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The EU LIFE ReMEDIES Project Paves the way for a Lasting Legacy



Key project output infographic © ReMEDIES

After five years, the LIFE Recreation ReMEDIES (Reducing and Mitigating Erosion and Disturbance Impacts affecting the Seabed) project has finished.

The ReMEDIES Project, co-funded by the EU LIFE programme and led by Natural England, was established in July 2019. Through partnership with Plymouth City Council, Marine Conservation Society, Ocean Conservation Trust, Tamar Estuaries Consultative Forum and The Green Blue (The Royal Yachting Association), it developed a range of evidence-based strategies to help protect and expand sensitive marine habitats, enabling our seabed to thrive.

The project worked across five Special Areas of Conservation (SACs), including the Solent Maritime SAC, with some of the key achievements being:

- Engagement through an education programme, webinars, events and interpretation panels, with over 4,800 children reached.
- The Green Guide to Anchoring and Moorings, filled with practical advice for boaters.
- 2.5Ha of subtidal seagrass planted in the Solent (8Ha total) with surveys indicating signs of growth.
- Advanced Mooring Systems installed including at Yarmouth and Cowes.
- Installation of Voluntary No Anchor Zones (VNAZ) including in Osborne Bay.
- Four years of recreational activity surveys at five sites around the Solent.
- The first comprehensive survey of debris and anchoring pressure in intertidal Solent Maritime SAC.
- Expansive monitoring including drop down video, echosounder, diver and behaviour change surveys.

For more about the project, please visit the website [SaveOurSeabed](https://www.solentforum.org/saveourseabed). This hosts project outputs, recordings from the final conference and a celebratory film, made by film maker Lewis Jefferies and narrated by Countryfile presenter Gillian Burke. The project team are in the process of publishing a report highlighting achievements in the Solent that will be shared as soon as it is ready.

News from the Forum

Chairman's Column



Peter Barham MBE

It is with a tinge of sadness that I write this final column for Solent News, as it has been a real privilege to chair the Forum for the last few years. I have always been incredibly impressed by the work that Karen and Kate have done, and the enthusiasm of members and partners and all the work that has been done to bring people together to improve the Solent environment.

As you may know, Karen McHugh will be leaving the Forum at the end of January 2025. I want to thank Karen for all her hard work and the way in which she has kept the Forum vibrant over the years which is why the Solent Forum is so highly regarded around the country and by other coastal partnerships. I am sure you all join me in wishing her well for the future.

Clearly, we live in a time of change and money for partnerships such as Solent Forum is increasingly scarce, but I am also pleased to be handing over the chair to Phil Horton, RYA Sustainability Manager, with a stable platform from which the Forum can grow and develop. This will be under the management of Kate Ansell who will take over from Karen as Solent Forum Manager on a full time basis from 1st February. I know that Kate will be a fantastic manager for the Forum and that her enthusiasm will be infectious taking the Forum to new and greater heights.

Our new business plan for the next five years reflects these changes but also demonstrates that none of the major services of the Forum will be lost while looking at opportunities for new services and projects.

I have known Phil Horton for a number of years and I know

he will do a great job. Working in the RYA, Phil will bring special knowledge and connection with many new partners around the Solent which is excellent and I wish him the best of luck.

What is really important to the Forum though, is the involvement of all the partners around the Solent and I urge you to continue to be a part of the Forum's work and increase your efforts where you can.

My last members' meeting will be on March 13th 2025 at the National Oceanography Centre in Southampton, and I look forward to seeing some of you there along with Phil who will formally take over at the meeting. My best wishes and thanks to all of you for making my time with the Forum so good and for all the work you have done and continue to do to make the Solent the wonderful place it is.

Farewell to Peter Barham MBE

In March 2025, we will say farewell to our Chair of 10 years, Peter Barham MBE. Peter has used his wisdom and guidance to steer the work of the Forum for the last decade, chairing our steering group meetings, bi-annual Solent Forum members meeting and other events on request. He also writes a column for this publication.

We wish Peter well for the future, he will remain active within the field of coastal partnerships as Chair of the national Coastal Partnership Network.

The Solent Forum Manager looks forward to working with him in this role.

Welcome to the New Chair

Solent Forum staff and a member of the Steering Group, interviewed for a new Solent Forum Chair in November and Phil Horton was duly appointed for the next three years.

Phil is a Chartered Engineer and started his career working for the BBC. He later studied for an Environment MSc and moved to the Centre for Alternative Technology in mid-Wales, where he worked on sustainable building, renewable energy and water treatment alongside leading the development of a 2,000m² eco-education centre.

After a further 7 years working for a renewable energy co-op, in late 2018 he moved to the Royal Yachting Association as its Sustainability Manager.

News from the Forum

Marine Planning Workshop

In November 2024, the Solent Forum co-chaired a marine planning implementation workshop with the Marine Management Organisation (MMO) in Portsmouth.

The session was designed to provide marine planning training and guidance to support applicants, decision-makers and other stakeholders to effectively implement marine plans. Under section 58 of the Marine and Coastal Access Act 2009, it is a legal requirement for all public authorities to fully consider marine plans in all decisions that affect the UK marine area.

It covered a range of topics including;

- Overview of marine planning, statutory requirements of marine plans and the tools and guidance available to support plan use.
- Marine Plan Policy Assessment and considerations required for successful applications and decision-making.
- Marine and land-use planning integration and best practice.

