



1<sup>st</sup>

# Severn Estuary Forum

Thursday 8<sup>th</sup> June 2006

Walton Park Hotel, Clevedon

## *Changing Times and Tides: The Future of the Severn Estuary*

*A conference to discuss issues affecting the future of the  
Severn Estuary*

## Delegates Programme



# About the Severn Estuary Forum

The **Strategy for the Severn Estuary** (2001) identified the need for an annual Severn Estuary Forum. This is the 1<sup>st</sup> Forum Conference for the Severn Estuary, hosted by the Severn Estuary Partnership.

The **Severn Estuary Forum** brings together people from all interests to work together for the sustainable future of the Severn Estuary. Representatives from government, industry and Severn Estuary communities are invited to discuss common interests.

This year's theme for the Forum is **Changing Times and Tides: the Future of the Severn Estuary**. The Forum will provide a platform for the exchange of information and debate. The discussion and recommendations from the Forum will guide the future work of the Severn Estuary Partnership.

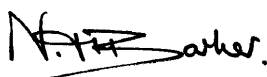
Participation in the Forum allows you to:

- share information and discuss the regional and local implications of current issues;
- meet new people with similar interests who share a concern for the Severn Estuary;
- meet people with different perspectives who share an interest in the Severn Estuary;
- learn something new about the Severn Estuary and the people who manage and use its resources.

We have worked towards providing a lively day of informative talks, interactive debate and an opportunity for informal exchange with neighbouring people & organisations. We believe that exchanging information and informal networking helps us to work together towards sustainability.

With a wide range of services and project capabilities, the **Severn Estuary Partnership** works all year round to encourage people to communicate and collaborate in the management, use and development of the Estuary.

Enjoy the day!



**Natasha Barker**  
Severn Estuary Partnership Officer



*Working together  
for the future of  
our Estuary*

## Severn Estuary Partnership

[www.severnestuary.net/sep](http://www.severnestuary.net/sep)

c/o School of Earth, Ocean & Planetary Sciences,  
Main Building, Cardiff University, Park Place, Cardiff CF10 3YE

Email: [severn@cardiff.ac.uk](mailto:severn@cardiff.ac.uk)

Tel: 029 20874713 / 07973 176961

Fax: 029 20874326

# Programme

**0930**      **Arrival & Coffee**      **SOMERSET SUITE**

**1000**      **Introduction: Plenary Session**      **SOMERSET SUITE**

## **Welcome & Opening Speeches**

*Chair: Chris Wooldridge, Cardiff University & Advisor to the Severn Estuary Partnership*

Opening Speech - Christine Gwyther, Welsh Assembly Member

Welcome – Cllr Peter Tyzack, Chairman of the Severn Estuary Partnership

Establishing the Severn Estuary Forum – Natasha Barker, Severn Estuary Partnership Officer

## **Celebrating the Severn**

*Chair: Natasha Barker, Severn Estuary Partnership Officer*

The Dynamic Severn: Points of View - Chris Wooldridge, Cardiff University

Ten Thousand Years of Change - Richard Brunning, Somerset County Council

Integrated Management and the Severn Estuary – Prof. Peter Burbridge, Newcastle-Upon-Tyne

**1130**      **Times of Change: Parallel Workshop 1**      **SOMERSET SUITE**

## **Climate Change: Recent and Regional Predictions**

*Chair: Environment Agency*

National Predictions – Dr David Woolf, National Oceanographic Centre

Regional Perspective - Sarah Hendell-Blackford, SW Climate Change Impacts Partnership

Severn Estuary Perspective – Roger Wade, Environment Agency

**1130**      **Times of Change: Parallel Workshop 2**      **AVON SUITE**

## **Marine Bill**

*Chair: Morgan Parry, World Wide Fund for Nature*

Delivering Integrated Coastal Zone Management (ICZM) in Wales - Rhoda Ballinger, Cardiff University

Marine Strategy & Integrated Management of the Severn Estuary – David Tudor, Env't Agency

