Plan Sea

Kent County Council's framework for collaborative action for our coast and seas

Draft – October 2026

Introduction

Kent has 563km of coastline stretching from the Dartford crossing to Dungeness. This features diverse seascapes including the famous chalk of the White Cliffs of Dover, Thanet's sandy bays, Dungeness' renowned 'desert' landscape of vegetated shingle and the expansive mudflats and saltmarsh of the North Kent marshes.

The seas around Kent are home to a wide array of marine life, much of which is unexplored. Kent's coastal habitats are diverse, and some play a vital role in buffering areas from erosion and sea level rise, while storing huge amounts of carbon.

The Kent coast is internationally important for wildlife but is also visited by 12 million people on leisure trips annually, many drawn by the natural beauty of the coast. The marine and coastal environment is vital for livelihoods, not just related to tourism, but ranging from fishing to renewable energy, as well as trade and transport from the European continent, through Dover Strait - the busiest shipping lane in the world.

Kent provides excellent opportunities for recreation and leisure – both along the coast and on the water. With this comes a risk to our marine wildlife, and disturbance is a well document outcome of increasing leisure pursuits at the coast.

A lot of Kent's population lives at the coast and there are some vibrant and thriving coastal towns along the shores. There is however some areas which have stark socio-economic disparities compared to inland areas, characterized by higher deprivation, lower educational attainment and health inequalities.

There is often a disconnect between communities in Kent and their marine and coastal environment, with people not fully understanding what this environment has to offer or the impact they can have on it. This has negative implications in terms of tackling the range of pressures described in Plan Sea. If people don't appreciate the environment, how are they going to act to look after it? Responding to this issue, improving ocean literacy will be an important aspect of the work that needs to go forward.

The Kent marine and coastal environment feature a Marine Protected Area (MPA) Network, which consists of sites designated for nature conservation from the mean high-water mark out to 12 nautical miles. Several agencies share responsibility for managing these MPAs, including the Marine Management Organisation (MMO), Inshore Fisheries and Conservation Authorities (IFCAs), Natural England (NE), and the Environment Agency (EA). Additionally, Harbour Authorities, Landowners, Non-Governmental Organisations and Local Government play a role.

Despite this protection, habitats are still under threat, with many species in decline. Pressures from climate change, increased storminess, higher temperatures, disturbance, pollution and unsustainable fishing practices are all contributing factors towards species declines and biodiversity loss.

In the light of these pressures, more collaboration and resources will be needed to implement management measures that genuinely protect the designated features of the MPA network and ensure the futures of all our marine and coastal habitats.

The Environment Act 2021 ensured that Local Nature Recovery Strategies (LNRS) were developed for every county in England. The Kent & Medway LNRS was published in 2025 and has a range of coastal measures (down to the low tide mark) which implemented in the right places will help to address some of the issues highlighted in Plan Sea, ranging from habitat loss and erosion to mitigating pollution. KCC is the Responsible Authority for the LNRS, and a strong connection will be made between the LNRS and Plan Sea.

The knock-on effects from a degraded coastline are serious. Many areas of Kent's coast are low lying and vulnerable to extreme weather conditions. There is a limit to how long coastal habitats can provide a buffer to increasing storms and floods. Risks to livelihoods and properties will increase, if we don't work with nature on solutions.

Microplastics are entering food chains, including those of humans, creating gastrointestinal issues. Some adults could be consuming an average of 45,000 microplastic particles per year. Microplastics come from the slow disintegration of plastic bags, wrap, food, drink and takeaway containers, polyester clothes, tyres, fishing nets, paint and artificial turf (UNEP, 2025) with 1.3 million metric tonnes of microplastic entering our sea annually.

Litter on beaches is a problem, both for people and wildlife, but is also strongly linked to the microplastics issue.

Pollution from increased nutrient levels is an ongoing problem. This includes nitrates and phosphates from rivers flowing source the sea and from both legal and illegal discharges from water company infrastructure.

In 2025, Southern Water reported 3,650 hours of storm overflow releases across the Kent region, pumping raw sewage into the sea from outfalls dotted across the coastline. In June 2026, the company was fined over £7 million pounds for illegal releases of sewage between Whitstable and Broadstairs between 2019-2021.

High concentrations of E. Coli in Kent's bathing water is the result of legal and illegal discharges and ongoing source to sea pollution. Not only is it a public health hazard, but it also affects fish stocks, ecosystem health and tourism in the area.

Plan Sea is a commitment by Kent County Council to work with others to improve our marine and coastal environment. Plan Sea recognises that action is already in place along our coasts and sea and the intention is not to duplicate but to add value, through coordinating and joining up approaches and filling the gaps on action where they exist.

The ecological importance of our marine and coastal environment

Kent's coast has a range of habitats, including seagrass, vegetated shingle, mudflats, saltmarsh and chalk reefs, supporting a wide range of species. This contributes to the UK's diverse network of marine and coastal ecosystems.

Seagrass

Seagrass, or eelgrass, is a plant, not a seaweed, that lives in the intertidal and subtidal areas of estuaries. Seagrass meadows provide shelter for fish species such as seahorses and pipefish and are important nursery habitats for cuttlefish, rays, small fish and shellfish. Seagrass stabilises sediments in intertidal areas, they also play a significant role in sequestering carbon along with kelp beds and saltmarshes. Seagrass is an important food source for the brent goose, which migrates from the arctic to our estuaries to feed in areas with seagrass beds every winter.

Saltmarsh

Saltmarshes are inundated at high tide and exposed at low tide, so are dominated by salt-tolerant plants. The soil is generally composed of deep mud and peat.

Saltmarshes provide nurseries for fish and shellfish to breed in and are a feeding habitat for wildfowl and waders plus a hunting ground for birds of prey such as the marsh harrier.

Saltmarshes are a natural barrier against flooding and tidal surges, buffering waves and trapping sediments. They slow down surface water flooding and act as natural filters for surface water run-off, metabolising excess nutrients. They are natural carbon capture zones, storing carbon both in the plants and sediment. A hectare of salt marsh can capture two tonnes of carbon every year and store it for millennia if undisturbed.

Mudflats

Mudflats attract thousands of migrating wading birds to the Kent coast each winter. These species probe the mud for the rich variety of invertebrates that live there. The north and north-east coasts of Kent are protected for such overwintering bird species, including turnstone, black tailed godwit, curlew and golden plover.

Vegetated Shingle

Coastal vegetated shingle is a unique habitat, and Dungeness is the largest area in the UK with over 2000 hectares. Vegetated shingle is comprised of flint, once eroded out of chalk cliffs and washed along the shore with longshore drift. The shingle then settled, protected from the waves and started to colonise with lichens, moss and

specialist plants, adapted to grow in the low-fertile, free draining soil between the shingle.

The vegetated shingle of the south Kent and Sussex coastline is home to one third of the UK's plant species (JNCC, 2015). Vegetated shingle is sensitive to disturbance. Once damaged, it is difficult for the shingle to recover. Any amount of trampling can be damaging and the more regular it becomes, the more likely it will lead to a complete loss of vegetation.

