PROCEEDINGS FROM WORKSOP MARINE NATURE RECOVERY OPPORTUNITIES

FAL & HELFORD MARINE NATURE RECOVERY WORKSHOP

FINAL

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Environment Agency

Cornwall Wildlife Trust

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NATURAL ENGLAND

Cornwall Catchment Partnership

PREFACE

This report is an output for Year 2 of the project entitled "Coordinating Cornwall's Coastal Recovery: coast and marine nature recovery action plans to achieve 30 by 30" project which ran from October 2023-March 2024.

The partnership taking this phase of the work forward is hosted by Cornwall Wildlife Trust and includes Cornwall Council, Cornwall Catchment Partnership, Environment Agency and Natural England. The project is funded through the Environment Agency's Water Environment Improvement Fund under the banner of 'Championing Coastal Collaboration' (3Cs).

The work has been carried out through Kaja Curry Consulting and Services for Cornwall Wildlife Trust.

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All reports are available at:

https://www.cornwallwildlifetrust.org.uk/what-we-do/our-conservation-work/at-sea/coastal-partnerships

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1 INTRODUCTION

On 16 January 2024, the Cornwall 3Cs Project organised a workshop for to focus on marine nature recovery specifically tailored for the Fal and Helford Estuaries.

The work continued the **Cornwall 3Cs Project** which explored how best to build coastal collaboration to achieve coast and marine nature recovery plans. The work is hosted by Cornwall Wildlife Trust and the partnership includes Cornwall Council, Cornwall Catchment Partnership, Environment Agency and Natural England. The project is funded through the Environment Agency's Water Environment Improvement Fund under the banner of 'Championing Coastal Collaboration (3Cs) and further information can be found here: Coastal Partnerships | Cornwall Wildlife Trust

The Fal and Helford was selected as a study site due to the complexities caused by the environmental designations (including Special Area of Conservation and Special Protection Area); its multiple uses (busy port, fishing, aquaculture, recreation and range of communities); the multiple habitat restoration projects already underway and the presence of an overarching SAC Management Group.

A total of 29 participants participated in the workshop, from a range of organisations including Falmouth Harbour, local community groups as well as the fishing sector plus Cornwall Wildlife Trust, Natural England, Environment Agency, Duchy of Cornwall, Cornwall Protected Landscape and Marine Management Organisation and a full list is appended.

Through a range of speakers and participative sessions, the workshop objectives were to:

- Update participants on key initiatives for Cornwall coast and marine;
- Provide information from other areas and learn from their experiences;
- Introduce the concept of a Marine and Coastal Local Nature Recovery Strategy;
- Collect input from key stakeholders on drivers and pressures;
- Identify opportunities for nature recovery on the Fal and Helford.

The timetable for the day is provided in APPENDIX I: WORKSHOP AGENDA

The full slide-pack is available at from Coastal Partnerships | Cornwall Wildlife Trust.

2 SESSION 1: WELCOME, INTRODUCTIONS AND OPENING

The opening session included welcome and an overview, an introduction to the biodiversity of the Fal and Helford, an explanation of the need for coastal collaboration and a presentation on the work of the Cornwall 3Cs project over the last 2 years.

Ruth Williams, Head of Marine, Cornwall Wildlife Trust welcomed the participants addressing the need for a new approach due to increasing evidence that targets to safeguard the environment and biodiversity are not being met. She gave examples of recent statements from the Office for Environmental Protection, the Chair of the Environment Agency and Cornwall Council who had all found that a stronger collaborative approach was needed to deliver the targets. This requirement was very much at the heart of the Cornwall 3 Cs work which over the previous 2 years had been developing a framework for a coastal partnership for Cornwall. Ruth went onto explain the purpose of the workshop was to seek inputs and generate ideas for collaborative projects to improve the coastal biodiversity whilst delivering social and economic gains.

Introduction to Fal & Helford Biodiversity- Matt Slater, Marine Conservation Officer, Cornwall Wildlife Trust: Matt presented on the biodiversity of the Fal and Helford Estuaries and Falmouth Bay Special Area of Conservation (see Figure 1). He explained that the

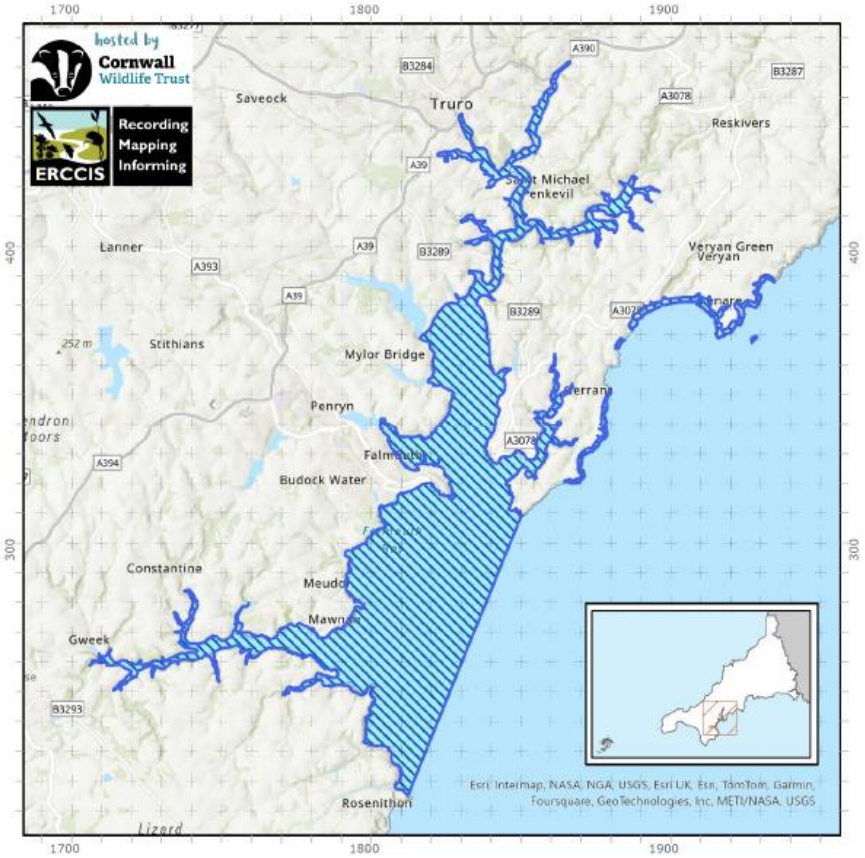


Figure 1: Fal and Helford Special Area of Conservation

waters were of very high importance for many species of conservation concern with 213 species of conservation concern recorded by the county's environmental records centre (ERCCIS) and that these included 107 marine birds, 22 bony fish, 7 cartilaginous fish, 12 algae, 8 crustaceans, 5 brown seaweeds, 13 cnidarians (including jellyfish, anemones, corals and sea pens), 17 molluscs and 17 species of marine mammals. The waters are some of the richest in the UK with a total of 589 species being recorded out of a total of 2105 for the UK. This equates to 28% of all Seasearch UK species being recorded in the Fal and Helford SAC which represents exceptionally high value.

Matt explained that the Fal and Helford supported important populations of many rare species including the Giant Goby, a fish more usually found further south in the Mediterranean, and that Swanpool is the only known UK location for the rare bryozoan known as Trembling Sea Mat. There are also important seagrass beds which he explained were important not just for blue carbon but also as a home for many species including seahorses which had recently been recorded. He went onto explain that the live Maerl beds off St Mawes is the only significant bed in the Fal, is of national importance and is considered to be irreplaceable by Natural England and that maerl beds are known to support 500 species of invertebrates and 300 seaweed species. Falmouth is also home to the last native oyster fishery in the UK with the largest density to be found on Turnaware Bar, at the north of Carrick Roads.

Matt also described that the species found in the waters were changing; for example, numbers of the crawfish *Palinurus elephas* had been increasing since 2016 when larvae were thought to have travelled over from Britanny. Since then, commercial landings had increased so this now needed to be managed.

He also explained the risks from some of the marine invasive non-native species such as Montagu's Crab, Harpoon weed, Pacific Oysters and Wakami Weed which were arriving into the waters often because of human activities.

Why we need collaboration at and for the coast: Simon Jeffery, Senior FCRM Advisor, Environment Agency: Simon gave examples of where collaborative projects were delivering multiple benefits such as:

- £1 million Marazion Marsh restoration project to protect this important designated habitat;
- £1.2 million Newlyn Eco-block project to explore ways of improving the ability of coastal defences to support biodiversity
- £3.1 million Calstock habitat protection project on the Tamar.
- Making Space for Sand delivering projects across numerous sites in Cornwall (£6 million) and Bude – project to improve flood defences and habitats (£3 million). These projects are using the dunes as a key habitat and as a means of coastal protection;

- Lower Otter River Restoration project – a £27 million project that will restore 52 ha whilst maintaining access, relocating facilities where necessary, reducing flood defence maintenance costs and building community resilience to flooding.
- Solent Seascapes Endangered Landscapes project looking to restore sea life in the Solent ($5 million)
- Plymouth Sound National Marine Park - £9.5 million to help local people value their marine environment.
- Aviva Wetland Restoration Project in Somerset (£21 million).

Simon went on to describe that by working through collaboration, these large projects were able to deliver multiple benefits such as addressing the consequences of climate change and resilience; of providing landscape scale recovery and also of tackling some of the land-based activities that can impact on the marine environment. Also, by working together partners benefited from a shared vision and being able to coordinate activity, with the right skills being brought by the right partner. They were also better able to engage more widely with the community and to secure larger funding pots.

Towards Coastal Collaboration the story so far and what we're going to acheive today - Kaja Curry, Project Consultant: Kaja explained that she had been working on the Cornwall 3Cs project for the previous two years and explained that five strands of work were being brought together to help develop a framework for delivering marine nature recovery for the Fal and Helford. These strands were:

- The new and emerging Cornwall and Isles of Scilly Marine and Coastal Partnership (CIoSMCP)
- Natural England's Marine Natural Capital Environmental Assessment;
- Cornwall Local Nature Recovery Strategy;
- Fal and Helford Management Forum
- Lessons and best practice from elsewhere.