After the training session, attendees had the opportunity to play the very entertaining and thought provoking Marine Spatial Planning game. Kelp farms, wind farms, oil and gas fields, shipping routes and many more activities were competitively played for on the board. Please do have a go at this game if you ever get a chance.



Solent Marine Sites and the Natural Environment Group

The Solent Marine Sites Management Group had its annual meeting in September 2024 and the [Annual Management Report](#) and actions were agreed. Relevant Authorities will next be surveyed on marine non-licensable activities in February 2025. The Marine Management Organisation are planning to review impacts from non licensable marine activities in the Solent Maritime SAC in 2025 and we will keep Solent Forum members updated on these plans.

Two projects were awarded Natural Environment Group funding in 2024 to further the evidence needed for the SEMS Management Scheme:

The first project, from the University of Portsmouth, aimed to investigate whether terrestrial starlings should be included in wading bird counts and evaluate any potential competition with wading birds. Starling activity on the intertidal mudflats was recorded over 93 days, from late July to October 2024, producing a large dataset of 87,449 images. Currently, the University are refining the image set and developing a standardised annotation method to record the number and behaviour of birds. These data will be compared to existing records from Bird Aware and other local datasets to contextualise findings.

The second is the Portunus project, whose aims are to gather high quality data from various sites in both Langstone and Chichester harbours, that will inform a greater understanding of the underwater habitats and species present and provide a baseline for measuring change. A citizen science project, it conducted a programme of dives in both harbours between April and October 2024 by members of Southsea Sub Aqua Club. In addition, water quality (pH, salinity, visibility etc) were recorded. More information is available on this project later on in this newsletter.

FCERM

Southsea Common Defence Works Starts



Image courtesy of Coastal Partners

The next phase of work on the Southsea Coastal defence scheme will see a stretch of promenade closed until summer 2026 from Southsea Common between Blue Reef Aquarium and the Hovertravel terminal. Traffic will be diverted along Clarence Parade and a new temporary tarmac footpath will be created across the seafront common. The promenade closure will not cut access to the Naval War Memorial. Coastal defences around Southsea Castle have been completed and the area was reopened to the public in May.

The £180m Southsea Coastal Scheme, includes building walls, raising land and widening beaches along a 4.5km (2.8 mile) stretch of coastline. As one of the UK's lowest lying cities, Portsmouth is particularly vulnerable to flooding as sea levels rise. The six-phase project, which started in September 2020 to reduce the risk of severe flooding, is due to be completed in 2028.

Flood Resilience Taskforce

In September 2024, a new Floods Resilience Taskforce to improve the development of flood defences and bolster the nation's resilience to extreme weather convened. The expert group will look at how to speed up and co-ordinate flooding preparation and resilience between central government, local authorities, community responders, and emergency services.

In August, the government also launched the Floods and Droughts Research Infrastructure, which will be the first UK-wide network looking to understand the impact of extreme weather conditions across the country; identifying where incidents are likely to occur and planning to limit their impact.

FCERM Risk Assessment Update

The Environment Agency have spent the last four years working with inland and coastal local authorities across England to develop a new National Flood Risk Assessment (NaFRA) and a new National Coastal Erosion Risk Map (NCERM). This uses the best available data, information and modelling from both the Environment Agency and local authorities.

On 28 January 2025, they will publish the new data from NaFRA and NCERM on data.gov.uk for open access. They will also make the new NCERM information available on [Check coastal erosion risk for an area in England](#) and [Shoreline Management Plan Explorer](#).

In spring 2025 the new NaFRA data will be made available through its [Flood Map for Planning digital service](#).

Water Quality

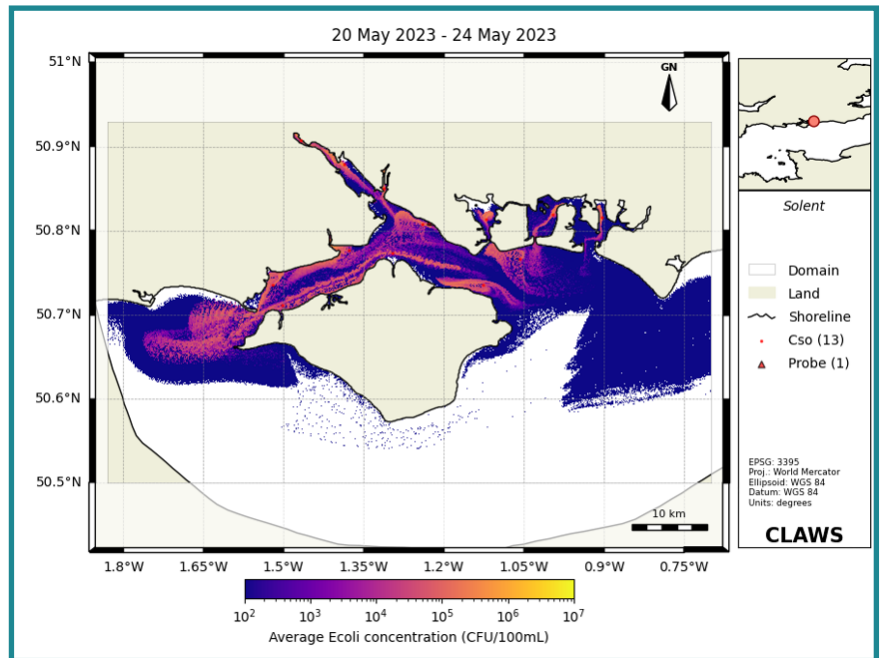
Computer Modelling of Water Flows in the Solent

Dr. Tom Scanlon from MTS-CFD has developed a computer simulation of water flows in the Solent. This three-dimensional model captures the complex circulation patterns, including density stratification, wind-driven flow, and seasonal air-water heat exchanges.

