

Solent News

The newsletter of the Solent Forum

Issue 51: Winter 2021/22

Inside this issue

- Latest from the Solent Forum
- Health in Coastal Communities
- RBMP and FRMP Consultations
- Offshore Wind Transmission Infrastructure
- Solent Nutrient Market Pilot
- Havant BC Win Award for Warblington Farm Nature Reserve
- Great Solent Seafood
- English Aquaculture Strategy
- Clean Maritime Demonstration Competition
- Green Blue Single-Use Plastic Free Accreditation
- Brittany Ferries new LNG Ship
- Seeds Collected for Solent Seagrass Restoration Effort
- Studland Bay Voluntary No Anchor Zone
- Modelling the Mayflower Memorial
- DP World Completes Crane Rail Extension
- Artecology MudFlats™
- Royal Navy Lost List



3Cs Project Location. Source: Magic Map

Championing Coastal Coordination

Championing Coastal Coordination (3Cs) is an Environment Agency funded project with support from Natural England, the Marine Management Organisation and the Association of Inshore Fisheries and Conservation Authorities. It is a collaboration seeking to explore how to enhance and progress coordination for coastal sustainability and resilience in England. The project will run from December 2021 to March 2022.

The national Coastal Partnership Network (CPN) made a successful bid to the fund to showcase the work it does to connect national and regional coastal, catchment and marine networks and stakeholders. The Bid will illustrate the extensive experience of the partnership approach championed by Coastal Partnerships for over 30 years. It includes a series of supporting regional projects around England's coasts.

One of the regional projects is for the south region; the Solent Forum will lead this work jointly with the Dorset Coast Forum and the Isle of Wight estuaries. The aim of the project is to summarise and evaluate the work of south regional partnerships within a national context and recommend how this can be strengthened in the future. The project will produce a digital handbook which will demonstrate how Coastal Partnerships in the south already work successfully with their communities and other regional partnerships and organisations as part of the national Coastal Partnerships Network. It will also showcase existing information hubs and initiatives and develop a Catchment Coordination Hub, to frame the work of the eight river Catchments Partnerships in the south.

Key themes it will cover are:

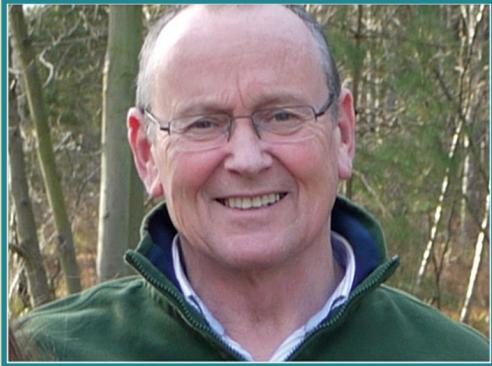
- Coastal Communities
- Governance
- Collaborative Local Partnership Working
- Fishing and Aquaculture
- Coordinating Water Quality Management

Please see [Solent Forum - Championing Coastal Coordination](#) for more details.



News from the Forum

Chairman's Column



Peter Barham

A happy New Year to you from all of us at Solent Forum.

Once again, the breadth of the work described in the articles in this edition of Solent News shows clearly that there is a huge amount going on around the Solent, how diverse it is and how many people and organisations are involved. Collectively, these demonstrate that where we live and how we live are inextricably linked and that we are all part of our environment as well as benefitting from it.

Sustainable development and sustainability have been defined as the result of successfully linking people, the environment and the economy. The work described in this edition demonstrates superbly just how many aspects of life in the Solent area are involved in making this happen, a better place to live cannot be left to one group of people or one sector of society, it needs all of us.

This is something which we will be examining as part of the Championing Coastal Co-ordination work, which will not only look at what we are doing in the area, but we will also be working with others to see what we can learn from activities elsewhere.

I think that the success of the Coastal Partnership Network in securing the funding for this work also demonstrates just how important coastal partnerships, such as Solent Forum, are seen by others as part of the key to bringing actions and people together.

Finally, while we are all doing our bit to control the spread of the Coronavirus, I really hope that we can meet in person again in March at the Solent Forum meeting in Southampton. As the song says – people need people.

Solent Marine Sites Management

The Solent Forum continues to provide the Secretariat for the Solent Marine Sites (SEMS) Management Group. In 2021 we held our annual online survey of seventeen non-licensable activities around the Solent, which looks at changes in participation and whether they are having an impact on designated sites. The data gathered along with other relevant information is used to produce the Annual Management Report that can be accessed at: [2021 SEMS AMR Final \(solentems.org.uk\)](https://solentems.org.uk).

We also held an ad hoc survey that looked at how participation in recreational activities changed during the lockdown summer of 2020. Additionally, we asked respondents to note any additional management measures that they brought in.

Respondents noted greater participation in all forms of recreation but specifically in paddlesports, personal watercraft, coastal walking (including with dogs) and general beach recreation.

See the findings at:

[Covid Snapshot Survey summer2020 Report.pdf.
\(solentems.org.uk\)](https://solentems.org.uk)

Solent Plastics Pollution Hub

The Solent Plastics Pollution hub (SPP) is an information hub to collate and publicise all the excellent work taking place around the Solent and its associated river catchments on reducing litter and preventing plastic pollution. It is in two parts:

1. A website that will host information on best practice guidance and resources to support existing groups and help people to create new groups.
2. A Facebook page ([Solent Plastics Pollution Hub | Facebook](#)) to help inform the public about events and latest news. It can also be used as a mechanism to facilitate discussion between local groups if needed.

The project is a partnership between the Environment Agency (plastics and sustainability team) and the Solent Forum. It will deliver one aspect of the Environment Agency's Interreg-funded [Preventing Plastics Pollution project](#). SPP will run until March 2023 but we will maintain the resources thereafter.

We would like both the Solent's coastal and river catchment communities to be involved with this hub, to encompass the whole water environment. We would love to hear from anyone who is running or coordinating litter collecting events, or those who are passionate about reducing plastics and litter in the water environment. The hub is free to access for all.

Please email the Forum Office for further information or to let us know what you are doing at: solentforum.hants.gov.uk.

