

Inside this issue

- Latest from the Solent Forum
- Solent nature recovery
- New maps for saltmarsh and seagrass
- Marine net gain consultation
- Fishing net recycling
- The Solent cluster
- National Centre for Coastal Autonomy launched
- Fisheries Management Plans
- Angling for sustainability
- The Paddlers Code
- Hayling Island Strategy
- Weston Shore defence works
- Secrets of the Solent mural
- Isle of Wight shipwrecks granted protected status
- Solent Freeport approved
- Sandown Bay Hullabaloo
- Marine invasive species in the Solent
- Hurst to Lymington Public Engagement
- Dynamic inventory of seascape restoration activities in the Solent to Sussex Bay area



Image © Shaun Roster

Restoring Life to the Solent's Seascape

A partnership of ten organisations working in the Solent has successfully secured a five million dollar grant to undertake a five-year project to restore some of the Solent's most endangered marine habitats. The money, granted by the Endangered Landscapes Programme, will be used to restore seagrass meadows, oyster reefs, saltmarsh and seabird nesting habitat across the region under the Solent Seascape Project.

In addition to physically restoring areas of these four key habitat types, the Project will also work with landowners and regulators to improve the protection and management of existing Solent habitats. It will monitor the benefits of seascape scale restoration scientifically to ensure that local people and sea-users help co-design the project, thereby becoming more connected and engaged with their own marine environment.

The Solent is recognised as an internationally important wintering and breeding ground for seabirds and waterfowl. The mud and sand flats support seagrass and saltmarsh and the seabed was once home to the most important native oyster fishery in Europe. All of these habitats, like so many others globally, have become fragmented and degraded through anthropomorphic pressures including poor water quality, increased industrialisation and disturbance.

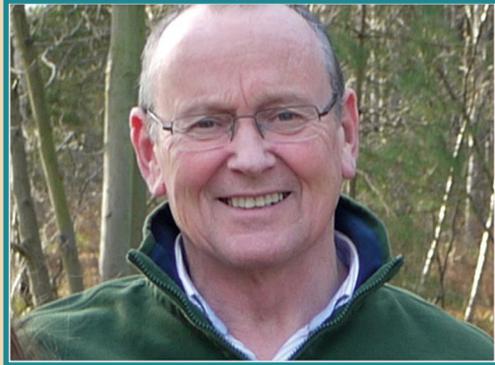
The Solent Seascape Project aims to address these pressures by working with industry and stakeholders to co-design a Seascape Recovery Plan. Many local councils, harbour authorities, water companies and government regulators have provided letters of support for the project and are committed to restoring the Solent.

Marine habitat restoration is its infancy. As well as restoring habitats the project team will be monitoring the wider benefits of seascape scale restoration, including carbon sequestration, nutrient remediation and connectivity between habitats for mobile species such as fish. As it progresses the project team hope to use the lessons learned during the restoration work to create a blueprint for restoring temperate marine habitats elsewhere.

The ten project partners are Hampshire & Isle of Wight Wildlife Trust, RSPB, Natural England, Project Seagrass, Coastal Partners, Isle of Wight Estuaries Project, Chichester Harbour Protection and Recovery of Nature (CHaPRoN), Environment Agency, University of Portsmouth and Blue Marine Foundation.

News from the Forum

Chairman's Column



Peter Barham MBE

Last year I said how wonderful it is that so much is going on in the Solent and this edition of Solent News confirms that, if anything, even more is happening. The diversity of work and the people involved is impressive. It shows the commitment of people, statutory bodies, industry and conservation groups in protecting and improving the Solent for people and for wildlife. In addition to all this work, there are some exciting initiatives starting in 2023 that will make a real difference and demonstrate that recovery of the coast and marine environments are really happening. Many of us have been involved with planning what needs to be done and now, excitingly, money is increasingly available to deliver. Importantly, money is coming from a range of sources and the opportunities that this brings for project work to be done by individual groups or partnerships is enormous.

Many of these initiatives we expand on more fully in this edition and we look forward to hearing more detail at our members' meetings. For example, Blue Marine Foundation's Solent Seascape Project which will address some of the losses of habitats and the pressures which cause them by working with industry and stakeholders to co-design a five year Seascape Recovery Plan.

Solent Forum will also be working with Portsmouth University to prepare a dynamic inventory of seascape restoration activities in the Solent to Sussex Bay. Working with others like this will help enormously to support coordinated restoration action and learning. Linking all the nature recovery work taking place and the opportunities for activities delivering net gain, as part of economic development, shows just how exciting things are getting.

As always Solent Forum will play its part in helping to facilitate and deliver all this work, but what is important to stress is just how many people and organisations are involved. In the year which showed us though the COP meetings just how much work there is to do on climate change and restoring biodiversity, it is encouraging to know that so much is happening in our area. I am confident that the Solent is not alone in this planning and drive for recovery.

A happy new year to you all and our best wishes for 2023.

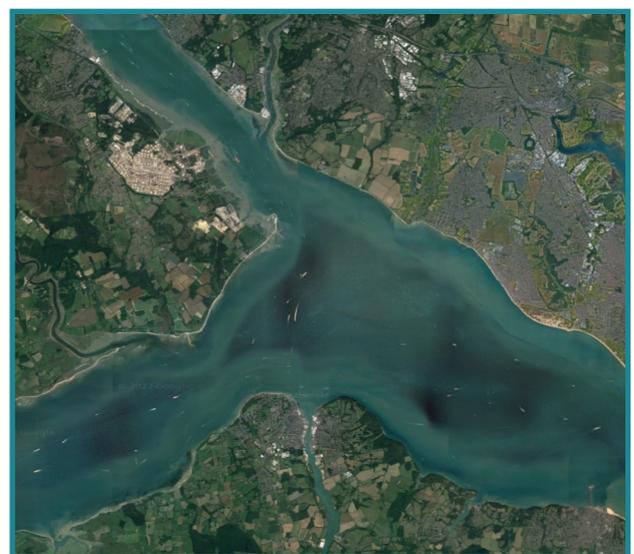
Solent Forum Partnership Work

The Solent Forum is involved as a partner in a number of exciting current and forthcoming projects and workstreams, being led by a variety of organisations such as academia, charities, government agencies and business. We help with publicity via our news service, connect relevant stakeholders together, host material on our website, provide a legacy service for projects that are ending and help with meetings, workshop planning and facilitation.

For 2022/23 we have been and will work with colleagues in the Solent and wider on the following (lead partner in brackets):

- Beneficial Use of Dredgings (Solent Forum)
- Secrets of the Solent (Hants & Wight Wildlife Trust)
- Preventing Plastics Pollution project via our Solent Plastics Pollution hub (Environment Agency)
- Three Harbours technical summit (Southern Water)
- Biosecurity plans for the Solent's harbours (Natural England)
- Solent Seascapes (Blue Marine Foundation)
- 'Sea the Value' (University of Portsmouth)
- Local Nature Recovery Strategies (Responsible Authorities)
- Solent Cluster (Solent LEP)
- Production of a dynamic inventory of seascape restoration activities in the Solent to Sussex Bay area (University of Portsmouth)

Solent Forum members, please contact the Forum Office if you would like to discuss our assistance with any of your projects or workstreams.