Insight into these spatial and temporal variations in the region's flow environment supports analyses of particulate dispersion, such as oyster larvae, *Escherichia coli* (*E. coli*), nutrients, and plastic waste.

Virtual particles introduced in the model mimic biological or pollutant dispersion. For example, raw sewage released from thirteen combined sewer overflows (CSOs) across

The Solent demonstrates *E. coli* particles dispersing widely and degrading under local conditions of salinity, temperature, and light (see map). A 12-hour spillage scenario predicts water quality recovery within approximately 2.5 days. Predictions of oyster larvae distribution from Langstone harbour were also assessed in collaboration with the University of Portsmouth. A further study reveals a likely flushing time of 13.5 days for Langstone harbour. This relatively slow tidal flushing rate underscores the area's vulnerability to nutrient and pollutant accumulation. The model can also offer insights into the spread of plastic waste around the Solent.



Average E. coli concentrations around the Solent

Indicative Catchment Statistics for Nutrient Pollution

The Environment Agency have provided [indicative catchment-scale source apportionment and estimated diffuse sector reductions required to meet protected area water quality targets](#).

Nitrogen load apportionment for the Solent catchment

Table 67: Indicative input load source apportionment by load from all freshwater inputs and direct discharges (recent scenario, PR24 calibration models).

	Point Sources	Rural Land Use	Urban	Septic Tanks	Other
Total Nitrogen	15%	77%	2%	0%	8%

This information will help those designing or co-ordinating nutrient mitigation schemes, working on Diffuse Water Pollution Plans (DWPPs) and working on site restoration. It highlights the dominant sources of nutrients under the 'recent' scenario, to closely represent what is currently happening in catchments.

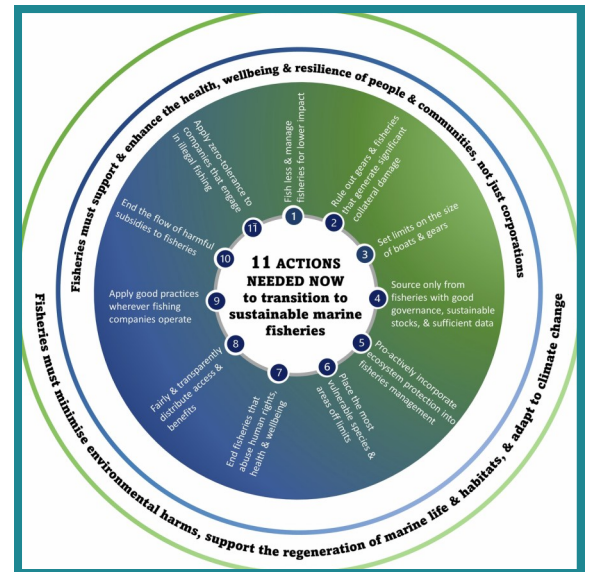
The results should be regarded as indicative and will be superseded by further modelling work for DWPPs, that will also incorporate the 'at permit' scenario simulations and the benefits of water industry investment to reduce point source pollution since 2020 (AMP7) and in the future (PR24).

Fisheries & Aquaculture

Rethinking Sustainability of Marine Fisheries

A group of [ocean experts](#) say the prevailing definition of 'sustainable fishing' is dangerously flawed and have set out 11 'golden rules' to redefine sustainable fishing:

1. Fish less and manage fisheries for lower impact
2. Rule out gears and fisheries that generate significant collateral damage
3. Set limits on the size of boats and gears
4. Source only from fisheries with good governance, sustainable stocks, and sufficient data to assure sustainability
5. Pro-actively incorporate ecosystem protection into fisheries management
6. Place the most vulnerable species and areas off limits
7. End fisheries that abuse human rights, including those that threaten food security and livelihoods of people
8. Create fisheries management systems that fairly and transparently distribute access and benefits
9. Apply good practices wherever fishing companies operate
10. End the flow of harmful subsidies to fisheries
11. Apply zero-tolerance to companies that engage in illegal fishing



The researchers say that despite their widespread acceptance by companies and consumers, current standards of 'sustainability' fail to address the global biodiversity and climate breakdown. Instead they support high-capital industrial practices which benefit the Global North, whilst harming ecosystems and public finances, jeopardising artisanal fishing and food security, and threatening jobs.

Remote Electronic Monitoring on UK fishing vessels

[Remote Electronic Monitoring](#), or REM for short, is a data collection tool that can be installed on vessels to collect information on fishing activities and catches. A REM system typically consists of sensors and cameras collecting various data (video, GPS etc.), that can then be interpreted to generate information on when and where a vessel is fishing and what it is catching.

Defra plans to expand the use of REM in English waters over the next five years. This introduction, initially in selected priority fisheries, demonstrates a commitment to addressing data gaps and concerns that have been highlighted in relation to fishing activity in English waters.

Working with 'early adopters' in each priority fishery will hopefully enable Defra to refine its objectives for using REM, and the approaches which work best for fishers allowing it to meet its data needs.



The first early adopter vessel within the large pelagic trawl fishery: the Frank Bonefaas

Marine Business

New SAR Training Facility at Daedalus

Work has begun on a world class, dedicated search and rescue (SAR) training facility for Bristow Helicopters at Faraday Business Park at Daedalus.