Coastal Communities

Health in Coastal Communities

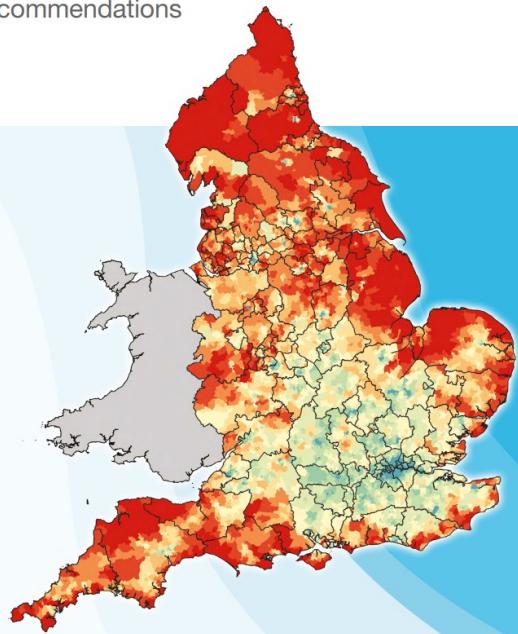
Chief Medical Officer Professor Chris Whitty's second annual report presents an analysis of the health and wellbeing of England's coastal communities. It highlights the health disparities in coastal communities compared to their inland neighbours, exploring the drivers of poorer health outcomes and the key challenges these regions face. Key findings include:

- Coastal communities have far more in common with one another than they often do with their inland neighbour.
- Within local authorities there are sometimes less affluent coastal communities next to very affluent inland towns which makes them less visible to policymakers.
- There are two big drivers of poor health, age as coastal communities tend to be older due to internal migration and deprivation. Younger people move from the coast to the towns and cities for education or work and many of the job opportunities available are seasonal and low paid. Lower education attainment/opportunity is a factor that contributes to less good health.
- Housing from a previous era that is modified to be a house of multiple occupation; cheap accommodation attracts social problems and can lead to higher concentrations of people with significant mental/physical health problems.
- There is a significant deficit of medical and nursery workforce across the country. Staff tend to stay in the area around where they were trained and currently around fifteen percent shortage of some of the workforce in coastal areas as it is very difficult to attract and retain staff.
- Physical issues such as flooding affects mental health.
- Geography means a long transport chain making it very difficult to commute and access health care services.

The report is available at: [Chief Medical Officer's annual report 2021: health in coastal communities](#).

Chief Medical Officer's Annual Report 2021

Health in Coastal Communities – Summary and recommendations



Map showing prevalence of coronary heart disease in England.

UK Government Levelling up Fund: Solent Successful Bids

Announced at the Spending Review, the UK Government Levelling Up Fund will invest in infrastructure. The first round of the Fund focused on three themes: smaller transport projects; town centre and high street regeneration; and support for maintaining and expanding the UK's portfolio of cultural and heritage assets. Successful bids in the Solent include the East Cowes Marine Hub that received £5.8 million and Portsmouth which received £20 million.

The East Cowes proposal includes improvements to the landmark Columbine building, protecting and growing marine jobs, and renovation of the historic Victorian barracks building to expand the marine skills training and education provided by local group UKSA. There will also be improvements to the public realm at Albany Green that will generate an enhanced entrance to the historic East Cowes Esplanade.

Portsmouth's bid is called 'Transforming the Visitor Economy', of the £20 million allocated, £8.75 million will be used to create the longest urban park in the UK and the redevelopment of Hilsea Lido. The creation of the Linear Park will connect the west of the city to the eastern edge, with enhanced cycling and walking facilities. Hilsea Lido will be refurbished to include good quality changing facilities, integrated children's water play, terracing and spectator areas and events space, including the ability to function as a community hub.

Funding will also be available for the expansion of Portsmouth International Port's International Terminal Transformation; £11.25m is the estimated funding needed to manage the anticipated increase in passengers through the port, which looks to exceed over 200 calls across the next three years. Both the park and port plans are already at an advanced stage.

Coastal Management

RBMP and FRMP Consultations

The Environment Agency launched public consultations on draft River Basin Management Plans (dRBMPs) and draft Flood Risk Management Plans (dFRMPs) for each river basin district on 22nd October 2021. The RBMP sets out how the Agency will work with others to manage the challenges that threaten our water environment across all catchments, including transitional and coastal waters. FRMPs set out how to manage significant flood risk in nationally identified flood risk areas, of which there are two in the Solent area, Southampton and Portsmouth.

Consultations on both plans aim to improve shared visions, partnerships and ambition, delivering integrated outcomes and multiple benefits for managing flood risk and the water environment. These plans will set out how we should work together to best manage the water environment for flood risk and ecological health, and will help to direct and deliver investment programmes until 2027.

Please have your say on these important plans, via the links below:

- For RBMPs, go to: <https://consult.environment-agency.gov.uk/environment-and-business/draft-river-basin-management-plans> before 22 April 2022.
- For FRMPs, go to: <https://consult.environment-agency.gov.uk/fcrm/draft-second-cycle-flood-risk-management-plans> before 21 January 2022.

The Solent Forum is host further supporting information here, drawing out locally relevant information, to help you respond to the consultations at: [Solent Forum - Solent Catchment Hub](#).

If you would like any support in navigating the plans, have general questions about the plans or the consultations or would like further information to help support your response, please email RBMPConsultation@environment-agency.gov.uk. Your local Environment Agency contact is: maxine.holden@environment-agency.gov.uk. For FRMP information email: FRMP.CycleTwo@environment-agency.gov.uk.

Environment Act, 2021

After more than three years, the Environment Bill has been given Royal Assent and become the Environment Act 2021. It provides a tool to implement changes in England across environmental sectors including air quality, biodiversity, water, and waste reduction and resource efficiency. The Act includes a target to halt the decline of nature by 2030, and mandates Biodiversity Net Gain for developments.

Elements of the Act include:

- Strengthened biodiversity duty.
- Biodiversity net gain to ensure developments deliver at least ten percent increase in biodiversity.
- Local Nature Recovery Strategies to support a Nature Recovery Network.
- Conservation Covenants.
- Protected Site Strategies and Species Conservation Strategies to support the design and delivery of strategic approaches to deliver better outcomes for nature.
- A duty to ensure water companies secure a progressive reduction in the adverse impacts of discharges from storm overflows. Government is to publish a plan to reduce sewage discharges from storm overflows by September 2022.

View the Act at: [Environment Act 2021 \(legislation.gov.uk\)](#).

Safety Organisations MoU

The Health and Safety Executive, Maritime and Coastguard Agency and Marine Accident Investigation Branch have agreed to work together to ensure the safety of everyone accessing the UK's inshore, offshore and inland waterways.

The memorandum of understanding (MoU) will set out which organisation takes precedence where their responsibilities overlap, outlining the principles of cooperation to be adopted whilst respecting the different legal frameworks within which each operates.

The organisations will undertake collective planning to ensure effective regimes are in place to support emerging technologies, share data about trends and performances and establish clear lines of communication between staff at all three organisations.

Offshore Wind Transmission Infrastructure

The Crown Estate and National Grid Electricity System Operator have committed to working closely together to support the development of a more coordinated approach to the delivery of transmission infrastructure for offshore wind projects.

As key partners of the Offshore Transmission Network Review, the organisations recognise that a coordinated approach to seabed leasing and planning, development and construction of transmission infrastructure related to offshore wind is required, to minimise the impacts on the marine environment, and coastal communities.

Water Quality

Solent Nutrient Market Pilot

A multi-disciplinary team of specialists has been commissioned to design and operate the Pilot Nutrient Market for the Solent. The 'Solent Nutrient Market Consortium' will work closely with Defra, Natural England, Environment Agency, local planning authorities and other stakeholders to develop a market that helps landowners get paid a fair price for nature-based projects and ensures developers can access environmental credits.

