PV NATURE

PROJECT IDEA NOTE

Restoring the Solent Seascape for people, nature and climate

The Solent, UK

Version 4.0
October 2024

Developed by:

The Blue Marine Foundation, a marine conservation charity dedicated to restoring the ocean to health by addressing overfishing, one of the world's biggest environmental problems.

Contents

List of acronyms

IFCA: Inshore Fisheries and Conservation Authority.

MMO: Marine Management Organisation.

NE: Natural England.

EA: Environment agency.

CHAPRON: Chichester Harbour Protection and Recovery for Nature

HIWWT: Hampshire and Isle of Wight Wildlife Trust.

RSPB: Royal Society for the Protection of Birds.

IUCN: International Union for Conservation of Nature.

EU: European Union.

MPA: Marine Protected Area.

MCZ: Marine Conservation Zone.

SAC: Special Areas of Conservation.

SPA: Special Protection Areas.

SSSI: Sites of Special Scientific Interest.

NNR: National Nature Reserve.

UNESCO: United Nations Educational, Scientific and Cultural Organization

BUDS: Beneficial use of dredge Sediment

Overview

Project Title:	Restoring the Solent Seascape for people, nature, and climate.
Location:	Solent: Strait in South coast of England from Selsey Bill to Hurst Spit on mainland and Needles to Bembridge on the Isle of Wight.
Project Coordinator:	Rosalie Wright Solent Seascape Co-ordinator Blue Marine Foundation rosalie@bluemarinefoundation.com
Project Area:	The Solent seascape project covers a total area of 52,200ha that we aim to recover and restore. Through our seascape recovery plan work, the project will aim to catalyze the recovery of the seascape, specifically targeting the existing saltmarsh and seagrass, as well as the seabird nesting habitat that supports 12,000 breeding pairs. In addition to this, a further 8ha of saltmarsh, 7ha ofseagrass, 4ha of new native oyster reefs and 10 breeding seabird nesting sites will be restored over the five years to increase habitat extent. The project area is within Chichester Harbour, part of the wider Solent Seascape Project. We will focus on ~120 ha within which we are conducting restoration of saltmarsh habitat (0.5 ha in phase one and 0.64 ha in phase two) and will be taking a phased approach in building an oyster reef (total area ~3.84 ha). The area is also adjacent to an area of seagrass (3.65 ha) and a seabird nesting restoration site. We plan to claim for this area initially, with the opportunity to expand across our other restoration activities.
Project Participants:	Project partners include: University of Portsmouth, Hampshire and Isle of Wight Wildlife Trust, RSPB, Environment Agency, Natural England, Project Seagrass, Chichester Harbour Protection and Recovery for Nature (CHAPRON), Isle of Wight Estuaries Project, and Coastal Partners. Their specific responsibilities are outlined in section 3.3.

Rationale:	The importance of the Solent as a biodiversity hub is recognised by the many environmental designations placed upon it. Saltmarsh, seagrass and mudflat habitats create refuge and food for both fin and shellfish, with five expansive areas of the Solent designated as bass nurseries and sites sheltering species including sandeel, herring and seahorses. Invertebrate inhabitants range from mud dwelling worm communities to deep dwelling sea pens. Shellfish species include king scallop, cockles and cuttlefish. The Solent includes sites like the Bembridge Marine Conservation Zone (MCZ), acknowledged as one of the most biodiverse and feature-rich Marine Protected Ares (MPA) in English waters. These finfish and invertebrates in turn provide a food source for larger marine predators, with almost 60 harbour seals and increasing numbers of grey seals. Cetaceans including bottle nosed and common dolphin are also known visitors. Many species of elasmobranch are present in the Solent's waters: undulate ray, starry smooth hound and thresher sharks. Seagrass, saltmarsh and oyster habitats are also home to IUCN Red List Species European eel (*Anguilla anguilla;* critically endangered) and the thresher shark (*Alopias vulpinus*; vulnerable). The Solent provides an internationally important wintering ground for over 125,000 ducks, geese, and wading birds. It provides refuge and rich food supplies for species including bar tailed godwit, dunlin, pintail, redshank, oystercatcher and brent geese. The area is an internationally important seabird breeding colony site, attracting more than 12,000 pairs. Key breeding species include common, little and sandwich terns, and Mediterranean gull–all listed under Annex 1 of the EU Birds Directive. Over 50% of the area's saltmarsh has been lost since the 1860s alone. Oyster populations have declined by 95%, causing the collapse of the fishery. UK seagrass meadows have declined by 49%, and all 650 hectares of seagrass meadows in the Solent are in unfavourable condition. Nesting islands for seabirds and high tide roosts are being lost to erosion and sea level rise. This large-scale habitat degradation has led to a loss of connectivity between coastal habitats, further exacerbating their decline. These losses have been a result of habitat disturbance from recreational activities, fisheries and boating damages habitats and is a threat to breeding seabirds. Intertidal and bottom impact fishing activities result in sediment plumes, habitat damage, and reduced foraging for birds. Water quality is also a major issue in the Solent where high levels of nitrogen and sediment suspension restrict the natural recruitment of habitats. Other threats include invasive non-native species and recreational activity such as coastal development and sediment capital/maintenance dredging.

