, angling, wildfowling, canoeing, jet skiing, water skiing, windsurfing, standup paddle boarding, sub aqua diving and swimming. Access and recreation also underpin significant and increasing economic activity for marine commerce and tourism.

The provision of moorings allows access to the water for boat users. Licenses to lay all private and public moorings in the Dockyard Port of Plymouth are issued by the Queen's Harbour Master. Mooring allocations are currently dispersed between a range of local authorities, moorings associations and sailing clubs.

The local population is set to rise with an estimated 20% increase in the number of Plymouth households during the period 2011-2031 (Plymouth City Council 2011. Local Development Framework Annual Monitoring Report) As the local population increases, so to does the demand for water based recreation. Since we know that water based recreation has the potential to impact on the sites and features of the European Marine Site it is critical that recreation is managed in order to avoid any negative impacts.

What do we want?

- To ensure that existing public access to the estuaries and coast is maintained and publicised.
- To seek opportunities for improving the quality of public access.
- To avoid any disturbance arising from increased recreational activities due to population growth.
- To ensure an estuary-wide approach to the management of moorings.
- To improve information management about mooring facilities in the Tamar Estuaries.

How do we deliver it?

In considering how these objectives may be achieved, consultation has highlighted the following challenges and requirements for action:

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Poor awareness of existing access opportunities	79. Promote South West Coast Path and Plymouth Waterfront Walkway and other waterside trails.	Local Authorities / TECF / AONBs	Input into updates and promote on website.
Waterfront development, access and increasing demand	80. Support local and neighbourhood plan proposals and policies that protect and enhance waterfront and waterbased access.	TECF / Local Authorities / AONBs	Input into planning applications
	81. Support Local Transport Plan policies and proposals that deliver on the findings of 2004 Water Transportation Study and work with Green Infrastructure plans to implement green transport links.		
Lack of coordination and strategic management of moorings	82. Identify and quantify impacts on seagrass, devise and implement moorings strategy.	TECF /HAs/ Natural England	Lead
	83. Complete review of Port of Plymouth Recreation Study to include access and slipway requirements and publish.	TECF	Lead

4.10 Awareness, Understanding & Community Engagement

What are the issues?

The sustainable management of the estuaries' assets will only be achieved through a wider understanding of the area's marine estuarine, biodiversity and cultural values. It is not sufficient for the scientists, experts, managers and regulators to understand that our estuary is unique. This message must also be communicated to our political audiences, to the estuary users and visitors and to the schools and young people of the area.

There is already considerable expertise and effort directed at providing high quality educational information about the specific sections of estuary and surrounding coast. However provision is currently uncoordinated and fragmented due to the wide range of voluntary, public and private sector organisations involved in delivery.

What do we want?

- To increase awareness and understanding about the natural and man-made heritage of the Tamar Estuaries.
- To achieve awareness of TECF's role in delivering sustainable management of the Tamar Estuaries.

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
Educating shore based visitors about the marine environment	84. Maintain and enhance on-site interpretation at key locations around the estuary in accordance with an agreed programme of works.	TECF / HAs / LAs	Lead
	85. Optimise TECF website as mechanism for answering enquires about the value of the Tamar estuaries and raising awareness.	TECF	Lead
Educating recreational users of the marine environment	86. Provide information and interpretation at slipways, access points and marinas in accordance with an agreed programme of works.	TECF / LAs / HAs	Lead as required
Educating commercial users of the marine environment	87. Provide appropriate interpretation to ferries, business, charter boats etc.	TECF / PPMLC	
Raising awareness through education	88. Coordinate provision of environmental education opportunities around the estuaries.	TECF / MarLIN / DWT / CWT / UoP / WCRT / Natural England / EA / Wembury Marine Centre	Input as required

Challenge	Action	Organisational Involvement	TECF Service Actions 2013-18
	89. Engage with waterfront communities to encourage them to understand and appreciate the local marine resource.	LAs / TECF	Input as required

Appendix I: Abbreviations

Abbreviations used:

