



Severn Estuary Partnership Activities

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Severn Estuary Partnership

Working in partnership for the future of the Severn Estuary



OUTLINE:

**The Partnership Approach
SEP activities**

**State of the Severn Estuary Report
Working Together for the Future**



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Why Coastal Partnerships?

Government Departments

Non Governmental Organisations

Local Authorities

Shoreline Management Plan & Coastal Groups

Inshore Fishery Conservation Authorities

Business and commercial interests

Communities, education and awareness

Regional Seas projects

Recreation, tourism, economy

We deliver: Efficiencies of scale, finance and action because we take a 'sample' of key representatives from each of these 'strata'. The Partnerships then provides neutral, trusted and reliable access to these stakeholders

This is our business: We know how to engage with marine and coastal stakeholders. We know the issues that are important to them at any given location where a partnership exists

A range of services: CPs can help all these organisations deliver Core Strategy targets by working in partnership at the coast



Severn Estuary Partnership Services:

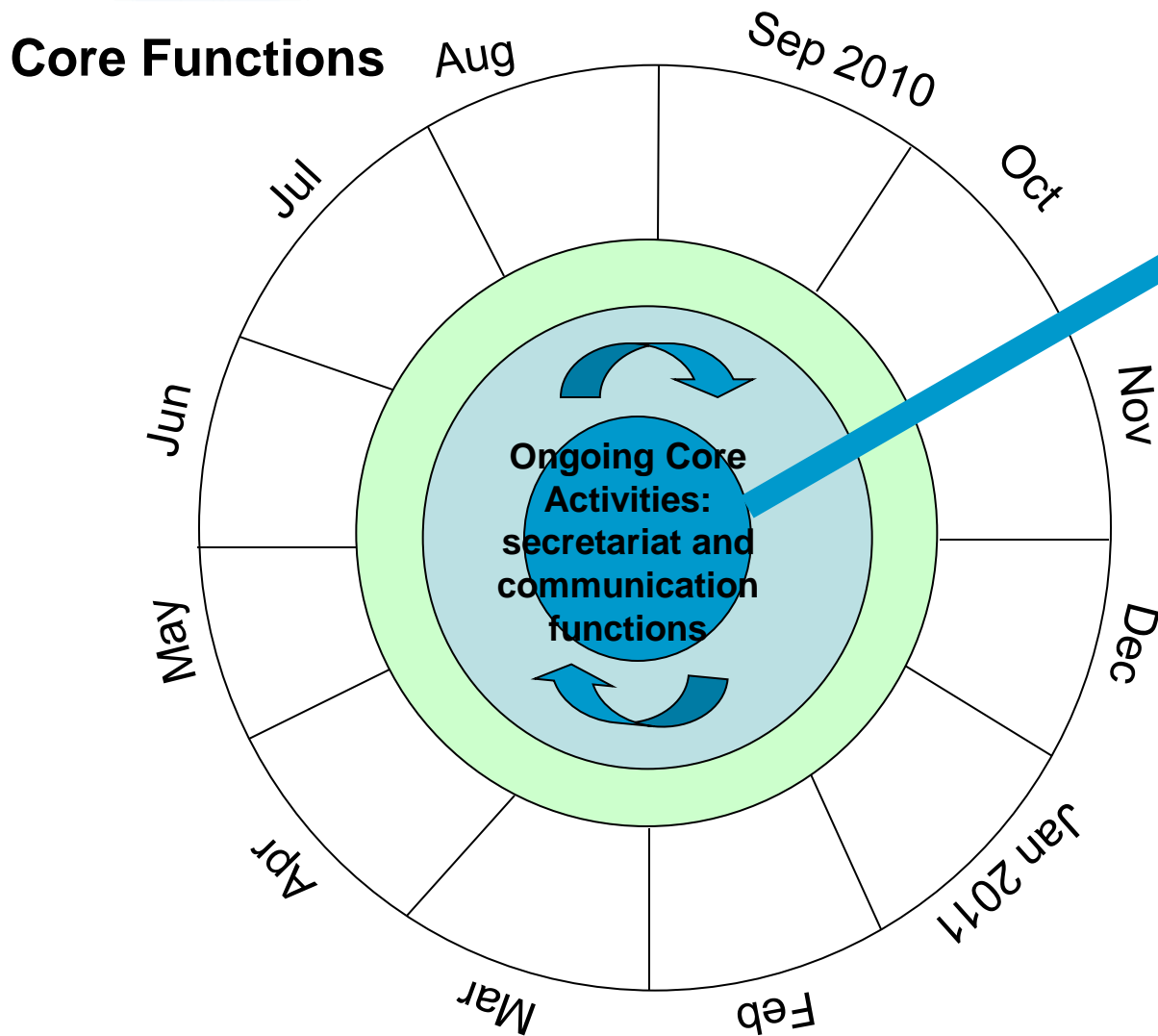
CPs are the Essence of Co-Production – reciprocity and pooling of skills