Expected to open in autumn 2025, Bristow's new SAR centre is the latest part of the innovation and skills offering on the Enterprise Zone site. It will enable the organisation to deliver consistency and excellence in training for SAR crews from overseas and in the UK.

The new centre will feature:

- A Simulation Hall with training pool and helicopter rescue hoist.
- Teaching classrooms
- Brief/debrief rooms
- Medical training areas
- Breakout facilities
- Ancillary spaces to support the above

More information on the Enterprise Zone can be found at: www.sezdaedalus.co.uk.



Photo © Councillor Simon Martin

Trialling Wind Power for Cargo Shipping

An experimental wind-powered cargo ship is undergoing sea trials in Southampton.

The 5,000-tonne cargo carrier, Pacific Grebe, has been retrofitted with a 20-metre (65ft) wing-sail to allow it to be powered by wind.

Scientists from the University of Southampton are coordinating controlled sea trials to assess the ship's performance across different conditions in UK waters.

The team behind the FastRig retractable test sail say the design could make large vessels less environmentally damaging by cutting carbon emissions by up to a third.

The technology was developed by Smart Green Shipping, with funding provided by the UK government.

The Department for Transport estimates up to 40,000 ships, mainly tankers and bulk carriers, could be suitable for wind power.



Coastal Communities

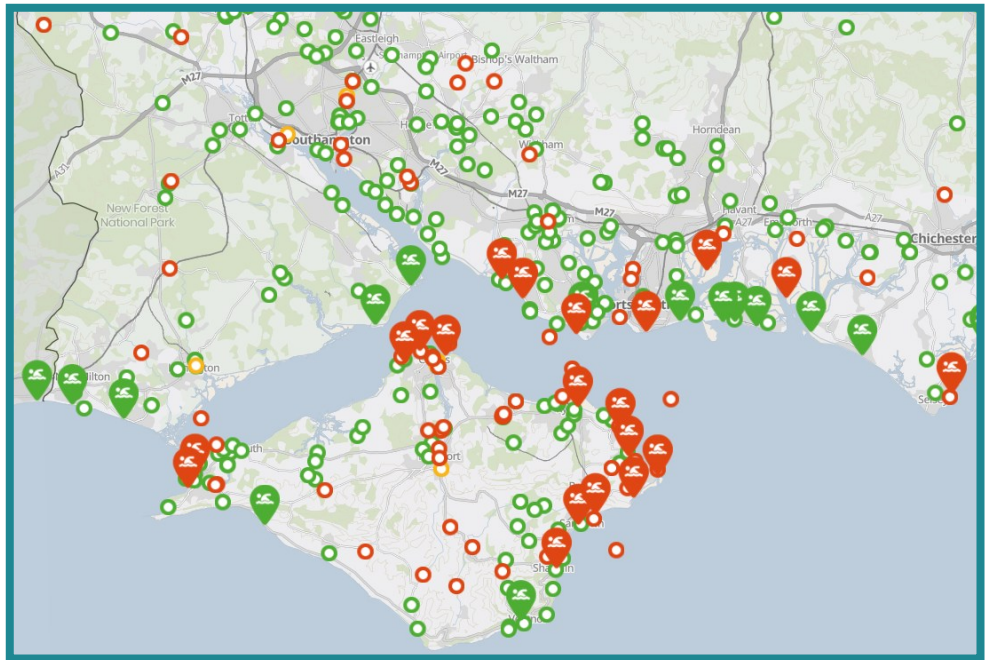
Southern Water Launches Rivers and Seas Watch

[Rivers and Seas Watch](#) is Southern Water's online service which provides near real-time information about storm overflow releases across the Southern Water region.

When a potential storm overflow release is identified by its monitoring equipment (EDMs), a release event is created and shown on a map.

To determine whether the release has impacted water quality, the system uses tidal modelling to predict storm overflow behaviour.

The map shows a pie chart summary of how many outfalls have had a release in the last 24 hours.



Rivers and Seas Watch Map, accessed 2 Jan 2025

It factors in wind, tide strength, and direction. This gives each event a status of either 'impacted' or 'not impacted'.

Switch to the Investment Plans tab in the map to see plans for every overflow including the main cause of releases, annual averages, when work will begin, and what solutions are proposed.

You can also ask to be notified by email when a release happens to your bathing water of interest.

Hilsea Lido - Share your Stories

Former visitors to Hilsea Lido are invited to be part of Portsmouth City Council's new 'People's History' initiative. The community are being encouraged to share stories and photos via email or social media to help preserve and celebrate the history of this historic landmark.

Thanks to UK government funding, the renaissance of Hilsea Lido is well underway, with completion scheduled for summer 2025, which coincides with the lido's 90th anniversary.

Portsmouth City Council especially wants to hear from those who played a significant role in the lido's history. Whether you worked as a lifeguard, swimming instructor, receptionist, or maintenance staff, or simply remember the friendly faces that made the lido special, your memories are invaluable to this project.

Share your stories and photos by emailing the team at: HilseaLines@portsmouthcc.gov.uk or via social media.

SuDS Work on Gurnard's Roads

An Isle of Wight village is going green to help reduce storm overflow activity. Gurnard will be the first place on the Island to have its roads revamped with new sustainable drainage solutions (SuDS) like raingardens and tree pits when work starts at the end of January 2025.

The scheme is part of a partnership between the Isle of Wight Council and Southern Water to slow the flow of rainwater entering sewers.

The work in Gurnard, across 1.72 hectares of roadside land, is forecast to prevent around 170,000 litres of water from entering our sewers during a 10mm rainfall event.