Project Intervention(s):	The project aims to: 1. *Protection/ Improved Management:* Work with local stakeholders and communities to develop and co-create a long-term seascape recovery plan, that supports better management of existing Solent marine and coastal habitats. 2. *Restoration:* Actively restore 8ha of saltmarsh, 7ha of seagrass, 4ha of oysters, and 10 breeding seabird nesting sites to increase habitat extent and catalyse recovery across the wider seascape, improving ecological connectivity. 3. *Improved Management:* Empower local communities and build capacity to ignite and improve understanding of seascape processes, catalyse behavioural change, and increase involvement in seascape recovery.
Expected Benefits:	We hope that the sale of Plan Vivo Biodiversity Certificates will allow us to continue working on recovery across the Solent, which includes 3,674ha of internationally important existing marine and coastal habitats and areas supporting over 12,000 pairs of breeding seabirds. We intend that:

	1. The most at risk areas of seagrass, saltmarsh, oyster and bird nesting habitats in the Solent area are better managed, with the support of primary stakeholders. 2. The Solent seascape is connected, resilient and beginning to start recovering on its own. 3. Local communities are engaged with and involved in the project to effect a shift in behaviour and management practices while communities develop skills, knowledge and lead initiatives, empowering them and giving them project ownership. 4. The benefits of seascape-scale restoration in terms of carbon, biodiversity and nitrates are proven, and the multiplier effect of restoring multiple habitats is quantified. There will be no negative climate impacts, instead the project aims to restore ecosystems to provide additional carbon sequestration, coastal resilience and benefits to biodiversity. We expect the long-term targets as a result of this project, to improve the condition of the habitats and species (in line with designated sites) to change from unfavourable to favourable condition. By actively restoring oysters, we expect to see communities shift from mixed sediment dominated by invasive species, with occasionally featuring oysters, to functioning oyster reef habitat (defined as a density above 5 oysters/m2 with more than one cohort and oysters forming clusters in some parts). Through better protection and management of all habitats and the active restoration of key marine and coastal habitats (seagrass, saltmarsh, oysters, seabirds), over the long term we expect to see increased abundance and species richness of fish as distance between habitat patches decreases. As a result of the interventions from this project, it is estimated that we hope to see bird population decline to cease by 2030, increase by 15% by 2040, and 30% by 2050, as well as productivity to reach a level of sustainable growth by 2040. Through active restoration and recovery, we estimate the average carbon sequestered by 2040 to be 66,384 tonnes (3,688 tonnes /year). An increase in water quality either by decreased particulate matter and increase in depth of light penetration is expected with average nitrogen uptake expected by 2040 to be 15,192 tonnes (844 tonnes /year) and average phosphate uptake to be 396 tonnes (22 tonnes /year).
Methodology Design:	Uplift certificates
PIN Version:	4
Date Approved:	23/03/23 – Updated October 2024, approved January 2025.

1. General Information

1.1. Project Interventions

Table 1.1 – Project Interventions

Intervention Type	Project Intervention	Expected Benefits
Protection/ Improved Management	Co-designed seascape recovery plan to better protect existing marine and coastal habitats.	Slowed rate of decline in habitat degradation of oysters, saltmarsh, seagrass and seabird sites. Reduced sedimentation rates impacting on seagrass and potential oyster habitat. Increased biodiversity of associated fish species. Improved water quality. Improved productivity and resilience, benefiting coastal communities such as fishers, tourism etc. Positive shift in behaviour and management from landowners, businesses and other groups.
Restoration	Within total project area: Actively restore 8ha saltmarsh, 7ha seagrass, 4ha oysters, 10 seabird nesting sites. Within Chichester harbour (claim area): Actively restore ~4ha oyster reef and ~1.1 ha saltmarsh.	Increased habitat extent of restored habitats, increased abundance and biomass of species biodiversity. Increased 3D complexity and connectivity which increases available ecological niches and supports more complex trophic communities. Increase in settlement of oyster larvae. Improved water quality/ clarity. Increase in productivity, benefiting coastal communities such as fishers, tourism etc.