The Marine Bill & Severn Estuary Issues – Jan Brown, World Wide Fund for Nature

**1230**      **Lunch & Displays**      **AVON SUITE**

**1330**      **Tides of Change: Parallel Workshop 3**      **SOMERSET SUITE**

## **Renewable Energy**

*Chair: Roger Falconer, Cardiff University School of Engineering*

Severn Barrage: is the tide turning? – David Kerr, Sir Robert McAlpine

Regional Perspectives on Renewables - Morgan Parry, World Wide Fund for Nature

Avonmouth Renewable Energy Project – Patrick Kearon, The Bristol Port Company

**1330**      **Tides of Change: Parallel Workshop 4**      **AVON SUITE**

## **Flood Risk Management**

*Chair: Peter Watts, Severn Trent Regional Flood Defence Committee*

Tidal Severn Flood Risk Management Strategy & Avonmouth Scheme – Niall Hall, Env't Agency

The Severn Estuary Coastal Habitat Management Plan –Deborah Dunsford, Environment Agency

Moving with the Tide: Steart Point, Somerset – Richard Symonds, Environment Agency

**1430**      **Working Together: Final Plenary Session**      **SOMERSET SUITE**

## **Open Discussion & Feedback Session**

*Chair: Peter Burbridge. Rapporteurs: Chris Wooldridge & Natasha Barker*

*Panel: Chairs of all four Parallel Workshops*

**1500**      **Close & Depart**

**1530**      ***Waverley will depart from Clevedon Pier for the Severn Wonders Cruise***

# Chairs & Speakers Notes

1000

Introduction: Plenary Session

**SOMERSET SUITE**

## Welcome & Opening Speeches

### Opening Speech: Christine Gwyther - Welsh Assembly Government

**Christine Gwyther** is an Assembly Member (Labour - Carmarthen West and South Pembrokeshire). She chairs the Economic Development and Transport Committee. Born in Pembroke Dock in 1959, she formerly worked in Pembrokeshire County Council's economic department and had special responsibility for promoting small business start-ups. She is a member of the Pembrokeshire Business Club and the RSPB. Her interests include conservation and economic development.

Christine Gwyther launched the European COREPOINT (Coastal Research and Policy Integration) in 2005 which has helped enable the Partnership to establish the Severn Estuary Forum.

### Welcome: Cllr Peter Tyzack, Chairman of the Severn Estuary Partnership

**Cllr Peter Tyzack** is the elected member for Pilning and Severn Beach ward in South Gloucestershire. He plays an active role in the Severn Bridges visitors' centre management and recently he established Severn Beach Regeneration Group. For South Gloucestershire Council he leads the Development Control West & Sites Inspection Panel, is a member of the Planning & Transportation Select Committee and is a member of the Transport Forum and the European & International Forum. He Chairs the Rights of Way Committee and promotes routes to access the Severn Way.

Cllr Tyzack has been acting as Chair for the Severn Estuary Partnership over the past few years and in this capacity is currently chair of the Les Estuariales network of European estuaries which is hosted by the Severn Estuary Partnership between 2005-2007. Cllr Tyzack will introduce the role of the Severn Estuary Partnership in hosting the Severn Estuary Forum.

### **Natasha Barker – Severn Estuary Partnership Officer** *Establishing the Severn Estuary Forum*

**Natasha Barker** is the Severn Estuary Partnership Officer based at Cardiff University in Wales. Her role involves leading a small team of Severn Estuary Partnership staff, project & budget management, business planning, annual reporting; overseeing the provision of projects & services and involvement in two European funded projects on integrated coastal management. She trained as a Geographer specialising in coastal management and has worked as an environmental consultant on a wide variety of projects within and outside the UK. Since 1998 Natasha has concentrated on the establishment and development of estuary partnerships and the implementation of Integrated Coastal Zone Management (ICZM) in the UK – particularly with the Teign Estuary Partnership and Exe Estuary Partnership in south Devon before moving to the Severn Estuary Partnership last year.

Following on from Cllr Peter Tyzack's introduction, Natasha will explain the role of the Severn Estuary Partnership and the rationale for establishing the Severn Estuary Forum.