Chalk reefs

Chalk reefs are a globally scarce habitat, making Kent a place of unique ecological importance, as we have the longest continuous stretch of coastal chalk in the UK. This offers both intertidal and subtidal habitats, the soft rock creating a habitat for a unique group of creatures who can bore into the rocks, creating tunnels and holes and creating shelters for countless other creatures in the reef.

The Thanet Coast Marine Conservation Zone (MCZ) has several designated features including; blue mussel beds, ross worm reefs, subtidal chalk and sand and St John's jellyfish.

Coastal and marine species

Kent has abundant and varied marine wildlife, known to comprise at least 700 species. The coast also hosts a moderately rich seaweed flora with 256 brown, green and red algae of the 650 known in the British Isles.

Our open coast and network of estuaries is important for the movement of migrating fish species such as the European eel, smelt, bullheads, brown trout and shark species such as starry smooth hounds and tope. The intertidal areas are significant for birdlife, particularly waders and wildfowl. And we have rare and significant species, such as the tentacled lagoon worm and the short-snouted spiny seahorse. Sea mammals are also seen off our shores, most commonly grey and common seals and harbour porpoise but also sometimes dolphins and smaller whale species.

Coastal and marine species act as a clear indicator to the health of an ecosystem. However, monitoring is limited and baseline data is lacking.

The economic importance of our coast and sea

The marine and coastal environment support Kent's economy, offering a diverse range of benefits across multiple sectors. However, sustainable practices will be key for the environment to continue to benefit the economy.

Fishing

Whitstable and Ramsgate are known for their oyster beds and fresh seafood, which not only support local livelihoods but also supply restaurants and markets across the region, bringing tourists in. For example, Whitstable Oysters draw visitors and tourists from all over the country. Folkestone is another hub for fisheries and catch is sold both in the UK and abroad.

The fishing industry sustains ancillary businesses such as boat maintenance, seafood processing, and local fishmongers, creating a ripple effect of employment and trade.

A lot of seafood served in restaurants or at fish and chip shops are not caught locally and often by intensive fishing fleets, contributing to the decline in 'popular' fish species.

Increasing ocean literacy in Kent will encourage the local, sustainable and seasonal eating of seafood across the region. Collaboration with local fishers would also build relationships and gain insight into the state of the fish populations around Kent.

There is also potential to link with researchers who could utilise fleets as an opportunity for data gathering and monitoring of some typically hard-to-access sites.

Transport and Infrastructure

Kent is the gateway to Europe, featuring The Port of Dover, The Channel Tunnel and the Eurostar rail service. £144bn of trade in goods and 33% of UK-EU trade goes through the Port of Dover. In addition, 1.3m tourist vehicles use the Port every year. The Channel Tunnel transports approximately 18.3 million passengers each year through the Eurostar rail service and Le Shuttle road service.

Other industrial ports can be found on the Isle of Grain, Sheerness, Ramsgate and Whitstable. Additionally, coastal infrastructure projects, bring investment and innovation to the region, reinforcing Kent's strategic importance in national and international commerce.

The London Array offshore wind project is located about 20km off the Kent coast in the Outer Thames Estuary. It was the largest offshore wind farm in the world when it became fully operational in 2013.

All these economic benefits come with complications for the natural environment. Noise pollution from busy shipping lanes can have a detrimental impact on marine life, particularly cetacean species who rely on echo communication.
Cables and pipework under the sea connecting us to energy infrastructure as well as the continent can also have an impact on sensitive habitats. We need to be mindful of the strain these economical activities can have on our natural environment.

Tourism

With over £4 billion generated annually and more than 77,000 jobs supported, the sector thrives on seaside attractions, cultural heritage, and nature-based experiences.

Kent's has award-winning beaches which attract both residents and visitors. In Visit Kent's 2023 report, over 12.3 million visitors to the county were day trippers to the coast. Sailing, paddleboarding, beachcombing, and wildlife watching are popular.

These activities contribute to physical and mental wellbeing while supporting local businesses such as equipment rentals, cafes, and guided tour operators, including those exclusively focused on showing people nature such as seals and birds.

It is therefore important to Kent's economy that we enhance the natural areas and maintain the healthy habitats and open spaces to continue to attract people to them.

However, Kent's increasing popularity brings risks too. Popular beaches such as Margate, Whitstable and Folkestone, put a strain on services such as waste collection, public amenities, public transport, roads and parking areas.

Associated problems include increased litter, more anti-social behaviour, and increased pollution such as road run-off and car exhaust fumes. A rise in water sports and leisure crafts can cause significant disturbance to coastal wildlife, a lot of visitors being unaware that they are visiting sensitive areas for birds, seals and other species.

Sustainable tourism strategies need to be considered when promoting Kent as a place to visit. We need to make sure our services can cope with increased visitors and that sensitive sites are protected and monitored appropriately.

The social value of our coast and seas

Health and wellbeing

In the UK, no one lives more than 80 miles from the sea – but in Kent that national statistic is significantly less, with the maximum distance about 30 miles and many not living more than 15 miles from the coast. The county also has significant populations living at the coast itself.

A 2020 government study suggested that exposure to coastal environments can play a significant role in boosting human health and well-being, due to the 'therapeutic effects' marine and coastal landscapes have. The research showed that people spending more time by the sea reported increased happiness, better general health and were more physically active during their visit, compared to visits to other types of environment. The study also showed the importance of the environmental quality in that benefit - visits to marine and coastal areas with designated or protected status and those with higher levels of biodiversity were associated with higher levels of calmness, relaxation and revitalisation, compared to locations without this status.

With such a long and varied coastline, we have an amazing resource available to the population of Kent and quite literally on the doorstep of many.

Despite this, evidence suggested that populations that live close to the coast do not necessarily visit it and may not have an appreciation of the marine and coastal environment.

The King Charles III Coastal Path provides the opportunity to explore the coast and save for a few sections, offers a continuous route spanning the length of Kent's water-edge.

Art and culture in coastal towns

In Kent, we have coastal areas linked with art, literature and culture. Chatham Dockyard showcases ships, submarines and over 70,000 objects steeped in history bringing in 150,000 visitors per year. It welcomes tourists, schools and groups, hosting events and exhibitions on the maritime history of Kent.

Margate is a well-known hotspot for beachside entertainment and art. Home to the Turner Contemporary art gallery and Dreamland; it attracts visitors all year round. Whitstable attracts younger working people to coastal living, and with them, a thriving art scene. Filled with art galleries and colourful beach huts, Whitstable is attractive to the London crowd. It's one of the best places in Kent to eat oysters, and seafood is part of the Whitstable culture.

Folkestone is another creative town. Following funding injected into the town in 2015, the last decade has seen the town turn around to a thriving coastal area. With the Creative Quarter, Harbour Arm and the Folkestone Triennial art festival, it attracts a lot of tourists to the town.

The unique shingle peninsular of Dungeness attracts 1 million visitors a year to witness the ‘apocalyptic-type landscape’. It is also linked to creative industries and has been the backdrop for many films, music videos and inspired art pieces. The artist Derek Jarman lived there, and his cottage is now in public ownership. Dungeness attracts inspiring artists from across the world.

Coastal town socio-economics

Although some parts of Kent’s coastline are thriving, many east coast communities experience worse outcomes than inland areas.

Kent’s coastal districts experience faster growth in the 65+ age demographic, when compared to inland averages.