Improved Management	Empower local communities and build capacity to ignite and improve understanding of seascape processes, catalyse behavioural change, and increase involvement in seascape recovery.	Communities are interested in being involved/ engaging with the project from the beginning. Positive shift in behaviour and management from landowners, businesses and other groups contributing to improved management across the seascape and therefore contributing to reduced degradation of habitats and species, resulting in increased biodiversity, improved water quality, carbon uptake, and thriving coastal communities.

1.2. Project Boundaries

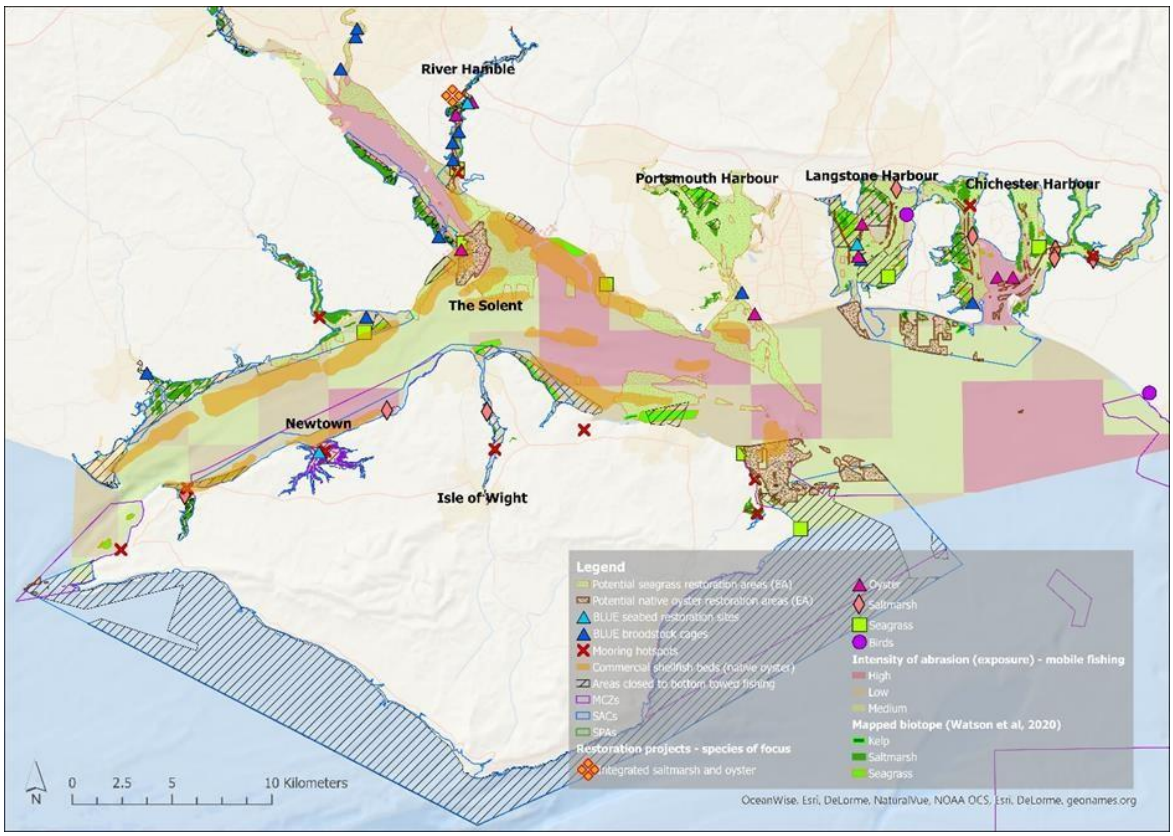
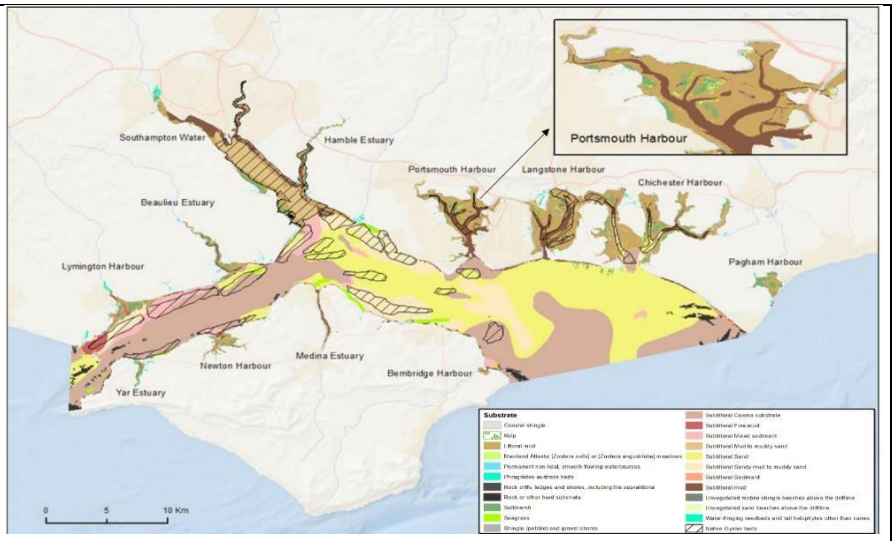