Core Services include:

- **Networking opportunities**—over a range of issues and subjects
- **Facilitation of engagement**—professional process design
- **Communication and awareness-raising**—using a range of techniques
- **Informing planning, policy and legislation**—translating policy for working people
- **A central point of contact**—people know who to talk to
- **Support for collaborative working**—pulling people together
- **Information and database services**—commissioning research

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Internal Secretariat Functions:

- Management Group Meetings
- Joint Advisory Committee Meetings
- Annual Forum

Communications:

- Severn Tidings
- E News
- Website

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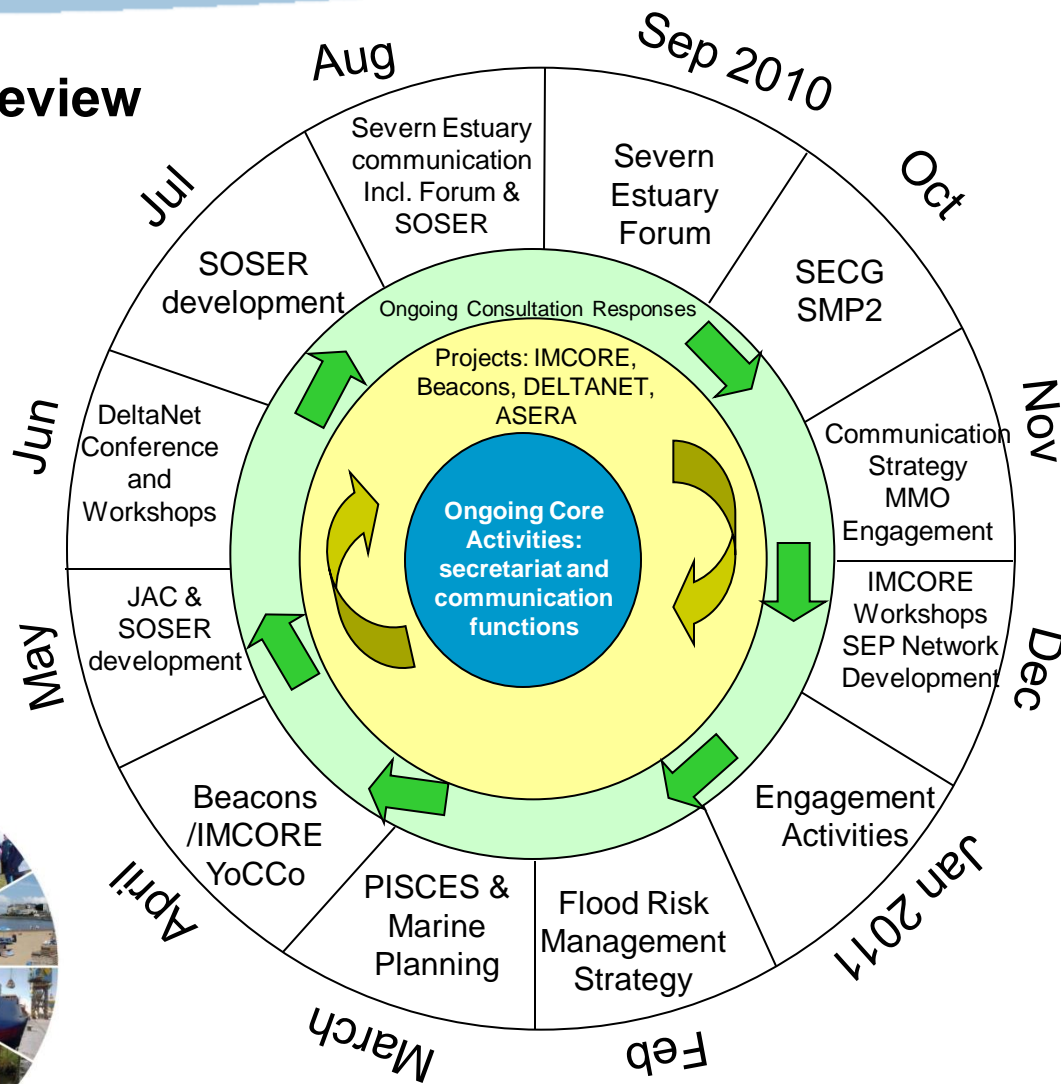