Partnership working is crucial to delivering workstreams in heavily used areas like the Solent.

Forum News

Solent Marine Sites and Natural Environment Group

In 2022, we had another busy year delivering the [Solent Marine Sites Management \(SEMS\) Scheme](#) and two meetings of the Natural Environment Group (NEG). The [SEMS survey for 2022](#) showed that participation of non-licensable activities in the Solent has generally not changed except for a further increase in paddlesport use. However, in 2020 there were significant increases reported in coastal walking (including dog walking) and general beach recreation; these levels have not dropped as people increasingly value the physical and mental health benefits of visiting the coast and using the marine space. There are concerns that high levels of baseline activity are creating disturbance, particularly at sensitive sites, and there is a case to look at reducing or managing activity levels in the future in some locations.

Activities highlighted this year by multiple respondents potentially impacting on SEMS sites include coastal walking with and without dogs, paddlesport participation and the use of motorised shallow draft craft like personal watercraft. The impact of litter arising from activities is an ongoing concern. The issue of bird disturbance from dog walking is long standing in the Solent and it is being addressed by the Bird Aware Solent partnership, who commenced a five year review of their work in 2022.

For 2023 the [Natural Environment Group](#) will be focussing on its Solent Bird Sensitivity and Activity Mapping Project, working with partners to incorporate it into the Blue Marine led Solent Seascapes project. It will also be reviewing the pilot project taking place in Chichester Harbour looking at the impacts of paddlesports on birds and following the evidence and debate on microplastics and litter, including the issue of abandoned GRP boats.

NEG is currently funding [three projects](#) that further our knowledge of issues in the Solent, the next [call for project funding](#) will be in January 2023, please see the [research needs](#) we identified in our annual members survey for priority funding areas.

Solent Nature Recovery

The Solent Forum is working with partners to help scope the strategic direction of Solent marine and coastal nature recovery, including how to incorporate coast and marine in Local Nature Recovery Strategies (LNRS). Nature recovery includes habitat management, restoration and creation and secondary environmental benefits such as carbon sequestration or flood management.

LNRS are mandatory spatial strategies that establish nature recovery priorities and map proposals for specific actions, which will lead to habitat recovery and wider environmental benefits. The Strategies are tools to help partners work together effectively and enable collective effort to focus where there's most benefit. They were introduced in the Environment Act, 2021 and cover habitats to mean low water. Our scoping work will look at how to include the Solent's marine and intertidal habitats within the LNRS framework. It will involve preparing a list of potential data layers, drivers, and partners.

A report based on the scoping findings will be made to the Hampshire and Isle of Wight Nature Partnership early in 2023. It is anticipated that the work will be taken forward in conjunction with Blue Marine Foundation's Solent Seascape Project.

Defra ran a series of pilot LNRS at five locations throughout the country. The pilot in Cornwall included coast and set out the following coastal priorities:

1. [Protect, extend and connect a diverse mosaic of coastal habitats on land and shore.](#)
2. [Restore natural beach-dune systems that allow dynamic dunes to evolve and migrate.](#)
3. [Enable climate resilience by buffering cliff-top habitats, strengthening natural coastal flood processes, and making space for rollback.](#)
4. [Protect, restore and emulate natural wetland, estuarine, intertidal and valley habitats with integrated upstream management.](#)
5. [Manage the wider mosaic of adjacent habitats, especially coastal farmland.](#)
6. [Boost the biodiversity and range of coastal species and limit their disturbance, especially from recreation.](#)



Seagrass planting © Hants and Wight Wildlife Trust

Coastal Management

New Maps for Seagrass and Saltmarsh Habitats

New mapping tools from the Environment Agency and Natural England, which reveal the extent of seagrass and saltmarsh habitats around England for the first time, are now live. The maps provide valuable information for the management of these blue carbon habitats, and help to drive forward restoration projects.

To help protect and expand these habitats, the Environment Agency published its [saltmarsh inventory](#) and accompanying report in August 2022, mapping where saltmarsh has been gained and lost over a ten year period. The data revealed a seven percent increase in saltmarsh extent around the English coast. This takes the total habitat to over three hundred and fifty kilometres squared, with saltmarsh restoration projects contributing thirty seven percent of this gain.

The new national seagrass map identifies where intertidal and subtidal seagrass habitats have been surveyed in England and draws on historic data to reveal how seagrass extent has changed. Access the data on [Magic Map](#) under the marine tab.

The table on the right looks at a variety of locations in the Solent and how saltmarsh has changed between 2008 and 2016. It shows that for most areas the net change has been negative with Chichester Harbour and the Solent recording the biggest losses. Langstone Harbour, Lymington and Newtown Harbour also saw significant losses. Portsmouth Harbour is the only site in the Solent that recorded a net gain. It will be interesting to view this data in the future to see the impacts of all the current and proposed restoration work.

Saltmarsh accretion (gain) and erosion (loss) observed in the Solent waterbodies between the baseline and latest extent records. © Environment Agency, 2022

Waterbody	Change Period	Baseline extent (ha)	Net Change (ha)	Gain Gross (ha)	Gain Marginal (ha)	Loss Gross (ha)	Loss Marginal (ha)
Beaulieu River	2008 to 2016	108.62	-1.61	10.86	7.31	6.39	13.38
Chichester Harbour	2008 to 2016	323.86	-16.70	20.38	29.88	34.31	32.65
Langstone Harbour	2008 to 2016	69.58	-7.34	1.97	4.48	9.70	4.10
Lymington	2008 to 2016	92.47	-8.12	2.66	3.79	7.37	7.20
Newtown River	2008 to 2016	78.69	-8.71	7.92	3.12	10.86	8.89
Pagham Harbour	2008 to 2013	108.15	15.74	10.25	6.99	0.58	0.92
Portsmouth Harbour	2008 to 2016	43.86	4.17	6.42	9.87	7.64	4.48
Solent	2008 to 2016	137.69	-16.22	6.59	5.10	14.79	13.12
Southampton Water	2008 to 2016	269.03	-2.08	13.29	13.19	16.29	12.27
Western Yar	2008 to 2016	45.32	-1.48	3.48	1.78	3.35	3.39

Marine Net Gain Consultation

In England, the Environment Act, 2021 introduced a mandatory requirement for new terrestrial developments to deliver biodiversity net gain (i.e. aiming to leave the natural environment in a better state than before). During the development of the biodiversity net gain approach, many groups called for this requirement to extend to the marine environment. In response, in summer 2022, Defra launched a consultation on the aims and principles of marine net gain. As it currently stands, it is only being proposed for development activities (not fisheries). The proposed principles are that marine net gain will:

- Measure impacts on habitats and species
- Seek to incorporate environmental benefits underpinned by biodiversity
- Take a 'nature first' approach whilst recognising wider environmental benefits
- Assessments will not include potentially positive incidental impacts whose benefits are subject to significant uncertainty
- Requirements will be proportionate and appropriate to the scale and type of development
- Be a mandatory requirement
- Incentivise both active interventions and appropriate pressure reduction measures
- Incentivise the delivery of strategic interventions in addition to meaningful site-based interventions.
- Allow for improvements to designated and non-designated features of Marine Protected Areas to qualify as net gain interventions

Defra plan to publish the consultation response in early 2023.