## **Celebrating the Severn**

**Chair: Natasha Barker, Severn Estuary Partnership Officer**

**Speaker: Chris Wooldridge, Cardiff University**  
***The Dynamic Severn: Points of View***

Chris has been observing the work of the Partnership since its inception and has been acting in an advisory capacity for the Severn Wonders Festival and Severn Estuary Forum. Chris will offer his views on the dynamic nature of the Severn Estuary, particularly encouraging people to think about the estuary more from a maritime perspective.

**Dr. Chris Wooldridge** is a lecturer at Cardiff University in the Marine and Coastal Environment School of the Department of Earth, Ocean and Planetary Sciences. He teaches marine and coastal management to students on the Severn Estuary and Bristol Channel, supervising the University's research vessel and working with the Royal Navy and other maritime users of the Severn. He is also involved in many marine and coastal management projects overseas. In 2005 he filmed with the BBC the COAST series on the Severn, after which the programme was nominated the best in the series. He acts as an advisor to the Severn Estuary Partnership and was involved in launching the Severn Wonders Festival this year.

**Speaker: Richard Brunning, Somerset County Council**  
***Ten Thousand Years of Change***

The Severn Estuary and its surrounding wetlands represent a fantastic cultural resource. The deep deposits of peat and clay contain a vast body of information on sea level and coastal change and how the landscape has radically altered over the millennia. For the past 10,000 years humans have exploited the natural resources of the area and have increasingly adapted the landscape to meet their needs. This has left a large legacy of archaeological remains ranging from human footprints over 7,000 years old to prehistoric, Roman and Medieval boats and ships, prehistoric trackways and wetland settlements and inter-tidal fishing structures.

**Richard Brunning** trained as a specialist in the archaeology of wetlands at Exeter University and worked extensively on waterlogged archaeological sites in Scotland, Ireland and Wales before becoming the Somerset Levels and Moors Archaeologist ten years ago. He has been on the Committee of the Severn Estuary Levels Research Committee (SELRC) since its inception and has been its Secretary for the last two years.

**Speaker: Professor Peter Burbridge, Newcastle-Upon-Tyne**  
***Integrated Management of the Severn Estuary***

With extensive global experience of Integrated Coastal Zone Management, Professor Peter Burbridge will provide perspectives on integrated management of the Severn Estuary.

**Professor Peter Burbridge** is the Emeritus Professor for Coastal Management at the School of Marine Science and Technology, University of Newcastle upon Tyne. Over the past thirty years he has provided technical and management advice on a wide range of spatial planning, resource development and environmental management issues.

He has undertaken a major assessment of coastal management initiatives in Member States for the European Union Integrated Coastal Zone Management Programme. This work contributed to the EU Recommendation on Integrated Coastal Zone Management.

Peter is the author of a study for the Scottish Coastal Forum on lessons learned from initiatives in Integrated Coastal Management in Scotland. He also served as senior advisor to the Local

Government Association study of coastal management issues in England and Wales and helped draft the LGA Strategy to promote integrated policies and investment for coastal management.

Peter is currently acting as an advisor to the Shannon Development Corporation for integrated coastal management of the Shannon estuary, Ireland, and as Senior Technical Advisor for integrated coastal management for the EU funded "Support of the Mediterranean Action Plan (SMAP III) project".

**Climate Change: recent and regional predictions**

**Chair: Environment Agency**

**Speaker: Dr David Woolf, National Oceanographic Centre  
*National Predictions of Climate Change***

While the Earth as a whole faces a warming scenario, the future climate of the UK and northwest Europe as a whole is more uncertain. Our regional climate is largely set by the influence of the North Atlantic Ocean and by trans-Atlantic weather systems and it is the response of the ocean and weather patterns to “global warming” that will determine our future. Changes in temperature and winds affect us all, and changes in sea level and wave heights are significant at sea and on the coast. I will discuss some of the possible scenarios for each of these.

**David Woolf** is a Senior Research Fellow at the National Oceanography Centre, Southampton. Following a first degree in Physics (Oxford) and a PhD in Physical Oceanography (National University of Ireland), he has been employed by the University of Southampton for 17 years. His main interests are air-sea interaction and climate variability & change.