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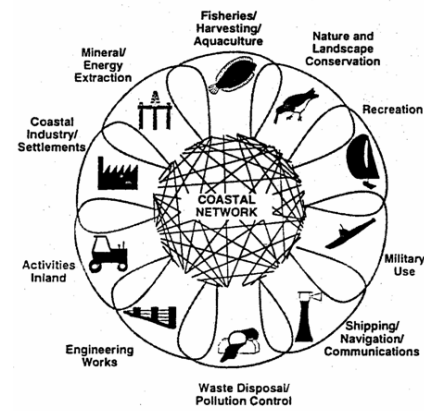
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The Year in Review



There's a lot going on!





Aims of DeltaNet

- to improve the effectiveness of regional development policies and related instruments
- to foster improved environmental risk management through the development of appropriate spatial planning measures
- to achieve these through exchange of inter-regional partner experiences & good practice
 - i.e. capacity-building & the development of ‘critical friends’



DeltaNet Partners



**8 partners from 8
EU Member
States**

Rhine, Meuse and
Scheldt (BE/NL)
Elbe (DE)
Vistula (PL)
Severn (UK)
Tagus (PT)
Ebro (ES)
Minho (ES/PT)
Danube (RO)

Wide geographical distribution



Key DeltaNet Themes

- Integrated Delta Approach
 - sustainable use of port & port-related areas
- Flood & sediment management
- Healthy Environment
 - Wetland restoration
- Delta awareness
 - public participation and communication
- Coordinated Delta Policy



<http://www.deltanet-project.eu>

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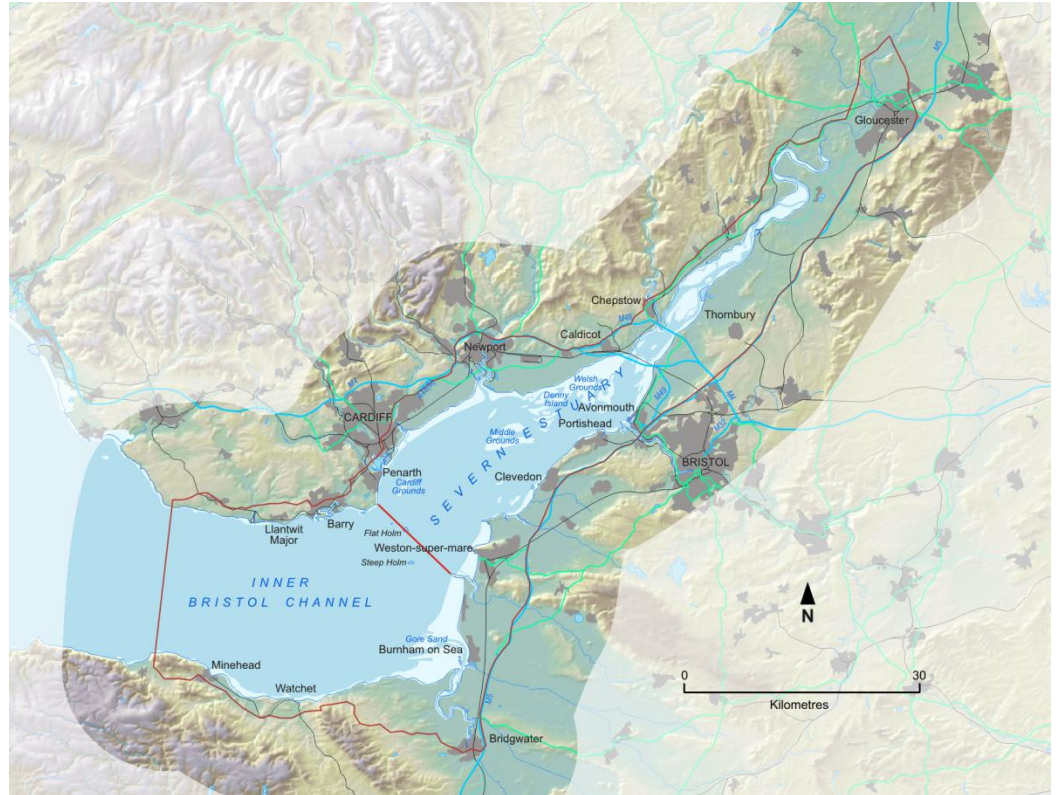
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State of the Severn Estuary Report