The Pilot is testing the use of an online nutrient trading platform to:

- Support landowners to make long term land-use changes in the Test and Itchen Catchment that reduce nitrogen pollution and deliver wider environmental benefits; and
- Enable new developments to meet the requirement to deliver Nutrient Neutrality on protected sites. Nutrient Neutrality is a planning obligation on housing developers in the Solent to contribute to protecting internationally important sites for wildlife by mitigating nitrogen pollution from new homes.

The project team will be engaging with key stakeholders throughout this Pilot through a variety of channels, including:

- A website
- Newsletters and project updates
- Events
- Direct engagement



Please see: [Solent Nutrient Market Pilot](#) for more information or use the contact form at: [Solent Nutrient Market Pilot](#).

Havant BC Win Award for Warblington Farm Nature Reserve

Warblington Farm Nature Reserve and Havant Borough Council's (HBC) Mitigation Plan for Nutrient Neutral Development has won the CIEEM 2021 Best Practice Innovation Award.

The implications of a European Court of Justice ruling in relation to the Habitats Directive (the Dutch Case) has been significant in terms of requirements for nitrate-neutral development and led Natural England to review their planning advice in the Solent area. In the interim all relevant development was halted. In order to enable sustainable development, and make it possible for it to be lawfully permitted, there was a need for HBC to secure nutrient neutrality through the implementation of a strategic mitigation scheme.

In August 2020, the Council took over the management of a 60-hectare agricultural site situated on the coast of Warblington. It decommissioned the site from intensive agricultural use in order to reduce nutrient levels along the coastline, which suffer from eutrophication as a result of excess nitrogen inputs. It converted the site into a nature reserve funded by developer contributions.

All relevant future developments in the area are required to calculate their specific nutrient budget, using a neutrality methodology developed by Natural England. They then pay an agreed contribution towards the offsite mitigation offered, counterbalancing the additional nitrate loads they produce. HBC worked closely with Natural England's Thames Solent team and used funding from the Solent Local Enterprise Partnership to develop and manage the scheme.

Southern Water Storm Overflow Task Force

Southern Water has launched a task force to cut storm overflows by eighty per cent by 2030. Storm overflows are regulated releases of wastewater during rainfall to protect properties from flooding. They are part of the Victorian-era sewage system and typically occur during periods of heavy rainfall.

The task force will work in tandem with Southern Water's investment programme, which aims to reduce by eighty per cent all pollution incidents by 2025. It will take a cross-sector approach to working with local stakeholders to find innovative practical solutions to cut overflows. These include nature-based solutions, such as ponds and wetlands, soakaways and rain gardens, alongside an increase in storage. The most efficient, cost effective way to cut the use of storm overflows is to separate rain water from the sewer system. Work by Southern Water in the summer showed that by reducing the amount of rainwater run-off from roads and roofs entering the pipeline system by around forty per cent would mean an eighty per cent reduction in storm overflows.

The company's near real-time Beachbuoy service makes people aware of when and where these releases happen. See: [Beachbuoy \(southernwater.co.uk\)](#).

Fisheries

Great Solent Seafood

Seafood can be a healthy and delicious source of protein and omega-3 fatty acids, but some fishing methods can have a negative impact on habitats and wildlife. Much of the seafood caught in our waters is also shipped abroad due to a lack of local demand. Supporting suppliers who are using more sustainable fishing methods, or championing such produce, is a great way to tackle these issues. Many fishermen, shops and restaurants in our area want to move in this direction, and local demand would help make doing so economically viable.

To encourage this, Hampshire & Isle of Wight Wildlife Trust's Secrets of the Solent project has partnered with Hampshire Fare to champion local sustainable seafood from wave to plate. The joint campaign, Great Solent Seafood, aims to help us all enjoy fantastic food while reducing its impact on our waters. This winter, the project looks forward to signing up its first businesses as supporters of the campaign.

Supporters can be from any part of the local seafood supply chain and, once onboard, will be able to use the Great Solent Seafood logo to highlight their sustainable produce. Secrets of the Solent will also work with supporters to set attainable goals, provide guidance towards achieving them, and promote their efforts through the campaign.

If you are interested in becoming a supporter, or know someone who might be, their team would love to hear from you. You can find out more at: [Great Solent Seafood | Hampshire and Isle of Wight Wildlife Trust \(hiwwt.org.uk\)](https://hiwwt.org.uk/great-solent-seafood/).

Keep your eyes peeled for more news about Great Solent Seafood in the coming months, including cookery workshops and a recipe competition, which will be kicking off in Spring 2022. Secrets of the Solent is a National Lottery Heritage Fund supported project and is celebrating our seas through art, cuisine, citizen science, and more.

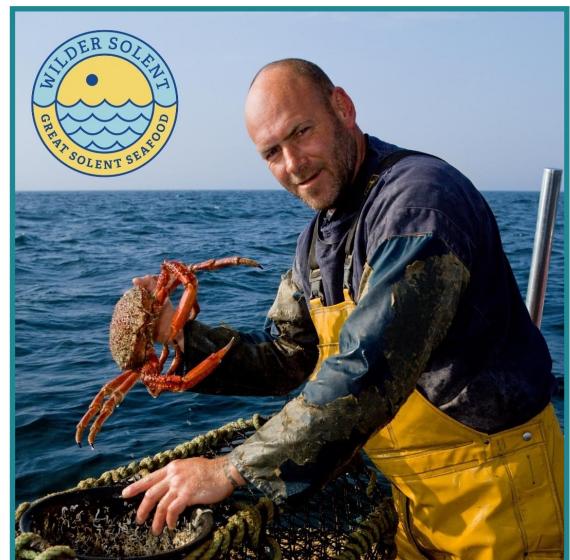


Photo credit Tony Roxburgh/2020VISION

English Aquaculture Strategy

In October 2015, a Task Force representing all sectors of the English seafood industry was established. It was asked to look at the challenges and opportunities facing the industry and create a long-term plan to support England's seafood industry to 2040. The English Aquaculture Strategy (EAS) was published in 2020, it includes 25 recommendations to help create a thriving English seafood industry. Aquaculture is the farming of fish, shellfish and aquatic plants.

The EAS will be implemented through a combination of national and regional actions. An English Aquaculture Innovation Hub is due to be developed in Dorset. The project has secured funding from the Marine Management Organisation (MMO), following a successful funding bid from the Dorset Coast Forum. It will start soon, with a nationwide study on the potential positive economic impacts of an establishing such a hub in Dorset and how it will help to meet the ambition set out in the EAS of increasing production ten-fold over the next 20 years.

Read the Strategy at: [English Aquaculture Strategy from Seafood 2040 — Seafish](https://seafood2040.org.uk/strategy/).

Find out more about the Dorset's English Aquaculture Innovation Hub at: [English Aquaculture Innovation Hub | Dorset Coast Have Your Say](https://dorsetcoasthaveyoursay.com/seafoodinnovationhub/).