**Speaker: Sarah Hendell-Blackford, SW Climate Change Impacts Partnership  
*Regional Perspective on Climate Change***

**Sarah Hendel-Blackford** is the Manager of the South West Climate Change Impacts Partnership (SWCCIP). SWCCIP is jointly chaired by the Environment Agency and Government Office South West, aiming "to investigate, inform and advise on the impacts of climate change in South West England". SWCCIP has six sector groups which look at the effects and impacts of climate change: Biodiversity, Tourism, Utilities, Local Government, Housing and Construction, Agriculture and Forestry. Prior to this, Sarah was Senior Project Officer leading the Sustainable Energy and Climate Change project at the Local Government Association. Sarah also worked in the European Parliament in Brussels, working climate change legislation and in European Commission, DG Research.

**Speaker: Roger Wade, Environment Agency  
*Severn Estuary Perspective on the Implications of Climate Change***

The aim of the talk is to examine both the direct and indirect effects of climate change on the estuary. With changes in sea level and storminess flooding and erosion will be big issues. Roger will look at the Foresight report on this and consider the impact on coastal habitats. The estuary is also well known for its birds and migratory fish. How will these be affected? Will the estuary be less of an attraction for waders as the East Coast estuaries warm up? Will there be any salmon left to migrate? What might move into the estuary? Another considerable issue may be the lower summer flows to the estuary- and the repercussions for water supply and fish migration. The estuary is a considerable potential resource to help reduce climate change gas emissions- both for renewable energy and aggregates for new home building. There will be considerable pressure to use the tidal power in some way- and Roger will briefly consider the options and potential impacts. To reduce the energy emissions from dwellings a considerable new build to increase the energy efficiency of the housing stock will be required. Last – but by no means least – there may well be an increase in tourism in the Estuary- as the climate- even though more variable- may be more conducive to at home holidays!

**Roger Wade** has been involved with the Severn Estuary for around 30 years- on his first day of work for Severn Trent Water Authority he was asked to try to help a whale back out to sea

from under the (then only) Severn Bridge! He has flown around 70 times in helicopter surveys of the estuary and spent happy years with a fast inflatable surveying the upper estuary. He was involved from the start with the Severn Estuary Strategy (now partnership) and represented the Environment Agency from Wales, the Midlands and South West on the Steering Group. He was also a key author of the original issues document and involved in the production of the action plan. Over the last few years he has been working on the water company price review- the mechanism that provides investment for upgrading sewage discharges and storm overflows to the estuary and more recently become involved in Climate Change issues. This follows from his interest in renewable energy- as he was chair of the National Renewable Energy charity Energy 21 for 3 years. Roger has an MSc. In Oceanography and a Ph.D. in Environmental Chemistry and now works for the Strategic Unit in the Environment Agency Wales as a Policy Advisor in Air Quality and Climate Change. Roger says he is delighted to renew his connections with the Severn Estuary Partnership by speaking today.



## Marine Bill

**Chair: Morgan Parry, World Wide Fund for Nature**

**Speaker: Rhoda Ballinger, Cardiff University**  
*Delivering Integrated Coastal Zone Management in Wales*

The presentation will provide an evaluation of the status and potential of ICZM in Wales, particularly in the context of the forthcoming Marine Bill. To provide the context, it will commence with a brief explanation of the key characteristics of ICZM, as well as a summary of the main development patterns, trends and issues which Welsh ICZM needs to address. The presentation will then focus on current ICZM practice in Wales and the policy framework which supports this. This will include reference to the recent consultation for a Welsh ICZM Strategy for Wales ('Making the most of Wales' coast'). The presentation will conclude with an overview of the key opportunities and challenges which the Marine Bill presents for the development of ICZM. It is suggested that the Marine Bill presents a significant opportunity to further the application of EC ICZM principles along the Welsh coast, although its emphasis relates to offshore management and planning issues.