Table 1.2 Project Boundaries

Location:	The Solent, United Kingdom The Solent, strait of the English Channel, between the mainland coast of the county of Hampshire, England, and the northwestern coast of the Isle of Wight.
Geographic Coordinates:	50.7768° N, 1.2268° W
Project Region(s):	Solent = 52,200ha

Project Area(s):	Through improved management total extent = 3,674ha.Through active restoration total extent = 21ha: 8ha saltmarsh, 7ha seagrass, 4 ha oysters, 2ha seabird nesting habitat. The project area is within Chichester Harbour, part of the wider Solent Seascape Project. We will focus on ~120 ha within which we are conducting restoration of Saltmarsh habitat (0.5 ha in phase one and 0.64 ha in phase two) and will be taking a phased approach in building an oyster reef (total area ~3.84 ha). The area is also adjacent to an area of seagrass (3.65 ha) and a seabird nesting bed restoration site. We plan to claim for this area initially, with the opportunity to expand.
Protected Areas:	Solent Maritime SAC South Wight Maritime SAC Solent and Isle of Wight Lagoons SAC Solent and Southampton Water SPA and Ramsar Solent and Dorset Coast SPA Chichester & Langstone Harbours SPA and Ramsar Portsmouth Harbour SPA and Ramsar Portsmouth Harbour SSSI Chichester Harbour SSSI Langstone Harbour SSSI Newtown Harbour SSSI Yar Estuary SSSI North Solent SSSI North Solent NNR Hythe to Calshot Marshes SSSI Lee-on-the Solent to Itchen Estuary SSSI The Needles MCZ Yarmouth to Cowes MCZ Bembridge MCZ Isle of Wight UNESCO Biosphere.
Sites of Conservation Interest:	The map below shows habitat types across the Solent region. The harbours (Portsmouth, Langstone, Chichester) consist of important littoral and sublittoral mud. At low tide, these extensive mudflats are exposed, making them significantly important feeding grounds for internationally important waders. Langstone harbour includes one of the largest areas of mixed saltmarsh on the south coast, and extensive cord-grass *Spartina anglica* marsh. The harbour is of international importance as a rich

	intertidal system supporting high densities of intertidal invertebrates and large populations of migrant and overwintering waders and wildfowl, dependent upon them and upon the extensive beds of eelgrass *Zostera* species. The harbour is among the twenty most important intertidal areas in Britain as a summer and autumn assembly ground for waders during the moult (when they require abundant high protein food) and as a post-moult wintering ground. The Solent Maritime SAC which covers a large area of the Solent is of particular interest as it is the only site to support all four species of cordgrass (*Spartina*) found in the UK, including the rare native small cordgrass (*Spartina maritima*). Historically, the subtidal and intertidal sediments of the Solent estuaries supported natural beds of native oyster (*Ostrea edulis*, particularly in Langstone and Chichester harbours. Areas around Bembridge are highly diverse and includes a wide range of habitats including intertidal sediments which support the notable algae peacock's tail, *Padina pavonica* and deep water habitats supporting features such as sea pens and burrowing megafauna. The large areas of subtidal mixed sediments act as a supporting substrate to several important features such as maerl beds and it is the only known site in the local region where maerl can be found.



Ref: Watson et al, 2022

*Higher resolution picture provided in Annex 1

1.3. Habitat Types or Ecoregion

The sites chosen for active restoration are relatively small and distributed throughout the Solent's waters. Our intention is that these will act as "stepping stones" for marine wildlife across the landscape. The mixing and moving of the water column allows organisms to live, feed and reproduce over a range of coastal habitats and locations, either through active or passive movement through the water column. When combined with protection activities, we anticipate that this will enable greater connectivity for marine wildlife between habitats, enhancing the Solent landscape in terms of biodiversity, connectivity and ecosystem service. The distribution of sites throughout the Solent is also important in addressing some of the pressures the Solent's waters are facing. Saltmarsh and seagrass loss in the Solent has been driven by marina development, eutrophication, erosion, pollution and sea level rise. As a result the remaining habitat is fragmented and receding. To enable the tipping point to be reversed from net loss to net gain, the restoration needs tackle all of these issues, therefore this project aims to deliver multiple habitat restoration to enable positive feedback loops from the ecosystem services of adjacent habitats. The sites such as Langstone are designed to restore filtration capacity and nutrient cycling via oyster filtration services to remediate the water clarity, quality and increase the photosynthetic efficiency of seagrass beds. This is in addition to replanting of seagrass to reduce fragmentation and decrease edge effects and erosion. The co-location of saltmarsh restoration and oysters will provide similar non-linear feedback in relation to erosion and water quality. This again provides a case study of how integrated approaches can work to create tipping points from decline to recovery.

