

# SevernTidings

Working in partnership for the future of the Severn Estuary

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

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# Welcome



John Harrison,  
Severn Estuary  
Partnership Chair

Welcome to the 2015 edition of Severn Tidings – the Severn Estuary Partnership's newsletter which brings together news from around the estuary and from the Partnership's supporters.

As the newly appointed chair of the SEP I would first wish to thank our former chair, George Ashworth, for his outstanding commitment and work of the past 15 years which had been instrumental in the success of the partnership. I have a deep personal interest about the future of SEP having always lived and worked close to the estuary as well as enjoying a range of activities which the estuary has to offer.

In this edition we highlight a number of exciting new initiatives developed by a range of partnerships as well as proposals for energy generation, nature improvement areas and the Severn Estuary Strategy development. We also want to share with you some of the finest coastal walks to appreciate the estuary's natural and archaeological heritage. Sharing information is essential to improving our collective understanding of the estuary to benefit industries, communities and our environment. This is a key aspect of SEP's role, facilitating effective communication and knowledge transfer to ensure sustainable development of the estuary.

The Severn Estuary Partnership has been busy this year working towards reviewing and updating the 2001 Severn Estuary Strategy, in addition to collaborating with various estuary stakeholders on a wide range of projects to ensure the sustainable management of the Severn Estuary. Full details of these projects are highlighted within this edition.

Our work on the Severn Estuary would not be possible without the dedicated support of our partners. In these times of resource challenges I truly believe the benefits of partnership working come to the fore. I look forward to working with all those who have an interest in the estuary and welcome your continued support.



The Severn Estuary Partnership with associates from Cardiff University at Purton Hulks © Azmath Jaleel

# Showcasing the Severn

As the new Severn Estuary Partnership and ASERA Officer, I am delighted to write the editorial for the 17th issue of Severn Tidings. The key theme throughout this edition is celebrating the diverse network of partnerships and the new projects developing as a result. At such an exciting and challenging time in coastal and marine management, the Partnership has continued to work hard to keep you informed of these latest estuary projects and developments, policy updates and proposals as they emerge.

Since coming into post in March 2015, I have thoroughly enjoyed engaging with the wide variety of stakeholders of the Severn Estuary. This has involved providing secretariat support to the pan-estuary groups SECG, ASERA and BCSEG - see the "Estuary Round Up" page opposite to find out what these groups have been up to! We have also been busy working on the 2015 Wales Coastal Directory, mapping coastal/marine networks and forums across Wales to aid Welsh Government with their marine planning information dissemination (page 10).

Reviewing and updating the 2001 Severn Estuary Strategy has been a key priority for the Partnership over the past 6 months. We have begun to engage with key stakeholders and policy makers from a wide range of sectors. The revised 2015/16 Strategy will provide a framework to inform more integrated policy development, plans and strategies. So far, we have hosted two workshops with a wide range of sectors to gain input into this important process. Open to pages 6 and 7 to find out more.

The State of the Severn Estuary Report (SOSER) has continued to develop, updated with the latest data from a wide range of themes such as ports and shipping, marine aggregates and bathing waters. The latest information is provided in an easily accessible format and can be found within the 'Estuary' section of the SEP website.

On 28th May, the Partnership held its annual Joint Estuary Day in Newport, which brought together stakeholders from a range of estuary groups, including ASERA, BCSEG and SECG. The Joint Advisory Committee (JAC) meeting was next, with an interesting presentation from Tidal Lagoon Power, stimulating much discussion around the range of proposals within the estuary. Thank you to all of those who attended and made it such an informative and thought-provoking day.

The Severn Estuary Partnership hosted the 2014 Severn Estuary Forum in Cardiff. It was extremely well supported by our sponsors BMAPA, ABP Ports, MarineSpace and Cardiff University. It proved a successful day which examined and discussed the opportunities and challenges for our estuary, focussing on climate change, estuary planning, energy generation and some specific local issues.



The Partnership is also pleased to have welcomed summer placement students Kathryn Dawson, Shaun Williams and Zahra Fatima. Kathryn has been updating and developing the State of the Severn Estuary Report (SOSER) webpages, creating a new section on Flooding and Coastal Erosion Risk Management, in partnership with the Environment Agency. This will be available soon! Shaun and Zahra have been working hard on SEP stakeholder communications, assisting with the organisation of the Severn Estuary Forum, our monthly E-news and annual Severn Tidings.

Finally, make sure you keep abreast of all of the Partnership's activities, estuary news, policy updates, consultations and upcoming events by subscribing to our monthly e-news (email: [Severn@cardiff.ac.uk](mailto:Severn@cardiff.ac.uk)). Please get in touch if you wish to contribute any information or relevant articles.

I do hope you enjoy this edition of Severn Tidings and I look forward to welcoming you to Bristol for the 2015 Forum in September!

Lucy Taylor  
Severn Estuary Partnership Officer

## Our Contributors

At the Severn Estuary Partnership, our key role is to keep all of our stakeholders informed of project developments and proposals that are happening within, or will have an impact on, the Severn Estuary. In this edition we are delighted to have contributions and viewpoints from a wide range of estuary groups and developers:

*Kepler Energy, Tidal Lagoon Power, Severn Vision, Somerset Wildlife Trust, Bristol Channel and Severn Estuary Energy Group, The Welsh Government, West of England Nature Partnership, A Forgotten Landscape,*

*Natural England, Natural Resources Wales, Bristol City Council, Gloucestershire County Council, Severn Estuary Coastal Group, Association of Severn Estuary Relevant Authorities, Bristol Channel Standing Environment Group and Cardiff University.*

We would be interested to hear your views on the wide range of topics featured in this edition, particularly given the considerable complexity and sensitivity that surrounds some of the key estuary issues and opportunities. Please get in touch with the Partnership by emailing [Severn@cardiff.ac.uk](mailto:Severn@cardiff.ac.uk)



# An Estuary Round Up

## The Association of Severn Estuary Relevant Authorities (ASERA) – Relaunch of the ASERA Management Scheme!

ASERA is made up of the statutory organisations around the Severn Estuary that collectively manage their activities on the Severn Estuary European Marine Site (EMS). The Severn Estuary EMS incorporates the marine areas of both the Special Area of Conservation (SAC) and Special Protection Area (SPA), protected under the EC Habitats and Birds Directives.

