



Severn Tidings

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Photo of the Year: Winter Sunrise Reflections on the River Severn, taken on the 15th of January 2024 at Arlingham © Sarah Whittle

Working in partnership for the future of the Severn Estuary

www.severnestuarypartnership.org.uk



WELCOME

**Dr Rhoda Ballinger,
Chair of the Severn Estuary Partnership**

Welcome to this 2025 edition of Severn Tidings - a feast of information on the current management efforts of the Severn Estuary Partnership (SEP) and its partners, as well as other news from around the estuary. It's great to see so much going on and so much discussion.

As we await the Severn Estuary Commission's recommendations on the potential for Severn tidal energy generation in the Spring, the Met Office has just declared 2024 as UK's fourth warmest year on record and WWF's Living Planet Report 2024 has revealed immense declines in global wildlife populations. Consequently, huge responsibilities rest on our shoulders to ensure decisions relating to our estuary meet the needs of future generations and are informed by appropriate debate and evidence. As this issue demonstrates, SEP strives to contribute to this process: facilitating dialogue between estuary stakeholders on a broad range of topics; through its involvement in estuary-wide and more local networks and projects; and through its annual forums. Going forward, I'm excited to see how SEP can further develop its role in information sharing and data provision as it commences its update of the State of the Severn Report and takes on a new role as a UK Adaptation Hub.

This issue places considerable emphasis on the importance of connecting and working with nature. This is central in our quest for the transformative changes required to address 21st century environmental challenges and in line with the recently published framework for Ocean Literacy in Wales, *Y Môr a Ni*. Several articles summarise estuary plans related to nature-based solutions, whilst others are more concerned with improving people's knowledge, understanding and connectivity with the natural environment. It's interesting to see engagement with a broader range of interests and disciplines, including the arts in the communication and celebration of our estuary's environment, but, after all, we do have awesome tides!

As we enter SEP's 30th year and I reflect on my involvement with the partnership, I'm reminded of how lucky we've been to have had such a dedicated SEP Team as well as ongoing support and interest from our partners. With our current Team and your continued support, I'm really looking forward to what we can achieve in the next 12 months!



Dr Rhoda Ballinger,
SEP Chair on board
the Waverley

We are pleased to award Sarah Whittle with 'SEP Photo of the Year 2025'!

"The photos were taken last January, and I happened to be in the right place at the right time. A combination of sunrise, low tide and no wind. The photo is taken from Arlingham looking towards the start of the horseshoe bend with Awre on the opposite bank and Frampton and Slimbridge in the distance." **Sarah Whittle, Photo of the Year Winner 2025**

If you have a Severn Estuary photo that you would like to submit for Photo of the Month, please send your images to severn@cardiff.ac.uk, or tag us on X, Instagram (@SevernEstuary) or Facebook (Severn Estuary Partnership).

Our Contributors

At SEP, our key role is to keep all 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 variety of estuary groups, projects and organisations.

Arizona State University, Cardiff University, Diverse Marine Values Project, Litter Free Coast and Sea Somerset, National Infrastructure Commission for Wales, Natural England, Natural Resources Wales, The Association of Severn Estuary Relevant Authorities, The Bristol Port Company, The MACC Hub, The Severn Estuary Coastal Group, Vale Coastal Project, WWT.

We would be interested to hear your views on the wide range of topics featured in this edition. Please get in touch by emailing severn@cardiff.ac.uk



Clevedon Pier © Katie Havard-Smith

Severn Estuary Partnership Update

Alys Morris, Severn Estuary Partnership Manager

As the Severn Estuary Partnership celebrates its 30th anniversary year, we are proud to reflect on three decades of fostering collaboration, sustainability, and stewardship for the Severn Estuary. This milestone year marks an exciting chapter as we continue to advance critical projects, strengthen partnerships, and continue to work towards a thriving future for the estuary.

Celebrating 30 Years of Partnership

Since its establishment in 1995, Severn Estuary Partnership (SEP) has been at the forefront of connecting stakeholders, driving innovation, and delivering impactful initiatives that protect and enhance the Severn Estuary. This year, we celebrate the shared achievements of our partners and supporters who have worked tirelessly to preserve this unique and vital ecosystem.

Our anniversary provides a moment to reflect on how far we have come and to inspire our collective efforts as we look to the challenges and opportunities ahead.

Throughout 2024 the SEP Team has worked tirelessly, delivering a wide range of projects and driving forward the work of estuary wide groups, including the Severn Estuary Coastal Group and Association of Severn Estuary Relevant Authorities. Our Annual Forum in Gloucester was a resounding success, bringing together diverse voices to discuss pressing issues, share knowledge, and build on our shared vision for the estuary. As we celebrate our 30th year, we are excited to build on the momentum of the forum with new events and initiatives that will further engage and empower our communities and partners.

The Severn Estuary Forum 2024 held at Blackfriars Priory
© Charlie Green



Leading the Severn Estuary Biosecurity Plan

One of our flagship initiatives for 2024 has been the development of the Severn Estuary Biosecurity Plan. SEP is proud to lead this essential project, which aims to safeguard the estuary's biodiversity from invasive non-native species (INNS). These species pose significant risks to the ecological health, economy, and recreational use of the estuary.

The Biosecurity Plan will outline practical actions to prevent, detect, and respond to INNS, working closely with government bodies, local authorities, businesses, and communities. By fostering a coordinated approach, we aim to reduce the impact of INNS and protect the estuary's unique habitats and species, whilst ensuring that the plan is robust, inclusive, and actionable. The plan will launch online in early 2025.

Understanding the State of the Severn Estuary

Another key priority for 2025 is updating the State of the Severn Estuary Report, a cornerstone resource that assesses the estuary's environmental, economic, and social dimensions. This comprehensive report will provide up-to-date insights into the health of species and habitats, air and water quality, economic activities, and the cultural and historical significance of the estuary.

The update will leverage traditional surveys and innovative approaches like citizen science, inviting residents to actively contribute to data collection and analysis. We are also planning annual themed stakeholder days each spring, beginning in 2025. The first event will focus on citizen science, providing a platform for collaboration and innovation.