AONB Area of Outstanding Natural Beauty

CC Cornwall Council

CIFCA Cornwall Inshore Fisheries and Conservation Authority

CSF Catchment Sensitive Farming

CWT Cornwall Wildlife Trust

DCC Devon County Council

DEFRA Department of Environment Food and Rural Affairs

D&SIFCA Devon & Severn Inshore Fisheries and Conservation Authority

IFCA Inshore Fisheries and Conservation Authority

DWT Devon Wildlife Trust

EA Environment Agency

EH English Heritage

HA Harbour Authority

LA Local Authority

MarLIN Marine Life Information Network

MCA Marine Coastguard Agency

MoD Ministry of Defence

NE Natural England

PCC Plymouth City Council

MMO Marine Management Organisation

PPMLC Port of Plymouth Marine Liaison Committee

QHM Queen's Harbour Master

SHDC South Hams District Council

TECF Tamar Estuaries Consultative Forum

TECF Service: The contracted service provided by Plymouth City Council for delivering elements of this document to the contributing partners of TECF.

TV AONB Tamar Valley Area of Outstanding Natural Beauty

UoP University of Plymouth

WAG Wembury Advisory Group

WDBC West Devon Borough Council

WCRT West Country Rivers Trust

YEMF Yealm Estuary Management Group

Appendix II: Summary of Statutory Duties in respect of Plymouth Sound and Estuaries European Marine Site

Background

Plymouth Sound and Estuaries are designated a Special Area of Conservation (SAC) under the European Union's Habitats and Species Directive 92/43/EEC, UK Conservation (Natural Habitats, &c) Regulations 1994 and the more recent Conservation of Habitats and Species Regulations 2010. Sections of the Tamar Estuaries complex are also designated as a Special Protected Area under the Wild Birds Directive (1979). The two designated areas are collectively referred to as a *European Marine Site*.

Definitions

European Union's Habitats and Species Directive 92/43/EEC - More frequently referred to as the Habitats Directive, aims to maintain the diversity of Europe's wildlife through conservation of important, rare or threatened habitats, and the habitats of certain species. To help achieve the aims of the directive each country in the European Union has identified a selection of sites on land and sea which provide the best examples of habitats and species outlined in the Directive.

Council Directive 79/409/EEC on the conservation of Wild Birds - The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe.

Special Area of Conservation (SAC) – These are sites designated under the Habitats Directive.

Special Protected Area (SPA) - These are sites designated under the Birds Directive.

European Marine Site (EMS) - This is the name given to the total area of tidal waters identified as SAC and/or SPA.

The Conservation of Habitats and Species Regulations 2010 - This consolidates all the various amendments made to the [Conservation \(Natural Habitats, &c.\) Regulations 1994](#) in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. They set out the mechanisms required to make the Directives work at both an administrative and practical level.

Competent Authority - "For the purposes of these (Habitats) Regulations the expression "competent authority" includes any Minister, government department, public or statutory undertaker, public body of any description or person holding public office."

Relevant Authority (RA) - These are the specific competent authorities with local powers or functions that have, or could have, an impact over the marine environment within or adjacent to a European Marine Site. All Relevant Authorities are also Competent Authorities.

Natural England's Regulation 35 Guidance - This guidance package discharges Natural England's statutory obligations to provide detailed advice on the European Marine Site's ecological features and the operations that may impact upon them. It sets out the conservation objectives for the site's interest features and sets the standards against which their status (favourable, or otherwise) can be determined. It also identifies activities and issues that, if not suitably managed, threaten the favourable status of the site.

Sustainable - "This means ensuring that better lives for ourselves do not mean worse lives for future generations" (Dept for Communities and Local Government 2012)

Summary of Statutory Responsibilities

Under the Regulations, there is no legal requirement for the relevant authorities to produce a single scheme of management. Rather it states that the relevant authorities, or any of them, may establish for a European Marine Site a management scheme under which their functions are to be exercised so as to secure in relation to that site compliance with the requirements of the Habitats Directive." Also "only one management scheme may be made for each European Marine Site" and that it "may be amended from time to time".

The aim of this management scheme is to ensure that the features for which the site is designated are maintained in 'favourable status'. Through its Regulation 35 advice package Natural England sets out the conservation objectives for the site and highlights operations/activities that may impact on the 'favourable status' of the designated features.