She went onto give a quick overview of the last few years of the Cornwall 3Cs project which had started in December 2021 when work was undertaken to look at best practice, carry out consultations and explore the key issues and challenges affecting the ability to work collaboratively at the coast. As a result, terms of reference for the CIoSCMP were drafted, objectives were identified and initial work was started on the Fal and Helford. [All documents are available at Coastal Partnerships | Cornwall Wildlife Trust]. She explained the draft vision for the Partnership was

> *"By working collaboratively, the Cornwall and Scilly Coastal and Marine Partnership will support the delivery of resilient marine and coastal ecosystems and the growth they can deliver through nature-based solutions and community-based capacity building."*

Kaja then described the six proposed thematic objectives as follows (Curry, 2023):

i. Work across our coast: establishing a new partnership to drive a coordinated and collaborative approach:
ii. Restore the coast: developing the framework for marine nature recovery;
iii. Focusing on coastal hotspots through pilot areas, coastal partnerships and a place-based approach;
iv. Supporting marine-aware communities and businesses through marine literacy and blue environmental growth;
v. Investing in our coast through innovative funding solutions for marine nature recovery;
vi. Understanding our coast through shared data, a data portal, evaluation and monitoring.

Finally, Kaja gave some examples where other Local Nature Recovery Strategies were going beyond the terrestrial limit and were extending into the marine area: the first one was Kent and Medway where their Local Nature Recovery Strategy was including marine, also North Devon Marine Nature Recovery Plan which had recently been published and finally Yorkshire Marine Nature Partnership which extended out to the 12nautical mile limit.

3 SESSION 2: MARINE NATURE RECOVERY

Marine nature recovery across Cornwall - Abigail Crosby, Senior Marine Officer, Cornwall Council: Abigail explained how current legislative drivers are providing opportunities for marine nature recovery. One such is Highly Protected Marine Areas which would prohibit destructive activities within certain areas, whilst another was the recent Fisheries Act and associated bylaws and fishery management plans with a focus on delivering sustainable fishing. Abigail also described the Marine Natural Capital Ecosystem Assessment as an opportunity as it will provide a framework for more holistic decision making whilst the requirement for 'Marine Net Gain' will ensure that new developments leave the marine environment in a better state. She then went onto explain that the Marine Management Organisation were in the process of reviewing the Marin Plan and that it was the Environment Act 2021 that introduced the concept of Local Nature Recovery Strategies (LNRS) as a means to map out the action needed to restore nature.

Abigail went onto describe how Cornwall Council had identified three strategic challenges for 2023/24 with strategies developed for tackling them; the first one was the Climate Emergency and that this would be tackled through Local Area Energy Plans which would help reduce emissions to net zero. The second one was the Ecological Emergency and that the key delivery vehicle would be the Local Nature Recovery Strategy, which whilst it was not mandatory, would consider the marine environment. And finally, the third strategic priority was Environmental Adaptation which would be tackled through the Cornwall Adaptation Strategy.

Cornwall's target for tackling the Ecological Emergency is to ensure that at least 30% of land, rivers and seas will be well managed for nature by 2030. Abbigail explained that to date whilst 36% of Cornwall's coastal waters between 0 and 12 nm from the shore were designated as marine protected areas, only 8% of was actually well managed for nature in 2021.

She went onto say that Cornwall Council was in the process of developing the Cornwall Local Nature Recovery Strategy and that they had already undertaken some consultation with the public to identify what their priorities would be. Unsurprisingly for a coastal county, marine had the highest number of mentions in 2000 responses and so work was currently underway to identify the key habitats and features, priorities, targets, and actions across the county.

Abigal explained that whilst the process to develop Local Nature Recovery Strategies was clearly set out for terrestrial environments, a recent study by the University of Exeter, carried out as part of C3Cs, had found that the process was not readily applicable to the marine environment. Such factors included the dynamic nature of marine and coastal environments, lack of robust data, complex governance and legal frameworks and difficulties around mapping the socio and cultural factors that influence costs and benefits (Mosedale, 2023).Mosedale went onto recommend that particular attention was given to compilation of species of conservation and economic importance, that marine and coastal habitat mapping was carried out and that spatial indicators were developed to show the exposure to risks and pressures. Also that the

relevant benefit provided by the key ecosystem services needed to be mapped and that exiting maps of potential habitat restoration sites could be further assessed.

Notwithstanding these challenges, Abigail explained that existing and emerging initiatives provided the opportunities to address these challenges head on. Natural England's Cornwall pilot around the Marine Natural Capital Assessment would help plug some of these data gaps, whilst regional projects like the Cornwall blue Natural Capital Project and the Cornwall LINC project would provide further data. The emerging C&IoSMCP would help bring the key players together and the Marine Data Hub will ensure that data is readily available, but Abigail stressed that collaboration was the key to all of this.

Abigail introduced the key findings from the Blue Natural Capital Project, which represents a partnership between Cornwall Council, the Fal and Helford Protected Area, Environment Agency, University of Exeter, Natural environment Investment Readiness Fund and Natural Capital Solutions. This baselined the amount of carbon stored in kelp, saltmarsh, seagrass and maerl in two locations at Fal and Helford Estuary and in Mounts Bay, then went onto model recovery potential and associated risks and looked at options for increasing investment to support the delivery of blue carbon projects. It also assessed the importance of maerl and identified that some saltmarsh is outside the designated sites on the Fal and the Helford as were therefore unprotected. It found that the greatest risks came from excess nutrient discharges, recreational boating and increasing turbidity and that there were opportunities for investment through routes such as from philanthropic sources.

Finally, Abigail described the LINC Project which is looking to catalyse private funding in natural capital to help meet the local nature recovery targets of 30% of land, rivers and seas well managed by 2030. The project aims to link investment-ready natural capital projects, through a platform providing specialist support and marketing, to potential funders, buyers and investors, acting as a kind of trusted matchmaker.

Marine Natural Capital Assessment what it is and how it will help us - Tara Hooper, Principal Specialist Marine Natural Capital, Natural England: Tara spoke about the **Marine Natural Capital Assessment Programme** explaining what it is and how it will help us. She explained that natural capital refers to the wealth of resources and benefits that nature provides, including ecosystem assets such as forests, wetlands, and the marine environment. These ecosystem assets provide ecosystem services such as clean water, climate regulation and food production, which benefit humans in various ways. The benefits derived from natural capital include health, economic development and other societal benefits which can be useful to think of a value to help guide decision-making. The natural capital can be affected by pressures, drivers of change, management interventions and other capital inputs which can subsequently impact on the value.

Tara described some work that Natural England (Natural England, 2023)had recently carried out where they had looked at over 30 active stakeholder-led marine nature recovery projects from around the country. The projects were focused on saltmarsh, seagrass, native oyster, kelp, and

other habitats/species and they asked people about their views on restoration and valuing the ecosystem services. People mentioned the importance of recognising the non-monetary value of the services provided and the importance of making the connection with all types of value. They also spoke of the need to find a way to create a self-financing circle to enable restoration to continue.

She described the five key steps needed for integrating natural capital into nature recovery as first of all needing proper engagement to ensure diverse voices are heard; secondly to bring in evidence including assets, ecosystem services, benefits and values, pressures and risks and opportunities. The third step was explained as integrating all this evidence into visualisation through a geographical information system which then supported the next step of identifying spatial priorities and the fifth and final step was investment to bring in private investment and blended finance.

Tara explained that work had started on stage two around the evidence gathering, for example Natural England had completed a natural capital assessment of the seagrass in the Isles of Scilly SAC (Natural England, 2022) which provided the stage 2 evidence for this one particular habitat. Another project described was at West Sussex, where the value of kelp beds had been assessed for the local IFCA (NEF Consulting, 2019). This had identified that the kelp provided many services such as food, it improved air quality, protected underlying sediment from disturbance and or providing important reproduction and nursery areas for many marine species. They were able to provide a monetary value to the services they provided which helped to make the case for introducing byelaws to limit bottom trawl fishing.

On the Isles of Scilly, they had taken this further by then looking at the sensitivity of each asset and the ecosystem services they provide, by changes in fishing activity (Ashley et al., 2020), whilst in North Devon they had taken this one step further by undertaking a natural capital asset and risk register and then developing a marine natural capital plan to develop a marine natural capital plan and associated business case using innovative funding models.

Finally, Tara concluded that the NCEA project was looking to explore all of Natural England's six components making up the Natural Capital Approach. This included (i) providing the site context with boundaries, site users and stakeholders identified; (ii) describing the assets in terms of habitats and species, inventories, baseline and asset register; (iii) classifying the ecosystem services and choices, linking natural capital assets to ecosystem services; (iv) providing an overview of valuation methods, both monetary and qualitative and describing the accounting method; (v) providing case studies on how the approach has been used for decision making and management interventions and also tools and evidence for restoration and recovery options; (vi) providing tools to help measure and monitor changes in condition, human activities and pressures and for maintaining a natural capital risk register.

Experiences from North Devon Biosphere - Andy Bell, Biosphere Co-ordinator:
Andy explained that they were one of the first areas to develop a marine natural capital plan through work which had started in 2016 as part of the Marine Pioneer and SWEEP projects. He

explained that as part of this they had undertaken a natural capital stock take, assessed the extent and condition of key habitats, quantified the ecosystem services, identified the beneficiaries and recommended options for remediation. He gave an example of food provision where they had identified changes in the types and value of fish being landed and the subsequent change to employment. For all of this GIS was a key tool for engagement and communications.

Andy went onto explain that the first natural capital plan did not cover species, so further work was undertaken in 2022 to look at the marine habitats and key species and that through engagement with the 200 identified stakeholders, the key pressures and threats were identified along with current positive activities and a root cause analysis was carried out to identify where key interventions are needed. For example for common guillemot they found that the key drivers are human impacts, climate change and off-site development. They now have maps showing all the integrated management measures for the site and they are one of the first areas to have completed their Marine Nature Recovery Plan. They also now have a project officer and are integrating the work around the blue economy to natural habitat restoration.

Other work that they are involved in is around the ‘Smart Biosphere’ project which is using digital monitoring platforms in order to increase understanding around the habitats that will be lost to climate change within their catchment and also looking ahead to tie in with the offshore energy projects

4 SESSION 3: UNDERSTANDING THE FAL AND HELFORD

Fal and Helford – Natural England's perspective – Esther Hughes, Natural England: Esther explained that the waters of the Fal and Helford have multiple environmental designations with various boundaries and that there are four types with marine features within the area. She explained that Helford is designated as a Marine Conservation Zone (MCZ) as are the waters around the Manacles; most of the waters are also designated as a Special Area of Conservation (SAC); all the waters from the Helford to St Austell Bay are designated as a Special Protection Area (SPA) that there are eight component Sites of Special Scientific Interest (SSSI) covering much of the intertidal areas.