This project in Gurnard is a significant step towards creating a greener, more resilient infrastructure on the Isle of Wight. Additionally, it is anticipated there will be a potential improvement to bathing water quality, given the impact of surface water on outflows entering local beaches.

Recreation

Bathing Water Reforms to Consider Water Sports and Water Quality

In Autumn 2024, Defra invited the public, community groups, environmental groups, farmers, businesses and local authorities to share their views on modernising bathing water regulations to ensure a more flexible approach to designation and monitoring.

Bathing waters are officially designated outdoor swimming sites. England and Wales have over 550 designated bathing waters, which are monitored by the Environment Agency. Annual ratings classify each site as 'excellent', 'good', 'sufficient' or 'poor' on the basis of water quality.

The proposed changes, which will benefit cold water swimmers and other water sports enthusiasts, include:

- Removal of fixed bathing water season dates to allow for a more flexible approach to monitoring, extending the dates of the bathing season to better reflect when people use bathing waters.
- Expanding the legal definition of 'bathers' to include participants in water sports other than swimming.
- Further considering water quality and public safety when applications for new bathing waters are assessed.
- Introducing multiple testing points at bathing water sites.
- Ending the automatic de-designation of bathing water status after 5 consecutive years of a site being rated 'poor'.



Kitesurfing © RYA

Calshot Activity Centre Celebrates 60 Years

This year is Calshot Activities Centre's 60th anniversary. Located on the shores of the Solent, it is one of the largest outdoor adventure centres in Britain. The centre offers a wide range of activities for all ages and abilities, including:

- **Water-based activities:** Sailing, windsurfing, kayaking, and more.
- **Land-based activities:** Climbing, track cycling, high ropes, low ropes, and field studies.
- **Indoor activities:** The centre has the tallest climbing wall in the South, an indoor velodrome, and a dry ski slope



Photo courtesy of Calshot Activities Centre

The historic hangars at Calshot house can accommodate families, groups, and corporate events. They also offer tailored programmes, from short sessions to week-long residential visits.

The adjacent Calshot Castle is a Grade II listed building and you can climb to the top for views of the Solent across to the Isle of Wight. It was completed in 1540. The keep was built with stone from Beaulieu Abbey, which had only just been demolished by Henry VIII as part of the Dissolution of the Monasteries.

Conservation

Roseate Terns Born in Hampshire

In summer 2024, two roseate terns were born and raised at the Lymington-Keyhaven Nature Reserve, thanks to the conservation work of Hampshire County Council's ranger team, volunteers, and other wildlife organisations.

Roseate terns are extremely rare and are protected in the UK. While they are part of the reason the Solent and Southampton Water is designated as a Special Protection Area, they primarily only breed in Northumberland. In fact, there has only ever been a maximum of three pairs of roseate terns in Hampshire per year.

The two roseate tern chicks were born and raised by their parents at Normandy Lagoon. While they grew, they were carefully guarded by the County Council's team, with help from members of the Hampshire Ornithological Society and RSPB. This is the first record of the species managing to produce chicks at this spot on our coast.



Photo credit Steve Laycock

Lymington-Keyhaven Marshes Local Nature Reserve is an area of coastal grazing marsh with lagoons lying inside the seawall connected to the sea by sluices. This makes the reserve a perfect habitat for overwintering birds and summer visitors, including roseate terns.

The County Council been working together with volunteers and other wildlife organisations to encourage nesting and breeding. Work has included creating tailored habitats for birds and installing fencing to deter predators. This has increased the number of nesting birds on the reserve including avocets, oystercatchers, little terns and common terns.

Noise Disturbance – Baseline Level Monitoring in the Solent

The Solent coastline hosts thriving harbours, ports and other coastal industry, meaning there is a high volume of anthropogenic activity interacting with the marine environment. Most of this activity creates a level of noise that can lead to the disturbance and displacement of Special Protection Area (SPA) bird features.

In a new [report](#), noise monitoring results from both long-term and short-term monitoring during the overwintering period in nine key areas across SPA sites in the Solent were presented to provide data on background noise levels as well as some understanding of the likely triggers for bird responses to noise in the area.

Typically, the daytime background noise levels range between 43.0 dB(A) to 49.0 dB(A) at all monitoring locations with the exception of one location Farlington Marshes where the daytime background noise level is 69.0 dB(A) due to the location's proximity to a major road. In addition to this, short-term attended noise monitoring was undertaken to coincide with the long-term monitoring.

During the short-term noise monitoring, observations of anthropogenic noise and any bird responses as a result of the noise were made. The sound pressure levels which triggered the bird responses were estimated in order to gain some understanding of the reason for the response. The results show that birds are more likely to respond to noise disturbance when the sound pressure levels at the location of the birds are at least 20.0 dB(A) above the typical background noise level. However, the visual nature of any noise disturbance is also likely to cause responses from the birds.

Restoration

River Hamble Saltmarsh Restoration

The Solent Seascape Project has carried out the first stage of saltmarsh restoration trails at Hackett's Marsh Nature Reserve on the River Hamble.

The team, which included staff from Blue Marine Foundation, the University of Portsmouth, RSPB and Coastal Partners, along with help from Hampshire County Council's rangers, spent a week in August creating 12 creek barriers, with the aim of restoring the diminishing, but important habitat.

To achieve this, they hauled 107 three-metre-long coir rolls into place, knocked in over 330 chestnut stakes, and lashed it all together with over 400m of manila rope, creating over 107m of biodegradable barrier.