- provides an overview of the 'State of the Severn Estuary'
- written in a non-technical and easy to understand style
- aims to inform a wide ranging audience
 - including Estuary users and local people
 - about why the Estuary is so unique



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What to expect:

• Physical and natural environment:

- Geology
- Rivers & Tides
- Habitats
- Birds
- Fish
- Marine mammals
- Non-native Species
- Nature conservation designations

• Human environment:

- Population & Development
- Tourism & Recreation
- Energy
- Fisheries
- Marine aggregates
- Transport
- Ports & shipping
- Water quality
- Bathing waters
- Air quality
- Weather & Climate Change

• Managing the Severn Estuary

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Ports and Shipping

All the major towns and cities around the Severn Estuary were developed largely as a result of sea trade which brought prosperity and employment to the region¹. In the 19th and 20th centuries earlier in-river and coastal wharves were replaced with impounded docks more suited to deal with the expansion of trade and the high tidal range. At some, such as Lydney, Gloucester, Bristol City, Portishead and Penarth, Docks, trade has long ceased and they now mainly operate as marinas. Others, however, still provide a vital conduit for sea trade. These ports and the services they support continue to have an important role in the local, regional and national economy as they are responsible for handling a substantial proportion of UK trade². The major ports are Bristol (Royal Portbury and Avonmouth), Cardiff, Newport and Barry with smaller ports at Sharpness and Bridgwater³. The table below shows the volume of cargo handled by each of the ports in 2010.



A container vessel unloading (Queen Alexandra Ltd, Cardiff). © ABP South Wales

Ports	Operator	Cargo tonnage (in net tonnes)		
		Inbound	Outbound	Total
Barry	Associated British Ports (ABP)	188	93	281
Newport	South Wales	1391	677	2068
Cardiff	Victoria Group	1746	486	2232
Gloucester and Sharpness	The Bristol Port Company	375	39	412
Bristol (Avonmouth / Portbury)	Sedgemoor District Council	6045	1229	7272
Bridgwater		40	nil	40

Source: Department for Transport Port (Invisational) Freight Statistics 2010³

Principle cargoes

Barry ⁴	Containers, Dry Bulks, Timber, General Cargo, Liquid Bulks (mainly chemicals), Steel and Metals.
Newport ⁴	Containers, Timber, Dry Bulks (grain, aggregates, coal, agribulks), General Cargo, Steel and Metals.
Cardiff ⁴	Containers, Dry Bulks (aggregates, minerals), Timber, Fresh Produce, General Cargo, Steel and Metals.
Sharpness ⁴	Dry bulks, Grains and Foodstuffs, Timber, Minerals and General Cargo.
Port of Bristol ⁴	Containers, Motor vehicles, Aviation Fuel, Dry Bulks (coal, animal feeds, grain), Forest Products, Chilled Foods (especially fruit and vegetables), Steel and Metals.
Bridgwater ⁴	Aggregates, Passengers (Passenger Ship Saloons).

Tidal constraints

The extreme tidal range within the Severn Estuary (over 14m at Avonmouth, and 10m at Barry on spring tides) is an ever present restriction to both navigation and port operations. Navigation to the ports is often only possible during the incoming high tide and access to the ports through lock systems (apart from Bridgwater which consists of a number of river wharfs) may only be possible for a few hours either side of the high tide⁵.



Loading of steel coils at Newport docks. © ABP South Wales

Non-Native Species

The Severn Estuary and the land and sea areas bordering it, like many other regions world-wide, is/are experiencing the arrival of new 'non-native' species of both animals and plants. Humans have introduced new (or alien) species to environments both inadvertently and deliberately for centuries, many of which have been benign or even contributed positively to Britain's natural heritage⁶. However, whilst deliberate introductions are now, in the main, well managed, the increase in the global movement of people and goods through trade and tourism^{7,8}, coupled with the effects of climate change, has resulted in increasing numbers of 'uninvited' non-native species now reaching our shores.

The routes by which non-native species may be introduced and/or expand the range of colonisation are many and varied. In the marine environment for example, the key mechanisms of human involvement are aquaculture escapes, transportation of ship ballast and fouling on ship surfaces.