Litter & Plastics

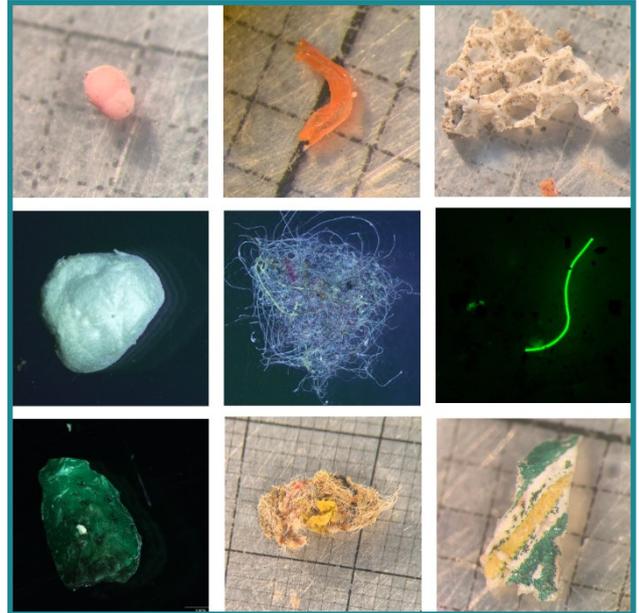
The MINIMISE Project - Researching the Impacts of Microplastics

The MINIMISE project brings together four UK universities and two government agencies, in a bid to address the fate and behaviour of micro and nano plastics, species-environment interactions, monitoring programmes and activities.

It combines expertise in marine litter and the ecological consequences of anthropogenic activities, with cutting-edge technologies to deliver new knowledge of the risks posed by microplastics. Research activities in this developing field have been patchy and fragmented and by bringing them together into a cohesive project, the hope is to deliver a step change in understanding.

The project objectives are too:

1. Develop and apply enhanced methods for identifying and characterising microplastics in diverse media, including novel screening methods and synthesis of custom-designed labelled particles for study of transport and uptake.
2. Investigate the potential role of microplastics as vectors of additives and marine pollutants and their trophic transfer in marine food webs.
3. Assess the extent to which accumulation of microplastics of different shapes, sizes and polymers leads to biological effects at molecular, cellular, physiological and organismal levels.
4. Establish the potential for microplastics to moderate benthic ecosystem functions under a range of ocean chemistry scenarios.
5. Generate a geospatial risk map of microplastics and associated contaminants in marine environments and organisms representative of UK ecosystems.



Microplastics © CEFAS

Funding for Fishing Net Recycling

Since 2018, the Port of Brixham have been recycling their commercial HDPE fishing nets with the support of Fathoms Free, Odyssey Innovation and more recently Keep Britain Tidy. The project was successful in recycling a huge amount of net, but it was labour intensive for a group of volunteers from Torbay Cleaner Coasts Initiative who would strip the nets of all non-recyclable materials such as chain, rope and debris to prepare them. The net was sent off to Denmark once or twice a year to be recycled by Plastix Global, who returned them to plastic pellet form for reuse. The amount of storage required at Brixham port for processed net due for collection was also an issue.

A partnership between Torbay Harbour Authority, Keep Britain Tidy and Milspeed Ltd. led to Milspeed to be the first plant in England to be able to recycle HDPE commercial fishing nets. Investment in research and machinery enabled their plant to tackle the often-fouled trawl nets, clean them, shred them and process them back into pellet form.



Fishing net recycling. © MMO

Keep Britain Tidy have acquired funding to support other UK harbours, local groups and organisations to set-up recycling of fishing material. Funds are available to set up collection systems at harbourside and to cover transportation costs. If you are an organisation or harbour looking to recycle fishing gear in the UK and need funding to help please email: oceanrecoveryproject@keepbritaintyd.org.

Fisheries

Fisheries Management Plans

The Fisheries Act, 2020 provides the framework to manage fisheries as an independent coastal state outside of the EU Common Fisheries Policy. The act requires the UK fisheries policy authorities (Defra, and the devolved administrations in Northern Ireland, Scotland and Wales) to publish fisheries management plans (FMPs).

FMPs are evidence-based action plans, developed with input from industry and other stakeholders. They set out a range of policies, based on scientific evidence, that detail how fishing is managed, by stock, fishery, or location. They are based on best available science, fisher experience, and policy objectives through participation of key stakeholders. This will include fishermen, researchers and regulators. Once up and running, they will be monitored, reviewed, and adapted as necessary to ensure they are fit for purpose. Effectiveness will be regularly assessed and reported on at least every three years, with full review every six years.

Defra is currently developing six 'frontrunner' FMPs. These will pilot different ways of preparing plans in partnership with industry groups and other stakeholders. Lessons learnt from these projects will shape future FMP work. Each frontrunner FMP has a delivery partner who will work with Defra and stakeholders to draft it.

Front runners FMPs:

1. Crab and lobster
2. Whelk
3. King scallop
4. Bass
5. Channel non-quota demersal stocks (NQS)
6. Southern North Sea and Eastern Channel mixed flatfish



Images © Seafish

Please visit the [Southern IFCA page on the Plans](#) for the latest updates and details of consultation events.

A short video of the [content and purpose of the plans](#) has also been produced.

Fisheries Waste Management

The Environment Agency has released an [advice leaflet](#) setting out how port and harbour managers can protect marine life by managing resources and waste from fishing vessels.

It contains information on waste storage and disposal, with a specific focus on fishing nets, pots, oils and anti-foul products. It includes a printable hazardous waste guide. Accompanying the guidance is a poster inviting the fishing community to pledge their support by carrying out a series of actions including keeping on-board equipment to collect lost gear.

The materials are funded by the Interreg Preventing Plastic Pollution project, a partnership of 18 organisations in England and France, aiming to reduce the impact of plastic pollution in river and marine environments.

The fishing community protects our oceans

How?

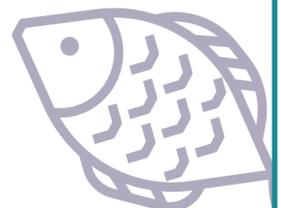
- Avoiding single-use plastics in galleys.
- Dropping off fishing nets at collection points for recycling or safe disposal.
- Always safely disposing of gloves, oily rags, and waste electronics at designated collection points.
- Recycling as much as they can at port and at home.
- Keeping on-board equipment to pick up any gear they accidentally loose. If they can't get it back make sure it gets reported.