© Solent Seascape Project

The work follows comparison of historic records dating back to 1870, which showed the creeks within the wildlife-rich marsh to be widening, decreasing the area of saltmarsh. The barriers are designed to trap sediment, stopping it from further washing away and allowing creeks within the marsh to return to the same level as the surrounding saltmarsh. This should eventually restore the habitat, which is an important feeding area for waders and one of only two sites in Hampshire where unimproved pasture transitions to saltmarsh naturally, without seawalls or invasion by common reed.

Restoring Habitats for seabirds in the Solent

Located on the New Forest coastline, Natural England's North Solent NNR is one of its largest nature reserves. It includes a series of waterbodies, protected by a sea wall, that are regularly visited by a range of birds. When the nights are darker and colder, the reserve comes to life with a whole host of grazing and foraging waders and wildfowl, and in spring, the air is thick with the calls of avian residents, including lapwing, avocets and spoonbills.

Amongst these friendly feathered visitors are the terns. Four species of tern have been recorded in the Solent: common, sandwich, little and roseate, all of which are designated in the Solent as part of Solent and Southampton Water Special Protection Area (SPA).



Photo © Adam Wells & RSPB

This used to be one of the key sites for breeding terns in the Solent, and terns are regularly seen feeding in the area. However, no terns have successfully bred on this site for several years. A Natural England team set out to explore the reasons why, and hopefully change this. A single shingle topped raft was placed in one of the lagoons to test the theory that if shingle was available, breeding seabirds would use it. The rafts included some tern decoys, created in partnership with the local Countryside Education Trust, to further encourage terns to nest.

The experiment proved to be a success, with the first common terns to successfully breed on North Solent NNR for around 20 years nesting on the raft this spring/summer. In September 2024, funded by The Solent Seascape Project, work began on the creation of six shingle islands in two waterbodies located on North Solent NNR. It is hoped this will provide the perfect habitat for when the terns start to return in Spring 2025.

Harbours & Business

Wightlink Maintenance Programme

Wightlink's annual programme of maintenance for its eight-strong fleet is underway.

The ferry company is spending more than £8million on its vehicle ferries, FastCat passenger catamarans and port facilities in a six-month-long programme. In September the Lymington-Yarmouth ferry Wight Sky sailed to Hythe Shipyard. Work undertaken included painting the vehicle deck, pouring new resin flooring in passenger walkways and installing a new control box. Wight Light was sent for refit to Hythe in October.

FastCat Wight Ryder 1 was sent to the drydock at Trafalgar Shipyard in Portchester and her sister Wight Ryder 2 will follow in early 2025.

From now until Easter, all the ferries will be withdrawn from service in turn for refurbishment, as required by their maintenance schedules. A Refit Captain and crew accompanies each ship and will carry out much of the work as they have expert knowledge of their vessel.



Wight Sky at Hythe © Wightlink

Dredging and Invasive Non Native Species (INNS)

Natural England have published an evidence report on [Dredging as NNS pathway report \(NECR588\)](#). Regarding dredging operations, these pathways include the vessels and equipment used which could introduce INNS to the dredging site if imported from elsewhere, and to the disposal site when dredged sediment is moved.

Rail Freight Scheme Success

A scheme to transfer freight from road to rail has cut 64,300 truck journeys from roads in its first year, according to a DP World Southampton. The company started offering a financial incentive to move shipping containers by rail in September 2023.

It imposes a £10 charge for every laden container arriving in Southampton, the UK's third-largest terminal. The aim is to make rail travel to distribution hubs in the Midlands more viable, taking lorries off the M3 motorway and A34 dual carriageway.

The money is used to reduce the cost of rail journeys of less than 140 miles (225km). The incentive is £70 for each container. Containers travelling longer distances by rail have the £10 levy refunded.



Photo © DP World Southampton

A year ago, only one container in five left Southampton docks by rail, now the figure is close to one in three. The ambition is for rail's share of the market to reach forty percent in 2026, the far the highest of any UK port. DP World claims the incentive has cut carbon emissions by more than 17,000 tonnes in the last year.

More News

Project 'Portunus' looks at the Underwater Life in Chichester and Langstone Harbours

Project 'Portunus', named after the Roman god for Harbours, was inspired by Southsea Sub-Aqua Club's (SSAC) relocation to the Tudor Sailing Club on the shore of Langstone Harbour. Its members were curious to discover more about the habitats and marine life in Langstone and Chichester harbours. Importantly, it was also seen as an opportunity to share data from dives with other organisations and engage with the wider community to raise awareness of these precious environments.

Seventy attendees, representing twenty organisations, came to the Portunus launch event. The aim was to identify different habitat sites for detailed monitoring in future years. Primary reporting tools included:

- MCS 'Seasearch' programme
- Seagrass Spotter
- Operation Oyster
- I Record (non-native species)
- Water data (EA 'SONDE' probe).

With the support of grants from the Solent Forum's Natural Environment Group, Sea-Changers and Clean Harbours Partnership, SSAC members embarked on 'Seasearch' training and British Sub-Aqua Club 'Underwater Surveyor' courses to learn the skills required.



Image © Project Portunus

Four sites were dived in April and May 2024, but a major boat engine failure impacted further dives. Support from the Nautical Archaeology Society dive club enabled seven more dives to take place during summer 2024. The project also explored the intertidal zone in Langstone Harbour. Successes include new areas of seagrass found, a pacific oyster reef found at the Kench and a remarkable 360° video of a wreck for viewing with a VR headset. The project will prioritise Chichester Harbour sites in 2025.