LOOKING AHEAD

As we look ahead, 2025 will mark the conclusion of our flagship project, Litter Free Coast and Sea Somerset (see page 6). For over eight years, this initiative has championed cleaner coastlines and healthier seas by engaging local communities, businesses, and stakeholders in reducing marine litter and promoting sustainable practices. The project's achievements have been profound, fostering a deeper understanding of the impacts of litter and inspiring collective action. While the initiative is coming to an end, its legacy will live on through the amazing communities in Somerset that have established new practices to support litter reduction.

As we celebrate three decades of partnership, SEP is more committed than ever to safeguarding the Severn Estuary for future generations. From leading critical projects like the Severn Estuary Biosecurity Plan and the launch of the Bird Aware Severn initiative (page 8), to updating the State of the Estuary Report, we are driving forward initiatives that balance environmental, economic, and social needs. Together, we can ensure the Severn Estuary remains a vibrant and resilient resource for all.

Severn Estuary Partnership Position Statement on Large-Scale Infrastructure Projects

Recognising the increasing pressure posed by large scale developments across the Severn Estuary and throughout the surrounding area, the Severn Estuary Partnership (SEP) has published a position statement on large-scale infrastructure projects, underscoring the importance of balancing sustainable development with the ecological, cultural, and economic significance of the Severn Estuary. This statement reflects the Partnership's core principles and provides clear guidance for ensuring responsible project planning and management in this dynamic region.

The Severn Estuary is a vital natural and economic resource. It supports critical habitats, regional economies, and communities while providing ecosystem services like flood protection and carbon storage. SEP's statement highlights these values and emphasises the necessity of sustainable approaches to infrastructure development.

As an independent partnership, SEP remains committed to facilitating balanced discussions and fostering collaboration among diverse stakeholders.

To read the full position statement and learn more about SEP's role in supporting sustainable development, use the QR code right.



Key recommendations include:

- **Compliance with development consents:** strict adherence to planning conditions that reinforces accountability and fosters trust among stakeholders.
- **Use of best available data:** decisions must be informed by up-to-date, peer-reviewed evidence and adaptable modelling.
- **Long-term monitoring:** comprehensive pre- and post-project monitoring to address evolving impacts.
- **Community engagement:** prioritising meaningful dialogue with local communities and stakeholders throughout project cycles.
- **Cross-border collaboration:** aligning policies across England and Wales to address shared challenges and opportunities.

Severn Estuary Coastal Group

Jacob Kevern, Shoreline Management Plan Coordinator

There have been a number of exciting developments, projects and activities to update on from the Severn Estuary Coastal Group this year, starting with the launch of the Environment Agency's online Shoreline Management Plan Explorer and updated Natural Resources Wales Flood and Coastal Erosion Risk Maps in January 2024.

Coastal Group members attended a series of workshops and drop-in sessions to ensure that the Shoreline Management Plan's Action Plan was ready for its debut public appearance. The launch and updating of the Shoreline Management Plan Explorer and the Flood and Coastal Erosion Risk Maps now mean that actions intended to deliver the predefined Shoreline Management Plan policies are easily accessible to coastal practitioners and the general public. As a result, the group has worked to ensure that the information displayed is up to date, streamlined and actionable. This is a big win for Shoreline Management Plans, transforming them from bookshelf items to readily accessible and updateable documents.

2024 also marked the grand unveiling of Natural Resources Wales Polders Project (see update on page 13). Located on Rhymney Great Wharf, between Cardiff and Newport; the saltmarsh restoration is a great example of the use of natural features to deliver a "Hold the Line" management policy and will delay the need for further engineered structures. On the English side of the Severn,

Avonmouth Severnside Enterprise Area - Ecology Mitigation and Flood Defence Project is nearing completion. The project provides around 17 km of flood defences, reducing risk to 2,500 homes and businesses. The scheme also provides improved walking routes, improving access to the spectacular view of the internationally important Severn Estuary, alongside providing a minimum of 80 hectares of new coastal wetland habitats for bird species.



The Big One © Jacob Kevern, SECG

Finally, alongside John Buttivant, the Coastal Group Chair, I was able to attend the Environment Agency's Coastal Practitioners Conference. As well as a ride on one of Blackpool's famous rollercoasters (see the photo above!), the conference covered a range of Flood and Coastal Erosion Risk Management topics, notably the upcoming Shoreline Management Plans Refresh into Action project which will form the basis of the Coastal Groups work programme in 2025.

Improving the Condition of our Marine Protected Areas: the Severn Estuary

Katie Havard-Smith, Severn Estuary Partnership and European Marine Site Officer

The Association of Severn Estuary Relevant Authorities (ASERA) plays an important role in protecting the Severn Estuary's unique marine environment. Comprising local authorities, statutory bodies and harbour authorities, ASERA works collaboratively to manage activities within the Severn Estuary European Marine Site, protected under the Habitats Regulations.

ASERA's current Management Scheme for 2018–2025 provides a structured framework for relevant authorities to align their activities with the nature conservation objectives of the European Marine Site. This plan assesses the potential adverse effects of activities on the estuary's protected features and offers strategies for authorities to mitigate and prevent harm. ASERA is currently updating the Management Scheme to ensure continued protection and sustainable use of this vital ecosystem.

Partnership delivery of Marine Protected Area improvements in Wales

This year, ASERA has been working on the "Partnership Delivery of MPA [Marine Protected Area] Improvements" project. Through coordinated partnership working, this project aims to bolster the resilience of five major MPAs in Wales, including the Severn Estuary European Marine Site.

The project has introduced two citizen science programmes. One monitoring water quality along the Gwent Levels, and another on monitoring otters along the Welsh coastline. Both initiatives have attracted enthusiastic local volunteers, whose efforts have generated valuable data for the Severn Estuary region. The findings are due to be published this year.

The project also includes initiatives that tackle marine litter, reduce disturbance to marine species, engage with stakeholders and the local community, and raise awareness for the importance of MPAs. The project will run until March 2026 and is funded by the Nature Networks Programme, delivered by the Heritage Fund, on behalf of the Welsh Government.

Gwella cyflwr ein Hardaloedd Morol Gwarchoddedig: Aber Afon Hafren

Katie Havard-Smith, Swyddog Partneriaeth Aber Afon Hafren a Safle Morol Ewropeaidd Môr Hafren

Mae Cymdeithas Awdurdodau Perthnasol Aber Afon Hafren (ASERA) yn chwarae rhan bwysig wrth warchod amgylchedd morol unigryw Aber Afon Hafren. Mae ASERA, sy'n cynnwys awdurdodau lleol, cyrff statudol ac awdurdodau harbwr, yn cydweithio i reoli gweithgareddau ar Safle Morol Ewropeaidd Môr Hafren, sef safle gwarchoddedig o dan y Rheoliadau Cynefinoedd.