Why?

- Abandoned, lost and otherwise discarded fishing gear depletes fish stocks, damages boats, and is a navigation hazard.
- Oil harms plants, animals, and habitats. It is the most often reported type of water pollution incident.
- Without proper storage and application, anti-foulant products cause damage to our water environment.

Are you an active fisher? Then make a pollution prevention pledge today by scanning here.



Marine Industries

The Solent Cluster

The Solent Cluster is a cross-sector collaboration of international organisations. It includes manufacturers and engineering companies, regional businesses and industries, leading logistics and infrastructure operators and academic institutions, with proven expertise in carbon capture and storage and hydrogen technology.

Decarbonisation is at the heart of the Solent LEP's economic strategy for the Solent and the creation of The Cluster will sit alongside other ambitions to pioneer approaches to climate change adaptation and decarbonization. It could enable organisations to bid for government investment support for decarbonization projects.

The Solent Industrial Decarbonisation unit at the University of Southampton report that the Solent region is recognised as one of the leading contributors of CO² emissions with approximately 3.2 million metric tons of CO² emissions released from energy-intensive manufacturing processes every year. Cluster work will introduce sustainable fuels for local transportation, the aviation and the shipping sectors; create low carbon energy to heat homes, businesses and public buildings; and open up new skilled jobs opportunities.

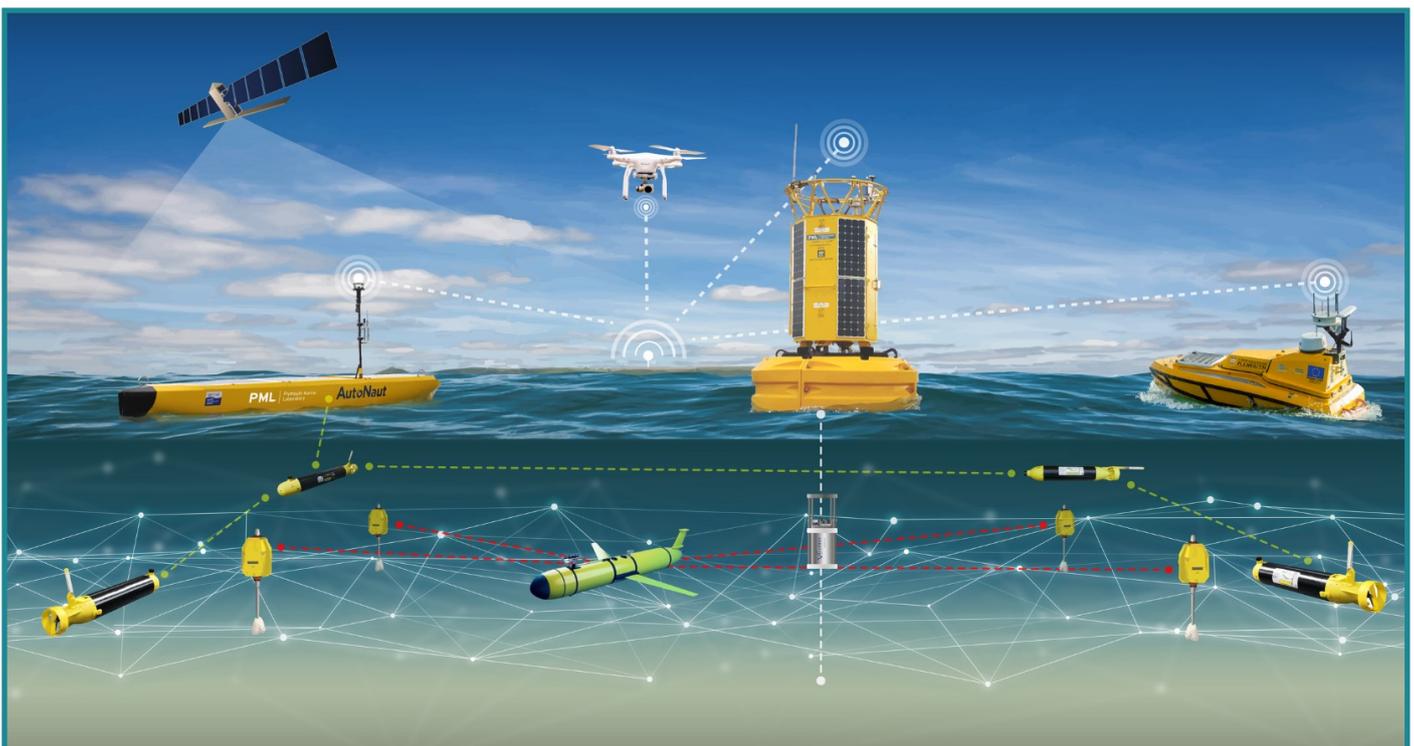


National Centre for Coastal Autonomy Launched

The potential for autonomous technology to advance understanding of our constantly evolving ocean and coastlines has taken a major step forward with the launch of the [National Centre for Coastal Autonomy](#). The UK's first autonomous fully integrated coastal observing and monitoring network, employs the latest autonomous technologies to drive towards a net zero oceanographic capability, delivering cutting edge science.

A fleet of state-of-the-art surface autonomous vessels, sub-surface coastal platforms and sophisticated scientific buoys are integrated on a unique high-speed marine communications network. The high resolution data produced will support policy makers and other organisations with an enhanced understanding of the coastal environment. It will also deliver a platform to train and develop the next generation of scientists and technologists.

The Centre was founded by the partners in [Marine Research Plymouth](#), the [Marine Biological Association](#), [Plymouth Marine Laboratory](#) and the [University of Plymouth](#). It was officially launched by HRH The Princess Royal.



Coastal Defence

A Vision for Hayling

Hayling Island is neatly sandwiched between Portsea Island and Thorney Island in southeast Hampshire. Arguably the biggest challenge the Island will face in the future is climate change and sea level rise.

During the last three years, Coastal Partners, a coastal management partnership of five Solent Authorities, have been developing a [strategy for Hayling Island](#). The strategy aims to safeguard its future for the next 100 years by managing its coastal flood and erosion risk in a practical, sustainable and economical way.

The strategy explores the most suitable options for the island's entire thirty eight kilometre coastline. Proposals are tailored to the considerations of each area. Some include updating existing defences,

adapting to sea-level rise, building new seawalls and setting back present defences to make space for nature. Significant funding from a variety of sources will be needed to progress all the leading options.

Throughout October, November and December 2022, Coastal Partners consulted on the draft strategy. An online consultation combined with local events attracted stakeholders to share their views and highlight priorities. Following the evaluation and incorporation of stakeholder feedback, the strategy and business case for the preferred options will be put forward for Environment Agency approval. Once adopted by Havant Borough Council, the strategy's action plan will be implemented which will trigger the commencement of the priority schemes.