New Fisheries Legislation

New legislation implementing a range of short-term management measures for certain species of fish was introduced to Parliament in October. These new arrangements have been identified within the first Fisheries Management Plans (FMP) as priority to help provide additional protection to vulnerable stocks. The measures, which are subject to Parliamentary scrutiny, are expected to come into force on 16 December 2024.

Any changes to fishing gear and/or fishing practices to comply with these new measures will need to be made by the December deadline.

You can find out more about the measures, and other developments relating to fisheries management plans, on Defra's dedicated blog: [Fisheries Management Plans – News and updates from Defra's FMP programme \(blog.gov.uk\)](https://www.blog.gov.uk/2024/10/16/new-fisheries-management-plans/).

Discharge Points Pilot for Budds Farm

At Budds Farm Treatment Works, Southern Water are working with the Environment Agency to develop a pilot study to change the discharge points for treated final effluent and storm water, so that in times of wet weather, storm flows from the site would discharge further out to sea through the Long Sea Outfall (LSO).

The treated effluent currently discharging via the LSO would instead be discharged from the Short Sea Outfall (SSO) at Langstone Harbour. If the trial is successful, they would look to implement this on a permanent basis, which will help improve the water quality in Langstone Harbour.

Southern Water are working with stakeholders and a local business in Langstone Harbour to explore the potential for a Seaweed Aquaculture pilot study. Seaweed has been shown to uptake nutrients such as nitrates, which are currently high in the harbour.

More News

Study of Metals in the Solent's Marine Environment

Metals enter the marine environment from many sources such as industrial and sewage inputs, anti-fouling paints and sacrificial anodes. They often accumulate in sediments (e.g. mudflats) so sediment-dwelling worms such as king (*Alitta virens*) and harbour ragworms (*Hediste diversicolor*) are highly relevant for studying the effects. However, the ecological and biological differences in these species could influence their metal accumulation and suitability for monitoring contamination.

The University of Portsmouth measured sediment and tissue concentrations from multiple populations of these two species across the Solent (Chichester Harbour, Langstone Harbour, Portsmouth Harbour, Medina Estuary, Western Solent, Itchenor and Warsash). Despite diverse anthropogenic activity, the majority of metals present low levels of sediment contamination at the sites.

For nickel, lead and mercury, a combination of tissue and sediment concentrations indicate a slight toxicological risk, whilst copper, arsenic and mercury were the greatest risk to benthic species, thus requiring identification of the sources and their subsequent control. Except for cadmium, correlations between sediment and tissue concentration were generally negative indicating that both species' have limited scope as biomonitors for lower-contamination sites.

Species differences in tissue concentration were also metal specific: *H. diversicolor* had significantly higher concentrations for silver, copper, mercury, nickel and zinc, whilst the reverse was true for cadmium, iron, chromium and arsenic. This suggests that the biochemical regulation processes to reduce metal toxicity differ between species.

This [University of Portsmouth led study](#) is the first Solent-wide assessment of the sediment concentrations of the top 10 metals polluting our coasts combined with a species comparison of two ecologically and economically important species. Risk assessments to benthic species living in the sediments can now be generated, but these will likely change as future metal inputs could significantly increase under global decarbonisation.

Shoreside Power for Ferries in Portsmouth

Work to enable cross-Channel ferries and cruise ships to plug into electricity from ashore has begun in Portsmouth. From spring up to three ships at a time will be able to turn off their engines when they are berthed in Portsmouth Port. The aim is to reduce pollution and improve air quality across the city.

Cables are being laid beneath the port to connect ships of different sizes to the national grid. The port's biggest customer, Brittany Ferries, will soon operate two new hybrid-powered ferries from Portsmouth. The first, *St They* will be able to run on batteries alone, with zero emissions, as they manoeuvre through Portsmouth harbour, only firing up their fossil fuel engines in the Solent.

The project, called Sea Change, is being funded with £19.8m from the Department for Transport and £4.6m from Portsmouth City Council, which owns the port.

Ferries connecting the Isle of Wight with Portsmouth, Southampton and Lymington are unable to 'plug in', because there is insufficient power supply to their terminals. Both Wightlink and Red Funnel have said they would like to order battery-powered ferries to replace their existing ships, using technology already in use countries such as Norway.

Devolution and Environment

Defra have made the following statement regarding environment and climate leadership and local government devolution.

'Strategic Authorities will play a crucial role in preparing for the future and tackling climate change and nature emergencies at the local and regional level. Local, place-based environmental leadership is an essential part of this. We will begin the transition by enhancing the roles and functions of the responsible authorities for Local Nature Recovery Strategies.

We will empower these authorities, which are already operating at county or combined authority scales, with a clear mandate to take a leadership role on Local Nature Recovery Strategies and wider environmental delivery. This will include convening partnerships, helping coordinate action, funding, and investment in nature recovery and wider environmental delivery across their areas, and monitoring and reporting on delivery.'