ASERA has been relaunched this year with a new effort and energy to update the Severn Estuary Management Scheme and associated

Relevant Authority Action Plans by the AGM in November 2016. As part of this relaunch, the Association has made considerable progress renewing and updating the website, aiming to make it much more user-friendly and accessible. This will be available shortly!

We have been working hard to complete the Recreational Boating in the Severn Estuary study over the past few months. This report will go out to a focused consultation group by the end of September, following which it will be finalised and made available on the ASERA website. To follow, summary reports on both land-based recreation (coastal access) and

bait digging and angling in the Severn Estuary EMS will also be produced over the next year. Short codes of conduct and guidelines will be produced for these (recreational boating, coastal access and bait digging and angling) to assist recreational estuary-users with carrying out their activities in a sustainable manner.

Looking forward, the Management Scheme and Relevant Authority Action Plans will be revised to reflect the new data and information collated, changes in recreational activity and emerging challenges that face the estuary.

*Lucy Taylor, ASERA Officer*

## Bristol Channel Standing Environment Group (BCSEG)

This multi-agency group, tasked with providing public health and environmental advice during a maritime incident, continues to improve its preparedness and to build links with other stakeholders such as ports and Local Authorities both sides of the estuary.

The group was involved in a major exercise at the end of 2014 held at the Port of Bristol that tested the group's response to a major oil spill. This worked well, and there were some useful lessons resulting in some minor amendments to the group's Activation Plan which is currently being updated.

BCSEG is part of a UK-wide network of Environment Groups which was set up as a result of some major incidents during the 1990s involving large spills of crude oil. As a consequence, the greater part of maritime incident response planning by such groups has historically been related to dealing with oil spills. However, on the Severn Estuary, whilst all vessels carry fuel oil and some of the estuary ports handle various oil derivatives, ports also handle a considerable variety of other cargo types – some of which may be potentially hazardous if released into the environment.

The group is currently scoping a new project to assess the risk of Severn Estuary cargoes – clearly, this will assist the group's effectiveness in responding to an incident.

The BCSEG website provides a general description of the Group, but for more detailed information contact the Severn Estuary Partnership at: [severn@cardiff.ac.uk](mailto:severn@cardiff.ac.uk)

*Rhys Morgan, Natural Resource Planner (Marine)  
Natural Resources Wales*

## Severn Estuary Coastal Group (SECG)

The Severn Estuary Coastal Group (SECG) meets on a quarterly basis, with three meetings having taken place so far this year. The group has been busy engaging with key authorities and estuary groups, as well as dealing with emerging proposals and issues that face the estuary.

The group last met on 2nd September and the Shoreline Management Plan 2, the Severn Estuary Strategy, tidal lagoon proposals and coastal monitoring were the key topics discussed.

In March 2015, the group officially became a Strategic Group. In line with Defra requirements, it will report annually to the Environment Agency. Given the group's cross-border nature, the group will also work with and report to Natural Resources Wales and Welsh Government.

There has been progress on the IROPI (Imperative Reasons of Overriding Public Interest) situation for the SMP2. The Welsh Minister signed off the IROPI decision in December 2014. Although it still remains to receive approval from the Environment Agency (England), it is hoped that the Director of Operations will be able to sign this off by October/November 2015. Once signed off,

details will be released in the Severn Estuary Partnership E-news (email: [Severn@cardiff.ac.uk](mailto:Severn@cardiff.ac.uk) to subscribe).

Discussion of the group has also focused around the latest tidal lagoon proposals in the estuary and the group has now been invited to participate in the Technical Coastal Processes Topic Group for the Cardiff and Newport lagoons. The latest meeting of this Topic Group was held on 23rd September and the Group met to discuss survey methodologies, data analysis and the assessment of effects to be undertaken for the EIA, HRA and WFD assessment for the project.

Looking forward, the group has agreed to undertake a further review and update of the

Severn Estuary SMP2 Action Plans. This will be carried out by the Severn Estuary Partnership, who provide the secretariat services for the Group.

Further information regarding the activities of the Severn Estuary Coastal Group and the progress of the SMP2 can be found on the SECG website. A new-look website, with updated webpages and features will also be available soon!



*Severn Marshes © WWT*

# TIDAL ENERGY

## Consent for the World's First Tidal Lagoon Power Plant Opens a New Door in Global Effort to Address Climate Change

by Graham Hillier, Tidal Lagoon Power Limited

"It's a fact that Wales led the way providing the fuel for the industrial revolution. We are now entering the era of the climate change revolution – de-carbonising our world in time to avoid two degrees of global warming. Wales can now lead this next revolution.

In the run up to the Paris talks on a global climate change deal, a deal to steer global emissions from 50bn tonnes CO<sub>2</sub> down to 40bn tonnes CO<sub>2</sub> by 2030 and 20bn tonnes by 2050, the UK and especially Wales has opened a new door to help answer one of the greatest challenges of our age.

With the Development Consent Order having now been granted for Swansea Bay Tidal Lagoon, we have the potential to help transform our carbon-based industrial economy and the UK's energy mix, through the development of this sustainable, low-carbon energy infrastructure.

We see it as a game-changer, a scalable blueprint, paving the way for a fleet of lagoons that can work in harmony with nature to help secure the nation's electricity for generations to come. The tidal lagoons that follow – at Cardiff, at Newport, elsewhere in the UK and overseas – must each make their own compelling environmental, social and economic case to

proceed. But they have a pilot project to guide them and a blossoming scientific, technical and engineering network to support them.