Mae Cynllun Rheoli presennol ASERA ar gyfer 2018–2025 yn cynnig fframwaith strwythuredig i awdurdodau perthnasol alinio eu gweithgareddau ag amcanion gwarchod natur y system rheoli amgylcheddol. Mae'r cynllun hwn yn asesu effeithiau andwyol posibl gweithgareddau ar nodweddion gwarchoddedig yr aber ac yn cynnig strategaethau i awdurdodau liniaru ac atal niwed. Mae ASERA wrthi'n diweddarau'r Cynllun Rheoli i sicrhau bod yr ecosystem hanfodol hon yn cael ei gwarchod a'i defnyddio'n gynaliadwy.

Gwella Ardaloedd Morol Gwarchoddedig ar y cyd yng Nghymru

Eleni, mae ASERA wedi bod yn gweithio ar y prosiect i wella Ardaloedd Morol Gwarchoddedig ar y cyd. Trwy weithio mewn partneriaeth, nod y prosiect hwn yw hybu gwytnwch pum Ardal Forol Warchoddedig o bwys yng Nghymru, gan gynnwys Safle Morol Ewropeaidd Môr Hafren.

Mae'r prosiect wedi cyflwyno dwy raglen gwyddoniaeth dinasyddion. Mae un yn monitro ansawdd dŵr ar hyd Gwastadeddau Gwent, ac un arall yn monitro dyfrgwn ar hyd arfordir Cymru. Mae'r ddwy fenter wedi denu gwirfoddolwyr lleol brwdfrydig, y mae eu hymdrechion wedi cynhyrchu data gwerthfawr ar gyfer rhanbarth Aber Afon Hafren. Mae disgwyl i'r canfyddiadau gael eu cyhoeddi eleni.

Mae'r prosiect hefyd yn cynnwys mentrau sy'n mynd i'r afael â sbwriel môr, yn lleihau aflonyddu ar rywogaethau morol, yn ymgysylltu â rhanddeiliaid a'r gymuned leol ac yn codi ymwybyddiaeth o bwysigrwydd Ardaloedd Morol Gwarchoddedig. Bydd y prosiect yn cael ei gynnal tan fis Mawrth 2026 ac yn cael ei ariannu gan y rhaglen Rhwydweithiau Natur, sy'n cael ei chyflwyno gan y Gronfa Treftadaeth ar ran Llywodraeth Cymru.

Volunteers choosing their sample sites at the water quality training session © Katie Havard-Smith, ASERA



Litter Free Coast & Sea Somerset: Project Update

Daisy Blyth, Litter Free Project Coordinator

Litter Free Coast & Sea Somerset is the flagship project of the Severn Estuary Partnership. Launched in 2016, the project aims to protect bathing water quality and reduce beach and marine litter through community-based campaigns.

As we enter 2025, this phase of the Litter Free Coast & Sea Somerset project is coming to an end, and it has been another brilliant year working with communities across Somerset. Since 2020, work for this phase of the project has focused on Burnham-on-Sea and four bathing waters in West Somerset: Minehead, Dunster, Blue Anchor and Porlock. As well as targeted interventions at each of these focus sites, we've launched countywide initiatives like our award scheme for primary schools.

Over the past five years, there have been many successes for the project. These include forming valuable partnerships with community groups, supporting litter-picking activities across the county, and installing resources such as angling line recycling bins and beach toy libraries, all aimed at fostering a cleaner coastline.

Litter Picking

An integral part of the project has been supporting litter picking activities in Somerset. We have supported groups and businesses to organise their own beach cleans, helped community litter picking groups access funding for equipment, and installed #2minutelitterpick boards around Somerset.

Annual events such as the Severn Estuary Spring Clean and Severn Estuary Big Beach Clean have been an important part of the project, bringing communities together in collective efforts to tackle litter.



#2minutelitterpick board in Porlock Weir
© Porlock Visitor Centre



Friends of Berrow Beach volunteers © Nigel Hoy



Volunteers from the Friends of Burnham Beach
© Severn Estuary Partnership

Targeted Litter Campaigns

We have also launched a number of campaigns which focus on preventing litter from reaching our beaches, including working with partner organisations to install a network of angling line recycling bins around West Somerset. There are now five bins in place along the West Somerset coast, allowing both anglers and beach clean volunteers to safely dispose of angling materials. These materials are then collected and sent for recycling through the Anglers National Line Recycling Scheme.



Angling line recycling bin in Minehead Harbour © Daisy Blyth

Additionally, we have worked with local businesses and community groups to establish beach toy libraries in Minehead and Dunster. These are free collections of beach toys which can be borrowed by families, encouraging them to reuse existing toys instead of buying new plastic items.



Plastic Free Minehead's free beach toy library © Plastic Free Minehead

Somerset School Coastal Champions

Our school award was launched in 2021 in collaboration with Somerset Wildlife Trust and Carymoor Environmental Trust. The award has been taken up by 20 primary schools across Somerset, and it aims to connect students with their local coastlines through a series of actions focusing on waste, water and nature. Students learn what steps they can take to help protect the coast, and as part of the award they share these messages with the wider community.

This year, we launched a new level to the award that is repeatable each school year, meaning that each cohort can continue the amazing work done by the students before them.



LOOKING AHEAD

We currently have a student, Charlie Green, completing a nine-month placement working to evaluate the impact that the project has had over the past five years. We are looking forward to seeing outcomes from this work, which will include a video showcasing some of the successes of the project.

Looking ahead, we will be making many of the resources from the Litter Free Coast & Sea Somerset campaigns available on the Severn Estuary Partnership website. Additionally, we are excited to explore how we can apply learnings from the project to other areas around the estuary and further afield.

We would like to thank all of the communities who have supported Litter Free Coast & Sea Somerset, and Wessex Water for providing funding for the project. This work would not have been possible without collaboration and support from community groups, businesses, schools, partner organisations and individuals.