The management scheme sets out the framework within which specific operations will be managed and identifies the Relevant Authorities responsible for regulating these operations.

Therefore to ensure compliance with the Habitats Directive Relevant Authorities must work within this framework and use their local powers or functions to protect the site.

The Conservation of Habitats and Species Regulations 2010

Reg 9 (3) states, "A competent authority must, in relation to a marine area, exercise any of their functions which are relevant to marine conservation so as to secure compliance with the requirements of the Habitats Directive."

Reg 9(4) states, "...a competent authority, in exercising any of their functions, must have regard to the requirements of the Habitats Directive so far as they may be affected by the exercise of those functions."

Reg 6 states "For the purposes of these [Habitats and Species] Regulations the relevant authorities, in relation to a marine area or European marine site, are such of the following as have functions in relation to land or waters within or adjacent to that area or site..."

Reg 7(1) states "For the purposes of these (Habitats & Species) Regulations "competent authority" includes any Minister of the Crown, government department, statutory undertaker, public body of any description or person holding public office."

Reg 35(3) – “...the appropriate nature conservation body must advise other relevant authorities as to-

the conservation objectives for that site; and

any operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species, for which the site has been designated.”

Reg 36 states “The relevant authorities, or any of them, may establish for a European Marine Site a management scheme under which their functions are to be exercised so as to secure in relation to that site compliance with the requirements of the Habitats Directive.” Also “only one management scheme may be made for each European Marine Site” and that it “may be amended from time to time”.

Delivering Compliance

There are various options for how the competent and relevant authorities deliver their responsibilities towards the European Marine Site. In the UK it has become established best practice that responsibilities are delivered through a ‘management group’.

The management structures of TECF and PPMLC have been endorsed at the national level as a model to follow. Consultation with TECF’s partners and stakeholders indicates this structure, with the inclusion of WAG, continues to be the preferred way forward for period 2012 - 18

Since 2001, TECF has employed a dedicated officer with a remit to assist compliance and to deliver broader ranging non-statutory estuary management initiatives.

Appendix III: List of Features and Subfeatures

This is the full list of Features and Sub-Features that make up the Plymouth Sound and Tamar Estuaries European Marine Site. Full definitions can be found at <http://jncc.defra.gov.uk/page-5706>

Large shallow inlet and bay

Intertidal rock and boulder communities;
Subtidal rocky reef communities;
Kelp forest communities;
Subtidal mixed cobble and gravel communities;
Subtidal mud communities;
Subtidal sandbank communities.

Estuaries

Intertidal mud communities;
Intertidal mixed muddy sediment communities;
Subtidal mud communities;
Subtidal mixed muddy sediment communities;
Estuarine bedrock, boulder and cobble communities;
Subtidal sandback communities;
Saltmarsh communities;
Reedbed communities.

Subtidal sandbanks

Eelgrass bed communities;
Gravel and sand communities;
Muddy sand communities.

Nationally important Annex 1 bird populations

Intertidal mudflat communities;
Saltmarsh communities;

Intertidal mudflat communities and intertidal mixed muddy sediments.

Intertidal mudflats and sandflats

Intertidal mud communities;

Intertidal mixed muddy sediment communities.

Atlantic Salt Meadows

Pioneer marsh;

Low marsh / mid marsh;

Mid marsh / upper marsh;

Driftline.

Reefs

Intertidal rock and boulder communities;

Subtidal rocky reef communities;

Kelp forest communities;

Estuarine bedrock, boulder and cobble communities.

Appendix IV: List of Relevant Authorities for Plymouth Sound & Estuaries European Marine Site

Queens Harbour Master
Cattewater Harbour Commissioners
River Yealm Harbour Authority
Cornwall Inshore Fisheries and Conservation Authority
Devon and Severn Inshore Fisheries and Conservation Authority
Marine Management Organisation
Environment Agency
Natural England
English Heritage
Cornwall Council
Devon County Council
Plymouth City Council
South Hams District Council
West Devon Borough Council
Crown Estate
Sutton Harbour Company
South West Water