We have some further permissions to secure for Swansea Bay Tidal Lagoon and we must successfully conclude energy price negotiations with UK Government, but the vision is now closer to reality than ever before and our delivery team is preparing to start on site and start delivering for Swansea Bay."

*Graham Hillier, Managing Director of Development Services, Tidal Lagoon Power Limited*



## Extracting Tidal Power in the Bristol Channel: A Different Approach

by Peter Dixon, Kepler Energy

### Introduction

"The Bristol Channel is well known to have huge potential for extracting tidal energy with many proposals for extracting this power over the last 80 years or so. Most of these involve a barrier or barrage, but few envisage the use of free stream tidal turbines, with good reason – the relative shallowness of the Channel and the somewhat low tidal velocities make the use of conventional turbines uneconomic. However Kepler Energy is now exploiting some new ideas developed by Oxford University, which enable the generation of electricity in these conditions.

### What's Different?

Previously, it seemed obvious that tidal turbines should be like wind turbines but stronger. But there is a major difference between the underwater environment and air – a "free surface" causes physics to be subtly different. The key insight is that, in circumstances where the size of the machine's rotor is large relative to the depth of the water, the rotor creates an effect like a weir, and can extract energy from the change in depth over the weir. In other words, the turbines extract potential as well as kinetic energy.

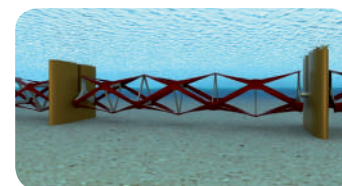
Professors Guy Houlby, Martin

Oldfield and Malcom McCulloch developed this further - in order to 'capture' the maximum amount of tidal flow, they determined that the rotor of the turbine should be transverse and horizontal. Wind turbines can be extended by increasing the diameter of the rotor, within limits, but conventional tidal turbines are limited in diameter by the depth of water. Being able to 'stretch' the rotor horizontally is a great advantage.

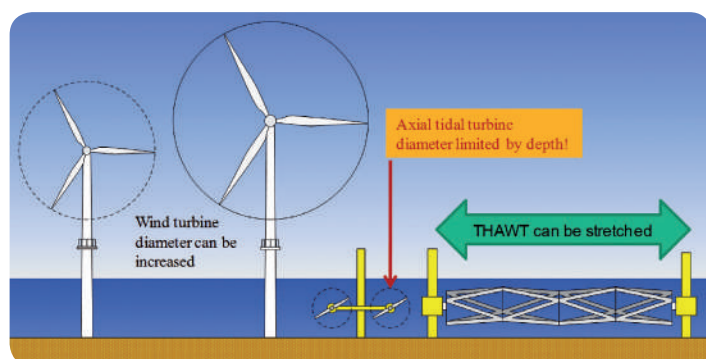
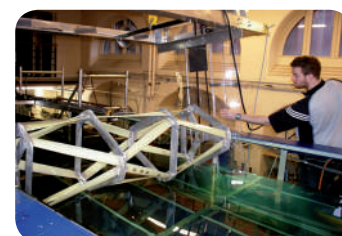
The Professors came up with the catchy (!) acronym of THAWT for the Transverse Horizontal Axis Water Turbine. Whilst the shape is not novel, there is a problem with making a structure strong enough to withstand the very large forces involved in generating very large quantities of power. The solution is to make the entire rotor structure a three dimensional stressed truss – and this patented solution permits the construction of rotors of considerable size, enough to generate over 2MW each at tidal velocities of about 4 knots.

To maximise power output, a chain

of THAWTs needs to be stretched across the tidal flow as a "tidal fence". It is envisaged that, in the right location, these fences could be 10 to 15 kilometres long, with peak power outputs of 600+MW. This is what the view from underwater might be:



To investigate the potential power output of such tidal fences in the Bristol Channel, physical testing of scale prototypes and detailed modelling of the Bristol Channel has been undertaken by Oxford as part of the ETI Perawat project and by Kepler Energy."



# Severn Vision Project Update

by Esther Collis, Severn Vision Project

This project sets out an ambitious Vision for the future of the estuary and the communities that depend upon it. The Vision does not seek to return the Severn to some prehistoric, pristine environment – but rather to unlock its potential as an even greater natural and economic asset. The Vision partners, an alliance of groups representing conservation, wildlife and landscape interests, have developed the Severn Vision as a contribution to what they hope will be an integrated plan for the estuary - one which protects and enhances the ecosystem as a whole, whilst informing and guiding sustainable use of its natural resources for future generations. For the first time, the Vision partners have pulled together and mapped all of the readily available information on the

estuary's natural assets, alongside the potential for restoring some of the intertidal areas that have been lost over the centuries (a 'Spatial Decision Support Toolkit'). This information will be made available as a database and a series of maps illustrating what is currently known of the distribution of each asset, and they would like this to be used as a starting point to help better plan future activities within the estuary.

The project partnership will be actively engaging with a range of stakeholders over the coming months, seeking comment on the Vision before its launch in the New Year.

The Severn Vision Project is a partnership project between the Wildfowl and Wetlands Trust, RSPB, The Wildlife Trusts, Severn Rivers

Trust, National Trust, Salmon and Trout Association and the Campaign to Protect Rural England.



WWT Slimbridge © Azmath Jaleel

# Developing the First Welsh National Marine Plan

by Paula Whitfield, Marine Policy Branch, Welsh Government

"The introduction of the first Welsh National Marine Plan is a big step for Wales. Welsh seas are becoming increasingly crowded. As we recognise the importance of our marine resources we need to manage them in a more integrated and planned way to ensure their long-term sustainability.

The Wales Marine Evidence Report, developed from the Strategic Scoping Exercise, has brought together relevant marine evidence to inform the plan. The Marine Planning Evidence Portal, which shows the distribution of human activities and natural resources in Welsh seas, is available on the Marine Planning pages of the

Welsh Government website: [lle.gov.wales/apps/marineportal](http://lle.gov.wales/apps/marineportal)

There has been continued and valuable engagement with many different people in the development of the draft WNMP from the beginning and I thank all those who have contributed so far. We will share the draft as widely as possible to ensure that when it becomes operational it will be beneficial for all who use and enjoy our seas.