**Rhoda Ballinger** gained her degree and doctorate from University College of Wales, Aberystwyth. Since taking up a lecturing post in Marine Geography at Cardiff University, she has developed research and teaching interests in coastal management and planning. She has written extensively on the institutional and policy context for ICZM development and has supervised many doctoral theses and research projects in this area. These include the current Interreg COREPOINT project, which is promoting best practice in ICZM throughout North West Europe, and a recent review of coastal and maritime pressures and initiatives for the National Assembly of Wales/Wales Coastal Maritime Partnership. Rhoda has also been closely involved with the development of the Severn Estuary Partnership over the last decade.

**Speaker: David Tudor, Environment Agency**  
*The Environment Agency's Role at the Coast*

The Environment Agency's job is to look after the environment and make it a better place for people, business and wildlife. We have a lead role in managing inland and coastal waters and implement many of the principles of ICZM through our work. Our regulatory duties span land and sea, and range from promoting recreation to managing flood risk and controlling pollution. This places us in a unique position to encourage better protection of our coasts and seas. Our Marine Strategy sets out what we are doing now to protect the marine environment and presents our vision for the future.

**David Tudor** is Marine Policy Advisor for Environment Agency Wales. He has over 10 years experience working in the coastal and marine environment within academic, research, Government, voluntary and non-governmental sectors. His work involves advising the Welsh Assembly Government and helping to develop marine policy – encompassing new marine legislation, coastal zone management, marine planning and marine pollution. The proposed Marine Bill and its potential implications are the major focus of his current work.

**Speaker: Jan Brown, World Wide Fund for Nature**  
***The Marine Bill & Severn Estuary Issues***

**The Prospect of a UK Marine Act**

The UK government's consultation on a UK Marine Bill is a huge opportunity for better management of our seas. The many of our marine laws are out-dated, piecemeal and unwieldy, yet the seas around the UK are among the most heavily exploited in the world, providing a multitude of important resources and economic benefits through oil and gas reserves, fisheries, transport, dredged materials, renewable energy and tourism.

The prospect of a UK Marine Act plus complimentary Marine Acts in devolved countries is a great opportunity to bring together plans for economic development with comprehensive protection for our marine wildlife. WWF believes the Marine Acts will benefit all marine users – from leisure users to fishing and wind farms, because they should be based on an efficient planning system that prevents the increasing number of conflicts of interests around UK shores.

New legislation must be built on a solid foundation of a new spatial planning system that takes a holistic view and includes all users, without exception. This will result in better decision making. This will require detailed planning at the coast where activities are concentrated, including the Severn Estuary. The way the Estuary is managed must feed up to a wider regional sea plan, and vice versa.

The key for the new legislation is to continue the economic development of the sea, but to ensure it is done within ecological limits allowing space for wildlife to thrive. To date, marine legislation has been developed in an ad hoc manner and on a sector by sector basis, leading to inevitable conflicts between interested groups or government departments. This is why we need an overall strategy for the management of our seas.

Proper marine spatial planning (MSP) will help the UK to assess and tackle the combination of human impacts in our seas. The Marine Bill should also establish a national network of Marine Protected Areas for our marine life, to plug the gaps in EU legislation that does not protect all species of importance to the UK. These sites will be chosen because they include threatened habitats or species, which need to be identified in spatial plans to allow proper monitoring and management. The government has an international duty to conserve important species in UK waters.

The draft UK Marine Bill, which is expected later 2006, is the result of years of hard work by government, specialist groups and NGOs. We hope a full Marine Bill will be introduced to Parliament by the end of 2007, followed by Marine Acts in Wales, Scotland, and Northern Ireland.

**Janet Brown** is Senior Policy Officer with WWF-UK and leads on WWF's Marine Act Campaign. Jan has also represented WWF during development of the EU Recommendation for ICZM (integrated Coastal Zone Management) and achieving coastal realignment in response to sea level rise for the largest coastal realignment project in Europe, at Abbotts Hall Farm in Essex.

Previous to WWF, Jan worked on an island nature reserve, and then led development of the first Strategy for the Severn Estuary. Janet is pleased to be invited back to discuss the new Marine Bill and what this might mean for the Severn Estuary.