Invasive non-native species

The principal concern with the introduction and/or spread of non-native species is the potential ability of some to become invasive. Invasive non-native species are broadly defined as species that once introduced, have the ability to spread, causing damage to the environment, the economy or our health⁹. Invasive species upset the balance of the ecosystem as they may be bigger, faster growing or more

Geology and Geomorphology

The geological context

The rocks which form the shoreline of the Severn Estuary range in age from about 400 million to about 200 million years old. The oldest rocks, sandstones deposited in the early and middle parts of the Devonian Period, occur along the Somerset and North Devon coast from Minehead westwards. These are the rocks which form the uplands of Exmoor and the Quantock Hills. Rocks of a similar age underlie part of the upper estuary near Lydney in Gloucestershire. Jurassic limestones and mudstones, about 200 million years old, form the spectacular cliff scenery of the Glamorgan Heritage Coast from Barry westwards to Southerndown, and the cliffs at Lavernock Point and Penarth Head. These rocks also occur at Watchet in Somerset and around Burnham-on-Sea, but there they are mostly hidden by more recent deposits.

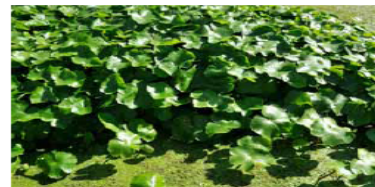
The bedrock of much of the shoreline of the Severn Estuary upstream of a line from Lavernock Point to Brea Down near Weston-super-Mare is formed of soft red mudstones of the late Triassic Period (about 220 million years old). They are most often covered by the more recent deposits of the Westlour, Caldicot and Somerset Levels.



Carboniferous limestone at Flat Holm. © Tom Sharpe

Bedrock offshore

Offshore, the bedrock underlying the floor of the Severn Estuary is largely a continuation of the shoreline geology. Upstream of the Lavernock Point-Brea Down line, the rock beneath the estuary is mainly Triassic red mudstones. Around Flat Holm and Steep Holm, folded Carboniferous limestone forms the floor extending towards Sand Point and Brea Down.



Floating pennywort. © Crown Copyright - Great Britain Non-Native Species Secretariat.

Species recorded within or near the Severn Estuary

There are many examples of both terrestrial and freshwater non-native plants and animals immediately inland of the Severn Estuary. These range from the widespread species such as mink and Japanese knotweed to those with currently less extensive distribution, such as the zebra mussel and killer shrimp in Cardiff Bay, the sunbleak fish in parts of Somerset and the highly invasive aquatic plant pennywort found at a number of coastal freshwater bodies.

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Working Together

Joint Advisory Committee



Management Group



SEP Staff Team

- 1 manager (P/T)
- 1 scientific officer
- 1 engagement officer
- 1 communications / web officer

Secretariat:

SECG, ASERA,
BCSEG

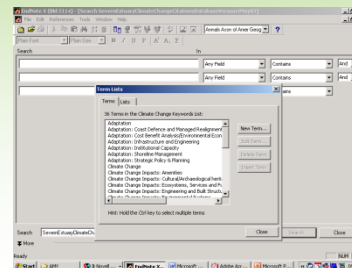


Facilitate Public Consultation Processes:

Eg. SMP2, Marine Planning

Information Provision:

- Contacts Database (>2000);
- Web-based 'Who Does What' Guide



Publications:

- SEP website (ASERA, SECG, SE Flood Risk Management Strategy, information, maps, images, who's-who, links)
- Severn Tidings newsletter
- Monthly E-Newsletters
- Information leaflets
- State of the Severn report and report cards

Attend meetings and events, respond to consultations and emphasize need for co-ordination and joint working

Joint Estuary Day

Severn Estuary Forum

Projects:

- COREPOINT (IIIB): promoting ICZM and LIS with spatial planners
- IMCORE (IVB): Climate change adaptation and scenarios in Europe
- DeltaNET: sharing estuary best practice in Europe
- Beacons: climate change adaptation outreach in Wales and England



Working together to:

- Establish a set of 'principles' for the estuary that are delivered locally through individual strategies, policies and action plans
- Act as a coordinating body to ensure that agreed actions are delivered efficiently and effectively
- Promote and publicise the estuary at national and international level
- Add value and fill gaps providing extra capacity as necessary
- Ensure effective communications between organisations and individuals



Concluding Thoughts:

- Convergent ideas and principles
- How Coastal Partnerships work
- Integrating Interests
- The benefits of the CPN Approach
- Severn Estuary Gateway
- Coastal Partnerships deliver!

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