1.4. Land and Management Rights

The Solent consists of a complex network of landownership. Both private landowners and the Crown Estate own different areas of land within the project boundaries, and much of the land owned by The Crown Estate is leased to other parties. For example, The Crown Estate lease parts of the River Hamble to the River Hamble Harbour Authority, similarly to other harbours around in Southampton Water and on the Isle of Wight.

RSPB owns the project areas at Medmerry and have a long-term lease on the surrounding land.RSPB owns the area of their Langstone Harbour reserve and are working with Havant Borough Councilat the adjacent West Hayling local nature reserve under a management agreement. While the North Solent NNR is owned by various landowners, NE manage the site and have positive engagement withthese landowners. Much of the foreshore is also owned by private land owners, particularly around Chichester Harbour which is partly owned by the Manor of Bosham. Beaulieu River, and areas of Yarmouth are also partly privately owned. Newtown Harbour is managed by the National Trust and partly by the MOD. Given the complexities of landownership in the Solent, as part of the Solent Seascape Project, we hope to populate a landownership map to better understand the landscape, and who to further engage with when developing a vision for the Solent. Both private and other landowners have been engaged and are supportive of the project to date, and we will continue to engage with landowners throughout the project.

Fish are deemed a public resource and providing local byelaws and licensing requirements are abided by, anybody can harvest them. The fishing community and the local Inshore Fisheries and Conservation Authorities will be engaged throughout this project.

Many landowners have structures (e.g. seawalls, moorings) that may impact habitat recovery. This project will engage closely with local communities and landowners, broadening understanding and identifying solutions for removing key pressures, contributing to long-term behavioural and management changes by developing a vision for the Solent. In the short term, there will likely be costs payable to the Crown Estate for works on their land. We have been engaging with The Crown Estate on how to streamline costs associated with licences and consents. There is a possibility that income generated from the sale of biodiversity credits could be put back in to licensing costs but further discussion is needed. We are also engaging with the MMO on reducing licensing costs for restoration projects.

2. Stakeholder Engagement

2.1. Stakeholder Identification

The list below describes the key stakeholders that are involved in the project, particularly with a high influence. Through the development of the Solent Seascape Project, we have engaged regularly with the list of stakeholders below and developed a good working relationship, as well as received letters of support.

Primary Stakeholders

1. Crown Estate (primary/local stakeholder): Own and manage some of seabed; leases required for some habitat restoration.
2. Fishing community (primary/local stakeholder): Previous and future support in developing and implementing restoration work.
3. Royal Yachting Association (RYA/local): Dissemination of information to recreational boating community and measuring which boaters can adopt to limit recreational impacts.
4. Local communities (primary/local stakeholder): Important when co-designing vision for the Solent and seascape recovery plan.
5. Solent Harbour Authorities (primary/local stakeholder): Responsible for maintenance dredging of channels, hydrographic data, and control of developments. Some are landowners and may issue works consents for restoration.
6. Blue Marine Foundation (primary stakeholder): Responsible for project management, coordination and implementation. This includes project finances and project partners.
7. Landowners (primary/local stakeholders): These include the Crown Estate, local planning authorities and private coastal landowners. All landowners will be identified and mapped within the first year of the project. This will allow for direct engagement and promote co-management.

Secondary Stakeholders

8. Marine Management Organisation (MMO) (secondary stakeholder): Marine Licenses required for restoration.
9. Southern and Sussex IFCA (secondary stakeholder): Advise on sites closed to damaging fishing gears (sites for restoration) and responsible for managing fisheries across the area.
10. ABPmer (secondary stakeholder): Marine consultancy based in Southampton, support in identifying opportunities for beneficial use of dredged sediments (BUDS).
11. Solent Forum (secondary/local stakeholder): Cross-sectional partnership with 55 member organisations, which promotes, facilitates and supports planning and sustainable management. Instrumental in raising awareness of the project and have been leading the Solent BUDS project to date.
12. Southern Water (secondary/local stakeholder): Important regarding water quality issues. From initial discussions, Southern Water are supportive of the project and keen to engage.
13. Portsmouth Naval Base: Located in the area, and support just under 35,000 jobs within South Hampshire.

2.2. Project Coordination and Management

Project coordinator organization: Blue Marine Foundation.