Kent coastal areas also tend to see higher levels of deprivation – the coastal authorities of Thanet, Dover, Folkestone and Hythe, and Swale rank among the most deprived local government districts in England.

These areas also face a distinct "coastal excess" regarding public health, with life expectancy 2.1 years lower on average. Chronic obstructive pulmonary disease (COPD) and coronary heart disease rates are significantly higher (with COPD up to 60% higher than non-coastal Kent), alongside elevated levels of depression, smoking, and disability benefit eligibility.

Research from the University of Essex has found that people aged 16-25 in England’s most deprived coastal towns are three times more likely to struggle with undiagnosed mental health conditions compared to their inland peers.

Coastal economies tend to rely heavily on seasonal tourism and lower-secure work – east coast communities have 50% more unemployment claims than inland areas.

Educational attainment is also notably lower across coastal school districts compared to affluent inland areas (9% below inland areas) and these areas tend to see higher pupil absence.

In March 2026, Kent County Council announced the UK’s first Marmot Coast Region stretching from Swale to Folkestone and Hythe. This initiative aims to tackle unemployment and lack of opportunity, two root causes of inequality.

Kent's Marine Protected Area Network

Marine nature recovery is a central component of the UK Government's 25 Year Environment Plan, published in 2018 (H M Government, 2018). Legally binding and measurable targets for Marine Protected Areas (MPAs) were later established through the Environmental Targets (Marine Protected Areas) (England) Regulations 2022, introduced under the Environment Act 2021.

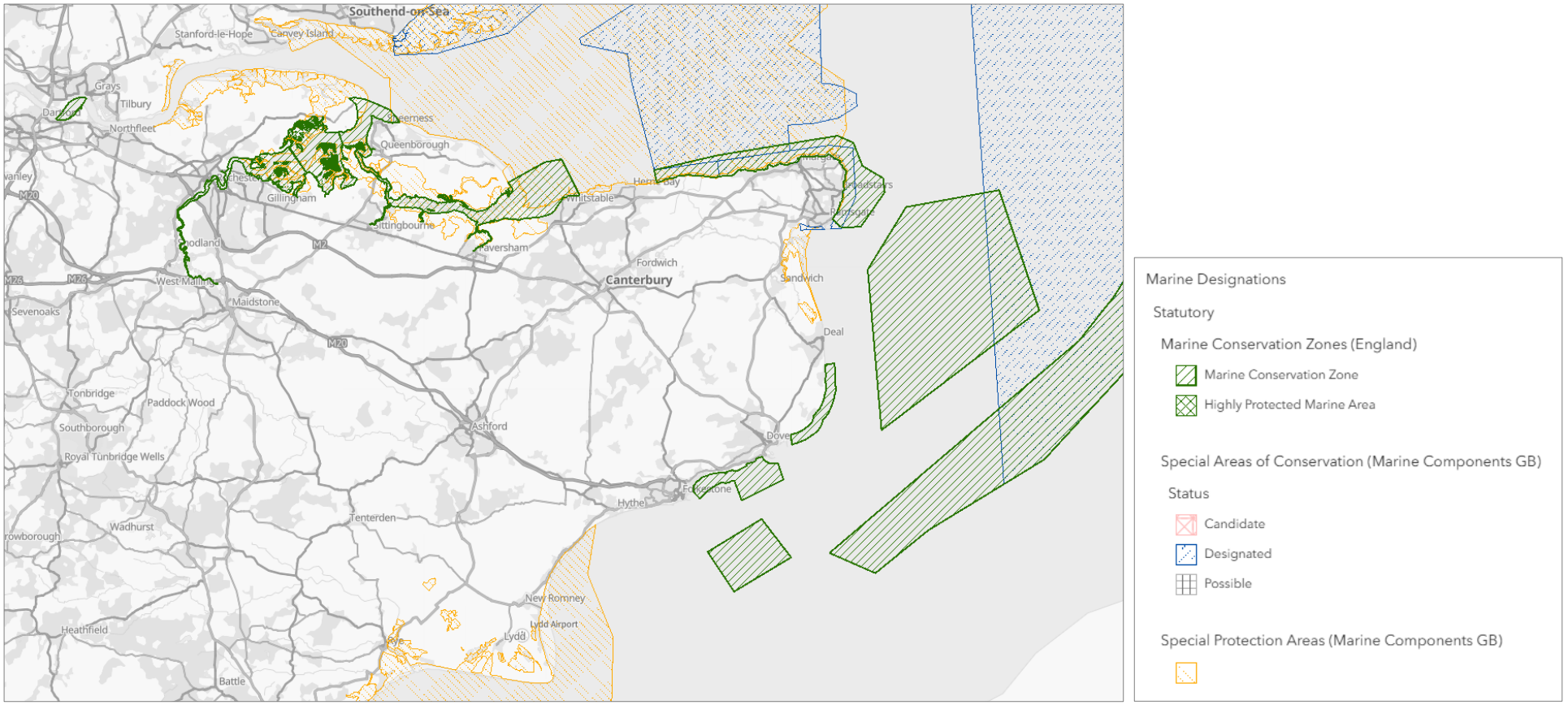
These targets require that 70% of designated MPA features reach favourable condition by 2042, with the remaining features achieving recovering condition. The Environment Improvement Plan (EIP) (DEFRA, 2023) further reinforces this ambition by committing the government to restoring 15% of priority habitats along the English coastline by 2043.

Kent's MPAs include:

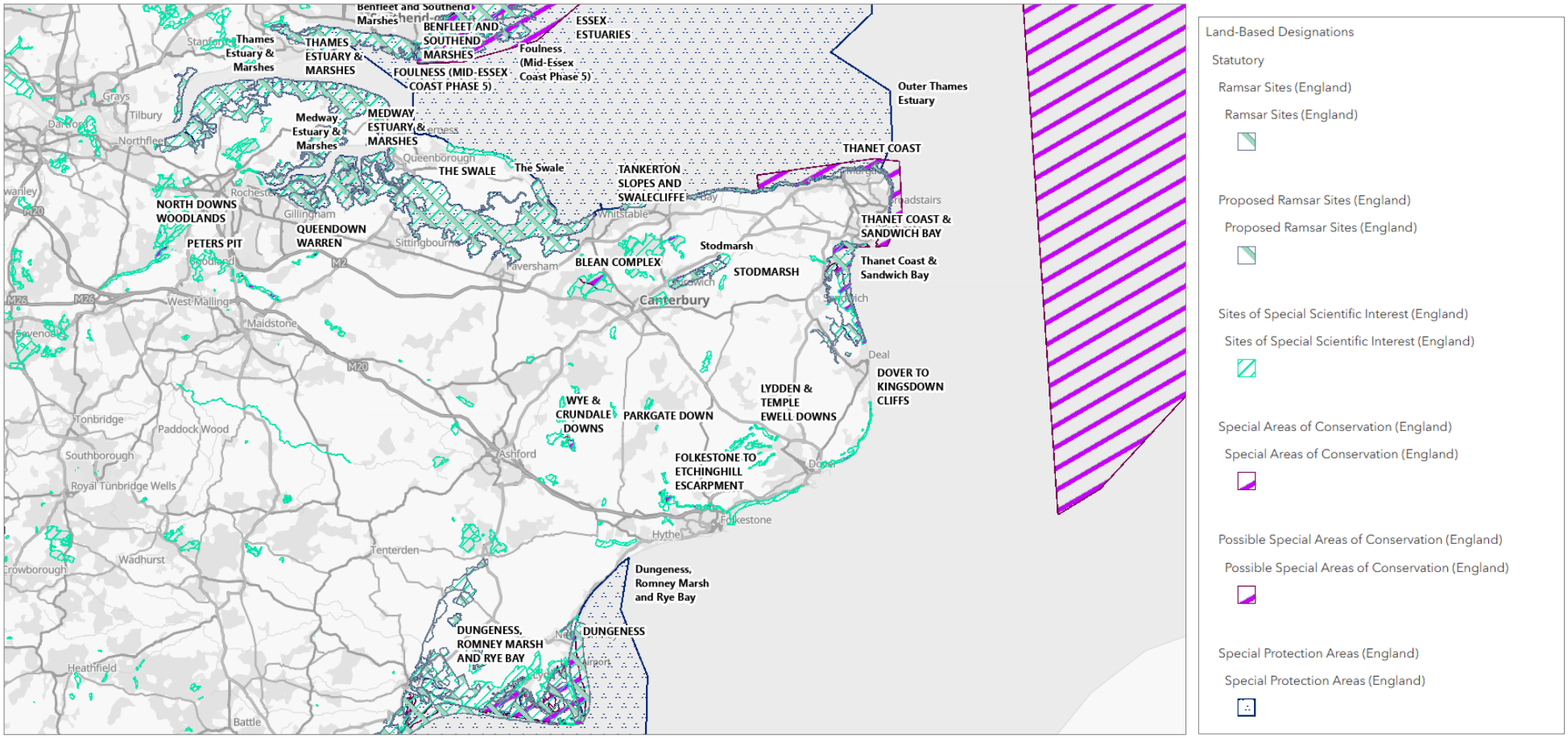
- 11 Marine Conservation Zones (MCZ) specially designated for the protection of marine species such as the tentacled lagoon worm, harbour porpoise and stalked jellyfish as well as habitats such as blue mussel beds and seagrass.
- 9 coastal Sites of Special Scientific Interest (SSSI) designating both biological and geological features of our coastline.
- 5 Ramsar Sites protecting coastal wetlands.
- 5 coastal Special Areas of Conservation (SAC) protecting important habitats such as chalk reefs, submerged caves, vegetated sea cliffs, sand dunes and vegetated shingle.
- 5 coastal Special Protected Areas (SPA) including areas for wintering and breeding wading birds, wildfowl, divers and seabirds.
- 3 National Nature Reserves (NNR) are situated on the Kent coastline, these include Dungeness NNR, Pegwell Bay NNR and Swale NNR.

In Natural England's EIP 2025 report, it recognises that whilst the MPAs exceed the 30 by 30 target already in terms of coverage, it still has a way to go before it is fully protected. The government has promised:

- Sustainable fisheries
- Protecting MPA species and habitats
- Implementing measures for Highly Protected Marine Areas (HPMAs)
- Consulting on new bylaws and enforcing existing ones on bottom towed gear in MPAs
- Managing the expansion of offshore wind farms with environmental compensation requirements through a Marine Recovery Fund
- Reviewing the English MPA network to determine whether sites are in the right places with the right protection, exploring ways to update protection and management approaches, to better address the biodiversity crisis, improve climate resilience and support wider government priorities,
- Introducing a bill to enable ratification of the Biodiversity Beyond National Jurisdiction Agreement, enabling greater conservation of the two-thirds of the ocean that lies outside national jurisdiction.



Marine based designations



Land based designations

Many of the habitats and species prioritised in the Local Nature Recovery Strategy (LNRS) fall within MPAs, so it is imperative that the management of the MPAs support these priorities, and these priorities contribute to improving MPA condition.

MPA management should adopt Lawton principles of ‘bigger, better, more and joined up’, starting with ‘better’ monitoring and management of current protected sites, including integrating the LNRS and then extending good practice between the MPAs spreading the benefit beyond these areas in terms of “more and joined up”.

Other marine policies in English waters

The Marine and Coastal Access Act 2009 marked a significant change in government policy and by 2021, for Kent the act resulted in 11 Marine Conservation Zones’ and 2 Marine Plans as well as the establishment of the Kent and Essex IFCA. It also resulted in the completion of the Kent stretch of the England Coastal path.

Marine Plans put into place objectives for the marine environment that are identified in the Marine Policy Statement, alongside the National Planning Policy Framework (NPPF) and the Localism Act 2011. The Marine Management Organisation (MMO) are responsible for Marine Plans. Marine Plans inform and guide marine users and regulators across England, managing the sustainable development of marine industries, such as wind farms and fishing, alongside the need to conserve and protect marine species and habitats. Both the South and South East Marine Plans cover Kent.

Whilst Marine Plans are quite infrastructure based, it is important for Plan Sea to be fully involved in Plan Reviews as they come up, opening doors for collaboration on marine nature recovery and mitigation opportunities in areas of marine development.

The Fisheries Act 2021 was a significant development, marking a step forward in the adoption of more sustainable fisheries practices, the key principle being the adoption of an ecosystem-based approach. Natural England is working across Defra on both Fisheries Management Plans and Offshore Byelaws providing timely advice.

Data collection is important here, finding out whether the byelaws are working to their desired effect, allowing vulnerable fish species and their habitats to recover appropriately.

Marine pressures and threats

Failing protections

Despite the plethora of protected areas along our shores and out to sea, many Marine Protected Areas are in declining and unfavourable condition. Some have not had condition assessments for several years, so the status of certain sites is unknown. Marine Protected Areas should play a key role in underpinning wider marine recovery but need to be in a better condition to do so.

The way Marine Protected Areas are managed needs to change as coordination is often lacking, particularly in coastal sites which experience numerous pressures and activities, many unlicensed. The Environment Act 2021 sets out targets for marine recovery – these must be assisted by citizen science monitoring and recording as well as actions from local authorities and non-governmental organisations.

Stronger enforcement of the byelaws for Marine Conservation Zones (MCZs), along with new byelaws is needed, plus more investment, research and recording, giving us a better understanding of the progress being made.

We need a joined-up approach to managing the marine space and to work with organisations with different priorities and targets, creating a holistic approach to marine nature recovery.

Pollution

Physical pollution is not only damaging to the environment, but it also affects the quality of our blue spaces for coastal residents and visitors alike. Pollution sources include:

- Combined sewage outfalls.
- Run-off from land, including but not limited to; roads, agricultural fields, powerplants and industrial areas.
- Grey water discharge from pleasure craft and houseboats.
- Oil and pollution spills at sea.
- Beach and marine litter and microplastics.
- Noise pollution from shipping activity, mining and development.

All the above can have a detrimental effect on marine fauna and flora, be directly or indirectly harmful to humans and our health and many sources of pollution can spoil beauty and tourism hot spots.

Destructive and unsustainable fishing practices

We need to make sure our priority fish species, and their habitat is protected in our offshore waters. Fish stocks are moving and rapidly changing with warming sea temperatures, and we are not finding or fishing the species we once used to.