English Aquaculture Strategy

SEAFOOD
2040



Marine Industries

Clean Maritime Demonstration Competition

The Clean Maritime Demonstration Competition was launched in March 2021. The competition has allocated up to £23,259,000 match-funding to UK innovators to support the design and development of zero emission vessel technologies and greener ports, through a series of technology trials and feasibility studies.

Following an independent assessment, 55 projects won the competition and were announced at the London International Shipping Week, 2021. Both Southampton and Portsmouth Universities had successful bids.

Southampton University were awarded funding for a feasibility study of Ultra-Long-Endurance Hydrogen Powered Uncrewed Surface Vessels, and a project to investigate the feasibility of innovative solid oxide fuel cell technology and batteries to replace the use of diesel generators in large (cruise) ships for the provision of continuous 'base-load' energy.

The University of Portsmouth, has been awarded £1.5 million to help develop and demonstrate a green hydrogen energy system within Portsmouth International Port. Green hydrogen uses renewable energy sources, such as wind and solar, to power the electrolysis of water to create hydrogen. This can be used to power maritime vessels and dockside vehicles.

More information is available at: [Clean maritime demonstration competition \(CMDC\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/clean-maritime-demonstration-competition-cmdc).

Operation Zero

Operation Zero was launched by the Department for Transport at COP26, it is an industry coalition working together to accelerate the decarbonisation of the operations and maintenance vessels in the North Sea offshore wind sector. Its aim is that zero-emission operational and maintenance vessels are deployed in the region by 2025.

The offshore wind sector relies heavily on vessels for the operations and maintenance of the infrastructure needed for energy generation. However, these same vessels are green house gas emitters, increasing the carbon footprint of the offshore wind sector. Many of the ships that will be circulating in 2050 will go into production in the next few years, and the infrastructure needed to maintain commercially viable zero-emission vessels must be developed to support this transition, and people must be trained to use it.

The energy generated by offshore wind farms is likely to form part of the maritime fuel mix of the future. There is an opportunity for the offshore wind industry not only to decarbonise its supply chain but also to play a part in decarbonising the shipping industry. The most recent study by the International Maritime Organization (IMO) estimates that international shipping accounted for around 1,056 million tonnes of CO₂ or around 2.89% of global CO₂ emissions in 2018.

Find out more at: [COP26 declaration: Shipping and Offshore Wind – Operation Zero](https://www.gov.uk/government/consultations/cop26-declaration-shipping-and-offshore-wind-operation-zero).

Brittany Ferries new LNG Ship begins Service in 2022

Brittany Ferries' brand-new ship Salamanca is sailing from its birthplace in China to its new Spanish homeport. The Liquefied Natural Gas (LNG) powered ship began a 33-day, 10,322 nautical mile journey on 10th December and is scheduled to arrive in Spain mid January.

She's the first Brittany Ferries vessel to be powered by LNG, which emits virtually no sulphur dioxide, nitrogen dioxide or particulate emissions, following combustion. In addition, because LNG burns more efficiently than diesel, there is a reduction in carbon dioxide (CO₂) output of around 25 per cent.

Brittany Ferries has worked with fuel supplier Repsol to build dedicated LNG bunkering terminals in the ports of Bilbao and Santander for Salamanca, and her sister-ship Santoña arriving in 2023.

Following drydocking and crew training, the ship will enter service on 27 March 2022, carrying passengers and freight on routes from Portsmouth to Bilbao and Cherbourg.



Image courtesy of Brittany Ferries

Plastics and Litter

Single-Use Plastic Free Accreditation

The Green Blue and the Final Straw Foundation joined forces at the Southampton International Boat Show last year to launch a Single-Use Plastic Free Accreditation. Aimed at inland and marine clubs, training centres and boating businesses, the new standard will highlight responsible and innovative products and practices by organisations in the recreational boating industry.

There are three levels of certification for organisations to rise through: Bronze, Silver and Gold. Each level is determined by the organisation's dedication to eliminating single-use plastic items from their activities. Suggestions can include, the removal of plastic cutlery, sustainable toilet rolls and eco-friendly cleaning products.

The Final Straw Foundation work with local communities and businesses to highlight the impact of plastic pollution and try to minimise the amount of plastic entering our local seas and wider oceans.



Find full details of the scheme at: [Home - Single Use Plastic Free Accreditation. \(finalstrawcertified.org\)](https://www.finalstrawcertified.org/).

Great British Beach Clean

During the third week of September last year, 6,176 volunteers took part in the Great British Beach Clean. A total of 5064.8kg of litter was collected and recorded over the week by dedicated volunteers. The Clean is an annual week-long citizen science event, where hundreds of beach cleans take place up and down the UK.

In positive news, the average litter recorded per 100 metres is dropping year on year across the UK. An average of 385 items were found, compared to averages of 425 in 2020, and 558 in 2019.



Surveys are done along a 100 metre stretch from the strandline to the back of the beach. Cotton bud sticks moved out of the UK's top ten most common rubbish items. An average of six plastic cotton bud sticks were found, the lowest in the Great British Beach Clean's 28-year history, down from 15 in 2020. Numbers of single-use plastic bags on beaches have continued to drop, from a high of 13 on average in 2013, to just three in 2021.

Seventy five percent of all litter collected was plastic or polystyrene. An average of 112 pieces were found for every 100 metres of UK beach surveyed. Find out more at: [Great British Beach Clean 2021 results.](https://www.marinesocietas.org/greatbritishbeachclean2021results)

Litter Impacts of Covid-19

A [new study](#) by Portsmouth University has found face mask litter increased by nearly 9,000 per cent from March to October 2020. It shows a direct link between national legislation and the occurrence of discarded waste that included face masks and other COVID-19 related PPE.

Researchers from the University are urging government to put in place policies and legislation for the disposal of littered face masks when making the wearing of them mandatory.

The study highlights that little guidance was given on how to dispose of masks or recycle them safely. Without better disposal practices, an environmental disaster is looming. The majority of masks are manufactured from long-lasting plastic materials, and if discarded can persist in the environment for decades to hundreds of years.

Recreation & Leisure

Government Looks to Manage use of Jet Skis with Merchant Shipping Act

In Autumn 2021, the Department for Transport ran a consultation seeking views on proposed legislation to bring recreational and personal watercraft (PWCs) within scope of the provisions of the Merchant Shipping Act (MSA) 1995. This will apply the same obligations which exist for the operators of ships, as appropriate, to PWCs and other recreational watercraft to ensure that they are operated safely. They will also provide, in cases of deliberate or negligent misuse, an additional power of prosecution for enforcement authorities.

Local and harbour authorities, who have responsibility for managing a particular stretch of water or coastline, often have powers to introduce legislation to manage PWC use within their areas. However, anecdotal evidence suggests that the number and severity of incidents and accidents is increasing including in areas which are outside of managed waters. The Department is of the view that new national legislation is necessary to both reinforce existing measures and ensure that those who wilfully or negligently misuse recreational watercraft or PWCs, or endanger the safety of others, wherever they may be can be prosecuted.