**1230 - 1330 Lunch**  
***Displays***

**AVON SUITE & SOMERSET SUITE**  
**AVON SUITE**

## **Renewable Energy**

**Chair: Roger Falconer, Institute of Sustainability, Energy and Environmental Management, School of Engineering, Cardiff University**

**Speaker: David Kerr, Sir Robert McAlpine**  
***Severn Barrage: is the tide turning?***

The proposed Severn Tidal Power Barrage would have an output of 17TWh – 5% of UK electricity supply. In addition, it would provide a predictable, indigenous and carbon free source of generation. The non-energy benefits would include protection to 140 miles of coastline against flooding and sea level rise and the potential for additional road and rail crossings of the estuary. The talk will provide an update on the status of the project and promote discussion on it's benefits and challenges, including the need to balance environmental change with benefits. The talk will include a description of the proposed project and the environmental and regional effects.

**David Kerr** has been involved in the development of Renewables – particularly Wind, Wave and Tidal Power – since the early 1980's. He led the Civil Engineering studies for the Severn Barrage Tidal Power project in the 1980's and has been an advocate for the project ever since. He is a Renewables enthusiast but also tries to instil some realism into discussions on the prospects for renewables. He is Chairman of the Institution of Civil Engineers Energy Board and also Engineering Consultant to Sir Robert McAlpine (having retired as Chief Design Engineer earlier this year).

**Speaker: Morgan Parry, World Wide Fund for Nature**  
***Regional Perspectives on Renewables***

Until early April this year, the main focus of debate on renewable energy in the Severn Estuary and adjacent coastal areas was around offshore wind farms, in particular the Scarweather Sands proposal in Swansea Bay. Also, small scale prototype tidal generators have been installed off the Pembrokeshire coast and in Devon. However the revival of plans for a Severn barrage, and the Welsh Assembly Government's endorsement of it, has transformed the nature of debate. The barrage could produce a significant proportion of the UK's electricity demand, but would also eliminate many of the features for which the Severn Estuary is famed and valued, and protected under the Habitats Directive. It also offers a major infrastructure and economic development opportunity to SE Wales and SW England, thereby posing a major dilemma in the search for a low-carbon economy. The forthcoming Marine Bill should provide a spatial planning framework, to allow us to address issues such as the barrage in a holistic way.

**Morgan Parry** is Head of WWF in Wales, previously Director of the North Wales Wildlife Trust. Before that he worked for 10 years for Gwynedd County Council, managing country parks, nature reserves, visitor attractions and cycle routes. A graduate biologist with experience of field surveys and habitat assessment, both for government and as a consultant. Regular contributor to TV and radio programmes on the environment. Member of the Sustainable Development Forum for Wales.

**Speaker: Patrick Kearon, The Bristol Port Company**  
***Avonmouth Renewable Energy Project***

In response to concerns about climate change, our dependence on finite fossil fuels, and ever increasing energy costs, The Bristol Port Company sought to develop a local renewable energy source to supply the port's electricity demand. In December 2005, The Bristol Port Company was granted planning permission to construct and operate three (3 megawatt) wind turbine generators on land within Avonmouth Docks. This brown-field site comprises 8.5 hectares of reclaimed land previously used as an oil terminal. The turbines will be sited adjacent to the Severn Estuary, which is recognised for its international and national nature conservation interest. An Environmental Statement was prepared to describe the potential impacts of the construction and operation of the project on the environment, recommending possible measures to avoid or reduce them. This presentation will provide an overview of the Avonmouth Renewable Energy Project, outlining the findings of the Environmental Impact Assessment process. It will look forward to the future construction and operation of the wind turbines, which will be generating "green" energy by mid-2007. The combined production of 9 megawatts of electricity will meet up to 75% of the port's electricity demand. Bristol Port is the fastest growing deep water port in the UK and provides employment for over 7,500 people.

**Patrick Kearon**, Director of Public Affairs has been with The Bristol Port Company since its privatisation in 1991. He has worked in London, the Middle East and the United States in various industries including automotive, food and healthcare. Patrick and his wife are the parents of four children.

**1230 - 1330 Lunch**  
***Displays***

***AVON SUITE & SOMERSET SUITE***  
***AVON SUITE***

## Flood Risk Management

**Chair: Peter Watts, Severn Trent Regional Flood Defence Committee**

**Speaker: Naill Hall, Environment Agency**

***Tidal Severn Flood Risk Management Strategy and the Avonmouth Scheme***

This presentation looks at the strategy approach the Agency uses to deal with flood risk. It explores the three tiers of assessment focussing on a single site which is currently being considered for delivery of a scheme.