Trawling and dredging, seine nets, gill nets, poisoning and blast fishing are destructive fishing methods used across the world. Ghost nets (fishing nets lost at sea) also account for 10% of marine plastics and cause entanglement and death to thousands of marine mammals, fish and reptiles.

Despite a lot of the Kent fleet being small and sustainable, unsustainable fishing practices are happening in Kent's seas. Cockle and scallop dredging are two concerns in the Thames Estuary and English Channel respectively. Dredging tears up the seabed and mud habitats, causing declines in non-target species as by-catch. Catch rates of fin fish and shellfish are monitored and regulated by the Inshore Fisheries and Conservation Authority (IFCA), however, the destructive methods on which they are caught are not part of the regulation.

Biodiversity loss

We are witnessing declines in our marine species. We need to find out what is causing this decline and halt biodiversity loss in our ocean. Using the baseline data we currently have, and gathering more data and evidence, we need to provide a programme of regular monitoring to find out what is going on under the water.

Invasive non-native species

We have growing numbers of non-native marine species living in the waters across the Kent coast. With our position so close to mainland Europe and our role as an international port, our coastal habitats are particularly vulnerable to invasive non-native species and often the front line and first point for new species. The changing climate, leisure pressures and habitat degradation is increasing the impact of certain invasive non-native species.

Removal and disposal of many of these invasive species can be done with the right training and resources.

Development and disturbance

One of the biggest threats to nature recovery is development in its various forms. Offshore windfarms and cables under the ocean can cause serious habitat disturbance. Noise from the works and damage to the seafloor and its ecosystems is a still problem despite Environmental Impact assessments and various other processes. Aggregate extraction and subtidal dredging are other causes for concern.

Onshore development also affects offshore habitats. Housing development on our coast puts increased pressure on drains and sewerage systems and more contaminated run-off from hard standing, which then enters our sea.

Disturbance of coastal wildlife through more people wanting to access the environment for recreation presents an additional pressure. Disturbance to feeding birds, particularly on our coasts, is also an issue. Many of our sites are designated for overwintering wildfowl and wading bird species, and the disturbance of these birds through leisure activities, including dog walking, is putting a serious strain on

the birds' ability to feed, rest and survive the winter and spring migration back to their nesting sites.

A changing climate

The changes in the climate has measurable impacts on our marine and coastal environment. The warming of our oceans moves species further north – this impacts all species in the food chain, who follow the food species. Temperature-sensitive species are also declining.

Sea level rise is causing coastal squeeze, forcing our coastlines to shrink in areas where we have hardscaped sea defences. Mud and sandflats are reducing and will eventually disappear under the water, reducing vital feeding habitats and freshwater grazing marshes could become inundated with seawater.

Marine heatwaves are becoming more consistent as the climate warms and The Kent & Essex Inshore Fisheries and Conservation Authority notes a sharp increase in the frequency and intensity of marine heatwaves impacting local coastal and estuarine zones since 2014.

Disconnect and lack of knowledge and understanding

A disconnect with the coast can have two main negative outcomes. People can consequently lack the motivation to take personal responsibility for nature recovery and protection, which can result in both unintentional and intentional harm. It also means that people are less likely to go to the coast, so do not experience the health and wellbeing benefits of nature. This is self-perpetuating, as a lack of connection can further the apathy.

Disconnect can stem from simply not understanding or having knowledge – disconnect can also prevent a person from striving to understand it better. When people lack understanding, they are also often unaware of how their actions and behaviour impact wildlife. This can result in unintentional damage to, or mismanagement and use of, coastal and marine areas.

Desalination plants

As the climate warms, the pressure on freshwater resources increases. Kent also has a growing population adding to the pressure on our drinking water availability and infrastructure. There is a potential to look at desalination as an answer to drinking water shortages, and six desalination plants have been proposed for the South East of England by the government.

But what impact could these have on the marine environment? With the salt removed from the water, it is discharged back into the sea in high concentrations.

The detrimental effects of brine discharge into the sea are rooted in four primary factors, as identified by the University of Sydney; high salt concentration, high total alkalinity, elevated temperatures, and a high concentration of toxic metals.

Fish exposed to brine discharge often experience osmoregulatory stress, reduced growth and reproductive success. Seagrass biomass decreases by 25% near brine outlets and photosynthesis is reduced.

Lack of funding and resources

The lack of funding and resources has a big influence on nature recovery and is, in fact, a driver for nature degradation. Even protected sites are not always afforded that protection, because of insufficient management, enforcement and policing – linked to insufficient funding and resources. Many of our most valued sites are in an unfavourable condition.

Often this is not because of lack of care or interest but because habitat management can be costly and time consuming and is also complex.

Funding for nature restoration, enhancement or creation is often associated with a time-limited project and, while the achievements of such projects can be significant, they can be short lived if there is no onward investment to manage and maintain the gains. Funding is also often targeted towards capital works and does not always provide for the personnel needed to support, coordinate and deliver the nature recovery action.

Central investment in the natural environment can be short term as well, designed to fit around current policy and priorities which can change from one government term to another.

Lack of data, evidence and understanding

Lack of data for the coastal and marine environment is a key issue. Surveying these areas is challenging and in the case of marine, often costly and requiring skills and equipment.

The impact of a lack of data means that issues are not always identified, the evidence for action and funding is, in some cases, insufficient, and a reliable baseline on which to measure progress is absent.

The need for Plan Sea

The Kent and Medway Local Nature Recovery Strategy is limited to the intertidal area but the importance of recovering our natural environment doesn't stop at the low tide mark. There is the need to extend the benefits of managing our terrestrial habitats to offshore and dedicate the same level of effort for our marine environments as our terrestrial ones.

Marine and coastal systems present unique restoration challenges linked to wave dynamics, shifting sediments, and climate change. Human pressures are similarly complex: land-based activities affect coastal waters through runoff, and multiple marine activities can overlap spatially or temporally.

Additionally, governance and regulatory responsibilities in marine areas are distributed across numerous organisations, making collaboration and partnership working essential, but this collaboration does not always occur.

We also need collective effort to secure a better baseline of data – improvements are needed in coastal and marine data collection and reporting and what is collected needs to be collated and stored in one place, building the bigger and better picture of Kent's coastal and marine habitats and species.

The success of the Local Naure Recovery Strategy is limited by some key challenges outside of its scope, in particular: coastal and marine pollution, marine management, human pressures and disturbance and invasive species.

These challenges for coastal and marine recovery have been identified through workshops and conversations with agencies, delivery partners and coastal stakeholders. This work has also identified five key areas they believe a coordinated, partnership approach is needed for; these are:

- Better management of our marine protected areas.
- Marine pollution, both water contamination and marine litter.
- Lack of empathy, understanding and interest in the ocean and its habitats.
- Invasive non-native species and their influence on important habitats.
- Marine and coastal disturbance.

The purpose of Plan Sea

Plan Sea is a commitment by Kent County Council to work with others to improve our marine and coastal environment and to ensure this aim is integrated across the authority.

Plan Sea recognises that action is already in place along our coasts and sea and the intention is not to duplicate but to add value, through coordinating and joining up approaches and filling the gaps on action where they exist.