The draft Marine Plan contains:

- the plan's vision and objectives,
- a detailed introduction,

- general policies and sector specific policies.

Supporting maps will also be added. The sectors currently addressed include:

- Aquaculture,
- Aggregates,
- Defence,
- Dredging and Disposal,
- Energy – Oil and Gas,
- Energy – Renewable,
- Fisheries,
- Subsea Cabling,
- Surface Water Treatment,
- as well as Tourism and Recreation.

Before it progresses to formal consultation next year, the Marine Plan content will be refined in the light of comments received. To help us, there will be public information sessions in November – details will be on the marine planning pages shortly. Please join or send us your views. We would really welcome your input!

Welsh Government is working with MMO and UK Government on the details of the cross border issues."



Llywodraeth Cymru  
Welsh Government

# Bristol Channel and Severn Estuary Energy Group

by Samuel Bryan, Bristol Channel and Severn Estuary Energy Group

The recent decision to grant a Development Consent Order to Tidal Lagoon Power for a 240MW capacity tidal lagoon in Swansea Bay is a significant first step towards realising the considerable energy resource of the Bristol Channel.

Tidal Lagoon Power's progress potentially heralds a new phase in the development of the tidal energy resource in the Bristol Channel, with exploration of other tidal lagoon and tidal stream options already underway. It is essential that these future tidal energy projects are considered holistically, as part of an overall strategy for the Bristol Channel and Severn Estuary. In this way, the cumulative impacts and interdependencies of this complex environmental, social and economic system can be clearly understood, maximising the significant, potential benefits of energy projects

while mitigating and reducing negative impacts and risks.

In response to this, Local Authorities are proposing to establish the Bristol Channel and Severn Estuary Energy Group (Energy Group) to provide a co-ordinated and managed approach to promote, explore and, where appropriate, enable the development of opportunities for tidal energy generation within the Bristol Channel and Severn Estuary.

Membership of the group will be open to all Local Authorities in England and Wales that border the Severn Estuary and Bristol Channel and, where appropriate to other national and regional bodies. The Energy Group will not duplicate existing stakeholder and industry partnerships such as the Severn Estuary Partnership, South West Marine Energy Park,

University or NGO partnerships. Instead a key role will be to engage with and support these wider partnerships.

For more information about the Energy Group please contact: [samuel.bryan@bristol.gov.uk](mailto:samuel.bryan@bristol.gov.uk)



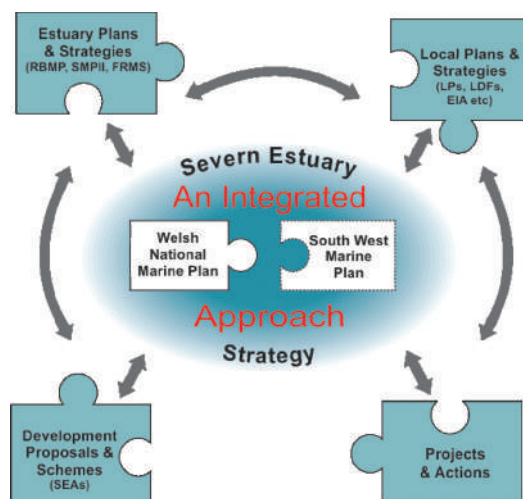
The Severn Crossing © Azmath Jaleel



# Severn Estuary Strategy

The Partnership is in the process of reviewing and updating the 2001 Severn Estuary Strategy. Whilst the 2001 Strategy aimed to *“bring together all those involved in the development, management and use of the estuary within a framework which encourages the integration of their interests and responsibilities to achieve common objective”*, this is now being reviewed in the context of new and emerging policies and developments in the marine and coastal sector.

The revised and streamlined 2015/16 Strategy will provide a framework to inform more coordinated policy development, practices and strategies for the estuary. As marine planning develops in both England and Wales, the Strategy's development should help to ensure an integrated approach for the Severn Estuary Region. The Strategy should also provide context to inform and support decision making for a wide range of proposed estuary developments, including those related to maritime uses, minerals and marine renewable energy. A sub-group of the SEP Management Group has been set up to help guide and inform the development of the Strategy.

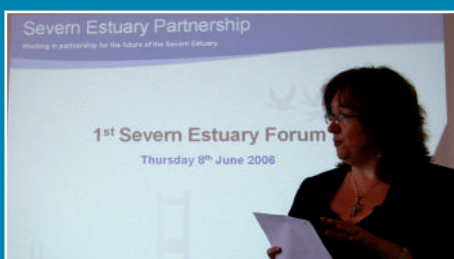


## 10th Severn Estuary Forum:

2006 Clevedon

2007 Clevedon

Here are some of the highlights of the Severn Estuary Forum across the past decade. A big thank you to our sponsors, funding partners and stakeholders for sharing 10 years of debate, learning and networking across the estuary! Here's to the next 10 years!



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



*“Working Together”*

*“Working Together for the Future”*



2011 Cardiff

*“Exploring our Estuary”*



2012 Bristol

## Stakeholder Engagement

We have been busy developing the new Strategy and are working with key stakeholders and policy makers. So far, we have hosted two workshops with a wide range of sectors to gain input:

- The Strategy Vision (May): This workshop not only highlighted the values, importance and key concerns within the Severn Estuary, but also gained consensus, support and debate on the role of a revised Strategy for the Severn Estuary.
- The Way Forward (September): This workshop discussed the way forward for the Strategy. A set of high-level principles were introduced and debated and these were then cross-referenced against the values of the estuary identified during the May workshop. The workshop also included a stocktake of existing policies, strategies and plans relevant to the estuary's management. The purpose of this was to help identify relevant policy areas for later engagement and to create a "road map" to existing policies and guidance.