Protecting the Severn Estuary: Introducing Bird Aware Severn

Alys Morris, Severn Estuary Partnership Manager

The Severn Estuary, a haven for birdlife and a vital stopover for migratory species, is taking centre stage with the launch of Bird Aware Severn in 2025.

Spearheaded by the Severn Estuary Partnership and inspired by the successful Bird Aware Solent initiative, this project aims to balance the needs of wildlife and human activity through education, engagement, and championing sustainable recreation.

The Bird Aware Severn initiative builds on the remarkable success of Bird Aware Solent, which demonstrates how public awareness and collaboration can lead to positive conservation outcomes. In the Solent region, efforts such as ranger deployments, community engagement, and public education have fostered a culture of responsibility among recreational users, protecting critical bird species from disturbance. Now, these proven strategies are being tailored to the unique challenges and opportunities of the Severn Estuary.



Why the Severn Estuary Matters

The Severn Estuary is internationally recognised for its ecological importance, particularly as a winter haven for migratory birds. Its diverse habitats provide feeding and resting grounds crucial for species survival. However, disturbance to birds through recreational activities on the coast pose increasing threats to these delicate ecosystems.

Bird Aware Severn focuses on:

- **Raising Awareness:** educating the public on the estuary's importance and how human activities impact bird populations.
- **Encouraging Engagement:** involving local communities, authorities, and stakeholders in conservation efforts.
- **Promoting Best Practice:** advocating for sustainable recreation that protects birds while supporting the local economy.

A Call to Action

Bird Aware Severn is a vital step toward ensuring the Severn Estuary remains a thriving ecosystem for birds and a cherished space for people. Together, we can share the shores responsibly, preserving the estuary's natural beauty and biodiversity.

Stay tuned for updates and ways to get involved in this exciting conservation journey!

Redshank at roost on the Severn Estuary © John Coleman





Evaluating the Litter Free Projects: Charlie's Reflections

Charlie Green, Cardiff University Placement Student

In July 2024, I joined the Severn Estuary Partnership for a nine-month placement as part of my university degree. My role focuses on evaluating the projects led by Litter Free Coast & Sea Somerset and Litter Free Dorset over the past five years and producing an evaluative report for Wessex Water, by April 2025.

My placement began with a two-week educational placement at Wessex Water, where I gained insight into the work of various teams and deepened my understanding of water operations in the region. To kick off my evaluation, I developed an evaluation framework, outlining the methods for assessing key bathing sites in Dorset and Somerset. This included data collection methods such as stakeholder and community interviews resulting in frequent trips to Dorset and Somerset. After collecting my data, I have moved onto the analysis phase where I'm applying techniques like identifying key themes from interviews and combining this with numerical data analysis from beach studies to provide a complete representation of the collected data. Specifically, litter quantity data where variations over the last five years can be observed.

My day-to-day activities have varied throughout the first five months, but they consistently contribute to my goal of delivering the evaluation report. In addition to evaluation work, I have supported the creation of social media content for Litter Free Coast & Sea Somerset and participated in events such as the Severn Estuary Forum 2024 and the quarterly Litter Free Dorset Forum. I plan to conclude my placement by creating a video version of the report, providing an engaging way to share the findings and footage. Engaging with local communities has been one of the most rewarding aspects of this placement. Speaking with volunteer leaders, business owners, council members, and residents has deepened my understanding of their concerns and aspirations for their local beaches. These conversations have been crucial in shaping my evaluation and will play a key role in ensuring my report reflects the perspectives of those most affected by and benefitting from these projects.

I am thoroughly enjoying my time with the Severn Estuary Partnership and look forward to building on this experience as I enter the second half of my placement.



Durdle Door © Charlie Green



Lulworth Cove © Charlie Green



Rambling Around the Severn

Dr Rhoda Ballinger, Severn Estuary Partnership Chair

Bubbling beach springs, engineering masterpieces, maritime heritage treasures and just simply beautiful vistas of our wonderful estuary - our Chair, Rhoda, shares her favourite moments from her monthly rambles around the estuary.

From the rockpools teeming with life at Lavernock Point to the grandeur of Victorian warehouses in Gloucester Docks, I never realised what discoveries lay before me when I first embarked on my monthly walks around the estuary last spring. I've had a great time exploring the estuary's shores in all weathers and sharing my thoughts and photos in monthly posts in the Severn Estuary Partnership's newsletter. Meeting with people from across the estuary, I've uncovered some of the passion, enthusiasm and knowledge of local communities for whom our estuary is so special.

So far, my monthly rambles have enabled me to sample the estuary's shores at six locations – Gloucester, Purton and Sharpness in the upper estuary, Penarth, Barry and Flat Holm in the outer estuary on the Welsh side ... and how could I forget walking across the Severn Bridge on one of the hottest days of 2024! There've been rather tenuous links between each walk, with weather and external opportunities generally dictating my wanderings!

It's tricky trying to pick my favourite moments, but here we go!



The Severn Bridge, including the dog bones! © Rhoda Ballinger

Overall, it's the sheer expanse of the estuary's tidal landscape which is most magical to me. I never cease to be awed by the ever-changing light and colours of the estuary's waters, and by the fantastic patterns and shapes which appear and disappear in the muddy shores as mighty tides ebb and flow. Witnessing the bubbling natural freshwater spring on the beach at Barry and discovering other hidden inner worlds of our intertidal areas with Heather (see page 19), certainly rank as some of my best experiences so far.

Silver sands and a moody estuary at Barry Island © Rhoda Ballinger





Lavernock Point from Penarth on a summer's evening
© Rhoda Ballinger

I've also enjoyed discovering more about our estuary's maritime heritage, particularly exploring the hulks at Purton, an estuary treasure. I've learnt so much about the estuary's central importance to the region, from the Romans and the medieval monks to the industrial revolution and the associated port development. Understanding this legacy is vital to estuary planning and maintaining our common estuary heritage.

My day on Flat Holm was great fun. It included some of the most spectacular wide-open estuary vistas. But it was the completely new perspective provided by this 'wilderness' isle which prompted me to consider further the connectedness of places across and around our estuary, and the meaning of a sustainable estuary. Do the fortunes of this island mirror those of our wider estuary and how might potential large-scale developments influence this?

Despite all my ramblings, there's much more to explore. I'm hoping to catch the Bore in the upper estuary in March and have plans to visit the Portishead and Newport shores over the next couple of months. However, beyond that I'd welcome suggestions of places to visit and people to talk to. In the meantime, I hope you've enjoyed my ramblings and are inspired to check out our estuary's shores!