As Responsible Authority for the Kent and Medway Local Nature Recovery Strategy, Kent County Council is already working with partners to facilitate delivery of the strategy's coastal ambition. But restoration of our coastal and marine areas requires action outside the scope of the Local Nature Recovery Strategy, and Plan Sea addresses this by also focussing on challenges which have a huge influence, such as water pollution, people engagement and management.

Plan Sea also addresses the spatial gap left by the Local Nature Recovery Strategy by extending the ambitions beyond the Strategy's remit of mean low water mark.

Plan Sea will:

- **Enable and facilitate** collaborative work to recover our marine and coastal environment, working towards clean, healthy, adaptable and resilient habitats.
- **Establish** partnerships and project working groups to tackle the pressures on our marine and coastal environment. It will enhance the work of individual organisations across Kent's coastline, including those with statutory duties to make sure they are working effectively.
- **Ensure delivery** of the coastal ambition of the Kent and Medway Local Nature Recovery Strategy and extend this ambition to our marine areas, ensuring action works for the benefit of the whole marine ecosystem.
- **Apply an integrated management approach**, so the socio-economic benefits of a healthy coastal and marine environment can be realised by Kent's coastal communities.
- **Compliment and support** the delivery of national coastal and marine targets, focusing on halting biodiversity loss and restoring ocean health. **Advocate and champion** for the better recognition, management and protection of our coastal and marine environment, locally and nationally.

Plan Sea aims and objectives

Plan Sea provides a framework for collaborative work and joined-up action to deliver the following aims:

- Our marine and coastal environments **restored, functioning and resilient**.
- Marine and coastal **biodiversity loss halted** and trends reversed.
- **Clean, productive and biologically diverse** marine and coastal environments that continue to provide the **ecosystem services** that support and protect livelihoods, communities, health and wellbeing and the county's economy.
- The importance of our marine and coastal environment fully recognised, with **good and effective management** protecting these areas from damaging impacts.

Plan Sea will deliver these aims through the following objectives:

1. Work collaboratively across the county to **facilitate delivery of the Local Nature Recovery Strategy priorities** for coastal and marine habitats.
2. Coordinate and join-up efforts to support a source-to-sea approach that can effectively **tackle marine and coastal pollution**.
3. Make better use of management and protection mechanisms available to our Marine Protected Areas. Coordinate and join-up efforts to facilitate a **holistic approach to the management of Marine Protected Areas**, recognising how critical these are for marine nature recovery.
4. Lead efforts to **improve ocean literacy** so that all stakeholders, including the people of Kent, can make a decisive and direct contribution to the restoration of our coastal and marine environment.
5. Actively support communities and bodies in their efforts to **reduce wildlife disturbance and tackle invasive non-native species**.
6. Champion Kent and **showcase the work of the county** to highlight the challenges and achievements of the coastal county at a national level.

Whilst Plan Sea's focus is on driving environmental improvements, this work will be progressed in consideration of the socio-economic benefits a healthy coastal and marine environment will bring to the county. **Integrated coastal management** seeks to balance economic growth, human use and environmental protection – by employing this approach, Plan Sea will seek to support and maximise opportunities for:

- Maritime and coastal economy.
- Sustainable fisheries and aquaculture.
- Tourism and recreation.
- Public health and wellbeing.
- Job creation and community regeneration.
- Nature based solutions to storm surges, sea-level rise, and coastal erosion and opportunities for carbon storage.
- Compliment and support the delivery of national coastal and marine targets, focusing on halting biodiversity loss and restoring ocean health. Advocate and champion for the better recognition, management and protection of our coastal and marine environment, locally and nationally.

Objective 1 - Facilitate delivery of the Local Nature Recovery Strategy priorities

Work collaboratively across the county to facilitate delivery of the Local Nature Recovery Strategy priorities for coastal and marine habitats.

The challenge

In November 2025 the Kent and Medway Local Nature Recovery Strategy was published, setting out the county's priorities for nature recovery and the recommended actions to deliver them. This spatially framed Strategy also identifies where in the county this action should be targeted to deliver the greatest outcomes for habitats and species.

The Strategy sets an ambition for coastal habitat in Kent and Medway: *Coastal and estuarine areas are allowed to evolve, with natural processes and progression restored, to enable them to adapt and be resilient to climate change. Habitat succession is managed strategically and holistically, to minimise loss and support a range of high-functioning, connected coastal habitats.*

It also has 9 priorities for the coast:

1. Sustainable and strategic management of estuaries and open coast to create functionally linked coastal habitats that are allowed to evolve, creating areas for wildlife to thrive. Natural dynamic processes and progression is restored, to enable adaptation and resilience to climate change and minimise the loss of intertidal habitats
2. Reduce small-scale loss, improve condition and increase connectivity of saltmarsh and mudflats, providing functioning ecosystems that are safeguarded from recreational disturbance.
3. Reverse the decline in seagrass off Kent's coast to safeguard this important habitat for marine species and their breeding grounds and nurseries, and to preserve its vital function as a blue carbon store
4. Chalk cliffs and reef communities thrive in their natural state and are safeguarded from damage from recreational and leisure activities, development and bottom fishing methods.
5. Sustainable management of native reef building shellfish to allow them to reach their habitat-providing potential.
6. Saline lagoons are appropriately safeguarded and managed to increase their resilience and adaptation to climate change and to secure their ecological functions, including the role they will play as transitional habitats
7. Safeguard and restore vegetated shingle, ensuring there is no unavoidable loss and areas remain in, or are returned to, a favourable condition.
8. Restore sand dunes, enabling, where possible, the natural mobile function of the dune system to be reinstated or use management to maintain a full range of successional stages of sand stabilisation across the dune system
9. Reduction in coastal wildlife disturbance resulting from leisure pressures at the coast.

Kent County Council is the Responsible Authority for the Strategy. This requires it to convene delivery partnerships, facilitate projects, embed the strategy within the county and monitor and report on the strategy delivery.

What Plan Sea will do

Plan Sea will provide the delivery framework necessary for delivering the hugely ambitious coastal priorities of the Local Nature Recovery Strategy. It will support partner collaboration and the join-up of efforts across the county to realise the ambition for our coastal environment.

Importantly, Plan Sea will also work with coastal and marine stakeholders to address some of the key challenges that limit how successfully the ambition can be achieved; in particular coastal and marine pollution, marine management, human pressures and disturbance and invasive species.

Objective 2 - Tackle marine and coastal pollution

Coordinate and join-up efforts to support a source-to-sea approach that can effectively tackle marine and coastal pollution.

The challenge

Marine and coastal pollution has become a key priority for many residents of Kent. Focus has understandably been on notable pollution incidents arising from sewage from outfalls and Combined Sewage Outfalls, with many coastal towns such as Whitstable, Margate and Dymchurch have repeated incidents.

There are many local authorities, charities, local communities and volunteer groups who are individually trying to tackle the problem but they cannot work on it alone.

Tackling water pollution requires a holistic approach. Our waterways are a connected system with rivers, and all they contain, eventually running into the sea – and this includes any pollutant collected on the way. Sources of pollution can be traced back to riverine sewage releases and pollution incidents, as well as run-off into rivers from intensive agriculture, highways, spills from vessels and urban dwellings and hardstanding.

Our coastlines and marine water are also impacted by litter and microplastics – and as with water pollution, the source is not always at the same point of discovery.