**Naill Hall** has worked for the Environment Agency for 6 years in Flood Risk Management (formally Flood Defence) all of that time in Lower Severn Area which is part of Midlands Region. His current role is working within the Flood Risk Mapping & Data Management Team.

**Speaker: Tim Ive & Deborah Dunsford, Environment Agency**

***The Severn Estuary Coastal Habitat Management Plan***

Coastal Habitat Management Plans (known as CHaMPs) provide a high level framework to advise and support flood risk and coastal management decisions that may affect sites designated under the Ramsar convention, Habitats and Birds Directives. CHaMPs have two primary functions: (i) to act as an accounting system to predict and then record losses and/or gains to habitat; and (ii) to inform, at a high level, the direction for habitat conservation measures to address net losses. The Severn Estuary CHaMP will inform the first review of the Severn Estuary Shoreline Management Plan (SMP), due to commence in autumn 2008.

**Tim Ive** is a Chartered Civil Engineer and has worked for the Environment Agency for nearly 6 years within the National Capital Programme Management Service (NCPMS), based in Solihull. He predominately manages the development of flood risk construction projects including the Shrewsbury flood alleviation scheme as a result of the autumn 2000 floods. As well as the Severn Estuary Coastal Habitat Management Plan he manages other non-construction environmental projects such as river Strategies as well as projects within the nuclear sector. Before working for the Environment Agency he was a Senior Bridge Engineer responsible for the design and maintenance of a wide range of bridges.

**Speaker: Richard Symonds, Environment Agency**

***Moving with the Tide: Steart Point, Somerset***

A tremendous opportunity has emerged to transform the Steart Peninsula – for people, for wildlife, for the future. On a narrow strip of land between the estuaries of the rivers Severn and Parrett lies 900 hectares with huge potential to create something special. Flood defences of varying age protect the low-lying Steart Peninsula on the Severn Estuary, which has the second highest tidal range in the world. An earth flood embankment along the River Parrett is vulnerable to erosion, while flood defences along Bridgwater Bay comprise a variety of embankments. Two factors affect the vulnerability of the peninsula to flooding: A projected sea level rise due to climate change, and the loss of the intertidal habitat such as the mudflats which create large expanses of shallow water. Lower mudflats mean larger, more destructive waves can reach the shoreline, and overtop, or wash away, the flood defences. Adjacent to the internationally important wildlife site of the Severn Estuary, new intertidal and saline habitats at Steart could create a major new asset for wildlife and the local community. Saltmarsh, small pools and lagoons with reedbeds grading through to grazing marshes would create an outstanding new complex of wonderful plant and bird rich habitats. Careful controlled management could turn relatively wildlife poor grasslands into an outstanding new

wildlife rich coastal scene, where people and life are protected while also being provided with new opportunities.

**Richard Symonds** is the Area Flood Risk Manager for the North Wessex Area of the Environment Agency. He is a Chartered Engineer and a Chartered Environmentalist. He has been with the Environment Agency throughout its 10 years, and was with the National Rivers Authority before that. He also has experience with Consulting Engineers on water supply and sewage treatment schemes in the UK and Far East. In his current role the coastline between Avonmouth and Porlock is of interest; a length of coast which offers the complete range of issues that face our coastline now and in a future affected by climate change. This presentation will describe work carried out to date by the Environment Agency to develop the vision and to share it with others. It will bring you right up to date with the work, and describe the pieces of the jigsaw that has been put together, and will include reference to the missing piece.

**1430 Working Together: Plenary Session SOMERSET SUITE**

**Open Discussion and Feedback Session**

**1500 Close & Depart**

*Waverley will depart from Clevedon Pier for the Severn Wonders Cruise at 1530 prompt! Please assemble outside the hotel by 1515 if you'd like to be escorted to Clevedon Pier for the cruise.*



***Working together for  
the future of our  
Estuary***