## Our New Vision for the Severn Estuary

*"The Severn Estuary Strategy champions an integrated approach to the sustainable use and enjoyment of the Severn Estuary"*

### What Will Our New Strategy Include?

- A new Vision.
- High-level principles – Drafts have been devised from reviewing the UK High Level Marine Objectives set out in the Marine Policy Statement, other UK Marine Plans, the EU ICZM principles and other Coastal Partnership Strategies, like the Dorset Coast Strategy (2011). The high-level principles are being reviewed following the workshop.
- Roadmap to existing policy and guidance – a concise overview of key policies, plans and strategies (international – local) relevant to the estuary – all in a clear and accessible format – watch this space!

### What's Next?

Our next step is to ensure we have engaged with the widest range of stakeholder groups as possible. As part of this we will be holding various workshops over the next few months to promote the Strategy's use and adoption, as well as to ensure that the Strategy reflects the views of the wider Severn Estuary stakeholder community. We will continue to keep you informed as the Strategy develops by our SEP e-news which is released at the end of each month.

If you would like to hear more information on the update of the Strategy or would like to register an interest in being involved in its development, please get in touch with us at: [Severn@Cardiff.ac.uk](mailto:Severn@Cardiff.ac.uk)

# Celebrating a Decade of Debate!

2008 Penarth



*"Renewable Energy and 'Secrets of the Severn'"*

2009 Gloucester



*"Management of the Upper Estuary"*

2010 Bristol



*"Celebrating our Diversity"*

*"A Sustainable Severn Estuary"*



2013 Gloucester

*"Our Estuary: Challenges and Opportunities"*



2014 Cardiff

*"Celebrating 10 Years:  
A Retrospective View & Future Challenges"*



2015 Bristol



# Restoring the Heritage of the Lower Severn Vale Levels

by Miriam Woolnough, AFL Project Manager

A Forgotten Landscape (AFL) is an exciting new Heritage Lottery funded Landscape Partnership Scheme to explore, restore, conserve and enhance the heritage of the Lower Severn Vale Levels. Over the next three and a half years AFL will recruit and train a small army of local volunteers to undertake around 30 natural and cultural heritage projects.

The Lower Severn Vale Levels, the low-lying floodplain on the eastern shore of the River Severn, stretch from the industrial estates at Avonmouth north to the rural border between South Gloucestershire and Gloucestershire. Despite its importance, the area has been largely left out of large scale conservation and heritage initiatives.

AFL aims to improve habitats for wildlife, explore the area's history and celebrate its heritage. People will get a chance to discover the area's wide range of nationally and internationally important species such as water



voles, great crested newts and the estuary's host of birds. Likewise, people can explore the area's fascinating and lively history, uncovering both the archaeological remains buried beneath the soil and the many tales of how people and the landscape shape each other.

Working with schools, landowners, individuals,



community groups, local businesses and partners, AFL runs until the end of 2018. Project partners are South Gloucestershire Council (lead partner), Avon Wildlife Trust, Bristol City Council, Bristol Regional Environmental Records Centre, Environment Agency, Farming & Wildlife Advisory Group Southwest, Natural England, RSPB, TCV, University of the West of England, and a community representative.

For more information: [www.aforgottenlandscape.org.uk](http://www.aforgottenlandscape.org.uk) or contact the team at [afl@southglos.gov.uk](mailto:afl@southglos.gov.uk).



The AFL Team © Miriam Woolnough

# Nature Improvement Area Identified Along the Severn

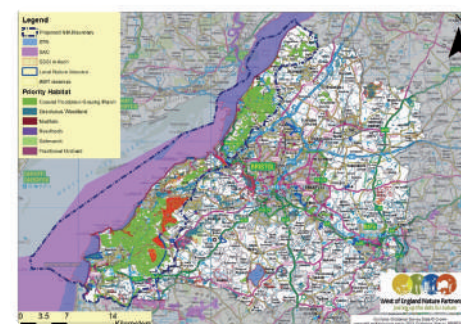
by Shelly Dewhurst, West of England Nature Partnership (WENP)

The West of England Nature Partnership (WENP) have identified part of the Severn and adjacent land as a 'Nature Improvement Area' (NIA), in recognition of the nationally and internationally important species and habitats it supports. Nature Improvement Areas are large, discrete areas that take a landscape-scale approach to conservation, where a local partnership develops a shared vision for the natural environment.

The Nature Improvement Area covers the land directly adjacent to the estuary, from the Lower Severn Vale in South Gloucestershire, through Avonmouth, and including the North Somerset Levels and Moors. The area is predominantly low-lying agricultural land characterised by the presence of water through its vast river, rhyme and ditch network. It contains a mosaic of important habitats including coastal and floodplain grazing marsh, saltmarsh, woodland and traditional orchards, which are rich in wildlife, supporting invertebrates, amphibians, otters, water voles, wildfowl and wading birds.

Across the area there exists an opportunity to

restore and reconnect these habitats, creating large-scale ecological networks, as advocated by Sir John Lawton in 'Making Space for Nature' (2012). There are also significant opportunities to connect people with nature and inspire them through an enhanced experience of the natural world by improving access and recreational opportunities, such as the planned coastal path.



The success of the Nature Improvement Area will be reliant on creating new partnerships with landowners, business and NGOs, to better understand how the area can be restored and reconnected on a landscape scale. The aim is to

better integrate wildlife habitats with human activity, and take a more strategic and joined up approach on how the land is used and shared, now and in the future, as reflected in the vision "to recognise Severnside Wetlands NIA as a vibrant, nature-rich landscape, where people, business and wildlife thrive".

For more information about the Severnside Wetlands Nature Improvement Area, please visit: <http://www.wenp.org.uk/iconic-wildlife-landscapes-working-group/>



© The West of England Partnership



# The Living Coast Programme



by Ben Bryant, Coastal Wildlife Project Officer, Somerset Wildlife Trust

2015 saw the launch of Somerset Wildlife Trust's Living Coast Programme. The programme focuses on linking local communities, industry, business and tourism sectors in order to raise the profile of the wealth of natural assets found along our coast, promote the incredible importance, beauty and diversity of the coast, and to highlight the benefits that the natural world brings to our health and well-being.