What Plan Sea will do

Plan Sea will provide a forum to address coastal and marine water pollution and provide a framework for collaborative action. It will enhance existing work by coordinating efforts, securing funding and engaging with both water companies and stakeholders.

Plan Sea will promote a source to sea approach, identifying where interventions within a catchment can help to reduce pollution at the coast. It will utilise various land management and water management approaches identified within the Local Nature Recovery Strategy to reduce upstream water pollution and link in with ongoing work to support delivery. It will use the strategic influences and networks of the county council, and the delivery of our own functions, to bring about the change needed to reduce catchment pollution and thereby pollution of our marine waters.

Plan Sea will promote the use of nature-based solutions to reduce the impact of pollution at the coast and to reduce the contaminants reaching coastal waters.

Plan Sea will collaborate with local authorities, local business and communities to address litter at the coast – by both driving behaviour change to reduce litter in the first place and supporting clean-up efforts.

Plan Sea will also stand up for our marine environment, lobbying for the change needed within the water industry and regulation to ensure we get clean seas and are able to restore the health of our coastal and marine ecosystems.

Plan Sea will engage with the county's water companies, scrutinise their efforts to reduce the incidents of sewage releases and push for better.

Objective 3 - Holistic approach to the management of Marine Protected Areas

Make better use of management and protection mechanisms available to our Marine Protected Areas. Coordinate and join-up efforts to facilitate a holistic approach to the management of Marine Protected Areas, recognising how critical these are for marine nature recovery.

The challenge

Many Marine Protected Areas are in declining and unfavourable condition. Some have not had condition assessments for several years, so the status of certain sites is unknown. The way Marine Protected Areas are managed needs to change as coordination is often lacking in coastal sites which experience numerous pressures and activities, many unlicensed.

Stronger enforcement of the byelaws for Marine Conservation Zones, along with new byelaws is needed, plus more investment, research and recording, giving us a better understanding of the progress being made.

Marine and coastal systems present unique restoration challenges linked to wave dynamics, shifting sediments, and climate change. Human pressures are similarly complex: land-based activities affect coastal waters through runoff, and multiple marine activities can overlap spatially or temporally.

Additionally, governance and regulatory responsibilities in marine areas are distributed across numerous organisations, making collaboration and partnership working essential, but this collaboration does not always occur.

Monitoring and data collection is critical to use better understanding the state of our marine areas and what the biggest threats are to their condition. Citizen science has a vital role to play in data collection and reporting of biodiversity and habitat condition. Its collection collation and interpretation needs to be coordinated and supported.

Many of the coastal habitats and species prioritised in the Local Nature Recovery Strategy fall within Marine Protected Areas, so we need to make sure that the management of these support the Strategy's priorities and any action within the Protected Areas is aligned with those set out by the Strategy's mapped potential measures. In turn, delivery of these potential measures will contribute to improving the condition of the county's Marine Protected Areas.

What Plan Sea will do

Plan Sea will work with Natural England and other key players to explore solutions for improved management and to determine how others can be better involved.

Plan Sea will advocate for, and facilitate, a holistic approach to marine nature recovery. Plan Sea will provide a framework for a more join-up approach to managing the marine space, allowing priorities and targets to be aligned and shared; and management tools and legal enforcement powers to be more effectively applied.

Plan Sea will promote and instigate local collaborative action that employ measures to better manage and better protect the Marine Protected Areas.

Plan Sea will work with stakeholders to review government advice on management to ensure it is appropriate and fit for purpose for Kent's Marine Protected Areas. It will ensure that management and action supports delivery of the Local Nature Recovery Strategy and that any potential measures resulting from the Strategy do not undermine the protected areas' conservation objectives.

Plan Sea will work with stakeholders to review existing and required monitoring, research and recording and explore options for data collection to improve understanding and inform management and interventions. Plan Sea action to improve ocean literacy may provide opportunities to increase and expand the use of citizen science to support this work.

The condition of the Marine Protected Areas is also hugely impacted by influences that maybe be outside of the area – water pollution and recreational impacts being two key concerns. Plan Sea's work addressing these two challenges will in turn deliver improvement to these protected areas.

Plan Sea will lobby government and hold them to account on the Marine Protected Area targets listed in both the Environment Act and Environmental Improvement Plan.

Objective 4 - Improve ocean literacy

Lead efforts to improve ocean literacy so that all stakeholders, including the people of Kent, can make a decisive and direct contribution to the restoration of our coastal and marine environment.

The challenge

The more people engage with our marine and coastal environment, the more they will understand it and the more likely they will be to act to look after it and advocate to protect precious habitats and species.

Evidence suggests that despite being a coastal county, our residents may not fully appreciate the value of our marine and coastal environment nor understand the impacts, positive and negative, they can have on it.

The widely used definition of *ocean literacy* is 'the understanding of our individual and collective impact on the ocean and its impact on our lives and wellbeing'. Ocean literacy covers both formal and informal educational programmes, ensuring emotional connection leads to behaviour change.

What Plan Sea will do

Plan Sea recognises the importance of our coastal, and inland, communities reigniting the 'island living' feel and reconnecting with the sea as part of our heritage and culture, and thus benefiting from the health and wellbeing benefits it presents.

Plan Sea will develop and deliver, in partnership, a programme of ocean literacy action to enhance the link and ownership Kent's people feel towards our coastal and marine environments. This will link in with, and build on, engagement work already underway in the county and look to coordinate across the county to ensure clear and consistent messaging.

The programme will focus on:

- Sustainable and responsible access to the coast.
- Reducing coastal litter.
- Reducing impact on marine environment through sustainable choices.
- Addressing the disconnect and the health and wellbeing benefits.
- Citizen science supporting coastal and marine monitoring.
- Volunteering supporting coastal and marine restoration and protection.

In the first instance, Plan Sea will lead an ocean literacy survey for residents across Kent. This will be used to understand the baseline of understanding and connectivity and determine areas for engagement work.

Going forward, co-ordinated partnership-led engagement work could include:

- Working with Kent's industries and businesses in the maritime sector to promote and support career options, particularly aimed at young people in coastal areas.
- Working with schools and libraries to support ocean literacy in the classroom and deliver engagement events.
- Supporting the establishment of more *Beach Schools* across the county.
- Working with artists to use arts and creativity to engage people.
- Working with local authorities and town/parish councils to adopt and support a county-wide ocean literacy ambition.
- Working with Explore Kent, Visit and Invest Kent and other partners to promote responsible enjoyment of the coast.
- Engaging with in-land residents on how their impacts can still affect the sea.
- A county-wide "Kent Marine Week".

These ideas will need scoping in order that the most effective can be matched with funding mechanisms and various community engagement routes already available in the county.

The ultimate aim of any Plan Sea engagement that is that it results in action to protect our marine environment. By providing resources, opportunities, public engagement and events, we want people to act for the environment.

Improving ocean literacy, and the resulting change in behaviours and increase in engagement and volunteering, will be key to the delivery of a number of the Local Nature Recovery Strategy priorities and Plan Sea can make the necessary linkages across the work to ensure join-up.

Objective 5 - Reduce wildlife disturbance and tackle invasive non-native species

Actively support communities and bodies in their efforts to reduce wildlife disturbance and tackle invasive non-native species.