Esther went onto explain that the designated features of the SAC included Atlantic salt meadows, estuaries, large shallow inlets and bays, mudflats and sandflats not covered by seawater at low tide, reefs, sandbanks which are slightly covered by sea water all the time and the specific plant of Shore dock (*Rumex rupestris)* and that all of the features bar the salt meadows and shore dock also had designated subfeatures which include maerl, seagrass, intertidal and subtidal mud.

She highlighted maerl, which is recognised by Natural England as a 'Marine Irreplaceable Habitat' (Natural England, 2023) and was mapped in 2013. She described maerl as a key complex subfeature consisting of several species of calcified red seaweeds which grow as free-living nodules on sediment sea beds in sunlit waters and that their irreplaceability is a product of their slow-growing and fragility.

Esther also highlighted the subtidal seagrass beds with their rich associated flora and fauna which are found throughout the lower reaches of the SAC and provide an important habitat for a wide range of species of fish, mollusc, cnidarian, polychaete, crustacean and algae. She explained that the largest beds are found in the Helford, at Maenporth and in the lower Percuil near St Mawes and that that in the 2018 SAC Condition Assessment they were found to be in unfavourable condition.

Overall the SAC is in unfavourable condition with a significant long-term reduction in habitat extent and quality, including the seagrass and maerl. Esther explained that this was a result of pressures and threats which include recreation, invasive non native species (INNS), fishing, climate change, development pressures, pollution and agriculture (which affects water quality). She explained that Natural England (NE) are focusing their work on reducing pressures and she gave the ReMEDIES project as an example, but that they are also keen to explore restoration of other habitats for example intertidal seagrass beds and native oyster beds.

Esther went onto explain that a lot of their work focuses on evidence in order to inform the condition assessments and that dive transects on the maerl beds both within the SAC and also in the SPA had been carried out for which they relied on genetic analysis to identify the maerl beds. They recorded over 370 species associated with the maerl beds which were mostly red

seaweeds, worms and gastropod snails along with 140 seaweed species which showed just how diverse these maerl beds are. They also recorded some invasive species.

Overview of the SAC Management Forum – Mike Pereir, Chair of SAC Management Group and Environmental Manager at A&P: Mike explained the role for the SAC Management Forum as bringing together the relevant authorities with statutory powers in the marine environment within or adjacent to the SAC. He listed the current members as being the ports, Cornwall and Falmouth Councils, Cornwall IFCA, Environment Agency, Natural England and Marine Management Organisation Duchy of Cornwall and the Port Health Authority as well as the SAC Advisory Group and A&P. He went onto explain that the management forum does not have any statutory powers but acts in a collaborative manner, meeting quarterly and sharing information. He also explained the Advisory Group which is open to other organisations who wish to engage with the management of the SAC. Mike went onto explain the role of the Estuary Officer which is a position within Cornwall Council which provides information to the community and helps manage the marine leisure activities to ensure that they do not impact on the SAC features. Mike concluded that the management of the SAC only works through cooperation and that whilst there is a cross-section of organisations with often different aims and views, the Forum members all shared the common goal of protecting the a healthy marine environment. As such the Forum is the platform at which best practice is discussed, information on activities and plans is exchanged and changes in published guidance is reviewed.

Fal and Helford case study – Falmouth Harbour Drivers and Pressures - Victoria Spooner, Falmouth Harbour: Vicky explained that they have used the Harbour's integrated management system to review and understand how their activities interact with and impact on the local environment, and that through some work with the local university they now have a natural capital asset and risk register which has helped them to prioritise areas around seagrass and maerl habitats.

Vicky went onto explain that in 2021 they undertook passive seagrass restoration to remove the pressure on seagrass from recreational moorings by taking out 11 swing moorings just west of Trefusis Point. Recent monitoring indicates that the scour patches are already regenerating.

They have also trialled Advanced Mooring System (AMS) which is a configuration that reduces abrasion of the seabed. These were installed on marker buoys in 2021 and on mooring buoys in 2022. The marker buoys were to show the voluntary no anchor zones and carry awareness-raising messages on them, encouraging boat users to anchor away from the seagrass beds.

The harbour has also introduced measures to improve water quality with washdown capture mats, black water reception facilities, a Seabin to reduce plastic pollution and they have been trialling non-biocidal antifoul solutions on some of their vessels.

Fal and Helford case study – Helford Voluntary No Anchor Zone (VNAZ) – Sue Scott, Estuary Officer, Cornwall Council: Sue explained that through a the S106 planning process, a levy is on new housing is collected to pay for mitigation against impacts on the

designated habitats from increasing marine recreational activities. This funding pays for a series of interventions, projects and collaborations which manage the pressure and raise awareness. These include measures to raise awareness about the damage caused by cigarette butts thrown into the water, water-user guides, rockpool codes of conduct and the introduction of AMS.

She explained that within the Helford River, they introduced a voluntary no anchor zone extension through a collaboration with Cornwall Council and the local harbour with funding from the ReMEDIES Project in order to match the known extent of the seagrass beds. They also monitored mooring activity through boat patrols carried out with volunteers and they hope to see improvements to the seagrass coming through into Natural England's condition assessment.

Engaging with the wider community – Jenny Wright, Cornwall & Isles of Scilly Marine and Coastal Partnership (C&IoSMCP) Officer, Cornwall Wildlife Trust:
Jenny explained that engaging with local communities was crucial for local knowledge, education and engagement, citizen science, stewardship, effective implementation of policies and to support conflict resolution. She went onto explain that the C&IoSMCP will integrate community partnerships through work in the Fal pilot area as well as through broader community engagement and through community workshops to identify the priorities, the ongoing projects and the resources both present and needed.

Jenny went onto explain the 'Charter of the Sea' initiative which had been trialled in Mounts Bay. This was a community exercise to identify their local priorities and she highlighted that workshop for Fal and Helford was to take place in March. She anticipated some overlap and thought that the community priorities may include seagrass, marine mammals, water quality, pacific oysters, collaboration, citizen science and education and outreach.

5 SESSION 5: PRIORITIES AND OPPORTUNITY MAPPING

Introduction to session - Kaja Curry, Project Consultant

Kaja introduced the session by describing the key steps as being first of building a description of the area, then mapping out the existing designations, then looking at the opportunities for restoring nature, after that comes identifying the priorities for restoring nature followed by setting out the actions required to achieve the priorities and then mapping the focal areas for restoring nature.

She explained that it was important to build on the existing evidence and knowledge, including the Environment Agency's opportunity mapping, Natural England's data available on its Magic data site, the previous work of the Cornwall 3Cs project, and all the information available through the Fal and Helford Management Forum, the emerging Cornwall Marine Data Hub, Falmouth Harbour's risk assessment and data from projects such as the Blue Carbon Project that had mapped key habitats such as seagrass, maerl, kelp and saltmarsh.

She explained that we had good knowledge of all the designated sites, and the way in which they all overlap with none of their boundaries aligning. She also showed the map of the key carbon habitats showing the known locations of some of the key blue carbon habitats and oyster bed potential sites, with not all them within a designated site. She showed some of the recreational data available through an MMO project which is available on the Cornwall data hub showing slipways, boat mooring and recovery areas, diving sites and boat angling intensity along with designated bathing waters. She said that whilst it is useful to look at each layer separately, it is most interesting to see when they overlaid as then for example you can see that some of the areas with high potential for oyster beds overlap with areas of medium high angling activity.

Drivers		Pressures	
• Ports & shipping; • Marine renewables • Dredging, extraction etc; • Fisheries and Aquaculture; • Water quality management • Climate change;	• Access and recreation (land) • Access and recreation (water); • Development (housing) • Education and awareness; • Other marine economy.	• Abrasion / disturbance to the habitat; • Habitat structure changes (extraction); • Physical loss or physical change; • Barriers to species movements; • Litter; • Removal of target species;	• Changes to water clarity, chemical changes, contamination; • Introduction or spread of invasive spp; • Visual or sound disturbance; • Organic and inorganic enrichment; • Noise.

Table 1: Example drivers and pressures

She described the difference between drivers and pressures, with drivers leading to environmental pressures and she proposed that it might be useful to categorise them by sector.

She gave some examples and then described pressures as the stresses that arise from a driver that cause a decline in the natural environment and used the JNCC Marine Activities and Pressures Evidence. She gave examples as shown in Table 1: Example drivers and pressures going onto explain how complicated it gets with all the drivers competing for their own marine space resulting in the marine environment being under increasing pressures.

Participants were asked to work in five groups and to write down the key drivers and their resulting pressures, and where possible to draw impacted areas on the charts and then to flag any data gaps in research where known.

Marine Nature Recovery Options

Kaja went onto give some examples of marine nature recovery that had been undertaken along with costs for example shellfish restoration through placing oyster reef balls in the water cost £7,847 / unit (Howell Marine Consulting / DEFRA, 2022).Another example was the Sussex Kelp project which included a suite of activities of data and research, trawling bylaws, active kelp restoration and community awareness projects. Smaller scale examples were from Sydney where volunteers had installed seawall enhancements in the form of tiles that encouraged colonisation. Other examples also included seagrass propogation and planting, removal of pressure for example in West Sussex where they had removed trawling to support kelp restoration and softer techniques such as angling codes of conduct to reduce angling impacts and introducing no anchoring zones.

Finally, participants were asked to identify coastal and marine nature recovery opportunities and to map them on the charts, and discuss the actions that might be included.