Department of Transport data shows that there are approximately 14-16,000 available PWCs in the UK with about 1,200 new craft arriving each year. Their life expectancy is about 8 to 10 years. Over ninety per cent of new PWCs are sit-on craft with the remaining mainly used for organised racing. The average age of an owner is 35 and the majority of craft are 2/3 seater. In the last five years, over 19,000 PWC users have completed the Royal Yachting Association's (RYA's) PWC Proficiency Course. Statistics suggest that there are over 300,000 PWC users who enjoy this activity in the UK on a regular basis.



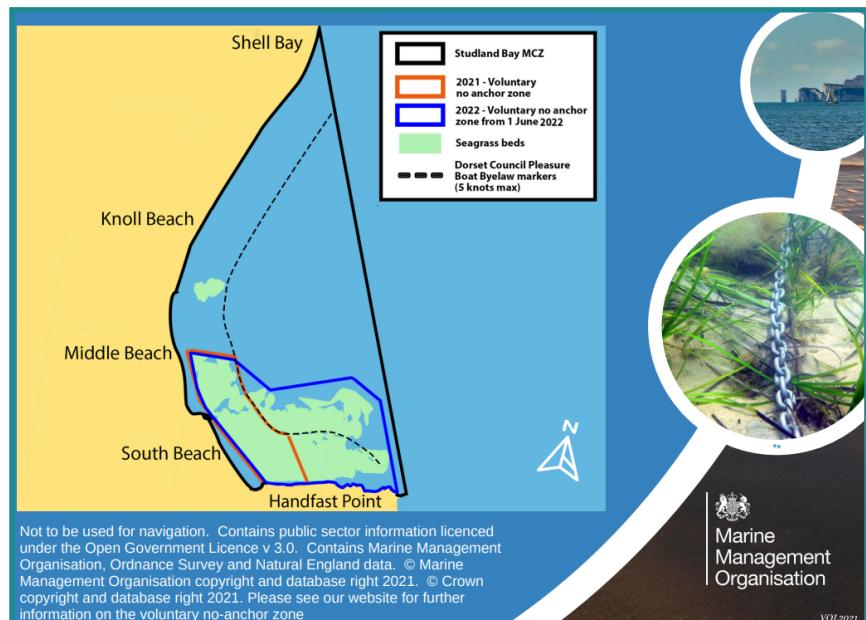
Image courtesy of Langstone Harbour Board

Studland Bay Voluntary No Anchor Zone

The Marine Management Organisation (MMO) have announced the introduction of a voluntary no-anchor zone in Studland Bay Marine Conservation Zone (MCZ). Studland Bay is popular for recreational activities but anchoring activity within the seagrass beds in the MCZ is causing issues. Anchors from recreational boats can damage seagrass fronds and roots when they embed into the seabed. Dragging an anchor can uproot seagrass and anchor chains can scrape the seabed. The seagrass beds in the area are home to a protected species of seahorse and other wildlife as well as important fish stocks. Seagrass beds also provide a number of vital ecological functions. They stabilise sediments, provide habitat for many species including commercially important fish and act as a sink for atmospheric carbon.

A voluntary no-anchor zone was implemented on the 17 December 2021. The first six-month phase covers a smaller core area of seagrass followed by a larger voluntary area from 1 June 2022. A voluntary approach will put the future of the bay in the hands of those who use it. It allows 'participatory management', meaning users of the bay can work together towards a shared aim to protect the site. The consultation and feedback suggest there is a will to work collectively to make this happen.

If the voluntary approach doesn't work, MMO could consider a statutory byelaw to prevent anchoring and, if an urgent need to protect the site arises, could introduce an emergency byelaw. See: [Managing marine non-licensable activity in Studland Bay Marine Conservation Zone - GOV.UK \(www.gov.uk\)](#).



Conservation

Seeds Collected for Solent Seagrass Restoration Effort

Scuba divers have collected more than half a million seeds from healthy seagrass meadows around Osborne Bay, Yarmouth and Bouldnor in the Solent for replanting in parts of the Solent where it has been lost or degraded. It is part of England's largest seagrass planting programme under the Natural England-led LIFE Recreation ReMEDIES partnership.

The collected seeds will be stored and cared for at the partnership's special cultivation laboratory in the National Marine Aquarium, Plymouth before being bagged by volunteers, transported back to the Solent and returned to the seabed over winter.



The Ocean Conservation Trust (OCT) is leading this restoration work on behalf of the ReMEDIES partnership and has already planted seagrass seeds across almost one hectare of seabed in the Plymouth Sound and Estuaries Special Area of Conservation. The ambition is to plant a total of four hectares in the Solent Maritime Special Area of Conservation, with the exact planting site to be decided.

Seagrass meadows provide homes for juvenile fish and protected creatures like seahorses and stalked jellyfish. They also help to stabilise the seabed, reduce coastal erosion, clean surrounding seawater, and capture and store carbon. But seagrass is now present in only half of the areas of the UK where it was once recorded, with factors including wasting disease, pollution and physical disturbance contributing to its decline.

ReMEDIES is working with World Wildlife Fund, Swansea University, Project Seagrass, Hampshire and Isle of Wight Wildlife Trust, and Isle of Wight Estuaries Officer to ensure seagrass restoration efforts in the Solent are coordinated for the greatest impact. Project Baseline UK has also been involved in the seed collection dives.

In addition to seagrass restoration, volunteers for ReMEDIES and the Hampshire and Isle of Wight Wildlife Trust observed recreational activities in the Solent during August and September 2021. This will give insight into the pressures that seagrass beds are under from shore and water-based leisure activities such as boating.

ReMEDIES has also worked with the harbour commissioners at Yarmouth to install Advanced Mooring Systems (AMS). These boat moorings are specially designed to have a reduced impact on the seabed. There are plans for more to be installed in Yarmouth and Cowes Harbour Commissioners are currently looking at suitable AMS locations for Cowes.

Visit [Save Our Seabed](#) to find out more.

Haslar Marina Installs Biohut Cage for Seahorses

Haslar Marina have joined forces with The Seahorse Trust and Portsmouth University as part of a re-wilding project that creates a safe habitat for the UK's native seahorse species, the protected short snouted seahorse. As part of this project it has installed a Biohut cage system under its pontoons to provide a home for seahorses alongside other marine wildlife.

The Biohut cage system is an artificial marine aquatic nursery, which provides food and shelter to many juvenile species. It restores the ecological nursery function that is lost when natural shallow coastal waters become urban environments. A specialist gauge rope has also been added to give the Short Snouted Seahorse the ideal environment to thrive, hunt and hide from prey.

This re-wilding project forms part of the marina's parent group Boatfolk's wider environmental program, [Coastline Deadline](#). This is designed to back projects which have a positive and measurable impact on the coastline.