The Living Coast Programme is part of The Wildlife Trust's Living Seas vision for the future of the UK's seas, from the depth of the ocean to the coastal shallows.

We have had a hugely positive start to our coastal work having appointed our first ever Coastal Wildlife Project Officer to develop and deliver the programme.

To date we've run a large number of public engagement events including wildlife boat trips around Bridgwater Bay, a coast

inspired art exhibition, family rock pool rambles, data collecting "Shoresearch" events, a wildlife photography competition and much more. The reaction from the public has been brilliant and there has been a great interest in what we're doing and a lot of support for the continuation and development of the work.

In the next few months we will also work with The Somerset Environmental Records Centre (SERC) to survey the Somerset Coast. Through carrying out intertidal survey work we hope to establish a detailed record of exactly what is on our coastline.

We'd like to develop our Living Coast programme with as many communities, partners and organisations as possible. If you are interested in working with us please contact me at: [ben.bryant@somersetwildlife.org](mailto:ben.bryant@somersetwildlife.org)



© Somerset Wildlife Trust



© Somerset Wildlife Trust

## England Coast Path from Aust to Breen

by Colin Leppard, Natural England



Following approval for the England Coast Path route from Breen to Minehead in 2014, Natural England representatives are in discussion with land managers about the next stage of this national project, from Breen to the Severn Bridge at Aust.

This new stretch of path will link the South West Coast Path and the Wales Coast Path, creating over 2600km of continuous walking from Dorset to North Wales.

Alongside the England Coast Path will be new access rights to areas such as beaches and cliffs where appropriate.

Conservation measures will be built into the proposals where necessary so that the world class wildlife of the Severn Estuary is protected. Natural England will shortly embark on the second stage of research to establish the

location and relative importance of high-tide wintering bird roosts between Aust and Breen, due for completion early in 2016. Contact Colin Leppard for more information – [colin.leppard@naturalengland.org.uk](mailto:colin.leppard@naturalengland.org.uk)

England Coast Path proposals for the Aust to Breen stretch are expected to be published in 2016 – the Natural England team welcome views and involvement from interested parties – [westcoastaccess@naturalengland.org.uk](mailto:westcoastaccess@naturalengland.org.uk)

For more information about progress on the national coast path elsewhere in England visit [www.gov.uk](http://www.gov.uk) and search for 'England Coast Path'.

## Wales Coast Path – Discover the Shape of a Nation



by Sarah Tindal, Regional Senior Recreation and Partnerships Officer, Natural Resources Wales

- The 870 mile long 'all' Wales Coast Path, which follows the Severn on its way from the southern start / finish in Chepstow, reached its third birthday in May 2015. It has already proved to be a great success, with (in 2012-13) 2.82 million visitors adding £31.7 million of additional demand a year to the Welsh economy.

- The path has received extensive national and international recognition. When linked with the Offa's Dyke National trail, it is possible to circumnavigate Wales on foot – a world first, prompting Lonely Planet travel guides to declare the Welsh Coast the number one region in the world to visit in 2012.

### • The challenges of the Severn and future funding

- Before opening, the Severn section was the subject of a comprehensive 'Appropriate Assessment' under the EC

Habitats Regulations due to the international importance of the bird population. As a result, the path sometimes diverts inland, or is screened from the coast to prevent disturbance to feeding or nesting birds.

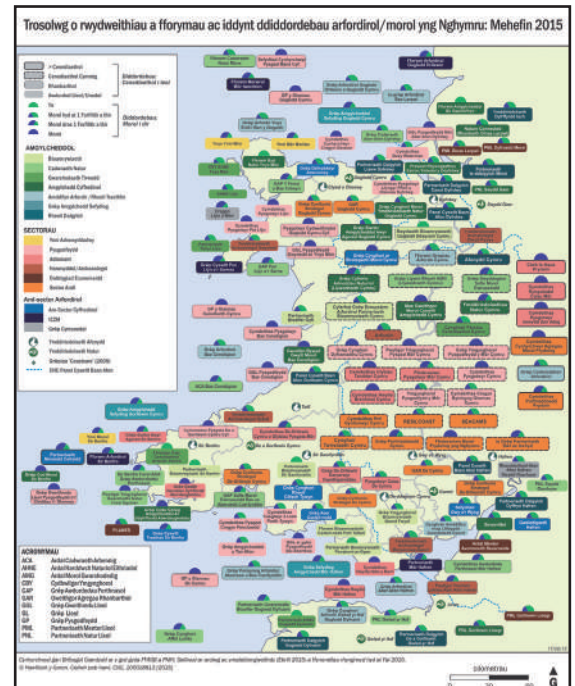
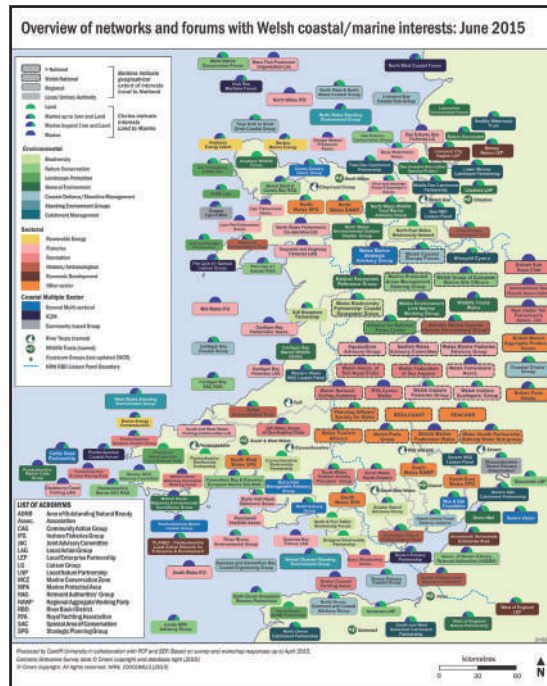
Communicating the reasons behind these diversions or restrictions is crucial to responsible use of the path. Monmouthshire Council have specially designed signs with positive messages about these issues which have been well received and now copied elsewhere on the path.