Wild leek on Flat Holm © Rhoda Ballinger



Victoria Dock, Gloucester Docks, recently declared a Heritage Harbour
© Rhoda Ballinger



Harriett, one of the famous Purton hulks © Rhoda Ballinger

If you would like to suggest a walk for Rhoda, contact the Severn Estuary Partnership team on severn@cardiff.ac.uk



Maximising UK Adaptation to Climate Change

The Maximising UK Adaptation to Climate Change (MACC) Hub is a transformative initiative addressing the urgent challenges of climate change in the UK.

Co-funded by UK Research and Innovation (UKRI) and Defra, the Hub is a multi-partner collaboration, led by Kings College London, with experts from universities and adaptation organisations across the UK, with Cardiff University and the Severn Estuary Partnership playing key roles in Wales.

Over the next three years, the Hub aims to strengthen the UK's resilience to escalating climate risks, while also safeguarding communities, ecosystems, and the economy.

Tackling Today's Climate Challenges

The UK's third Climate Change Risk Assessment identifies 61 risks associated with different climate change impacts, nearly half requiring urgent action. These include flood risks, urban heat, food supply disruptions, and ecological degradation. The complexity and scale of these challenges means that incremental approaches are no longer sufficient.

The MACC Hub's Vision

The Hub's goal is to foster innovation and collaboration to overcome barriers to climate adaptation. Its five objectives are to:

1. Assess barriers to public awareness and engagement with climate adaptation.
2. Explore lessons from Wales and Scotland's approaches to well-being and future generations.
3. Enhance understanding of systemic climate risks.
4. Address policy and regulatory barriers to transformative adaptation.
5. Improve the accessibility of climate data for decision-makers.

Working together, the Hub partners will deliver these objectives by adopting an interconnected approach across the following four areas:

- **Building skills and partnerships** by engaging with communities to strengthen their ability to adapt to climate change.
- **Generating data and knowledge** by creating accessible tools and conducting cutting-edge research on climate risks.
- **Linking knowledge, policy, and practice** by establishing a Policy Response Unit, running policy focused and capacity building workshops, and developing a web-based Knowledge Portal to support transformative actions.
- **Innovating through funding** by supporting place-based projects via targeted funding and evaluation of their broader impact.

Alongside the broader suite of MACC research projects, the Hub will work with communities and stakeholders across the UK to co-identify place-based, replicable solutions. In Wales, Cardiff University and the Severn Estuary Partnership will be working with Welsh stakeholders involved in climate adaptation in its broadest sense to identify key priorities for Wales.

Opportunities to Engage

The Hub will host a range of workshops, training events, and networking activities aimed at building capacity and improving UK adaptation to climate change across sectors and policy areas. In addition, the Hub will launch a funding pot to support small, place-based projects focused on testing adaptation approaches. An online information session outlining details of this will take place in early Summer 2025.

If you want to know more about the MACC Hub, keep your eyes out for the launch of our website – coming soon!

In the meantime, sign up for the MACC Hub Monthly Newsletter using the QR code or get in touch with one of the project team.



WWT to Restore Saltmarsh on the Awre Peninsula

Orlando Venn, Principal Project Manager (Coastal Wetland) and Hannah Woodall, Saltmarsh Restoration Engagement and Science Officer

In December, WWT announced it had agreed to purchase 148 hectares of low-lying land on the Awre peninsula for a pioneering saltmarsh restoration project, as part of its mission to restore wetlands and unlock their power.

The low-lying farmland at the Awre peninsula has flooded before and continues to be at high risk of future flooding, especially as flood defences are no longer being maintained in this area. To those living and working on and around our coastline, coastal change is an everyday reality. Restoring areas of low-lying land to saltmarsh by creating a breach in the sea wall and setting new flood embankments further back can offer many benefits to these communities.

WWT plans to design the site to maximise these benefits, to contribute positively to biodiversity on the estuary, alleviate flood risk, capture and store carbon and create a place for local people to visit and connect with nature.

The new reserve will also demonstrate how saltmarshes can be restored and created at scale and host a new round of pioneering research carried out by WWT, focused on wetlands' role in carbon sequestration, climate resilience, and biodiversity recovery.

The saltmarsh restoration and research WWT is planning to carry out on the Awre peninsula is possible thanks to a £21 million donation from Aviva aimed at restoring up to 250ha of saltmarsh on the Severn Estuary.

WWT is still working on the detailed designs, having completed the initial feasibility, baseline and design work to understand the lie of the land and water. WWT continues to collect baseline information on the site (such as the species that already use the land), consulting with the community and statutory authorities, and is using this information to inform plans.

If you'd like to find out more, please contact the team at WWT on saltmarshsolutions@wwt.org.uk.

Awre peninsula © Harley Todd/WWT



Restoring Saltmarsh Through the Creation of Polders

Lily Pauls, Marine Projects Team Leader, Natural Resources Wales

Natural Resources Wales have worked towards restoring saltmarsh at Rhymney Great Wharf, an intertidal area to the east of Cardiff.

The work, which took place during summer 2024, involved creating structures known as sedimentation polders. Polders consist of rectangular fields made by inserting long wooden posts into the mud and attaching brushwood in between them. As the tide goes in and out, mud settles out from the sea and is retained within the polder. Over time, the mud builds up sufficiently to allow saltmarsh plants to grow.

Polders were created previously in this area but were not maintained. Natural Resources Wales is committed to maintaining the structures in future years as well as monitoring how the saltmarsh develops. There are many benefits to a healthy saltmarsh, from increased biodiversity to reducing the flood risk in the area; it is hoped that the presence of the polders will reduce the need for hard sea defences in this area in future.

The project was funded through the Welsh Government funded Nature Networks programme (2022-2025) which aims to increase environmental resilience and biodiversity.



Images: Polders being constructed at Rhymney Great Wharf © David Jenkins, NRW

Connecting People with Nature in Weston-super-Mare

Philippa Statter, Health and Environment Officer, Natural England

Natural England is working in partnership to support residents in Weston-super-Mare to access and connect to nature.