Advisory Panel members: Blue Marine, University of Portsmouth, Environment Agency, NaturalEngland, CHAPRON, Hampshire and Isle of Wight Wildlife Trust, RSPB, external groups.

The Blue Marine senior management team for this project is made up of senior professionals with extensive knowledge, capacity and expertise. The senior team comprises four directors plus CEO andExecutive Director. The four directors cover Finance, Development, Communications and Projects. There are then numerous heads of function, including a Head of UK Projects as well as Senior Restoration Manager. The Projects Director, Head of UK Projects and Senior Restoration Manager have appropriate capability and extensive experience in project delivery:

Our Projects Director has worked for 20 years in the UK overseas territories and globally on commercial fisheries, sustainable aquaculture and marine protected area management. She is now working on Blue Marine's international and UK based projects.

The Head of UK Projects is an experienced marine conservation professional with seven+ years of direct delivery of ecosystem recovery projects. She initiated the first innovative native oyster restoration project in the Solent in 2018 and has continued to refine the methodologies and processes involved in large scale restoration. She has led the expansion of native oyster restoration across the UK.

The Senior Restoration Manager has seven+ years of experience in regulation, policy and delivery in marine conservation. She has been part of Defra and Natural England policy and advisory teams andis an expert in marine and coastal nature conservation.

Blue Marine's project team currently consists of one Project Manager, Project Co-ordinator and one Restoration Science Officer in addition to the senior management detailed above.

University of Portsmouth (UoP) are leading the monitoring programme for the Solent Seascape Project. Institution of higher education and research. Their project roles and responsibilities include tocoordinate and carry out monitoring across the project. Coastal habitat research, restoration and monitoring, scientific publications and communication. They have expertise in scientific research, habitat monitoring, marine ecology and provide the infrastructure, aquarium facilities and scientific seed from Solent broodstock oysters. UoP's pioneering work in habitat restoration has led to the scaling up of oyster rewilding initiatives across the UK and Europe. UoP leads the UK and Ireland NativeOyster Network to catalyse evidence driven restoration of native oyster habitat.

Hampshire and Isle of Wight Wildlife (HIWWT): As part of the UK-wide movement of 46 Wildlife Trusts,HIWWT is part of the nation's most influential nature conservation partnership, working with communities to protect wildlife. Within this project HIWWT will engage in seagrass restoration, community monitoring, citizen science and outreach across the programme. HIWWT's Solent SeagrassProject provides the most comprehensive information on our current baseline for seagrass beds locally. In 2021, HIWWT started a research & development project to trial Solent seagrass restoration.

HIWWT leads a National Lottery Heritage Fund project 'Secrets of the Solent' focused on community engagement and behaviour change.

Environment Agency: Technical support for habitat restoration, environmental monitoring, licencingand management of flood and coastal erosion risk management assets.

CHAPRON: CHAPRON work in collaboration with local stakeholders to protect and restore Chichester Harbour's coastal habitats. Within this project CHAPRON will lead the development and delivery of

saltmarsh restoration measures, baseline survey work to identify potential seagrass restoration sites,bird monitoring, supporting oyster restoration and active seagrass restoration initiatives, education and engagement within Chichester Harbour. Their capacity includes eight different organisations on the steering group: EA, NE, RSPB, Coastal Partners, Chichester Harbour Conservancy, Chichester District Council, Sussex IFCA and Southern Water. The evolving development plans include prioritisedactions, funding, and engagement strategies to enable delivery of long-term ambition.

Project Seagrass: Work in the North Solent area, provide technical advice on seagrass ecosystemsproject wide and deliver on-the-ground restoration activities.

Monitoring:

Monitoring at scale across the Solent will require the collaboration of all project partners and local communities. The monitoring lead will be The University of Portsmouth (UoP) who will coordinate efforts by scientific officers across all partners. UoP will provide appropriate training and establish a robust data management framework, so that data collection across the Solent and across project partners can be standardized and easily managed. UoP will work with international partners to align the Solent seascape monitoring with the development of a standardised Restoration Reporting Framework, which includes socio-economic impacts. Where appropriate, data will be reposited in open access databases (e.g. GenBank for eDNA sequence) as part of the data management plan. An annual report will summarise all data.

eDNA: University of Portsmouth will oversee collection of samples. Metabarcoding and targeted qPCRwill be performed by selected service providers. Post sequencing analysis pipeline will be University of Portsmouth.