Welsh Government & Natural Resources Wales together have committed £4.5 million of funding between 2015-20 to the path. In addition to the local authority's contributions, this will ensure that the Wales Coast Path can continue to be improved and be effectively maintained for the benefit of all. For more information, please visit [www.walescoastpath.gov.uk](http://www.walescoastpath.gov.uk)

## Launch of the 2015 Wales Coastal Directory

The Severn Estuary Partnership (SEP) and Pembrokeshire Coastal Forum (PCF) are pleased to announce the launch of the 2015 Wales Coastal Directory (WCD) which has been commissioned by Welsh Government: Marine and Fisheries Division.

SEP and PCF undertook a review of Wales' coastal and marine networks and forums to aid Welsh Government with dissemination of information related to the Welsh National Marine Plan (WNMP). The aim of the 2015 WCD project was to update the 2013 Wales Coastal Directory and develop it to include the networks of the neighbouring regions to the WNMP. The project also involved creating a spatial layer on the Welsh Government's Marine GIS planning portal (<http://lle.wales.gov.uk/apps/marineportal/>). Key information about each



organisation is summarised here and available for public access.

To ensure forums and networks are fully involved and engaged throughout the marine planning process, the 2015 baseline

data will be updated annually over the next three years. The 2016 update will be commencing in the later months of 2015.

We would like to give thanks to all of the forums and networks who

submitted responses to the 2015 survey - your time and input have been greatly appreciated! Have you or your organisation used the 2015 Wales Coastal Directory? Did you find it useful or helpful?

Are there any gaps of networks or forums with a marine/coastal interest? If so, we'd like to hear from you: [severn@cardiff.ac.uk](mailto:severn@cardiff.ac.uk)

## Evaluation of Terrestrial Planning Documents for the Welsh National Marine Plan - Project for WWF

WWF have commissioned SEP/Cardiff University to evaluate terrestrial planning documents for the areas surrounding the Welsh National Marine Plan (WNMP). The project is identifying policies of 'marine relevance' in the terrestrial plans (development plans, AONB/national park plans, shoreline management plans and river basin management plans) in the context of the developing Welsh National Marine Plan. Plans in the Severn Estuary and Bristol Channel are being reviewed as part of this process.

The first phase of the project, a desk-top study, is now complete. This has identified policies specifically related to the UK Government and Devolved Administration's High Level Marine Objectives (Achieving a Sustainable Marine Economy; Ensuring a Strong, Healthy and Just Society; Living within Environmental Limits; Promoting Good Governance; Using Sound Science Responsibly). Phase Two, a validation of the findings of the desk-study with Local Planning Authorities is now

underway. Interviews with a selection of Chief Planning Officers or their deputies will also allow consideration of the extent to which each Local Planning Authority's broader portfolio of supporting documentation for the plans considers coastal and marine aspects. Discussions will also explore the extent to which the identified 'coastal/marine' policies are used and interpreted in decision-making.

So far, the review has revealed a distinct coastal element in most plans abutting the WNMP, with many including specific 'coastal' policies relating to conditions or restrictions for new development, in line with government guidance. However, although the study showed most plans to have high regard to aspects of Flood and Coastal Erosion Risk Management, not so many include specific reference to Shoreline Management Plans in supporting text for policies (33% of adopted plans; 60% of emerging plans).

Following the completion of the study for WWF, we will undertake a separate analysis of all the plans around the Severn Estuary/Bristol Channel to feed into the development of the new Severn Estuary Strategy. We will share the results of this additional study with you via the SEP website.





# FUNDING PARTNERS

The Severn Estuary Partnership is very grateful to all of our funding partners who help make our work possible. We value your continued support and look forward to working with you in the future!

## Bristol City Council



In the year of Bristol being the European Green Capital, Bristol City Council are busy working on a number of schemes and initiatives to improve the resilience of the

city and promote sustainable growth of the region.

The MetroBus transport scheme has begun construction and will provide a new express bus service for the West of England region, including a route across and along the River Avon, which has provided many enjoyable engineering challenges!

We continue to work closely with the Local Enterprise Partnership and South Gloucestershire Council to deliver flood mitigation to Avonmouth and Severnside. As this scheme is helping to deliver the Severn

Estuary Flood Risk Management Strategy, we are working closely with the Environment Agency, who will be providing the project management for the scheme. In order to manage the tidal flood risk posed to the city centre now and in the future, we continue to progress the Avon Tidal Flood Risk Management Strategy, again in close partnership with the Environment Agency. For further information on the above projects, please contact patrick.goodey@bristol.gov.uk

## Gloucestershire County Council



### Minerals and Waste Planning

Gloucestershire County Council is the statutory planning authority for determining planning applications relating to minerals and waste development. As such, the authority is also responsible for setting out the spatial vision, strategic objectives and core policies for managing Gloucestershire's mineral resources and waste development over next 15 years. The County Council has relatively recently adopted a Waste Core Strategy (WCS) – in November 2012. This document was considered against the requirements of National Planning Policy Framework (NPPF) and replaces a significant proportion of the former adopted Gloucestershire Waste Local Plan (2004).

A few policies are still saved from the 2004 adopted WLP.

With regard to minerals the saved policies of the 2003 adopted Minerals Local Plan (MLP) still form the minerals policy framework for determining planning applications. A replacement plan is in preparation. The last consultation which included site options was in the summer of 2014. The next stage anticipated for late 2015/early 2016 will be a draft version of the MLP.