Weston-super-Mare has a higher than average older population who live by themselves and are at risk of social isolation. A large proportion of these people have a long-term disability that limits their day-to-day activities. Research conducted by the University of Derby found that a connection to nature can help people feel good, function well and foster a pro-environmental attitude. However, there are barriers to accessing nature meaning that some people are deprived of developing a connection with nature.

Natural England are a partner in the Healthier with Nature green social prescribing programme which has funded the delivery of nature-based activities across the West of England including in Weston-super-Mare.

Green social prescribing is the practice of supporting people to engage in nature-based interventions and activities to improve their mental and physical health. NHS England

A partnership with the Mendip Hills National Landscape team has enabled a nature connection programme for Weston residents to connect to local green spaces, and further afield in the Mendip Hills. To enable access to these wilder spaces, transport is provided as part of the programme. Participants have taken part in nature crafts, mindfulness activities and nature walks.

"It has improved my mental health and connected me to the natural world around me in a way that I haven't experienced before."

Mendip Nature Connections participant

Connection to nature does not have to be limited to the outdoors. The nature-inspired winter crafts club took place at the Community Hub, delivered by Create Together Community Interest Company and funded by Natural England. The club aimed to include people living with long term health conditions and at risk of social isolation, through nature-based crafts including sculpting, printing and felting.

As with all these amazing projects, the question 'what happens when the project finishes?' is a very important consideration. Signposting participants to community projects, including volunteering opportunities, to continue developing their skills to remain resilient, is a great way to maintain and grow stronger connections within a community for the benefit of people and nature.



Leaf printing: Nature-inspired Craft Club © Create Together CIC



Nature walk: Mendip Nature Connections programme © Mendip Hills National Landscape team

Sustaining Nature and Community Along the Severn Estuary: An Update from the Vale Coastal Project

Molly Fairclough, Coastal Project Development Officer

Stretching 33 miles (53 km), the Vale of Glamorgan coastline is a stunning mosaic of rocky cliffs, saltmarshes, cobble beaches, and unique habitats such as coastal grasslands, woodlands, and rocky seabed.

Much of this coastline, designated as a Heritage Coast, is well maintained and supports rich biodiversity. The Vale Coastal Project, funded by the Welsh Government, is committed to ensuring a sustainable future for this exceptional area.

A central element of this effort is the Vale Coastal Forum, which has become a positive and engaging platform for collaboration and networking amongst stakeholders. Bringing together community groups, local businesses, environmental organisations, and public sector representatives, the forum has facilitated discussions on pressing issues like nature conservation, visitor pressures, access challenges, and economic sustainability. Regular meetings have fostered meaningful dialogue and are paving the way for collaborative action along the Vale of Glamorgan coastline around an agreed common vision. With input from groups like the Severn Estuary Partnership, the forum serves as a model for effective regional cooperation.

Building on outreach and forum feedback, several pilot projects have been launched to address community and environmental priorities. These include a coastal accessibility evaluation with the Innovation Trust to improve access for all, funding a coastal mobile signal mapping initiative to enhance safety, and a series of rock pooling and species recording activities with Beach Academy to foster connections with nature and improve understanding of local species populations. A commissioned report has also identified potential Sites of Importance for Nature Conservation to guide habitat protection, restoration and biodiversity enhancement.

Looking ahead, the project aims to overcome challenges like coastal adaptation to climate change and the need for better coordination of initiatives. With a focus on securing funding for expanded efforts, fostering deeper community connections, and advancing long-term sustainability, the Vale Coastal Project is poised to ensure that the coastline remains a source of inspiration, natural beauty, and shared stewardship for generations to come.

Join the Effort

To learn more or get involved, contact the Vale Coastal Project Development Officer mfairclough@valeofglamorgan.gov.uk or valecoastal@valeofglamorgan.gov.uk. Keep an eye out for our website www.valenature.org/coastalproject, and our Instagram [@Valecoastal](https://www.instagram.com/Valecoastal)



Two smiling women ride horses through the shallow water at Barry Island as a juvenile gull takes flight. © Vale of Glamorgan Council (tourism)



A father and child exit the water at Barry Island with their surfboards, as a younger child runs ahead. © Vale of Glamorgan Council (tourism)



A view of the heritage coast cliffs with hogweed in the foreground. © Vale of Glamorgan Council (tourism)

Together, we can sustain and celebrate the Vale of Glamorgan's coastline and the wider Severn Estuary.

Diverse Marine Values

Dr Emma McKinley, Senior Research Fellow, Cardiff University

Following the success of its first three years, the UKRI Sustainable Management of UK Marine Resources programme awarded each of its six projects some additional funding to allow them to continue into a fourth year.

Cardiff University and the Severn Estuary Partnership have been involved in the Diverse Marine Values project since its initial development. In the first three years of the project, the project team explored community-held marine values across three test-site locations: Portsmouth, the Shetland Islands and Chepstow and the Wye Catchment, including links to the Severn Estuary.

In understanding the relationship between people and marine environments, we have employed various research approaches to engage with coastal communities, ocean scientists and marine managers. These methods were selected due to their suitability to derive qualitative evidence and promote engagement across a range of sectors, in addition to facilitating dialogue and deliberation and providing space for creative thinking and experimentation. Furthermore, the methods used entailed varying degrees of participation, from researcher-led approaches to those that were co-produced with local groups, allowing the team to tailor their methods to appeal to the needs of individuals and communities.

Positioned on the boundary between England and Wales, Chepstow sits on the banks of the River Wye as it makes its way towards the dynamic Severn Estuary. Boasting the second highest tidal range in the world, the Severn Estuary is a dominant feature of the region, influencing even those communities further upstream. Here we focused on the town of Chepstow and the surrounding Wye catchment; an area is perhaps less traditionally considered 'coastal', yet it is a region directly influenced by the tides of the nearby

Severn Estuary and the connections to the sea and coast can be seen far inland. Working in this region has given the Diverse Marine Values team the opportunity to work closely with Monmouthshire County Council following their declaration of a Motion for the Rivers and Ocean. Through our work here, we have explored community connection to the coast and the notion of rivers and estuaries as a 'local ocean' space, the concept of ocean literacy away from traditional definition of coast, as well as challenging who gets to be considered a 'coastal community'. One way of doing this has been through Community Voice Method interviews carried out by Emma McKinley, and the production of the Watershed film, supported by Drs Sue Ranger and Peter Richardson, and the Marine Conservation Society. The film had a community screening in early 2024 – and you can access it using the QR code right.