6 WORKSHOP RESULTS:

6.1 Drivers

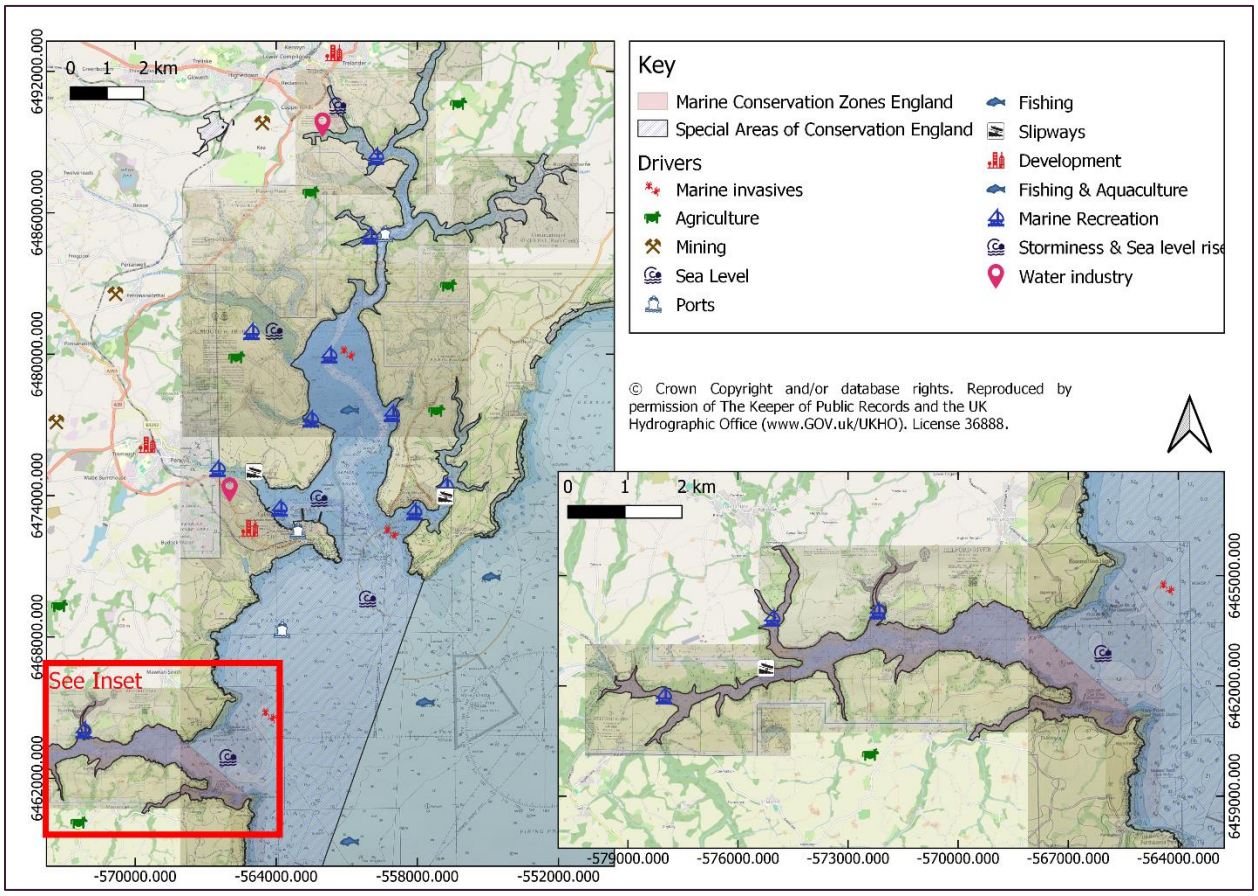
Table 2: Drivers identified through the workshop; frequency = number of times mentioned.

Drivers	Comment	Areas	Freq
Agriculture, mining, and forestry	Changes to agricultural practices leading to increased silt in rivers and harbours resulting in impact on habitats including shift from grazing to crops.	All rivers and harbours.	1
	Mining resulting in impacts on water quality.	Devoran and Carnon Valley	1
Biosecurity	Spread of invasive non native species.	Falmouth Estuaries	2
Climate change	Climate change / sea level rise leading to irreversible habitat loss (especially saltmarshes), migration of saltmarsh and flooding. Also increased rainfall leading to [tidal] gate closure and increased levels of silt in harbour resulting in reduction in flood storage capacity and protection.	Falmouth Estuaries	5
Conservation	Increased drive to conserve key species especially maerl beds and seahorses.	Areas of maerl and seagrasses	2
Development	Population increases leading to planning and development and commercial ship building and associated port development.	Fal Estuaries and Helford.	6
Fishing and Aquaculture	Fishing activity including all commercial fisheries activities, aquaculture, scallop dredging and tuna fisheries, netting and potting, native oyster fishery and Pacific oyster cultivation. Potential for seaweed farms which can increase potential for new developments which can lead to disturbance and increase in [sea] anchors.	Areas of current fishing activity. Gerrans Bay for seaweed farming, also throughout area.	8
Infrastructure	Infrastructure mentioned included sewage treatment works; Newham STW was mentioned, as was the over-stretched sewage system, outfalls and the increasing number of sewage discharges. Water treatment works were also mentioned in particular new water abstraction plants using desalination. Roads and rail and transport infrastructure was also mentioned as a driver.	Sewage Treat Works and discharges were particularly mentioned.	7
Legislation	The loss of EU protections regarding fishing, farming and environment was seen as a driver which impacts everything.	All areas	1
Recreation and tourism	Recreation was the most frequent driver being cited by all tables and across all areas. Of particular note was the increase in marine leisure and recreation leading to increased anchoring and mooring, more sewage and discharges from them, more risk of abandoned boats and derelict boats and also more of a demand for slipways and access points. The drive towards more recreational fishing of all types was also noted including angling, spearfishing, foraging and potting as was the drive towards more SUPs and kayaks leading to increased disturbance.	All areas but particularly coming out of the urban areas and towards areas of good access and marinas and slipways.	19

Drivers	Comment	Areas	Freq
Shipping & offshore development	Bunkering and all shipping activities were identified as was the 'Fabtest' area in Falmouth Bay as an area to test offshore wave and devices. Offshore wind was also identified as a key driver leading to more vessel movements and thereby disturbance and abrasion. The demand for more ships was associated with more port development.	All deepwater navigable areas. The Fabtest site is south of St Anthony Head.	19
		TOTALS	71

Where drivers were linked to a location, they are shown in Figure 2.

Figure 2: Drivers identified through the workshop. Map on left shows the Falmouth Estuary, map on right shows the Helford.



6.2 Pressures

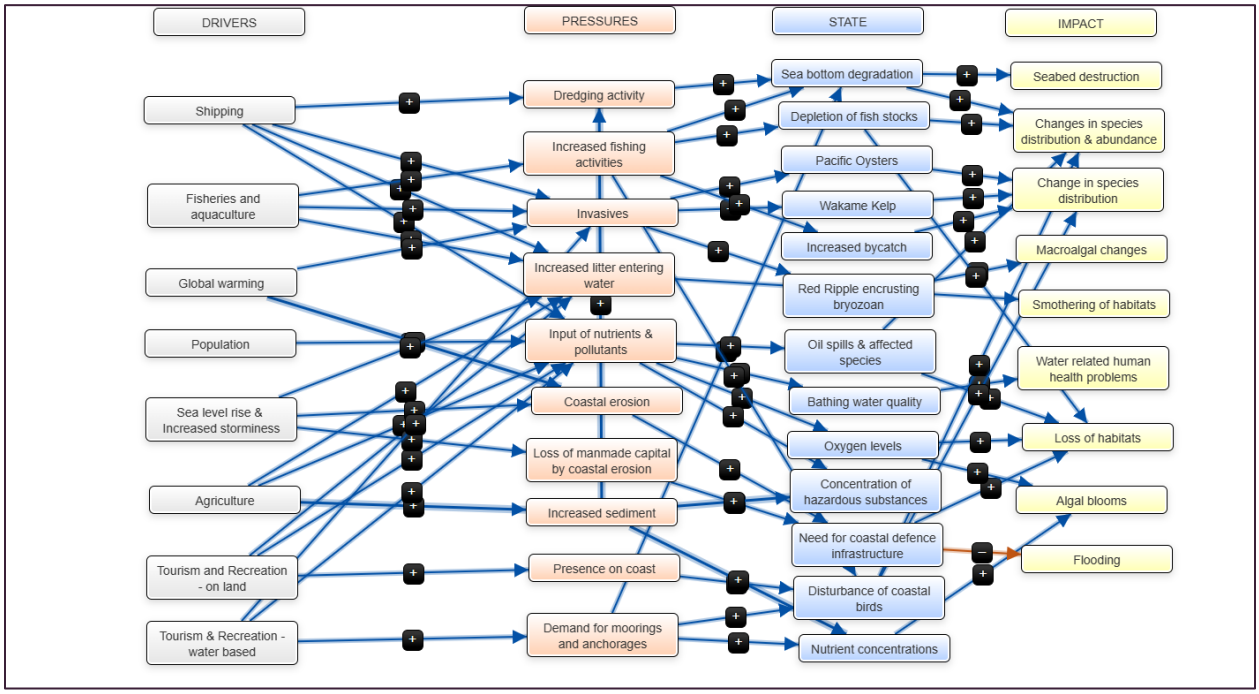
Participants were asked to identify the key pressures that the waters of Fal, Helford and Falmouth Bay were facing. In total 41 comments were received and these are summarised in Table 3.

Table 3: Pressures identified for the Fal and Helford

Pressures	Comment	Areas	Freq
Biological Pressures	– Wildlife disturbance (especially from recreational boating); – Non native invasive species – Pressure on maerl	Gerrans Bay All areas with Maerl beds Areas with seagrass beds. Areas of Pacific Oysters	5
Changes to functionality and hydro-mophology	- Changes due to sea level rises and increased silt leading to reduction in flood water storage. - Habitat loss due to sea level rises. - Changes to the shore line due to climate change. - Changes to agriculture could lead to increased siltation rates from runoff.	All upper tidal areas which are prone to siltation. All shoreline areas.	6
Hydrological changes (inshore/ local)	- Climate change on irreplaceable habitats especially saltmarsh.	All upper tidal areas which are prone to siltation. All shoreline areas	1
Multiple pressures	- Seaweed farms could potentially result in biological pressures and seabed abrasion. - Tourism and increasing water based recreation can result in litter and wider pollution, wildlife disturbance and seabed abrasion. - Shipping can lead potentially result in more sea bed abrasion from anchoring, risks of pollution through bunkering activities and noise and visual disturbance. - Cruise ships were seen as causing multiple pressures. - Offshore wind developments were also identified.	Gerrans Bay Whole area. Helford was especially identified for water based tourism. Also St Mawes but whole area potentially impacted. Port areas. Offshore areas.	7
Other physical pressures	- Noise was seen as a pressure.	All areas affected by recreation and shipping.	4
Physical damage (reversible change)	- Abrasion on the seabed from anchoring and mooring (especially from recreational boating) - The Fabtest area was seen as potential pressure which could impact on the seabed from the anchoring of test equipment. Damage to Maerl is not reversible.	All anchoring and mooring areas, but particularly near seagrass and maerl beds. Fabtest area South of St Anthony Head.	2
Pollution & other chemical changes	- Marine litter, antifoul, fuel and oil pollution and all forms of boating waste. - Agricultural runoff, nutrient loading slurry agricultural chemicals and soil. - Sewage discharges. - End of life and abandoned boats.	All area with high levels of marine recreation. Upper estuaries. Proximity to sewage discharge points.	15
		TOTALS	40

Participants also highlighted were there were links between the drivers, pressures and impacts. These were tracked using the online Mental Modeler (Mental Modeler - Fuzzy Logic Cognitive Mapping) mapping tool which uses Fuzzy-logic Cognitive Mapping to illustrate the links between the drivers, pressures and impacts and is shown in Figure 3.