The challenge

Invasive non-native species (INNS) are a contributing factor to the decline of certain native species and habitats. With our position so close to mainland Europe and our role as an international port, our coastal habitats are particularly vulnerable to invasive non-native species and often the front line and first point for new species. The changing climate, leisure pressures and habitat degradation is increasing the impact of certain invasive non-native species.

Invasive non-native species can smother a habitat and outcompete native species. This reduces general biodiversity and abundance of species in a habitat, making it even less resilient to changes in the environment, which could cause an ecosystem to completely collapse.

If we don't address invasive non-native species, efforts to restore our coastal and marine ecosystems will at best be undermined and worst not be effective at all.

Wildlife disturbance at the coast is well document and we have initiatives already in place in Kent to help minimise this. Bird Wise is a development funded project which monitors and prevents disturbance, through engagement activities, to coastal birds in Kent's Special Protected Areas. But with an increasing population and growing visitor numbers, this on its own may not be sufficient to curb wildlife disturbance.

Many maritime activities unintentionally cause harm to marine species. Boats, jet skis, canoes and paddle board use is often unregulated and unmanaged. Craft can be launched or landed in the wrong places, including protected sites. Often disturbance results from a lack of knowledge of just how sensitive sites are and how vulnerable wildlife can be.

Marine infrastructure can also impact our marine species. Whilst such developments are regulated and protections exist, we need to ensure marine wildlife is a consideration from the outset and design and construction not only minimise impacts but also presents opportunities to support nature recovery.

What Plan Sea will do

Plan Sea will provide a framework for a collaborative and joined-up approach to managing the risk of invasive non-native species. Initially this will focus on the known risks highlighted in the Local Nature Recovery Strategy:

- Invasive spartina in seagrass beds.
- Invasive Pacific Oyster in Native Oyster and Blue Mussel beds.

- Invasive species in sand dune systems.

Plan Sea will work with stakeholders to review and identify other invasive non-native species risks to our coastal and marine ecosystems and seek to develop systems by which these risks can be monitored and managed.

Plan Sea will engage with others across the country to share data and findings and ensure learning from elsewhere can benefit efforts in Kent to control invasive non-native species.

Plan Sea will utilise efforts in the ocean literacy work to educate and inform visitors and recreational users of coastal and marine wildlife disturbance.

Plan Sea will provide a framework for collaboration and a coordinated approach to manage wildlife disturbance, to ensure that interventions to manage impacts in one area don’t just push the problem to another section of coast. This partnership approach will also provide a forum where organisations can share best practice and develop ideas.

Objective 6 – Showcase the county's coastal and marine areas

Champion Kent and showcase the county's coastal and marine areas to highlight the challenges and achievements of the coastal county at a national level.

The challenge

The 2009 Marine and Coastal Access Act was designed to manage the marine environment and improve marine protection. Whilst new protections were introduced, the promises of improvements to our marine environment have not materialised.

There is a lot we can do at the local level and this is what Plan Sea sets out to do. But national action is also needed and the government's recent commitments through the Environment Improvement Plan will only be achieved if sufficient resources are made available.

What Plan Sea will do

Plan Sea will champion Kent and showcase the work the county is doing. It will make use of its role on the Local Government Association Coastal Special Interest Group (LGA Coastal SIG) to engage with government departments and agencies to not only share the work underway but also highlight the challenges and barriers to its delivery.

Plan Sea will use the Local Government Association Coastal Special Interest Group and other networks to share learning with other coastal authorities.

Delivery of Plan Sea

An annual action will be developed, outlining the work to be taken forward in support of the six Plan Sea objectives. This action plan will be developed with partners, recognising the important role they play is delivering Plan Sea.

Biennially, progress against these objectives will be reviewed and reported, and this will be used to inform priorities for the year ahead.

Plan Sea has a dedicated officer but funding to support its delivery will need to be secured. With diverse ambitions, this could open multiple areas of funding opportunities that need to be explored. Some examples of this are below.

Blue carbon and blue finance

Opportunities for funding marine recovery projects could include;

- The use of **Biodiversity Net Gain** (BNG) credits in coastal development sites. BNG is a statutory requirement of developers to increase biodiversity by at least 10% of biodiversity improvement before development. This applies to areas down to the mean low water mark.
- **Marine Net Gain** (MNG) has the same principles as BNG but is not currently statutory and will be applied in offshore developments below the mean low water mark. MNG will incorporate both species and habitats, wider environmental benefits and pressure reduction however, there is currently no existing framework for trading, costs, management or monitoring. There are also no established ways of quantifying marine habitats, so MNG has some way to go before it is ready to be used as a blue financing option. That's not to say trials aren't happening; marine irreplaceable habitats are being mapped by the Marine Restoration Project (MaRePo) investigating habitats and species with potential for restoration, recovery and enhancement.
- The carbon captured and stored within marine habitats, including mangroves, seagrasses and saltmarshes, represents a significant opportunity for nature-based climate action. Often referred to as "**blue carbon**" ecosystems, these habitats can sequester carbon at rates equivalent to, and sometimes exceeding, those of terrestrial forests. Alongside carbon storage, they deliver valuable co-benefits, such as improving habitat quality for marine species, supporting sustainable fisheries, and strengthening the resilience of coastal communities to flooding and coastal change. Blue carbon environmental credits are a scheme for businesses and financers to invest in the regeneration of these carbon-sequestering marine habitats, but they remain critically underfunded, attracting less than 1% of international climate finance. But there are promising progresses in this area as governments show interest in blue carbon solutions to achieve their climate targets. For example, there is currently a project in place establishing a Saltmarsh Code, for saltmarshes to be used as a habitat bank and direct carbon-offsetting funding for regenerating saltmarsh across the UK.
- Leading on from successful trials of Natural England's Nutrient Neutrality scheme, using **environmental credits** to capture and store excess nutrients

(such as phosphorous and nitrates) in water bodies, some ideas have been discussed about creating a similar model for marine.

- **Tourism tax** has been introduced across certain countries in the world, and some have used the money to invest in the conservation of marine and coastal habitats, where increased tourism is a detriment to the marine habitats of that country. Recent analysis suggests that tourism taxes could generate between USD 400 million and USD 2.3 billion annually for ocean protection, helping to address up to 15% of the ocean finance gap. While not a complete solution, they offer a practical and politically viable source of domestic funding for Marine Protected Areas (MPAs), particularly in high-value tourist destinations.

Arts funding

Many ocean literacy projects could be supported by creative arts (e.g. Arts Council England) or lottery funding. Putting together a project that connects people to their environment through education and engagement could open multiple funding opportunities. The Plan Sea officer would investigate these areas of opportunities and co-ordinate them with local artists, facilitators and practitioners looking to engage Kent citizens with the ocean and enable actions to help restore it.

Industry funding

Many large businesses in Kent offer funding for local environment projects. Some examples include;

- The Port of Dover Community Fund provides grants ranging from £2,000 to £10,000 for grassroots projects that enrich the social, cultural, and environmental life of Dover and its surrounding areas.
- Vattenfall, who own the windfarm off the coast of Thanet have community funds they invest in annually.
- Recycling companies such as Viridor offer WeShare Community Fund, which distributes £320k annually to local projects and charities. There are 2 Viridor waste recycling sites in Kent.