In the final year of the project, Emma will be building on her ocean literacy research, focusing on the development of an Ocean Literacy strategy for England.

If you want to know more about the project or be involved in the development of England's Ocean Literacy Strategy, get in touch with Emma on mckinley1@cardiff.ac.uk

Reducing Flood Risk in Wales

Dr David Clubb, Chair of the National Infrastructure Commission for Wales

The Severn Estuary provides huge amenity to communities along its coast. In times of excessive rainfall, it also presents a risk to flooding for many of those same communities.

The National Infrastructure Commission for Wales was tasked by Welsh Government and Plaid Cymru, through their cooperation agreement, to recommend ways in which by the year 2050 the impact of flooding could be reduced across Wales. We undertook work in 2023 and 2024 that culminated in a set of recommendations for Welsh Government that could improve the current flood response for the environment and be much cheaper to implement than traditional flood responses, with a focus on building long term resilience.



Picture of recommendation launch; the painting created as part of the 'visioning' of the project © David Clubb

We recently travelled to the Bannau Brycheiniog to see how nature-based solutions were reducing the costs and improving the effectiveness of water management on some farms. A group of farmers has created the Beacons Water Group to trial new ways of managing water on their land. The benefits for nature, water and carbon sequestration have been inspirational, with implications for water management across Wales, including for catchments feeding the Severn.

Land management is the key to water management. Good custodianship can improve water quality, reduce overheating in summer, and keep water in the upper catchment at times of heavy rainfall. As in so many areas of life, the solution to problems in one part of Wales may be found in a very different place.

The Severn links communities across Wales and England. With coordinated action and by harnessing the regenerative powers of nature, the Severn could become an even more benign lifeline to both its rural and urban communities.

Some of the recommendations are about simplifying the way in which the organisations that have responsibility for managing floods work together. For example, we think that having a single named person or organisation who can coordinate issues related to water, would greatly reduce confusion during and after flood events. We are also keen that nature and communities have a much bigger role to play in future flood preparation and response.

Scan to learn more



Group photo of the site visit to Bannau Brycheiniog National Park © David Clubb



The Bristol Port Company: Launch of the Bristol Wind Terminal & Steart Habitat Creation Scheme

Lucy Taylor and Ellie Caffrey, Environment and Sustainability Team

Bristol Port Company is developing plans for a major new terminal to support the development of offshore wind in the Celtic Sea.

The next generation of wind farms is moving closer with The Crown Estate's Offshore Wind Leasing Round 5, which aims to establish floating offshore wind (FLOW) in the Celtic Sea. Round 5 will create 4.5GW of new renewable energy capacity - enough to power more than four million homes - with the potential to unlock a further 12 GW of capacity in future rounds.

Bristol Wind Terminal will support the production, integration and deployment of FLOW turbine units to the Celtic Sea, helping the UK meet its 2050 net zero target. Located at Avonmouth Docks, the project will involve redevelopment of part of the existing Port and reclamation of an area of the foreshore and estuary. It will include a new quay wall, slipway for launching floating sub-structures and (if required) an extended breakwater. It is hoped that following assessment, approval and construction, the facility will be operational in 2030.

To compensate for potential impacts of Bristol Wind Terminal on the designated habitats and species of the Severn Estuary European Marine Site, we are planning to create around 130ha of intertidal habitat on the Steart Peninsula. Over the past decade or so, we have worked with partners and the local community on site selection and developing the design of the scheme. We aim to create a mosaic of intertidal and wetland habitats that will support a diverse range of waterbirds and other wildlife, provide enhanced coastal access and improve protection against flooding. Following the assessment and consenting process, it is anticipated that around two-years of construction will culminate in breaching the site in Autumn 2028.



A photomontage of the proposed Bristol Wind Terminal
© Bristol Port Company

We are delighted to confirm that The Bristol Port Company will be working in collaboration with WWT, the charity for wetlands and wildlife, to develop and deliver the habitat creation scheme, building on the lessons learnt from the successful neighbouring WWT and Environment Agency Steart Marshes reserve. The long-term ambition is to be fully integrated with the site and to become part of the Somerset Wetlands 'Super' National Nature Reserve.

More information will be available soon on our website www.bristolenergytransitionhub.com. If you have any questions, please contact us at bristolwindterminal@bristolport.co.uk or steartconsultation@bristolport.co.uk.



Conceptual sketch of the Bristol Port habitat creation scheme and WWT Steart Marshes masterplan © WWT

Deep Mapping the Severn Estuary



Heather Green, Associate Professor of Book Arts and Printmaking,
Herberger Institute School of Art at Arizona State University

***Tidal Timespace* is an interdisciplinary art project that celebrates local distinctiveness and tidal humanities. The impressive tidal range and striking contrasts to the desert sea near where I live in Mexico attracted me to the Severn Estuary, and as it is home to geographer Owain Jones who writes extensively on phenomenological rhythms and cultures of tides.**

In the spring of 2024, I traveled to Cardiff with the support of a Fulbright Scholar Award at Cardiff University School of Earth and Environmental Sciences to explore both English and Welsh shores of the estuary and gather facts and stories to create a series of artists books as part of the project.

The profound, twice-daily physical transformation of the landscape by tides has endless implications for nature, culture and economy and creates what Owain calls 'tidal cultures.' The estuary has a rich maritime history, from vernacular sailing craft to regional fishing techniques which were all shaped to handle enormous tides. Despite many large ports, nuclear power stations, two road bridges and a rail tunnel, the estuary still feels like a wild and mysterious place, where natural and cultural heritages entangle around rhythms of tides.