Figure 3: Relationship between the drivers, pressures and impacts in the Fal and Helford area.



Participants were also asked to identify subject areas for which more data is needed:

1. Mining impacts from all mining activities on water quality in the whole area.
2. The status of the SSSIs were unknown due to lack of monitoring so more research was needed on these.
3. The impact of the Remedies project to include boating activities, how boaters interact with seagrass and monitoring into the impact of the wider project on the seagrass and whether there is any regrowth.
4. More research to show how people are connecting with nature.
5. Water quality data generally eg. through monitoring with buoys to also live data on turbidity which could potentially be carried out through Falmouth Marine Conservation Group, Falmouth Harbour, Natural England, University of Exeter and West Country Rivers Trust.
6. More research was called for into cetaceans using acoustic monitoring such as with 'F-PODs' which monitor the presence and activity of dolphins, porpoises and other toothed whales.
7. Monitoring of sea haul-outs and seal disturbance working with the Seal Research Trust.

8. More research was called for in Gerrans Bay, particularly as there is not an active Your Shore group in the area.
9. More citizen science research was called for generally, particularly using Shore Search, Sea Quest and Seasearch.
10. More monitoring of maerl seagrass beds through Seasearch volunteers.
11. Environment Agency to carry out more shoreline evaluation for potential habitat creation sites especially saline lagoons, mudflats, saltmarsh, reefs etc.
12. More research was needed into the acceptability of artificial structures for recovery to include acceptance levels amongst the public and ease of licensing.
13. More research around the use of crushed shells to create native oyster friendly habitats in the upper Carrick Roads and to understand the distances of spat fall in order to best locate artificial reefs.

6.3 Opportunities

When participants were asked to identify opportunities, 124 were identified and where possible these have been grouped and mapped into the following categories:

- Maerl and kelp
- Seagrass
- Native oysters
- Invasive Pacific oysters
- Fish and marine mammals
- Recreational boating management (including abandoned boats)
- Upper estuarine, reedbed, saltmarsh and SSSI sites
- Water quality
- Resilience, habitat improvements and whole site approach
- Public awareness and education
- Monitoring and Data Gaps

Maerl and Kelp

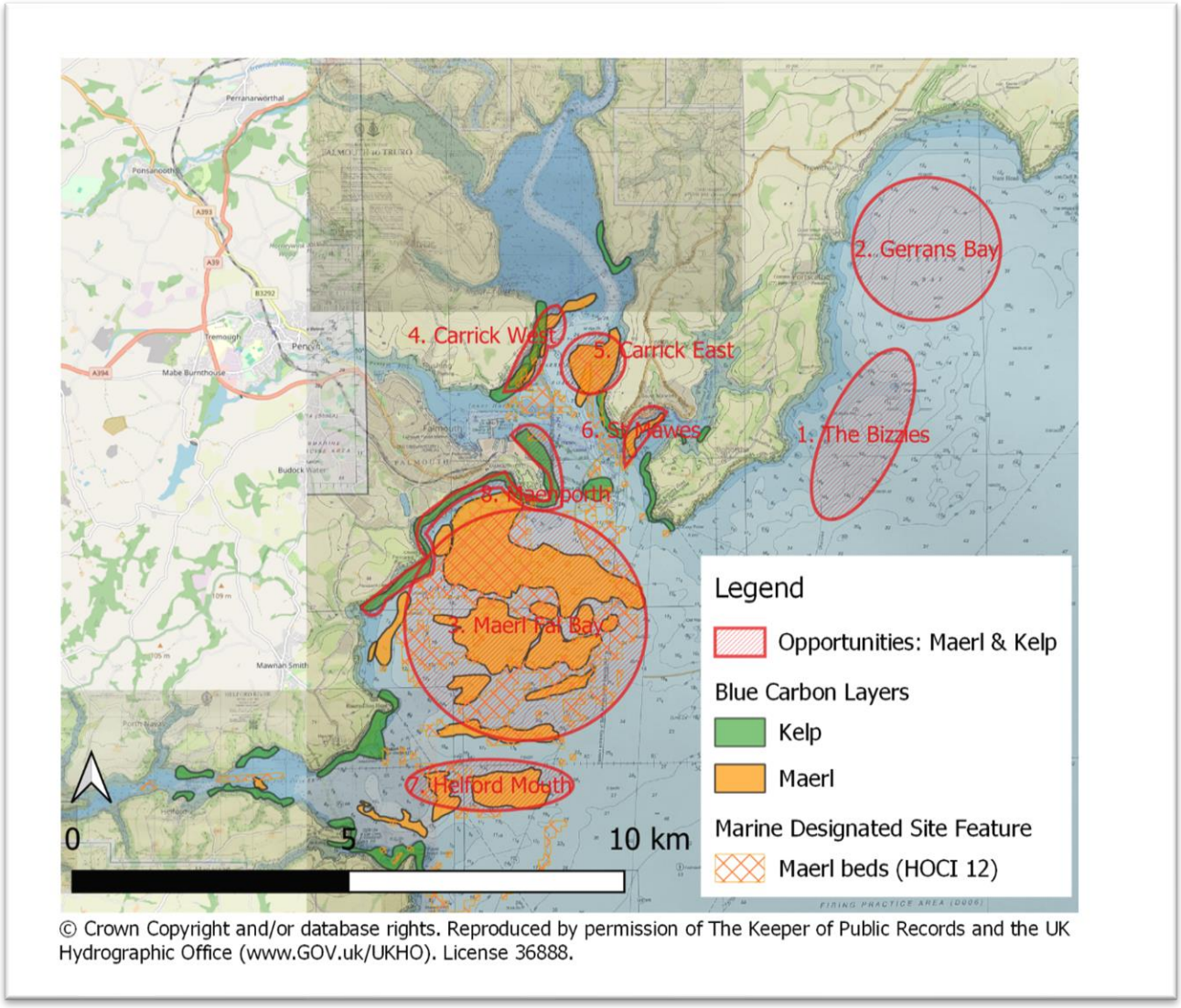
Given the significance of the area for Maerl, it was not surprising that maerl was identified as a key target species for recovery actions. Table 4 shows these projects and they have been mapped and are shown in Figure 4 and should include the removal of invasives such as Wakame Kelp.

Table 4: Opportunities: Maerl and kelp bed restoration projects

Name	Comment	Mapped
1. The Bizzies	Protect maerl and kelp beds at The Bizzies	See Figure 4
2. Gerrans Bay	Protect (unmapped) maerl beds	See Figure 4
3. Falmouth Bay	Protect known maerl beds	See Figure 4

4.	Carrick West	Maerl beds	See Figure 4
5.	Carrick East	Maerl beds	See Figure 4
6.	St Mawes	Maerl beds	See Figure 4
7.	Helford Mouth	Maerl beds	See Figure 4
8.	Maenporth	Kelp beds	See Figure 4

Figure 4: Maerl and Kelp Potential Recovery Projects



Seagrass

Numerous opportunities were also identified relating to seagrass restoration, both for the intertidal dwarf seagrass (*Zostera nultei)* as well as the deeper water *Zostera marina,* which build on the work that has already taken place. A combination of protecting the existing beds by

removing pressures from anchoring and mooring, active replanting through seed bombs and the like and awareness raising to encourage stronger stewardship especially amongst boat users. A package of interventions were proposed which included:

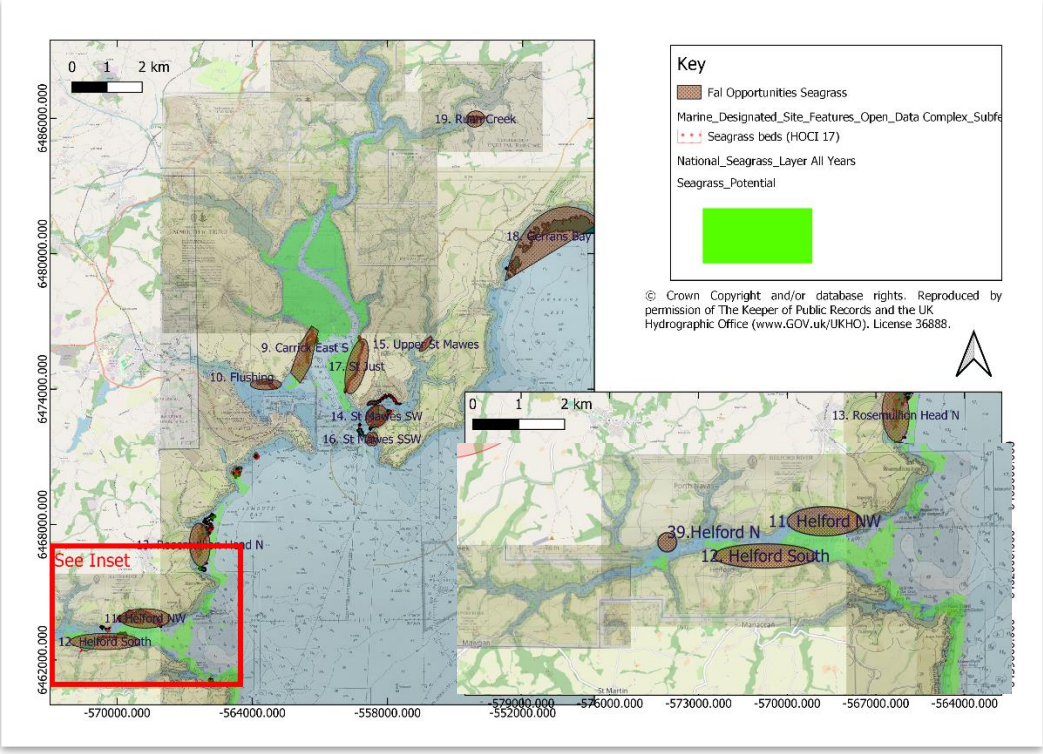
- Building on the ReMEDIES Project to include a recreational boating survey on how boaters interact with seagrass and a seagrass survey for 2024 which could potentially involve Falmouth Marine Group.
- Citizen science project around seagrass and biodiversity.
- Continuation of collection of seagrass seeds for seedbombs (and control of permitted seed collection for use outside of the area).
- Awareness project to connect people with nature and seagrass.
- Monitoring of water quality with a buoy to measure live turbidity, working with Falmouth Marine Group, Falmouth Harbour, Natural England and University of Exeter.
- Seasearch monitoring to measure regrowth.
- Continuation of installation of 'eco' moorings / removal of moorings.
- Extension of more voluntary no-anchor zones with 'Blue Meadow' markers and awareness raising.
- Boat patrols to raise awareness and increase sensitive mooring.
- Continuation of 'Seeding Change Together' Dwarf Seagrass restoration in Ruan Creek and potentially in other upper estuarine areas e.g. upper St Mawes potentially.