Photo courtesy of Portsmouth University

Heritage

Modelling the Mayflower Memorial

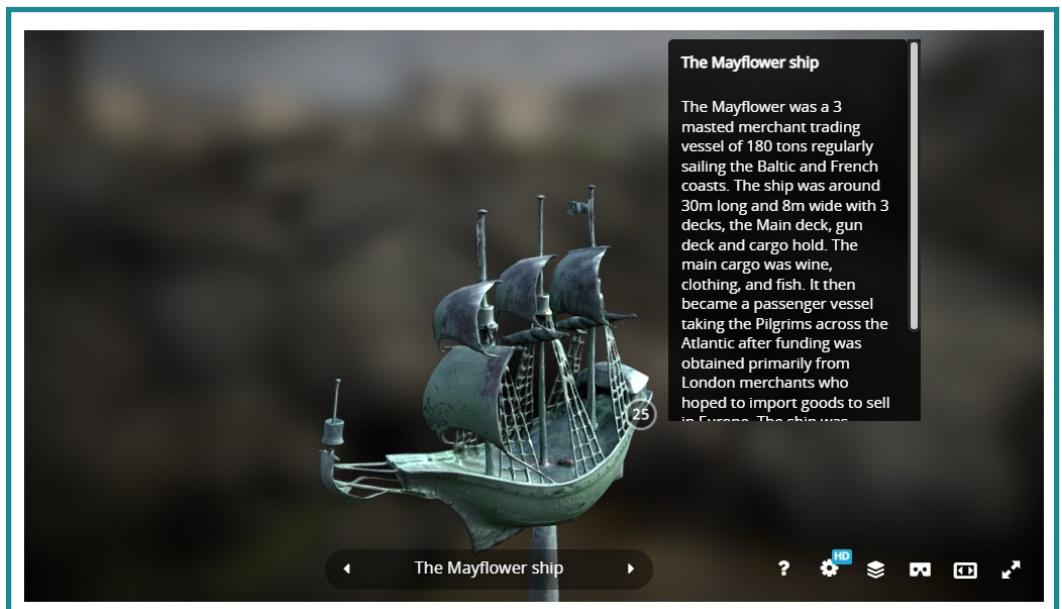
To commemorate the 400th anniversary of the voyage of the Mayflower, the ship that carried the Pilgrim Fathers from England to America in 1620, the Friends of the Maritime Archaeology Trust (MAT) embarked on a research and digitisation project.

The Mayflower Memorial is a Grade II listed, sixteen metre high column located on Southampton's Western Esplanade, it hosts a number of commemorative plaques and is topped by a copper model of the ship. Thanks to a new 3D interactive viewer, the memorial can now be explored and enjoyed by anyone from around the world. The annotated tour includes details of some of the individuals that sailed on the ship, and their fates, and the design and construction of the monument. A video explains how the memorial was recorded through drone survey and the process followed to create the model.

The monument is Grade II listed and was designed by local architect R. M. Lucas. It was built and erected in 1913 by local stonemasons and builders Garret and Haysom, who also built many other structures in Southampton between 1806-1963.

The project was made possible thanks to support from Southampton City Council's Community Chest.

The full range of MAT's digital portals and interactives can be accessed at: Mayflower Memorial 3D Viewer - Maritime Archaeology Trust.



Make Ship's Biscuit

The National Museum of the Royal Navy has produced a recipe for an authentic Ship's Biscuit. Ship's biscuit originated in the 16th century and was later made in bulk at the victualling yards.

The recipe did not vary greatly over the years, and the key difference would be the flour. It would be difficult to produce a historically authentic biscuit from modern refined flour. Traditional 17th century recipes tend to be written in the style of 'take a great store of... [insert ingredient]', so they've adapted it to a quantity that won't serve a ship. Fancy having a go? If you do, watch your teeth!

- To produce a similar plain ships biscuit, a coarse stone-ground wholemeal flour should be used.
- Add water to 1lb wholemeal flour and 1/4oz salt to make a stiff dough.
- Separate in to 5 or 7 biscuits. Bake in a hot oven approx. 420 degrees F or 220 C for 30 minutes.
- The biscuits should then be left undisturbed in a warm dry atmosphere to harden and dry out.

Hythe Pier Awarded Grade II Listed Status

Hythe Pier runs 2,100ft (640m) from the centre of Hythe out into the channel of Southampton Water. It opened in 1881 to facilitate ferry steamers travelling between Southampton and Hythe and was one of the main access points to the New Forest.

According to a map from 1575, a ferry operated from Hythe to Southampton as early as the Middle Ages, making the pier a historically significant transport site that still functions now.

In 1922, an electric railway was built on the south side of the pier which is still running today. Historic England believe it to be the oldest continuously operating public pier train in the world. It has been listed at Grade II for the good survival of the late-C19 substructure including the pairs of slender cast-iron columns and the cross bracing and for the late-C19 and early-C20 pierhead buildings

Historically it continues to be an evocative example of late-C19 ferry travel, illustrating well the changing requirements and expectations of ferry passengers. This includes the addition of the 1920s rail track understood to be the oldest continuously operating pier train in the world.

Harbours & Business

DP World Completes Crane Rail Extension

Last summer, DP WORLD announced a major step forward for the capability of its Southampton terminal with the completion of the crane rail extension, which will allow the world's largest cranes to service the full length of the quay.

Together with the granting of permission for a third berth to be dredged down to a depth of more than 15 metres, and the addition of a second empty containers park, the investment will ensure Southampton remains a smart logistics hub.

In March 2021, London Gateway and Southampton became the first deep-water ports in Britain capable of handling Freightliner's new 775 metre intermodal container trains, which are the longest in use on the national rail network and generate significant cost and environmental benefits.

See: [Quay Crane Rail Extension \(dpworld.com\).](http://Quay Crane Rail Extension (dpworld.com).)



Image courtesy of DP World

FastCat Terminal Upgrade

The next stage of Wightlink £1.5million investment in the FastCat foot passenger route between Portsmouth Harbour and Ryde Pier Head starts this January.

The timetable will stay the same but there will be changes to the way customers board the catamarans in Portsmouth for the next three months, due to major structural repairs and maintenance at the terminal.

Customers will be led by members of Wightlink staff through the gates near Platform 5 of Portsmouth Harbour railway station to reach the berth by an alternative outdoor route. The current boarding ramp will be closed.

Because there are stairs on the alternative outdoor route, no prams, wheelchairs or mobility scooters etc will be able to use the FastCats during this phase of the works. These customers are advised to travel by Wightlink's car ferries from Gunwharf Road instead. After this phase of the work, terminal access will return to normal for everyone in early spring.

Solent Maritime Innovation Gateway

The Solent Maritime Innovation Gateway will provide a hub, utilising existing innovation hubs, and provide a "One Stop Shop" for customers, collaborators, and innovators through a new digital platform. It will help investors to find new opportunities and for innovators to access industry challenges and their potential future customers.

In a fast-changing world, the maritime sector is facing several changes, the transition to unlocking net zero, strengthening resilience, driving efficiency and digital transformation.