Table 2.2 Responsibility for Project Coordination and Management Functions

Project Coordination and Management Function	**Responsible Party/Parties**
Stakeholder engagement during project development and implementation	Led by Blue Marine with input from all project partners.
Ensuring conformance with the Plan Vivo Biodiversity Standard (PV Nature) and compliance with applicable policies, laws and regulations	Blue Marine economics team, with input from the University of Portsmouth Kaija Barisa Joanne Preston, Rosalie Wright Matthew Peckett
Developing technical specifications, land management plans and project agreements with project participants	Blue Marine Foundation

Ensuring that the PDD is updated with any changes to the project	Blue Marine Foundation / University of Portsmouth Kaija Barisa Rosalie Wright Luke Helmer
Registration and recording of land management plans, project agreements, monitoring results, and sales agreements	Blue Marine Foundation
Managing project finances and dispersal of income to project participants as described by the benefit sharing mechanism	Blue Marine Foundation
Managing Plan Vivo Biodiversity Certificates in the Plan Vivo Registry	Blue Marine Foundation
Preparing annual reports and coordinating validation and verification events	Blue Marine Foundation
Securing certificate sales and other means of funding the project	Blue Marine Foundation
Assisting Project Participants to secure any legal or regulatory permissions required to carry out the project	Blue Marine Foundation (oysters), Hampshire and Isle of Wight Wildlife Trust & Project Seagrass (seagrass), Environment Agency, Coastal Partners, CHAPRON (saltmarsh)
Providing technical assistance and capacity building required for project participants to implement project interventions	Blue Marine/ University of Portsmouth
Monitoring progress indicators, socioeconomic indicators and climate indicators and providing ongoing support to project participants	All partners, led by the University of Portsmouth
Measurement, reporting and verification of biodiversity benefits	University of Portsmouth

2.3. Project Participants

Here we have outlined partners across the Solent Seascape Project. The first phase of our biodiversity certificate trial will be focused in Chichester harbour, with a smaller subset of project partners. Partners involved in this first stage are marked with an asterisk and partners external to the SSP partnership are included in an additional list below this table.

Partner	Role	Responsibilities
Blue Marine*	Solent Project Manager (Louise MacCallum)	• Overall responsibility for project
	Solent Seascape Project Co-ordinator (Rosalie Wright) - managed by Louise, works across whole partnership work.	• General project and partnership management. • Grant co-ordination/ finance liaison • Comms delivery • Media asset production
	Restoration Science Officer (Luke Helmer)	• Co-ordinate monitoring programme in collaboration with partnership and UoP • Oyster restoration fieldwork • Technical report writing in collaboration with partnership
	SORP Project Officer (TBC)	• Supporting the delivery of the oyster restoration under the Solent Oyster Restoration Project
	BLUE Unit support (Kaija Barisa, Maddie Millington-Drake)	• Technical expertise from BLUE units on policy, legal, blue carbon, and economics to utilised for project deliverables
University of Portsmouth*	Monitoring Lead (Jo Preston)	• Oversight of the monitoring programme. Delivering monitoring outputs and feeding back into science community and more widely. To work closely with Luke.
	Senior Research Associate (Zoe Morrall) Research Fellow (Hayley Craig)	• Leading monitoring and research of programme • Monitoring method development • Data analysis from programme • Report writing
HIWWT	Marine Nature Recovery Manager (Jenny Burns)	• Seagrass restoration lead for Hamble and Calshot

	Senior Marine Specialist (Tim Ferrero)	• Seagrass restoration lead for Solent seagrass restoration project and ELP deliverables
	Marine Officer (Ellie Parker)	• Supporting on seagrass restoration work
	Senior Engagement Officer (Emily Stroud)	• Leading on community engagement
	Assistant Engagement Officer (Caitlin Woombs)	• Supporting community engagement work
RSPB*	Project Development Manager (Wez Smith/ Leigh Lock)	• Delivering seabird habitat restoration
CHaPRoN*	Sarah Chatfield,CHaPRoN Manager; Marine Nature Recovery Officer (Lily Whittaker)	• Leading on Chichester Harbour deliverables for ELP
	Harbour Engagement Officer (Kate L'Amie)	• Leading on engagement work in Chichester Harbour – to work closely with HIWWT engagement strategy
Project Seagrass	Project Manager (Richard Unsworth)	• Seagrass restoration lead
Coastal Partners	Project Manager (Gavin Holder)	• Saltmarsh restoration lead
Natural England*	Marine Senior Advisor (Jess Taylor)	• Technical advisors
Environment Agency	Marine Senior Advisor (Jackie Mellan)	• Technical advisors
Isle of Wight Estuaries Project	Project Manager (Sue Hawley)	• Saltmarsh restoration led for IOW sites
OTHER KEY ROLES		
Technical expert *	Philine Zu Ermgassen	• Technical input and strategic advice into project • Wider knowledge expertise on restoration work • Ecosystem services expertise
Comms Leads	Each project partner will have their own Comms lead.	• Contacts to liaise with on press releases and media asset development for each project partner

Additional partners involved in Phase 1 design and delivery:

- Chichester Harbour Conservancy

- Manor of Bosham
- Private landowners
- Construction partners
- The Crown Estate
- Langstone Harbour Board
- Oyster farmers
- Local IFCAs

Other project participants include members of the local community that will be taking part in citizen science volunteer programmes and the co-designed Seascape Recovery Plan. These include local residents, local students and members of local businesses (yachting, water companies, seafood restaurants etc.). The list of involved community members will be finalised after completing our stakeholder mapping exercise.