Many of these projects were identified with specific locations and these are shown in Table 5 and they have been mapped in Figure 5: Seagrass Potential Recovery Projects.

Table 5: Opportunities – Potential Seagrass Recovery Project Locations

Name	Comment	Mapped
9. Carrick East S	Potential Seagrass restoration	See Figure 5
10. Flushing	Continuation of Falmouth Harbour project	See Figure 5
11. Helford NW	Continued monitoring	See Figure 5
12. Helford South	Potential Seagrass restoration	See Figure 5
13. Rosemullion Head N	Potential Seagrass restoration	See Figure 5
14. St Mawes SW	Awareness raising of no-anchor zone and monitoring	See Figure 5
15. Upper St Mawes	Upper creeks	See Figure 5
16. St Mawes SWW	Potential Seagrass restoration	See Figure 5
17. St Just	Potential Seagrass restoration & no anchor zone.	See Figure 5
18. Gerrans Bay	Monitoring and no-anchor zone	See Figure 5
19. Ruan Creek	Continuation and extension of Dwarf seagrass restoration project and monitoring.	See Figure 5
39. Helford N	Potential seagrass restoration for Zostera noltii intertidal.	See Figure 5.

Figure 5: Seagrass Potential Recovery Projects



Native Oysters

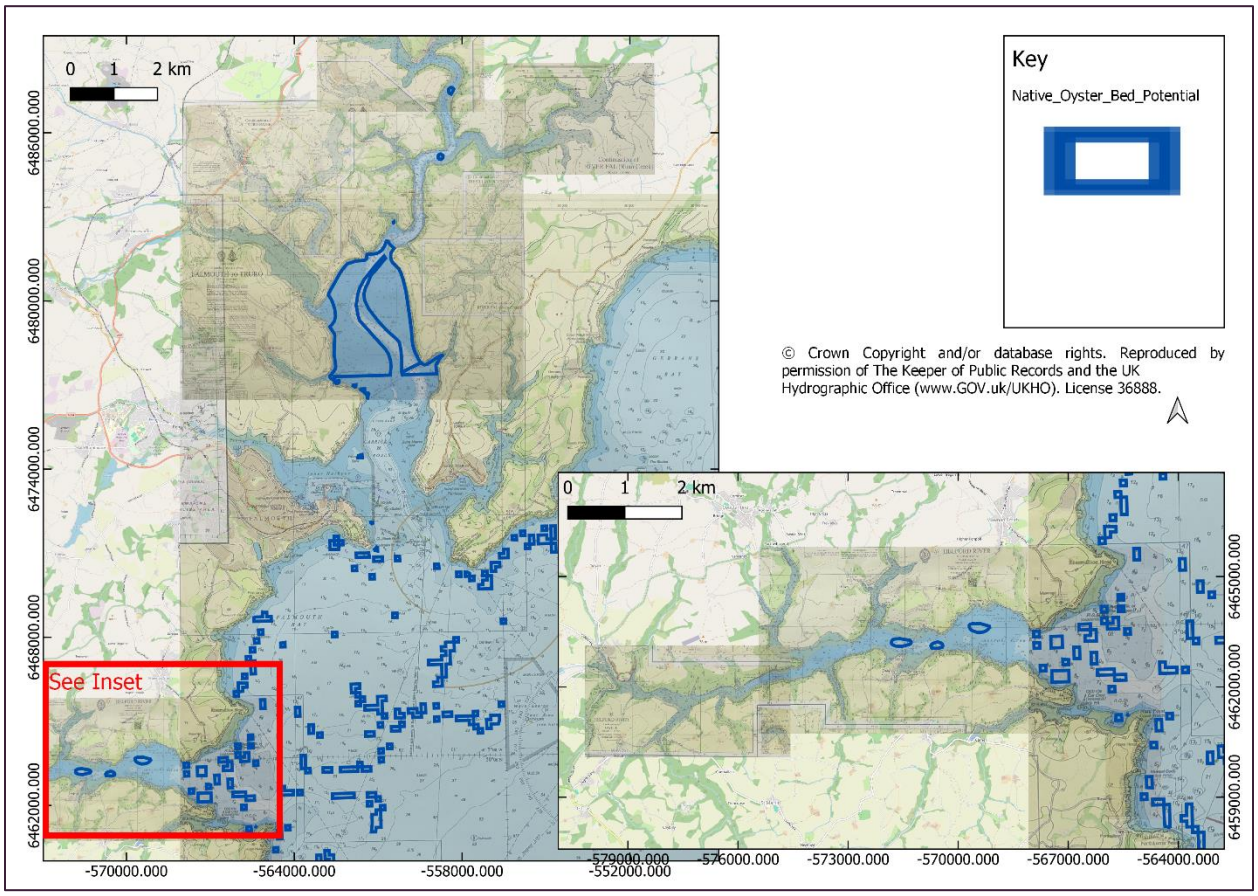
Given the significance of the Native Oyster (*Ostrea* edulis) to Falmouth and that it is the last natural native oyster fishery in England, the native oyster was seen as an important species on which to focus restoration efforts. Opportunities were identified for species restoration as well as to manage the invasive Pacific Oyster that was impacting on the natives. Actions identified included:

Native oyster recovery:

- Native oyster restoration project at Port Navas, Mylor and Helford and also as part of The Bizzies.
- Improved management including increase in minimum landing size;
- Aquaculture spat collection and growing-on in nursery (there was mention that it could be as successful as the Lobster hatchery at Padstow);
- Aquaculture biomass for larval reproduction;
- Native oyster hatchery in Mylor Harbour
- Working with Fal Fishery Cooperative CIC.
- More research around the use of crushed shells to create native oyster-friendly habitats in the upper Carrick Roads and to understand the distances of spat fall in order to best locate artificial reefs.

- Trial native oyster artificial reef structures in a range of locations e.g. The Bizzies where it was thought that the extensive rocky habitat would be good for settlement.

Figure 6: Native Oyster Potential Recovery Locations



Invasive Pacific Oysters

As mentioned, the importance of tackling the invasive Pacific Oysters was mentioned by many participants, and that over the last 3 years: 103,000 had been culled; 64 surveys had been carried out with 325 volunteers. Opportunities for recovery were identified as follows:

- introduce local bylaws to prevent the spread of Pacific oysters,
- raise awareness and introduce measures prevent their ‘escape’ from farms;
- carry out Pacific oyster surveys,
- active management & removal,
- control new Pacific oyster farms,
- work with Falmouth Marine Conservation Group to control them and remove them where appropriate.

Fish and Marine Mammals

Cetaceans are frequent visitors to Falmouth Bay and Carrick Roads dolphins, common harbour porpoises, Rissos dolphins and even Fin whales and tuna with reports of 44 fin whales seen in one week in August. Data on sightings are collected through the Seawatch and Seaquest as well as through the F-POD acoustic monitoring buoy. Increasing numbers of tuna are also being seen although basking shark numbers have declined. Seals are also present with popular haul-outs in the area for example at Black Rock.

Opportunities were identified as follows:

- Improved monitoring of cetaceans through the F-POD acoustic monitoring buoys;
- Improved monitoring through the citizen science programmes of seawatch and Seaquest;
- Awareness and education programme to reduce disturbance incidents from people (both land-based for walkers with dogs as well as boat-based) to include updated WISE accreditation scheme for all wildlife operators.
- Further monitoring of seal haul-outs to be carried out with the Seal Research Trust.
- Improved net and pot marking in order to be able to identify fishing gear.
- Removal of ghost fishing gear to protect wildlife.

Recreational Boating Management

Unmanaged recreational boating can negatively impact in many ways on the species and habitats, both directly and indirectly. In terms of opportunities to address this, there were many that were identified through the workshop, some of which are site specific and others are more general:

- Removal of old abandoned boats, particularly in the upper creeks where they are slowly disintegrating resulting in GRP pollution as well as other pollutants, particularly in Polwheveral Creek, Porth Navas Creek, Penryn River, Mylor Creek, Restronguet Creek. This was seen to be an increasing problem. These are mapped and shown on Figure 7 and listed in Table 6.Figure 2
- Improved management of boat hire, to include the requirement for a license with some wildlife accreditation or voluntary awareness programme, especially on where and how to anchor.
- Further WISE accreditation for all wildlife operators to reduce wildlife disturbance.
- Further river patrols by recreation rangers to other areas outside of Helford.

Upper Estuarine, Reedbed, Saltmarsh and SSSI sites

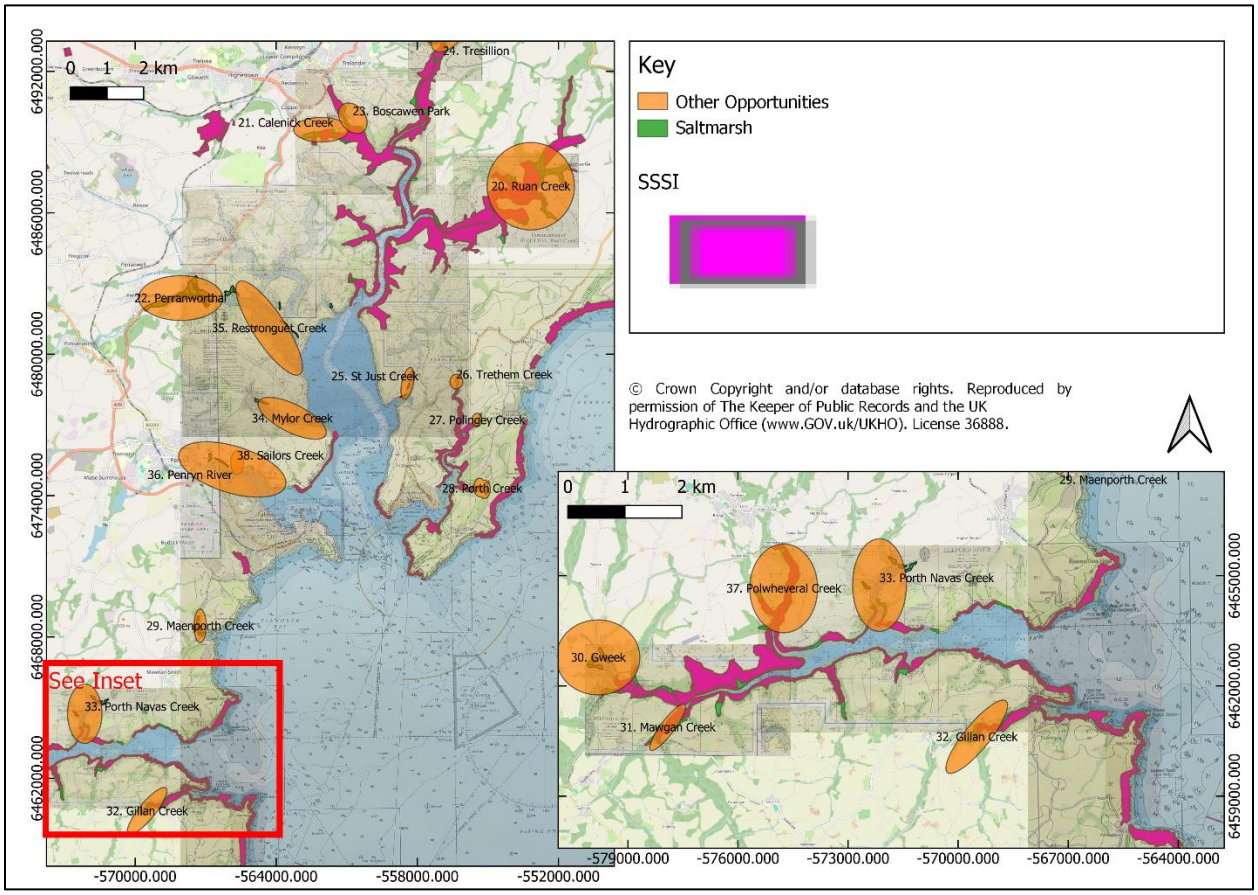
There was much discussion about how little monitoring is carried out on the upper estuarine SSSIs (see Appendix for information on the condition assessment monitoring), and also for potential to carry out restoration works on the reedbeds and saltmarshes. The work included:

- Further regeneration at Sailors Creek (near Flushing) to include installation of reedbed walkway, filtering of grey water and other restoration works through the Sailors Creek CIC.
- Removal of abandoned boats (see previous) to prevent pollution.
- The need to explore further compensatory habitat to offset losses caused by climate change.

Opportunities for Boscawen Park for restoration as part of work being undertaken for the Truro Loops project and replacement of flood defences to include reedbed restoration and native oyster beds which could be beneficial for erosion and flood protection, particularly in the face of increasing impacts from climate change. See the New York project that uses shells to help restore oyster beds with flood erosion benefits and using community engagement for implementation (Oyster Reefs — Billion Oyster Project).

These key sites have been identified on Figure 7 and the list of projects are shown in Table 6

Figure 7: Other Opportunities (Reedbed / saltmarsh and abandoned boat removals)



Opportunity Name	Description
20. Ruan Creek	Reedbed

21. Calenick Creek	Reedbeds / Saltmarsh
22. Perranworthal	Reedbeds / Saltmarsh
23. Boscawen Park	Upper estuary: reedbeds and potential oyster bed restoration
24. Tresillion	Reedbeds / Saltmarsh
25. St Just Creek	Reedbeds / Saltmarsh
26. Trethem Creek	Reedbeds / Saltmarsh
27. Polingey Creek	Reedbeds / Saltmarsh
28. Porth Creek	Reedbeds / Saltmarsh
29. Maenporth Creek	Reedbeds / Saltmarsh
30. Gweek	Reedbeds / Saltmarsh
31. Mawgan Creek	Reedbeds / Saltmarsh
32. Gillan Creek	Reedbeds / Saltmarsh
33. Porth Navas Creek	Abandoned boats
34. Mylor Creek	Abandoned boats
35. Restronguet Creek	Abandoned Boats
36. Penryn River	Abandoned boat removal
37. Polwheveral Creek	Abandoned boats
38. Sailors Creek	Reedbeds / Saltmarsh

Table 6: List of other site-specific opportunities

Water Quality

There were many opportunities related to improving water quality and given the way in which water quality underpins the health of the marine and coastal environment, such projects would lead to improvements in many species and habitats as well as human health.

Projects included:

- Upstream thinking/ inland working / Source to Sea project to increase awareness of surface water runoff and actions to reduce pollution entering, including yellow fish markers on surface water drains in urban areas along with awareness campaign, links to Catchment Partnership to reduce agricultural runoff and reduction in combined sewer outfall discharges.
- Improved monitoring especially through citizen science to measure changes to water quality, potentially linked to monitoring buoys and working with West Country Rivers Trust.

- Broader awareness programme to increase understanding of catchment and links to the water for young people.

There was cross-over with habitat creation, particularly through oyster beds or the use of oyster shells to help with water quality. The New York Oyster Reefs Project is a good example of where this has delivered interesting results Oyster Reefs — Billion Oyster Project

Resilience, Habitat Improvements and Whole Site Approach

There were a range of projects that were identified around improving habitats through restoration techniques, adopting a whole site approach and also to build resilience from climate change and flooding:

- EA to continue shoreline evaluation for shoreline realignment to identify habitat creation sites: saline lagoon / mudflats/ saltmarsh / reefs etc.
- Look at creating a new reserve / restoration test site at The Bizzies using a whole site approach and testing active restoration techniques such as artificial reefs for oysters;
- Adopting a 'whole site approach' for integrated management for all of the key species, habitats and designations within the Fal and Helford study area in order to deliver multiple benefits including fisheries and the local economy.
- Testing 'living sea wall tiles' within the harbours and using them to raise awareness.

Public awareness & education

Public awareness was seen as critical, with a need to improve understanding in order to drive behaviour change and build a stronger sense of stewardship to the marine environment:

- Engagement action plan to bring in the wider community, working with the SAC working group, NE, harbours and the Fal Marine Conservation Group.
- Using rockpool rambles and snorkel safaris to raise awareness.
- Comprehensive engagement with boat users to ensure they understand and value the seagrass and support the anchoring and mooring controls.

Monitoring and data gaps

Monitoring came through repeatedly and has already been picked up in many of the themes above. However, it is worth picking them up again here for completeness:

- The importance of a citizen science project, linked to the Shoresearch, Seaquest and Seasearch programmes, potentially with easier apps to be developed for people to input their data and to link to site management.
- Smart monitoring programme, especially for sites which have poor monitoring regimes such as SSSIs and using monitoring buoys and F-PODs for acoustics.

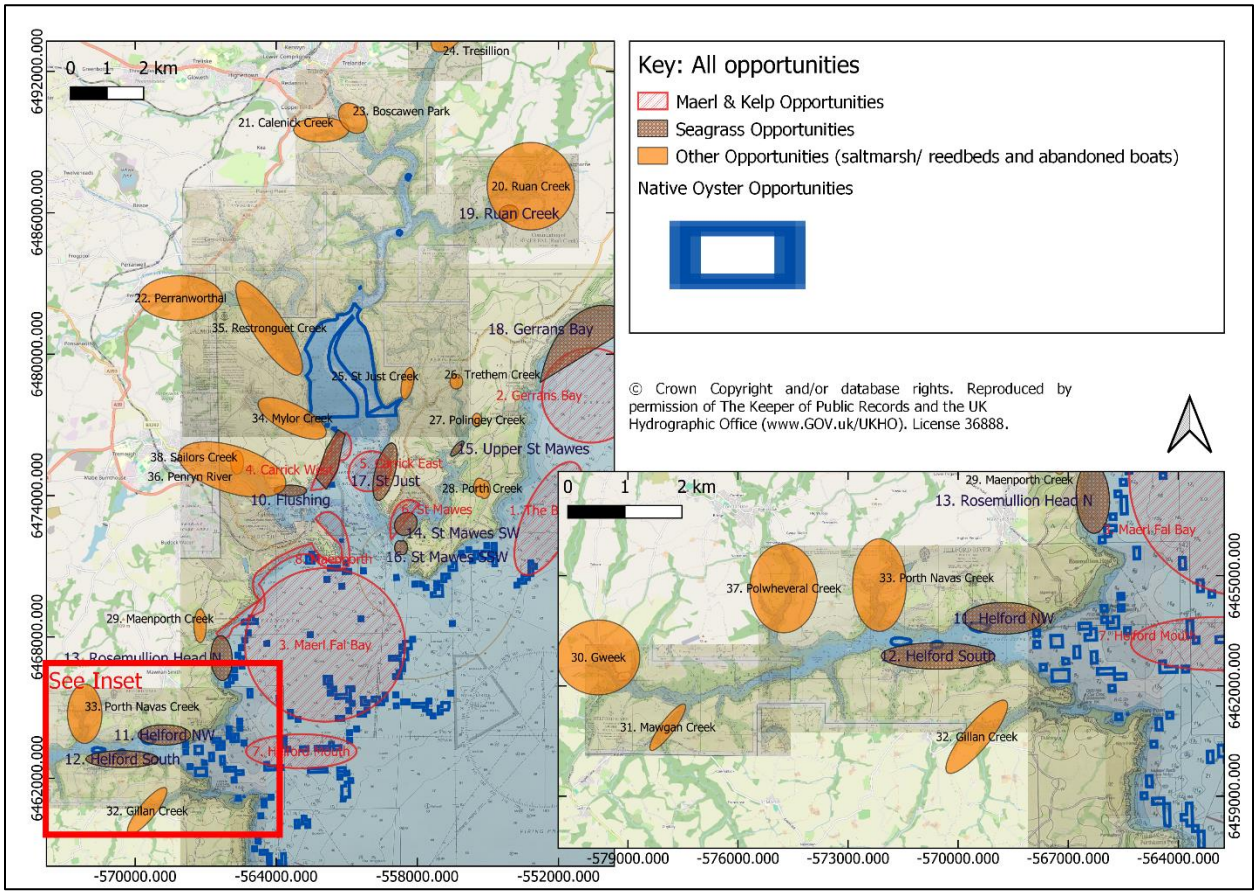
Participants were also asked to identify subject areas for which more data is needed:

1. Mining impacts from all mining activities on water quality in the whole area.
2. The status of the SSSIs were unknown due to lack of monitoring so more research was needed on these.
3. The impact of the Remedies project to include boating activities, how boaters interact with seagrass and monitoring into the impact of the wider project on the seagrass and whether there is any regrowth.
4. More research to show how people are connecting with nature.
5. Water quality data generally eg. through monitoring with buoys to also live data on turbidity which could potentially be carried out through Falmouth Marine Conservation Group, Falmouth Harbour, Natural England, University of Exeter and West Country Rivers Trust.
6. More research was called for into cetaceans using acoustic monitoring such as with 'F-PODs' which monitor the presence and activity of dolphins, porpoises and other toothed whales.
7. Monitoring of sea haul-outs and seal disturbance working with the Seal Research Trust.
8. More research was called for in Gerrans Bay, particularly as there is not an active Your Shore group in the area.
9. More citizen science research was called for generally, particularly using Shore Search, Sea Quest and Seasearch.
10. More monitoring of maerl seagrass beds through Seasearch volunteers.
11. Environment Agency to carry out more shoreline evaluation for potential habitat creation sites especially saline lagoons, mudflats, saltmarsh, reefs etc.
12. More research was needed into the acceptability of artificial structures for recovery to include acceptance levels amongst the public and ease of licensing.
13. More research around the use of crushed shells to create native oyster friendly habitats in the upper Carrick Roads and to understand the distances of spat fall in order to best locate artificial reefs.