Hayling Island © Coastal Partners

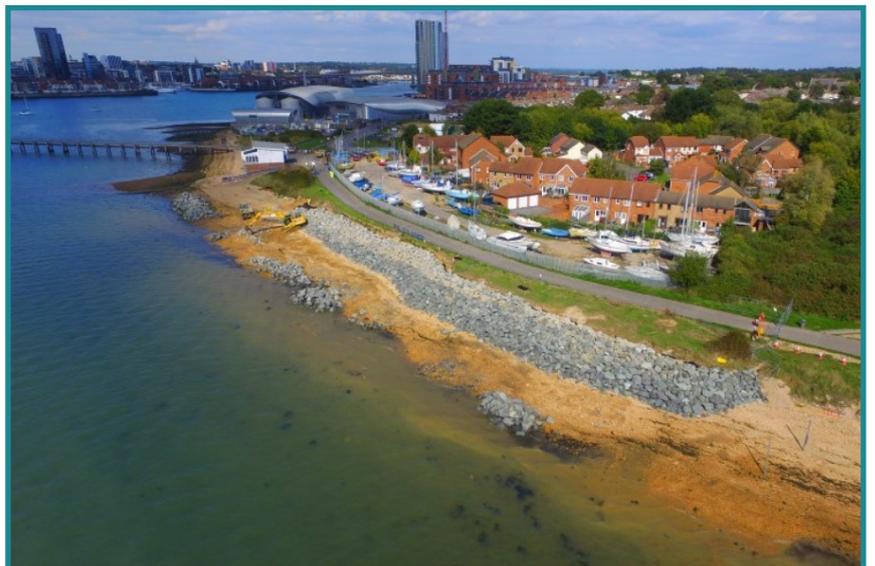
Weston Shore Works Completed

Work to futureproof Southampton's coastal area of Weston Shore has been completed. The new rock armour revetment will protect the area from future coastal erosion.

Weston Shore is Southampton's only publicly accessible natural coastline, with areas of shingle beach and mudflats that provide a habitat for wildlife and a point of interest for visitors engaging in recreation and leisure activities.

The project, delivered by Balfour Beatty Living Places, includes new planting, rock pools, bird and bat boxes in Shoreburs Greenway and new benches. The work took place in the summer months to ensure that wintering birds were not disturbed.

The project team has also taken the opportunity to engage with local schools and carry out litter picks across the wider area. The coastline is now fully re-open to the public for walking, cycling and other leisure activities.



Weston Shore. © Southampton City Council

Recreation & Leisure

The Green Blue Boating Pledge

The [Green Blue Boating Pledge](#) is a new way for all boat users to show their commitment to protecting and respecting the environment.

Launched at the Southampton International Boat Show, it has been created for boat users to actively declare their commitment to following sustainable boating practices. The Green Blue hope the Pledge will help raise awareness of important environmental issues, such as water pollution, and will inspire boat users to learn more about what they can do to lower their impact whilst on the water.

There are fifteen Pledge points focussed around the strapline, 'Respect, Protect, Enjoy.' Each of the points have been selected as playing a positive role in the well-being of surrounding habitats and wildlife, these range from 'Choosing your anchorage with care,' to 'Using eco-friendly products,' and 'Minimising your wash.'

Boat users can sign-up online to join the Pledge via The Green Blue website and will receive a Pledge certificate and a metal pin badge.



The Paddlers' Code

Following the growth in paddlesports, British Canoeing has produced the [Paddlers' Code](#) to share guidance on how to enjoy our rivers and coasts responsibly. The Code was developed with Natural England and reflects the content of the Countryside Code.



It includes advice for paddlers to keep group sizes small and discreet, avoid damaging fences and walls when lifting craft over them and generally being respectful to those they meet along the water. To protect nature, paddlers are asked to avoid dragging boats on river banks and beaches and to avoid gravel beds, which can be important spawning grounds for fish.

Marker Buoys to prevent Bird Disturbance

Marker buoys, which encourage water sports enthusiasts to watch out for endangered coastal birds, have been installed by Chichester Harbour Conservancy at Sandy Point on Hayling island. It is hoped the buoys will remind paddle boarders, kayakers and other leisure water users to steer clear of the beach at high tide when it is a vital spot for birds to rest.

Large numbers of wading birds use the beach as a resting site in winter, including oystercatcher and dunlin. The birds feed in the food-filled mud but as the tide rises, they need somewhere to stay dry and conserve their energy. In recent years, there has been a decline in the number of birds using the area. It is thought this may be due to the levels of disturbance from both land and water users.

The buoys provide guidance for water sports in the area with some advising users to keep clear of the area, and others identifying the area as a wildlife refuge.

Angling for Sustainability

Starting in January 2023, researchers from the University of Plymouth will work with angling communities in the Dorset and Solent region to assess the habitats and movement of tope, smooth-hound, undulate ray, and black bream using a method called acoustic telemetry. The project, called Angling for Sustainability, aims to ensure the sustainability and survival of the region's charter boat fishing industry, and will involve boat owners working as citizen scientists together with scientists and regulators to fill the current evidence gaps needed for effective, informed management.

The project is worth £1.2million through a combination of match funding and £738,000 from the UK Government's Fisheries Industry Science Partnership (FISP) scheme, part of the UK Seafood Fund. The project will be delivered in partnership with Natural England, the Professional Boatman's Association, the Southern Inshore Fisheries Conservation Authority, and the Angling Trust. It will establish a network of acoustic receivers across the region, tagging and tracking 200 black bream and 100 sharks, skates and rays. It is focussed on fishing hotspots as well as three MCZs, helping to establish migration patterns, site fidelity and any effects from angler interactions during key fish life stages, such as nesting. This information can be used by regulators for managing different marine activities, ideally paving the way for more angler-inclusive management and a better angling experience with improved fish stocks.



Bream. © Natural England

Conservation

Communities come together in the Isle of Wight for Seagrass Conservation

More than fifty volunteers joined twenty Project Seagrass staff this summer to collect seagrass seeds in the Solent. Over the last year monitoring has taken place to assess the health of existing seagrass meadows around the Isle of Wight with trials to explore restoration potential.

The UK has lost the majority of its seagrass meadows in the last century. The Isle of Wight is one of a handful of areas where it still thrives.

A biodiversity assessment was also conducted on the seagrass meadows in the Solent. Species including corkwing wrasse, juvenile pollock, sea bass, and pipefish were found utilising the seagrass meadow as a habitat. Due to its long leaves, seagrass meadows offer a place for small and juvenile fish to hide from predators and grow. This also attracts other species to the meadows as an essential foraging ground for their food sources. Seagrass therefore supports a wide range of marine species and the protection and restoration of these meadows preserves biodiversity.



Seagrass planting, Isle of Wight. © Hants and Wight Wildlife Trust

[Seagrass Ocean Rescue](#) is a partnership between Project Seagrass, Swansea University and WWF working on the Isle of Wight to further understand the best methods for seagrass restoration through scientific planting trials which will help to inform future restoration projects around the UK. The project is also working collaboratively with the Hampshire and Isle of Wight Wildlife Trust and ReMEDIES who are also working to restore seagrass in the Solent.