News & Snippets

Car Tyres Shed a Quarter of all Microplastics

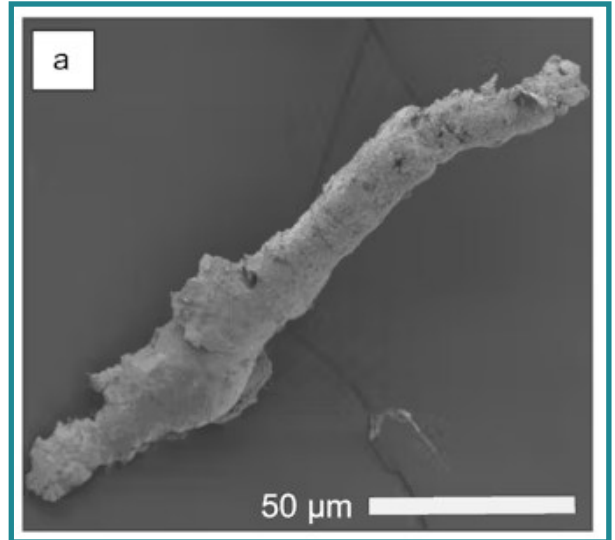
Every year, billions of vehicles worldwide shed an estimated 6 million tonnes of tyre fragments. These tiny flakes of plastic, generated by the wear and tear of normal driving, eventually accumulate in our soil and water environments. They are a significant but often-overlooked contributor to microplastic pollution.

In a recent international study, a researcher from the University of Portsmouth looked at how classifying tyre particles as a unique pollution category could drive more focused research. This could inform policies specifically designed to mitigate tyre pollution and help people better understand the scale of the problem and what they can do about it.

Tyre particles tend to be made from a complex mix of synthetic and natural rubbers, along with hundreds of chemical additives. This means the consequences of tyre pollution can be unexpected and far reaching. For instance, zinc oxide accounts for around 0.7% of a tyre's weight. Though it is essential for making tyres more durable, it is highly toxic for fish and other aquatic life and disrupts ecosystems even in trace amounts. Another harmful additive is a chemical known as 6PPD, which protects tyres from cracking. When exposed to air and water, it transforms into 6PPD-quinone, a compound linked to mass fish die-offs in the US.

With more than two billion tyres produced each year to fit ever-heavier and more numerous cars, the problem is set to escalate. The environmental toll will only increase unless we recognise and target the specific problem.

Henry Obanya, one of the study leads, is a research student at the University of Portsmouth; he was supported by a scholarship from the Petroleum Technology Development Fund and is also a Solent Forum student bursary award winner.



Tyre particle pollution under the microscope. (For reference 50 µm (micrometres) is a bit less than the width of a typical human hair).

Knight et al (2020) Environmental Science and Pollution Research, CC BY-SA

Snippets

- Read the final report from the Solent Forum's NEG funded project on [Intertidal Seagrass Restoration in the Solent: First steps with the dwarf seagrass *Zostera noltei*](#).
- Watch the new Solent Seascape Project film on [restoring seabird habitats](#).
- Chichester and Langstone Harbours SPA Condition Assessment is now published on Natural England's Designated Sites View. You can find it by using the following link – [Designated Sites View](#).
- In an extraordinary find in the waters off the Isle of Wight, a mantis shrimp, renowned for its unique vision and hunting prowess, has been recorded on video, offering a rare glimpse of this elusive species thriving in UK marine waters.
- ABP Southampton has donated £10,000 to three local maritime charities, including the Southampton Maritime Voluntary Service, Southampton Sea Cadets and Hamble Lifeboat.
- Recent data from NASA finds that the change in global-mean sea level in 2023 relative to 1993 reached 9.4cm [+/- 1cm], representing the highest level in the modern observation record that extends back into the 19th century.
- Kingwell has partnered with New Forest District Council, New Forest National Park Authority and the Hampshire and Isle of Wight Wildlife Trust to deliver the first Biodiversity Net Gain (BNG) and Nitrate Mitigation scheme in the New Forest. The Keyhaven Natural Capital Scheme is to be delivered on its 605-acre farm at Keyhaven, near Milford on Sea, Hampshire.
- Read a blog on Bird Aware Solent's [ranger highlights of 2024](#)
- Associated British Ports (ABP) has announced a new strategic relationship with the UK Ministry of Defence (MOD). The agreement provides the MOD with access to ABP's portfolio of ports across the UK for sea mounting (the loading and unloading of military hardware from vessels used to transport material across the world) at no additional cost to the original contract for the provision of such services at the Port of Marchwood.

Solent News

Beneficial Use of Dredgings in the Solent (BuDS): Project Update

A [final report](#) provides a summary of the work that was undertaken on the Solent Forum's Beneficial Use of Dredge Sediment in the Solent (BUDS). This project ran from 2017 to 2024. Its aim was to find a useful purpose for some of the large volumes of sediment that are dredged and deposited offshore in the Solent every year. Many parties, including Solent Forum partners, have over many years highlighted the incongruity of the long-established situation in which the Solent's saltmarshes are being eroded and 'drowned' by rising seas while sediment that could be used to build these habitats up is being taken away from inshore environments.

A final outcome of the process, was that unfortunately, the MMO were unable to proceed with the Marine Licence Application. The concern was not with the activity itself but the practicalities of overseeing the multiple conditions and monitoring commitments which would have accompanied such a consent. The Solent Forum was not in a position to lead such ongoing commitment and on this basis withdrew the application.

BuDS was a proof-of-concept project; it was designed to learn new lessons and explore what is possible. Lessons have been learned and the fact that a new initiative cannot be consented shines a helpful spotlight on the national challenges and issues. The project group will now look for new opportunities in the Solent.

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 13 March 2025 in Southampton.

Solent News is prepared and edited by the Solent Forum Officers. It is a biannual publication and issue 58 will be produced in summer 2025. 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/.

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The following organisations steer the work of the Solent Forum.



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