The Solent Maritime Enterprise Zone, Connected Places Catapult and Maritime UK Solent will create a Vision Statement for the Gateway, and establish how regional, national and international stakeholders will interact with it and coordinate activity.



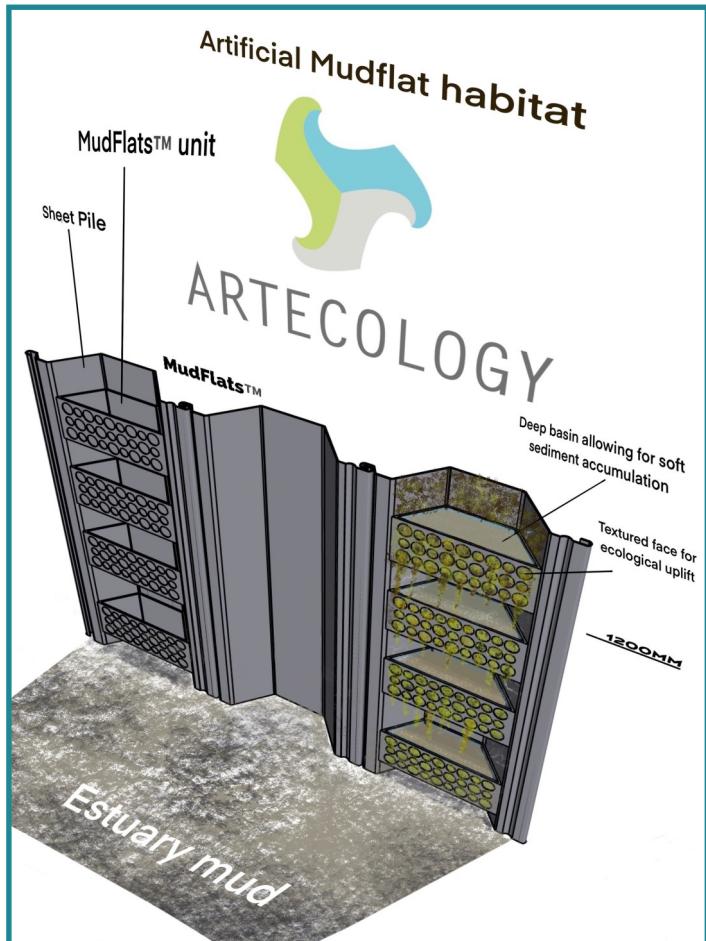
More News

Introducing the Artecology MudFlats™

Artecology MudFlats™ is a new vertically stacking intertidal soft sediment habitat system designed by Artecology on the Isle of Wight. The team's latest innovation in eco-engineering is aimed at providing a way to build biodiversity, and bio-abundance, in otherwise sterile marine and estuarine infrastructure.

Since 2018, Artecology, the research and development team at Arc Biodiversity and Climate, have been following the progress of a novel prototype array they installed on sheet pile in a tidal harbour setting in Littlehampton. The results from the prototype array were extremely encouraging; recent survey data seemed to prove that it is possible to create new estuarine mud habitat in the vertical plane in the same way that they have been able to successfully reproduce rocky shore habitat on sea defences with their Vertipool™ system. Their newest invention has great potential in what it will be able to do in terms of soft sediment habitat creation, both in new infrastructure and as retrofit. .

Development of Artecology's MudFlats™ system had been ongoing over the lockdown periods with new designs on the virtual drawing board for some time. Now that they have the designs to the manufactured prototype stage, the next step is deploying the a unit in the Medina Estuary on the Isle of Wight. The team were very impressed by the quality of species richness in phase one mud-filled trials and they expect their phase two design to perform even better in the next round of testing. Find out more about Artecology designs at www.artecology.space or contact Nigel George at: nigel@arc-consulting.co.uk.



Mission begins to Antarctica's Remote Thwaites Glacier

On the 100th anniversary of the polar explorer Sir Ernest Shackleton's death, a research mission using a fleet of underwater robots to determine the impact of Thwaites Glacier on global sea-level rise, departed from Punta Arenas, Chile.

A team of 32 international scientists and engineers, including those from the National Oceanography Centre (NOC), set sail on the US National Science Foundation icebreaker Nathaniel B. Palmer bound for the remote glacier in West Antarctica. This mission forms part of the International Thwaites Glacier Collaboration, a five-year, \$50 million joint US and UK mission to learn more about Thwaites Glacier, its past, and what the future may hold.

Thwaites Glacier, covering 192,000 square kilometres (74,000 square miles), an area the size of Great Britain, is particularly susceptible to climate and ocean changes. Computer models show that over the next several decades, the glacier may lose ice rapidly, as ice retreats. Already, ice draining from Thwaites into the Amundsen Sea accounts for about four percent of global sea-level rise. A run-away collapse of the glacier would contribute around an additional 65cm (25 inches) to sea-level rise over the coming centuries.



US research ship Nathaniel B. Palmer at the ice front of Thwaites Glacier, taken by drone. Credit Alex Mazur

More News

Microplastics Research and Chemical Toxicity

As well as being a physical source of pollution, microplastics are known to interact with chemicals found in the environment. This interaction has the potential to increase the negative effects of chemical contaminants on aquatic life. Danielle Marchant, a PhD student at Queen Mary University London, is investigating this relationship in more depth to understand whether variables such as the size of microplastic plastic particles have an effect on the toxicity of chemicals to aquatic organisms.

Microplastics are defined as particles which are between 0.001mm and 5mm in size. Different sized microplastic particles can interact differently with chemicals in the environment, especially since smaller microplastics have a larger surface area, increasing the likelihood of chemical binding.

Another variable that could affect these interactions is hydrophobicity, which is a measure of how well a chemical combines with or repels water. Hydrophobicity can be used to predict the ability of chemicals present in the environment, such as pesticides and plastic additives, to interact with microplastic particles. For example, a chemical that does not dissolve well in water may react differently with microplastic particles in the environment than those chemicals that remain dissolved.

Using statistical analysis the research looked at both particle size and hydrophobicity to determine whether microplastics had a positive, negative or neutral effect on chemical toxicity to aquatic organisms, based on ecotoxicological responses such as behaviour, growth, survival and those at the cellular level.

Find out more at: [microplastics research - Preventing Plastic Pollution](#).



Photo courtesy of the Preventing Plastics Pollution Project

Royal Navy Lost List

The Royal Navy has been in business since the 16th century, and over the years, it has lost its fair share of warships to accidents and enemy fire. Working with the Maritime Archaeology Sea Trust, it has compiled a full list of the thousands of vessels it has lost over the centuries, and it has released the database to the public for use in further research.

The new Royal Navy Loss List covers about 5,100 warships and fleet auxiliaries lost in Britain's naval service since 1512. It is limited to the Royal Navy's own vessels (not Royal Air Force, Army, Coastguard and merchant vessels which may have had Royal Navy crew members). It excludes ships captured by the enemy, lost in the service of other navies or converted to merchant vessels after their naval service.