Secrets of the Solent Mural

Hampshire & Isle of Wight Wildlife Trust have worked with Southampton-based artist and illustrator, Hannah Horn, to create a series of large, interlocking artworks. The murals consist of six underwater scenes painted and inked onto boards of marine plywood. When pieced together they form a giant 24 foot long and 16 foot high map of the Solent, showcasing a variety of species including thresher sharks, undulate rays and mantis shrimp.

The boards are displayed at six coastal locations. In Hampshire, they can be found at the Blue Reef Aquarium in Southsea, the Calshot Activities Centre near Southampton and the Hill Head Sailing Club in Fareham. On the Isle of Wight, they are on display at The Needles Landmark Attraction, the Aqualibrium Galley at St Helens Duver and on the Queens Road, Cowes.

The Trust commissioned the series as part of their National Lottery supported project, [Secrets of the Solent](#).

It is hoped the murals will become landmarks in their locations and inspire viewers to take an interest in the area's diverse marine environment, including its internationally important seagrass meadows.



© Strong Island Media

Heritage

Isle of Wight Shipwrecks Granted Protected Status

Two 'extremely rare' shipwrecks have been granted protected status. The wrecks, named NW96 and NW68, were discovered at Shingles Bank off the Isle of Wight and dated to the 16th and 17th centuries respectively. Both sites have been given the highest level of protection on the 2022 National Heritage List for England due to their extreme rarity.

The Shingles Bank in the Needles Channel is a well-known navigational hazard for ships entering the Solent from the west. It is thought that both NW96 and NW68 became stranded on the banks before sinking.

Archaeological remains of these vessels include several cannons, a large anchor, at least fifty very large lead ingots with unidentified markings and stone cannonballs. The ingots are a fixed size and weight and would have been used as currency for trade. The finds are being investigated by archaeologists from the Maritime Archaeology Trust and Wessex Archaeology.



Photo © English Heritage

HMS Invincible's Artefacts go on Show

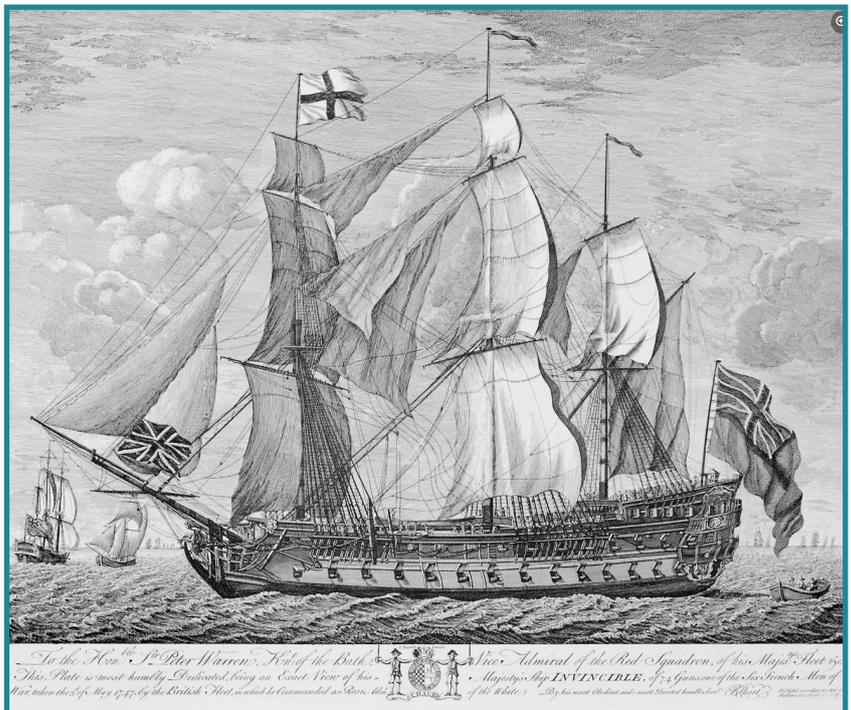
More than eight thousand artefacts, which give a unique insight into the Royal Navy just before Nelson joined, have been donated to a national museum to preserve and display. The Royal Navy formally transferred ownership of every object recovered from the 18th Century wreck of HMS Invincible in the Solent to expert historians.

She was built for the French Navy in 1744 and captured by the British three years later. Not only was the 74-gun man o'war pressed into service with the Royal Navy, but her design served as the blueprint for major British warships which followed.

The ship foundered after running into a sandbank off Eastney in eastern Portsmouth in 1758, her wreck gradually forgotten until fisherman Arthur Mack snagged his nets in 1979.

The bulk of the recovery effort has been carried out over the past few years, thanks to more than two million pounds of National Lottery and LIBOR funding. The funding has allowed the Maritime Archaeology Sea Trust (MAST), The National Museum of the Royal Navy and Bournemouth University to archaeologically excavate, record, conserve and display the remains of Invincible. A wide variety of items have been raised from the wreck site: sections of the ship herself, including her rudder, tobacco pipes, hair curlers, shoes, plates and tankards. Much like the Mary Rose, the wreck became a time capsule, she is only two hundred years newer than Henry VIII's flagship.

The Royal Navy gifted all of the items to the National Museum of the Royal Navy, to preserve, curate and display the ship's many treasures.



Harbours & Business

Solent Freeport Approved

In December 2022, the Solent Freeport was announced as one of the first UK Freeports to be fully approved by government. These tax sites offer occupiers business rates relief and other incentives to support capital investment, skills and employment. Business rates growth generated at the tax sites can be retained locally and reinvested in the area.

Investment is already underway at the Port of Southampton to enhance operational efficiency and capacity, including new warehouse and distribution units; additional container storage areas; new HGV driver welfare facilities; improved marine access and enhanced rail provision.

The Solent Freeport covers Southampton and Portsmouth, as well as areas of the New Forest, Isle of Wight and southern Hampshire.

Freeports provide a planning environment with an extension of permitted development rights and incentivise use of local development orders. Freeports are also able to access direct engagement with relevant regulators including the Freeport Regulation Engagement Network.