6.4 Summary of Opportunities

The comprehensive list of opportunities listed above provide the means to deliver some real marine and coastal nature recovery, through a range of actions and interventions and are shown combined on Figure 8. This long list will now need further refining as part of the next stage before it can be adopted and plans put in place to further develop the projects.

Figure 8: Location of all the opportunities combined on one map



7 NEXT STEPS

The next steps are now to refine these projects and link them more closely to the emerging Draft Cornwall Marine and Coastal Local Nature Recovery Strategy which was published in March 2024.

8 ABBREVIATIONS

3Cs	Championing Coastal Collaboration
AMS	Advanced Mooring Systems
C&IoSMCP	Cornwall & Isles of Scilly Marine & Coastal Partnership
C3Cs	Cornwall 3 Cs Project
GIS	Geographical Information Systems
IFCA	Inshore Fisheries and Conservation Authority
INNS	Invasive non-native species
LNRS	Loal Nature Recovery Strategy
MCZ	Marine Conservation Zone
MMO	Marine Management Organisation
Nm	Nautical miles
NE	Natural England
SAC	Special Area of Conservation
SPA	Special Protection Area
SSSI	Sites of Special Scientific Interest
VNAZ	Voluntary no anchor zone

9 REFERENCES

Ashley, M., Rees, S., Mullier, T., Reed, B., Cartwright, A., Holmes, L., & Sheehan, E. (2020). *Isles of Scilly Natural Capital Asset and Risk Register to Inform Management of Isles of Scilly Fisheries Resource*. https://secure.toolkitfiles.co.uk/clients/19937/sitedata/pdfs/Research_reports/SCILL-E-Report-2020.pdf

Curry, K. (2023). *Draft Framework, Business Case and Workplan 2023-2025; Output 1.2 of the Cornwall 3Cs Project*. https://www.cornwallwildlifetrust.org.uk/sites/default/files/2023-06/C3C2%20OP1.2%20Workplan%20FINAL%20DRAFT_0.pdf

Howell Marine Consulting / DEFRA. (2022). *Innovation in marine enhancement and restoration for subtidal and offshore areas*.

Mosedale, J. (2023). *Identifying and prioritising marine nature recovery (MNR) opportunities A scoping report for Cornwall Wildlife Trust*. https://www.cornwallwildlifetrust.org.uk/sites/default/files/2023-06/C2C2%20Marine%20Nature%20Recovery%20Opportunity%20Mapping%20Report.pdf

Natural England. (2022). *Seagrass Natural Capital Assessment: The Isles of Scilly Complex SAC (NECR419)*. https://publications.naturalengland.org.uk/publication/6120073273278464

Natural England. (2023). *Marine recovery and restoration practice: Financing options, stakeholder perspective and measuring gains (NC44)*.

NEF Consulting. (2019). *Valuing the ecosystem service benefits of kelp bed recovery off West Sussex*.

APPENDICES

APPENDIX I: WORKSHOP AGENDA

Time	Title	Who
1000	**ARRIVAL**	
	Arrival & coffee	
1015	**1. WECLOME, INTRODUCTION AND OVERVIEW**	
	Welcome and Intro.	Ruth Williams, Cornwall Wildlife Trust
	Introduction to Fal & Helford Biodiversity	Matt Slater, Cornwall Wildlife Trust
	Why we need collaboration at and for the coast	Simon Jeffery, Environment Agency
	Towards Coastal Collaboration; the story so far and what we're going to acheive today	Kaja Curry, consultant and Cornwall 3Cs contractor
	Questions	
1055	**2. MARINE NATURE RECOVERY**	
	Marine nature recovery across Cornwall	Abigal Crosby, Cornwall Council
	Marine Natural Capital Assessment: what it is and how it will help us.	Tara Hooper, Natural England.
	Experiences from North Devon Biosphere	Andy Bell, North Devon Biosphere.
	Questions	
1130	**3. UNDERSTANDING THE FAL AND HELFORD**	
	Fal & Helford - Natural England's perspective	Esther Hughes, Natural England
	Overview of the SAC Management Forum.	Mike Pereir, chair of SAC Management Group
	Fal & Helford case study	Victoria Spooner, Falmouth Harbour and Sue Scott, Cornwall Council
	Questions	
1205	**4. DRIVERS AND PRESSURES WORKSHOP**	
	Engaging with the wider community	Jenny Wright, Cornwall Coastal Partnership Officer
	Introduction to the session	Kaja Curry, consultant and Cornwall 3Cs contractor
	Fal & Helford case study	Victoria Spooner, Falmouth Harbour and Sue Scott, Cornwall Council
	Drivers and pressures workshop	Kaja Curry
1250	**LUNCH**	
1325	**5. PRIORITIES & OPPORTUNITY MAPPING**	
	Marine Nature Recovery Options	Kaja Curry, consultant and Cornwall 3Cs contractor
	Workshop	All
	Plenary and next steps	Kaja Curry, consultant and Cornwall 3Cs contractor
1445	**6. CONCLUSION AND NEXT STEPS**	
	Closing remarks, next steps, Feedback and Wrap up	Kaja Curry & Ruth Williams
1500	**CLOSE**	

APPENDIX II: LIST OF DELEGATES

Name	Organisation
[redacted]	Chair o f SAC Management Group
[redacted]	Cornwall National Landscape
[redacted]	Cornwall Council
[redacted]	Helford Marine Officer
[redacted]	Cornwall Council
[redacted]	Cornwall Council
[redacted]	Cornwall Wildlife Trust
[redacted]	Cornwall Wildlife Trust
[redacted]	Cornwall Wildlife Trust
[redacted]	Cornwall Wildlife Trust
[redacted]	Cornwall Wildlife Trust
[redacted]	North Devon Biosphere
[redacted]	Duchy of Cornwall
[redacted]	Environment Agency
[redacted]	Environment Agency
[redacted]	FalFisheryCooperativeCIC.org
[redacted]	Falmouth Harbour
[redacted]	Falmouth Town Council
[redacted]	Falmouth Marine Conservation Group
[redacted]	Falmouth Marine Conservation Group
[redacted]	Trefusis Estates
[redacted]	Trefusis Estates
[redacted]	Cornwall 3Cs / Consultant
[redacted]	Marine Management Organisation
[redacted]	Natural England
[redacted]	Natural England
[redacted]	Sailors Creek CIC
Emma	Sailors Creek CIC
Brod Ross	SAC Advisory Group
Karen Hall	Falmouth Town Council

APPENDIX III: CURRENT CONDITION OF DESIGNATED SITES

Current condition is taken from Natural England's Designated Sites System. Accessed March 2024. (Designated Sites View (naturalengland.org.uk))

↑ ⇔ ↓ ✓

Table 7: Condition assessment for designated sites.

Improving = ↑ ; Declining = ↓ ; No change = ⇔.

Feature	Subfeature	Condition	Trend	Confidence	Date
Fal and Helford SAC					
Sandbanks which are slightly covered by sea water all the time.	Maerl beds	Unfavourable	↓	High	2020
	Subtidal coarse sediment	Favourable	-	Low	2018
	Subtidal mixed sediments	Unfavourable	⇔	Medium	2020
	Subtidal sand	Unfavourable	⇔	Low	2020
	Subtidal seagrass beds	Unfavourable	⇔	Low	2018
Estuaries	Intertidal coarse sediment	Unfavourable	⇔	Low	2018
	Intertidal mixed sediments	Unfavourable	⇔	Low	2020
	Intertidal mud	Unfavourable	⇔	Low	2020
	Intertidal sand and muddy sand	Unfavourable	⇔	Low	2020
	Maerl beds	Unfavourable	↓	High	2020
	Subtidal mixed sediments	Unfavourable	⇔	Low	2020
	Subtidal mud	Unfavourable	⇔	Low	2018
	Subtidal seagrass beds	Unfavourable	⇔	Low	2018
Mudflats and sandflats not covered by seawater at low tide	Intertidal coarse sediment	Unfavourable	⇔	Low	2018
	Intertidal mixed sediments	Unfavourable	⇔	Low	2020
	Intertidal mud	Unfavourable	⇔	Low	2020
	Intertidal sand and muddy sand	Unfavourable	⇔	Low	2020
	Intertidal seagrass beds	Favourable	-	Low	2018
Large shallow inlets and bays	Circalittoral rock	Unfavourable	⇔	Low	2020
	Infralittoral rock	Favourable	-	Low	2020
	Intertidal coarse sediment	Unfavourable	⇔	Low	2018
	Intertidal rock	Unfavourable	⇔	Medium	2020
	Intertidal sand and muddy sand	Unfavourable	⇔	Low	2020

	Maerl beds	Unfavourable	↓	High	2020
	Subtidal mixed sediments	Unfavourable	⇔	Medium	2020
	Subtidal mud	Unfavourable	⇔	Medium	2020
	Subtidal sand	Unfavourable	⇔	Low	2018
	Subtidal seagrass beds	Unfavourable	⇔	Low	2018
Reefs	Circalittoral rock	Unfavourable	⇔	Low	2020
	Infralittoral rock	Favourable	-	Low	2020
	Intertidal rock	Unfavourable	⇔	Medium	2020
Atlantic Salt Meadows		Feature not assessed.			
Falmouth Bay to St Austell Bay SPA					
Black throated diver		This site was designated in 2017. No condition assessments have been undertaken since then.			
Great northern diver					
Slavonian grebe					
Helford Estuary MCZ					
Native oyster *(Ostrea edulis)*		This site was designated in 2019. The designated feature has not been assessed.			
Lower Fal & Helford Intertidal SSSIs (marine features only)					
Littoral rock and inshore sublittoral rock		No assessments since 2013 when it was found to be favourable.			
Littoral sediment					
Upper Fal and Woods & Maplpas SSSIs (marine features only)					
Aggregations of non-breeding birds – black-tailed godwit		Not recorded.			
Littoral sediment		Favourable			2010