### Local Transport Plan

Gloucestershire's Local Transport Plan (LTP) outlines the County Council's priorities for transport delivery between 2015 and 2031. The document builds on the previous LTP adopted in 2011 to reflect the emerging evidence base developed through the LTP plan making process, the priorities of the Gloucestershire Local Enterprise Partnership (G-First LEP) and

the changes made to local transport funding provided by the Department for Transport. The County Council's review of its Local Transport Plan is ongoing. A final 12 week public consultation will commence between the 16th November and the 5th February 2016. The adopted plan is expected in spring 2016.

### Flood Risk Management

Gloucestershire County Council is the Lead Local Flood Authority (LLFA) as defined in the Flood and Water Management Act 2010. From 15th April 2015 the government made the LLFA a statutory consultee to the planning process for advice on surface water and flood risk management relating to major planning applications. Local Planning Authorities are now referring all major applications to the County Council for this advice, this will apply to over 300 developments per year and it is expected that this will have a significant impact on the future management and mitigation of flood risk.

## Natural England



Over the last year, Natural England worked with Natural Resources Wales to publish a Site Improvement Plan (SIP) for the Severn Estuary Special Area of Conservation and Special

Protection Area, as part of the IPENS project. The SIP has prioritised issues, identified the features they affect and proposed measures to address these issues.

Natural England ran several evidence projects around the estuary last year, including a rare plant survey, a project to identify and map bird roosts and a habitat survey in the Rivers Severn and Teme to identify spawning grounds for migratory fish. These projects contribute to our evidence base and also to future condition assessments.

Natural England continues to work closely with the Environment Agency, Natural Resources Wales and the Marine Management Organisation in advising EDF Energy on the design specifics of agreed mitigation for the

marine impacts of the Hinkley C new nuclear power station – which was granted consent in March 2013.

Over the last few months we have been involved, alongside our Natural Resource Wales and Environment Agency colleagues, in pre-application discussions with Tidal Lagoon Power (TLP); regarding its proposed tidal lagoon project in Cardiff Bay. Currently our advice is focussed on the necessary evidence/data requirements for a Habitats Regulations Assessment and Water Framework Directive Assessment of the proposed scheme.

*The Severn Estuary Partnership is also funded by Cardiff City Council, Environment Agency, Forest of Dean District Council, Monmouthshire County Council, Natural Resources Wales, Newport City Council and Somerset County Council.*



# EXPLORE THE SEVERN

## Swanbridge to Lavernock Point

Transport yourself across an interesting and varied coastal landscape, steeped in a long and fascinating history:

This is a linear coastal walk (approximately 4 miles return) following a portion of the Wales Coast Path, with a free car park and pub at either end. Space dictates a brief description here – follow the links at the end for a photo gallery, a more detailed description and a map!

Starting opposite Sully Island, outside the popular Captain's Wife pub, take time to really appreciate the fantastic views of the Severn Estuary, with three islands in view (also Flat Holm and Steep Holm, guessing which is which!) and the headland of Brean Down, almost looking like another island as it thrusts out from the English coast between them...

From here, head eastwards (land to your left) along the seawall. This takes you past the attractive collection of houses of Swanbridge, and up a tree-lined country lane towards St Mary's Well Bay, where you can either visit safely via the caravan park, or along a hidden coastal path for those more adventurous...

St Mary's Well Bay marks the geologically significant boundary between the Triassic and Jurassic Periods and it is from here that at low tide you can reach a sandbar that runs parallel to the main beach and extends towards Sully Island.

From the other side of the bay you can scramble up a rocky gap eroded by a stream to re-join the

easier route past the caravan park.

Standing sentinel on the headland overlooking the bay is an old lookout post that signals the beginning of Lavernock Fort and its extensive ruined complex of WWII gun batteries, as well as the Lavernock Point Nature Reserve. It was here recently, at the foot of the cliffs that an important dinosaur fossil was sensationally found after the early 2014 storms.

Following the path inland takes you through a wooded area marking the boundary of the nature reserve with the Marconi Holiday Village, and location of the other pub on the walk, the Marconi Inn.

This takes you onto Fort Rd, turning right and you pass St Lawrence Church, with its plaque commemorating history made just a few metres further on – because it was at Lavernock Point that Guglielmo Marconi sent and received the first ever radio transmission over open sea to Flat Holm Island in 1897...

**Map:** OS Explorer 151 Cardiff and Bridgend. Grid ref: ST166675 (CF64 5UG).

**Car:** Swanbridge is signposted from the B4267 on the eastern edge of Sully. At the end of Beach Rd is a large car park on the sea wall outside the Captain's Wife pub.

**Bus:** The 94 from Cardiff to Barry has a regular service along the B4267, with stops near both Beach Rd and Fort Rd.

**SEP Picture Gallery of the walk:** [bit.ly/1iaxEAU](http://bit.ly/1iaxEAU)

**SEP Google Map of the walk:** [bit.ly/1JPYpRO](http://bit.ly/1JPYpRO)

Gwilym Owen, Severn Estuary Partnership

*Take care not to disturb wildlife; especially birds on the Estuary by ensuring dogs are kept on leads.*



© Gwilym Owen



© Gwilym Owen

## Severn Estuary Partnership Photo of the Year!

We are pleased to award Dr Merryn Thomas with the first SEP 'Photo of the Year'. The winner receives a complementary ticket to the Severn Estuary Forum!

If you have a Severn Estuary-related photo you would like to submit for the SEP 'Photo of the Month' please send your images to [Severn@cardiff.ac.uk](mailto:Severn@cardiff.ac.uk). The winner for each month will be published in the SEP E-news, so don't forget to send us your photos!



The Severn Crossing © Merryn Thomas

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SevernEstuaryPartnership



@SevernEstuary

Edited by Shaun Williams and Lucy Taylor

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Cover Photograph © Azmath Jaleel

The Severn Estuary Partnership is an independent, estuary-wide non-statutory initiative led by local authorities and statutory agencies. We work with all those involved in the management of the Estuary, from planners to port authorities, fishermen to farmers and many more with an interest in the future of the Severn Estuary.