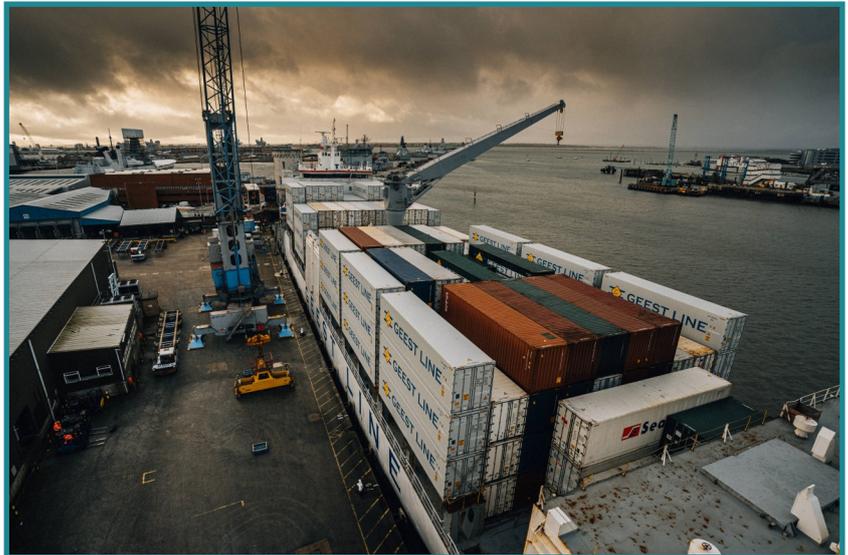
Photo © ABP Southampton

Modular Onshore Power Supplies

When in port, the majority of ships run on-board generators to supply electrical power; producing air pollution and carbon emissions. Low emission, onshore power supply systems, (OPS), can help to solve this problem.

The ModOPS project, (Modular Onshore Power Supplies), supported by a DfT Transport Research and Innovation grant delivered by Connected Places Catapult, has modelled different options to highlight the merits of a range of OPS technologies. The outputs are intended to accelerate port investment in shore power, improve air quality and reduce carbon emissions.

As demand for shore power expands to meet air quality and carbon emissions targets, ports will increasingly function as major energy hubs, managing incoming energy resources to deliver the shore power services demanded by visiting vessels.



Portsmouth Port. © Portsmouth International Port

The research concluded that the preferred OPS solutions for ports will depend on multiple factors including;

- The port's proximity to high power grid connection;
- Easy access to secure supplies of other energy resources (hydrogen, methanol etc);
- Types of visiting vessels requiring shore power and their duty cycle.

For most ports, all-electric OPS systems with some battery storage are likely to be the best option. Where sufficient grid connection capacity is unavailable, in-port generation using a liquid fuel is likely to be a good option to consider. HVO fuel is a good short-term option, whilst green methanol fuel may become attractive, especially if methanol becomes a mainstream net-zero bunker fuel. MSE International have published a [white paper](#) on the findings of ModOPS.

More News

Sandown Bay Hullabaloo

Hullabaloo is an annual celebration held in Sandown Bay, Isle of Wight. It was helped this year with funding from Interreg EU as part of the UNESCO Sites Across the Channel programme. Created by Shademakers and co-hosted and funded with The Common Space, it was the grand finale in a programme of three diverse Biosphere-focussed events run by The Common Space for USAC and the Island's AONB. These included the inaugural Branstone Day and the revival of Fort Vic Foray at Fort Victoria. A specially curated Biosphere exhibition is next on their list.

In this year's Talk Tent speakers included Reniera O'Donnell, Food Initiative Lead from the Ellen MacArthur Foundation discussing the Foundation's promotion and development of regenerative agriculture as part of the global transition to a circular economy, and Daisy Durden from WWF UK discussing the NGO's move towards 'wholescape' restoration both in the UK and worldwide. In the Discovery Bay section people could learn about wave motion and its impact on the seafront with the Environment Agency.



Image © Julian Winslow

Marine Invasive Species in the Solent and what we can do about them

Invasive and non-native species (INNS) are species that are not native to an area and whose introduction may cause economic, human health or ecological harm. Their economic impact is estimated to have cost €117 billion over the last sixty years. Marine INNS in particular are extremely difficult to eradicate, control and manage once established.

In a study conducted by the University of Plymouth, the ports of Southampton and Portsmouth were found to have more marine INNS compared to the rest of the south coast. Recent surveys conducted by Natural England support these results. This is concerning for the Solent because the area supports several MPAs which are vital for conserving sensitive habitats including seagrass and mussel beds.

So how do we reduce the risk of further INNS introduction into the Solent? The old saying, "an ounce of prevention is worth a pound of cure" applies, meaning that reducing the establishment of INNS is a more efficient and cost-effective method than managing them after they have become established.



APEM undertaking INNS training. © David Whelan

Prevention should be achieved through:

1. Conducting pathway risk assessments to identify the main introduction routes such as commercial shipping;
2. Developing biosecurity plans and implementing biosecurity measures such as Check Clean Dry;
3. Training local staff and stakeholders on site-specific biosecurity measures and INNS ID; and
4. Ensuring early detection of new species through continuous monitoring and surveillance surveys.

The INNS scientists at APEM Ltd have extensive experience with this work and will work with clients in 2023 to continue to reduce the risk of INNS introductions in the UK.

More News

RaNTrans: Nutrient Remediation Workshops

In November 2022, partners from the Rapid Reduction of Nutrients in Transitional Waters project (RaNTrans) project came together to host two nutrient remediation workshops, in England and France respectively. During the workshops, an overview of the programme was given, and stakeholders had the opportunity to discuss the preliminary project results and information gaps.

In England, the workshop was hosted by the lead partner, University of Portsmouth, with breakout sessions across seven groups and a series of special topic presentations. While project partners at the University of Caen Normandy hosted the workshops in France using the hybrid in-person and online approach, which allowed a wide stakeholder participation from across Europe.

The RaNTrans project will be the first to develop and test innovative and cost-effective methods that will rapidly reduce algal mat coverage and contribute to reductions in nutrient levels in our coastal waters affected by eutrophication. The morning sessions of the workshops covered elements of these work packages with presentations and discussions, while in the afternoon participants were shown various posters of preliminary project results.

During both workshops, stakeholders shared various nutrient remediation ambitions and the opportunities that could be achieved when policy and investment are aligned with these ambitions. If you would like to be notified when the summaries and recommendations generated from these workshops are published please [sign up](#).

Hurst to Lymington Public Engagement

The Hurst Spit to Lymington Strategy held a number of workshops and public exhibitions during September and October 2022, to introduce the short list of options to stakeholders including the local community. The list considers high level options to provide a sustainable coastline for this area over the next 100 years.

All events were well attended with over 300 residents coming to view the options during the four public exhibitions. The options prompted several discussions around the challenges facing this coastline, including loss of the intertidal habitats and the effects of climate on sea levels in the area.

The Strategy team, including representatives from JBA Consulting and New Forest District Council, were on hand to talk through the options. The presence of a 3D model of the coastline was a great interactive asset to demonstrate the various scenarios and prompted interesting interaction between the specialists and members of the public.

The next steps will be to appraise each of the options and begin to indicate the ones that appear to be more viable. The team will then re-engage with the community in spring 2023 to showcase the results of this process and to formally consult on the leading options.

If you would like to know more about the Hurst Spit to Lymington Strategy or view the options, then please visit the [project webpage](#) or email: hurstspit2lymington@environment-agency.gov.uk.

Championing Coastal Coordination

The Championing Coastal Coordination (3Cs) initiative is led by the Environment Agency with support from Natural England, the Marine Management Organisation (MMO) and the Association of Inshore Fisheries and Conservation Authorities (IFCAs). It is a collaboration seeking to enhance and progress coordination for coastal sustainability and resilience in England. The management of coastal issues poses a set of complex challenges; the number and diversity of public and private sector interests is often highest at the coast, with a proportionate increase in the complexity of planning and management in this highly contested space.