The database is searchable by a ship's name, class, and tonnage. More specific queries, like vessels lost in French waters over the past 500 years (760) or the number of ships lost on D-Day (416), are also possible.

The statistics reveal the effects of changing naval technology. Until the turn of the 20th Century, accidental shipwrecks, not battles, were responsible for the vast majority of losses. That reversed sharply after 1900; conflict accounts for three quarters of all Royal Navy ships sunk since 1900.

Access the database at: <https://thisismast.org/research/royal-navy-loss-list-search.html>.

North Sea Blue Carbon Report

Among the diversity of marine wildlife found within UK seas lies a reservoir of carbon stored in natural habitats like sand, mud, saltmarsh and seagrass. Unlike land-based sources of carbon such as forests and peatlands, marine carbon stores are less well understood.

A report by the Blue Marine Foundation begins to fill in the gaps in our knowledge of where carbon can be found within the English North Sea, how much carbon is being stored and the capacity to lock carbon away in the future.

Saltmarsh and seagrass beds both capture and store carbon. Seaweeds and kelp forests capture carbon, a proportion of which is then eroded and transported elsewhere as detritus and subsequently buried in seabed sediments and stored. Biogenic reefs act principally as depositories for carbon from other sources. These natural carbon stores are vulnerable to a variety of human pressures which can cause them to be disturbed, damaged or removed entirely, which then hinders or eliminates their ability to store and/or capture carbon.

The report identifies carbon stores and sequestration potential in the English North Sea region, and highlights where these stores can be found within an existing network of Marine Protected Areas (MPA), as well as key areas falling outside of this network.

Read the report at: [F108-004 SRS Report \(bluemarinefoundation.com\)](https://bluemarinefoundation.com/).

News & Snippets

Restoring Estuarine & Coastal Habitat (REACH) in the Solent

The Environment Agency and Natural England in Solent and South Downs Area, have joined up to deliver a Restoring Estuarine & Coastal Habitat (REACH) Plan with partners. The aim is to restore a minimum of fifteen percent of the current extent and condition of priority habitats before the end of the Defra 25 Year Environment Plan period, in 2043. This work supports the UN Decade on Ecosystem Restoration (2021-2030) which challenges everyone to scale up restoration efforts.

The Plan wants to reverse the significant decline of estuarine and coastal habitats, and support the Government's net zero targets by restoring and creating habitats of high blue carbon sequestration potential. It will focus on the restoration and resilience of saltmarsh, seagrass, oyster reefs and kelp habitats; and identify priority locations that can deliver wide reaching ecological, social and economic benefits such as carbon storage, coastal protection, water quality improvements, fish nursery areas, amenity, and health and wellbeing. Work ongoing in the Solent includes:

- The Solent Oyster Restoration project which aims to restore five million oysters to the Solent waters over the next five years.
- The Beneficial Use of Dredgings (BUDs) project, has identified a number of saltmarsh habitat sites around the Solent that would be suitable for restoration through sediment replenishment.
- The Recreation 'Reducing and Mitigating Erosion and Disturbance Impacts Effecting the Seabed (ReMEDIES)' project has a particular focus on changing boating practices across the Solent, and restoring seagrass beds in the Isle of Wight.
- The Rapid reduction of Nutrients in Transitional waters (RaNTrans) project will develop and test innovative and cost-effective methods to reduce algal mat coverage and reduce nutrient levels in mudflats in the Solent (and Poole Harbour).
- There is a Nutrient Neutrality trading scheme to offset the impact of future development across the Partnership for South Hampshire area.
- The Medina Estuary has a feasibility study, and is in the planning stage for saltmarsh restoration through BUDs, on the Werrer Marshes. The Western Yar feasibility study is also underway and likely to lead to saltmarsh restoration through BUDS.
- An extension to the Thorness Bay managed realignment site is proposed. This will increase the saltmarsh habitat extent and condition, and restore vegetated shingle.
- There is ongoing innovation and research to restore saltmarsh, oysters and enhance sea defences in the Hamble Estuary, Langstone Harbour and at Southsea.

Snippets

- Watch the demolition of Fawley Power Station Chimney on YouTube at: [Demolition of the Fawley Power Station Chimney](#).
- People can find their way more easily round a popular circular walk thanks to 16 new signposts. The five-mile circular walk at Lepe, known as the Lepe Loop, takes in countryside and coast. The signposts were funded by the British Mountaineering Council's Mend our Mountains Campaign to repair heavily eroded paths and trails.
- A Southern Water funded project will deliver a natural capital asset register and a register of ecosystem service flows for the Chichester, Langstone and Papham Harbours and catchments. This will be done by taking an asset-based approach at the catchment scale, mapping the spatial distribution of the assets and modelling the ecosystem services provided by those assets.
- Seafish have created a page on its website with details on some of the funds available from UK Government and charities to support seafood businesses and organisations. Find out more: <https://seafish.org/about-us/funding-schemes-for-the-uk-seafood-industry/>.
- The Environment Agency have launched three new restoration handbooks, for restoring saltmarsh, seagrass and restoring intertidal habitats using dredged material. Access at: <https://catchmentbasedapproach.org/learn/saltmarsh-restoration-handbook/>.
- HM Revenue & Customs has published [three new documents](#), the first being guidance on the reporting of pleasure craft coming into Great Britain and Northern Ireland and the second two are guidance for clearance outwards of pleasure craft. The requirements changed as of 1 January 2022.

Solent News

Biodiversity Net Gain and Marine Net Gain: How Does it Apply to Coastal Development?

Biodiversity net gain (BNG) is an approach to development which means that habitats for wildlife must be left in a measurably better state than they were in before the development. Achieving it means that natural habitats will be extended or improved as part of a development or project.

The requirements for BNG apply to development projects, or components of projects, as far as the low-water mark, including the intertidal zone. Projects, or components of projects, in the marine environment beyond the intertidal zone are not currently included within the scope of the mandatory requirements. The Environment Act does, however, provide options for introducing such a requirement for Nationally Significant Infrastructure Projects. Defra are currently working with a wide range of stakeholders towards a consultation on the principles for marine net gain early this year.

Until 5 April, Defra will be consulting on the practical and legal implementation details of the new BNG requirement for development. Targeted stakeholder engagement will take place during and after this consultation to finalise any outstanding technical implementation and policy details. It will also include a formal consultation on the biodiversity metric before it is published.

View the consultation at: [Consultation on Biodiversity Net Gain Regulations and Implementation - Defra - Citizen Space](#).

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 23 March 2022.

Solent News is prepared and edited by the Solent Forum Officers. It is a biannual publication and issue 52 will be produced in summer 2022. 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
Economy, Transport and Environment Department
Ell Court West 1st Floor, The Castle
Winchester
SO23 8UD
Tel: 03707 795206
Email: info@solentforum.org. Twitter @solent_forum



The following organisations steer the work of the Solent Forum.