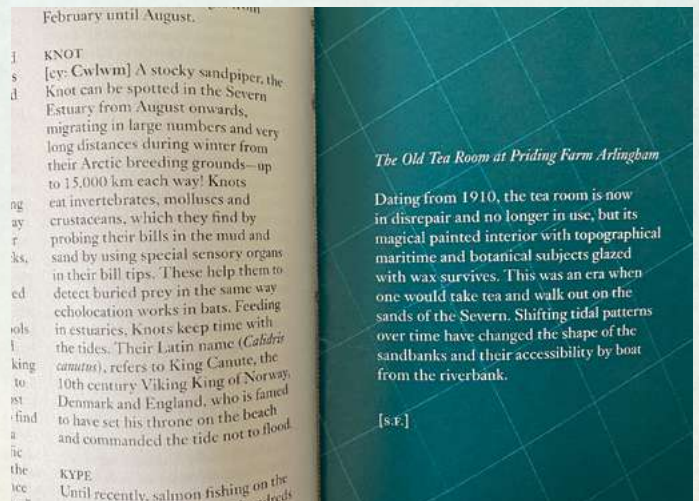
The project features an A-Z lexicon interspersed with vignettes that break up the entries and help contextualize them. Invited comments also appear as marginalia throughout from a variety of community members - scientists, long-time residents and artists, adding interest and perspectives. The process of gathering these terms and place words, along with other multi-media elements in the larger project, are embedded in the practice of deep mapping – a methodology intertwining ecological and historical narratives, personal and communal memory, scientific data, and a wide range of media into a multi-vocal project.

It would be impossible to list every plant, animal, person or place, however small a place may be – which isn't the point. There are no citations – as this is not a scientific or academic text *per se*, nor a traditional regional or geographical text – but a creative practice of care that seeks to learn and share knowledge, the thrill of exploring in the field, and evoke a fineness of texture that makes the Severn Estuary unique.

To learn more about the larger project, please visit
www.heathergreen-art.com/tidal-timespace



Books produced as part of the deep mapping project © Heather Green



Pages of the Deep Mapping books, including images, vignettes and marginalia © Heather Green

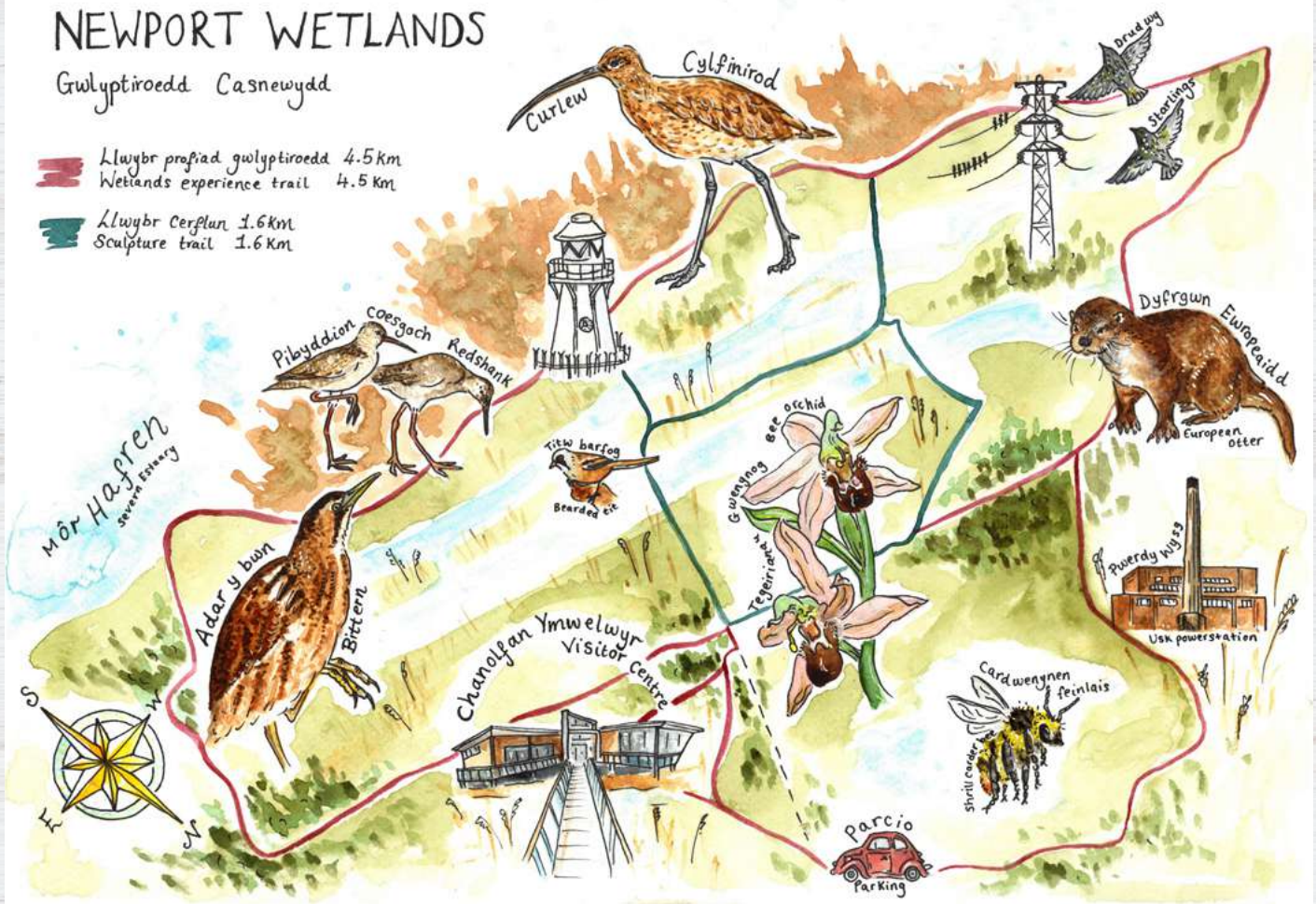


NEWPORT WETLANDS

Gwlyptiroedd Casnewydd

Llwybr profiad gwlyptiroedd 4.5km
Wetlands experience trail 4.5km

Llwybr cerflun 1.6km
Sculpture trail 1.6km



Beautiful map painted by Emma Reynolds showing species that can be spotted at Newport Wetlands Reserve and two routes to explore.

The Severn Estuary Partnership receives support from Cardiff University and core funding from Bristol City Council, Cardiff County Council, Forest of Dean District Council, Gloucestershire County Council, Newport City Council, North Somerset Council, Somerset Council, Monmouthshire County Council, Environment Agency South West, Natural Resources Wales and Natural England.



Established in 1995, the Severn Estuary Partnership (SEP) is an independent, estuary-wide initiative led by local authorities and statutory agencies, engaging and connecting with all those interested in the Severn Estuary. We work with all stakeholders to promote a sustainable approach to the planning, management, and development of the estuary for all those who live and work here and for our future generations.



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