Following successful completion of the 3Cs pilot phase, additional multi-year funding has been secured. Access to this funding is through a competitive selection process. Funding will be allocated in three phases as follows (multi-year proposals are eligible):

- Development Phase 1 Jan 2023 - Mar 2023
- Development Phase 2 Apr 2023 - Mar 2024
- Development Phase 3 Apr 2024 - Mar 2025

The Solent Forum will be working with the University of Portsmouth in their successful phase one bid to produce a dynamic inventory of seascape restoration activities in the Solent to Sussex Bay area. Please see back page of this edition for more details.

The national Coastal Partnership Network will be undertaking a project to establish a new national framework for championing coastal coordination, building on the existing Coastal Partnerships Network (CPN). Within this proposal, national level work will be supported and informed by a regionally coordinated suite of locally delivered projects via local Coastal and Estuary Partnerships (CEPs) and their partners.

Please email: 3cs@environment-agency.gov.uk for further details on the fund.

News & Snippets

Climate Change Impacts on Coastal Flooding Relevant to the UK and Ireland

A new [policy paper](#) by the Marine Climate Change Impacts Partnership details the risks from coastal flooding in the future. It shows how extreme water levels have become more frequent in the past 150 years, driven primarily by mean sea level rise. Mean sea-level rise and coastal squeeze (and changes in sediment supply) are contributing to a decline in the extent of saltmarshes, shingle beaches and sand dunes, which act as a natural buffer to flooding. It notes that exposure to flooding is being exacerbated by population growth, changes in land use and increasing asset values in floodplains, and that increased flood risk has largely been contained through improved flood defences, flood forecasting and emergency responses; however, losses in major events that exceed defence design standards are growing.

In the future it predicts that:

- Extreme water levels are certain to increase during the 21st century and beyond, principally driven by accelerating mean sea-level rise.
- Continued loss of natural habitat buffers will dramatically increase defence capital and maintenance costs.
- By the 2080s, at current adaptation levels, estimated annual coastal flood damages is likely to increase two- to three-fold from £360 million today, depending on temperature rise and population growth.
- 1,600 km of major roads, 650 km of railway, 92 railway stations and 55 historical landfill sites are likely to be at risk of coastal flooding or erosion by the end of the century.
- Socially vulnerable communities at the coast are disproportionately at risk, and this will increase more rapidly than for other communities, widening inequalities.

The paper concludes that one of the top challenges is how we rethink coastal communities can adapt to live with water. We need to consider how long-term aspiration can be realised in the planning system to deliver practical portfolios of adaptation options that are technically feasible, balance costs and benefits, can attract appropriate finance, are socially acceptable and can be prepared for and implemented before the need for adaptation becomes urgent. We need to continue to move away from a coastal defence mindset to coastal management, where we consider a wider range of options in a more flexible and adaptable way, and in some specific cases take the radical decision to move away from the coast.

Snippets

- Kingston Wharf in East Cowes, on the Isle of Wight, is set to become a boat-storage facility with wash-down capacity. The site is also expected to have new mooring pontoons, eleven workshops and a 100-tonne boat crane. The Isle of Wight Council, which approved the plans, said the proposals would bring the site back into active use.
- The Local Government Association Coastal Special Interest Group (LGA Coastal SIG) is championing to raise the profile of coastal landfill and bring together partners with the aim to collaborative working to better understand the issue and to increase awareness.
- As part of the LIFE Remedies Seagrass Project, The Green Blue are holding a short series of anchoring and mooring best practice webinars. Each one will cover the value of seagrass and the importance of careful anchoring. Speakers from partner organisations in the project will also be sharing local knowledge on project specific sites. The [webinar](#) for the Solent takes place on 7 March 2023.
- The three year UKRI funded [Unpath'd](#) Waters Discovery Project, aims to reshape the future of UK marine heritage, making records accessible for the first time across all four UK nations.
- The [2022 update to the river basin management plans](#) describe the challenges that threaten the water environment and how these challenges can be managed. The Solent lies in the [Southeast Plan](#). Specific locations can be viewed on the [interactive map](#).
- The Grade II red-and-white-striped tower at the Needles could be upgraded as part of a project that would update navigation aids, as well as electrical and mechanical systems. The existing floor and door of the lighthouse, which dates to 1859, would also be replaced. The plans have been put forward by Trinity House, the official lighthouse authority in England.
- SMS Towage is working with Portsmouth Port to reduce its carbon emissions and to improve air quality for seafarers. Portsmouth Port now provides shore power for SMST tugs when they are alongside the port.

Solent News

Dynamic inventory of seascape restoration activities in the Solent to Sussex Bay area

The Solent Forum is a partner in a successful Championing Coastal Coordination (3Cs) bid which is being led by the University of Portsmouth on behalf of the Solent to Sussex Bay Seascape Restoration Partnership. This work will produce a dynamic inventory of seascape restoration activities to support coordinated action and learning. It will take place from January to March 2023. It will assist with a wider NERC funded project being undertaken by the Partnership to develop a Solent to Sussex Bay Seascape Restoration Network that will run for a year from January 2023.

Seascape restoration generates multiple stacked benefits for coastal ecosystems and the human communities that depend upon them. However, there are many challenges, including the scientific underpinning of restoration practices, the integration of financial and biodiversity priorities, and the fragmented regulation framework. The Partnership was set up to drive forward this mission. The inventory will help guide the establishment and direction of the Partnership and will be made freely available through the Solent Forum website. It will be maintained by the Partnership as new restoration research and activities are established.

The Solent to Sussex Bay Seascape Restoration Partnership, includes the University of Brighton, University of Sussex, the University of Surrey and several public and private sector organisations, including Adur & Worthing Councils, Zurich Insurance Ltd, and Southern Water.

The Solent Forum

Since 1992, the Solent Forum has provided a platform to deliver Integrated Coastal Zone Management in the Solent sub-region of the southeast. It operates at a strategic coastal management level, providing a network for closer working relationships, information dissemination and discussion of topical coastal issues. The Solent Forum members meet twice a year and will next meet on 15 March 2023.

Solent News is prepared and edited by the Solent Forum Officers. It is a biannual publication and issue 54 will be produced in summer 2023. To find out more about the publication, how to submit articles or be included on the mailing list, please visit http://www.solentforum.org/publications/solent_news/.

Contact Information

Solent Forum
c/o Hampshire County Council
Universal Services
E11 Court West 1st Floor, The Castle
Winchester, SO23 8UD
Tel: 03707 795206

www.solentforum.org

Email: info@solentforum.org. Twitter [@solent_forum](https://twitter.com/solent_forum)



The following organisations steer the work of the Solent Forum.



Hampshire
County Council



In partnership with
Portsmouth
CITY COUNCIL



SUPPORTED BY