Initial stakeholder mapping results can be viewed here: Stakeholder Mapping SSP 23.02.23.xlsx. This list guides ongoing stakeholder engagement work currently underway by Resources for Change, as commissioned by Blue Marine for SSP.

2.4. Participatory Design

The initial project's goal, interventions, and outcomes were designed through a series of collaborative workshops with our project partners, and input from other key influential stakeholders such as the Solent Forum and the IFCA's. Workshops were broken down in to targeted habitat groups (seagrass,saltmarsh, oysters, seabirds) as well as other interventions such as community engagement and outreach to discuss existing work in the area, gaps, and opportunities. Following these workshops andfurther refinement with our partners, the following outcomes were agreed:

1. A long-term seascape recovery plan has been co-created and implemented with primary stakeholders, supporting the better management of existing Solent habitats.
2. Key marine and coastal habitats are being actively restored, increasing habitat extent and catalysing recover across the wider seascape, improving ecological connectivity.
3. Ecosystem service benefits from restoration are assessed and increasing, creating an evidence base of the wider benefits of seascape restoration.
4. The potential to upscale restoration is improved through policy advocacy and development of financial mechanisms.
5. Local communities are engaged with and involved in the project. Positive behaviours are adopted by local and primary stakeholders to reduce pressures on seascapes habitats.

Local stakeholders and communities groups will be part of the co-design process for outcome 1 in particular (see project logic below). Initial data and information mapping will take place to identify existing habitats, pressures and landowners, as well as identify data gaps, to create a 'state of nature report' that will be used as a baseline to engage with various stakeholder groups for developing co-designed vision and associated strategies for the Solent's recovery. Engagement strategies for industry groups and community groups will be managed by two different working groups (as outlined in the governance structure below); Seascape recovery plan working group (led by Blue Marine) and community engagement working group (led by HIWWT). Years 1 and 2 of the project will involve developing the detailed stakeholder engagement and audience strategies including mapping work, and partners will develop and agree ways of approaching and working with these groups across the project. As part of this exercise, motivations, influences and barriers to behaviours within community groups will be identified through a series of targeted interviews, questionnaires, focus groups and workshops, taking in to account different ways needing to be considered for approaching more deprived

communities. The workshops/ drop-in sessions will also be held and promoted within the local community for industry representatives, regulators, and local people to gather ideas and insights on what is important for these groups to see in the Solent in terms of its recovery. Concerns will also be gathered to understand what may not be possible to achieve as part of the recovery plan. . Outreach interventions will be targeted to the type of audience, and the project will offer opportunities for community groups to be involved strategies including school education programmes, volunteering opportunities and through implementing activities such as restoration of seagrass and oysters, to influence behavioural change. Ideas and insights for developing a recovery plan for the Solent will be gathered from the workshops and sub-working groups will be set up to progress the development of a seascape recovery plan to be implemented and supported by the end of the Solent Seascape Project timeline. HIWWT will produce a report on audience mapping and outline the key messages and interventions to promote engagement and behaviour change, developing a structured community engagement plan and monitor progress and behaviour change over the project timeline.

2.5. FPIC Process

We have not completed an official FPIC process, however outcome 1 of the project, the creation of a long term Seascape Recovery Plan that has been co-created and implemented with local stakeholders supporting the better management of existing Solent habitats, is likely to be the most impactful to local communities, particularly fishers who may be concerned further restrictions will be placed upon them in order to better protect and manage existing habitats. It is important that the Seascape Recovery Plan is co-designed with local stakeholders and community groups to ensure effective by-in. Prior to the promotion and implementation of the community workshops/ drop in sessions as described above, information and data gathering will be completed to evidence the current state of the Solent's marine and coastal habitats. Existing habitats and their condition as well as pressures andlandownership will be mapped. Existing restoration projects and habitat recovery strategies will also be mapped to identify gaps. Following data and evidence collection, stakeholder engagement processes as outlined above will be carried out to co-design interventions. As described above, we will work with partners to explore the stakeholders, communities, households and groups that could potentially be affected by the project activity through stakeholder mapping exercises. We will undertake participatory mapping exercises in the initial stages of the project to understand the user landscape (e.g. landowners and land users) and produce a series of stakeholder and wider community maps. These maps will collate information on these groups and their interaction with the project area and value derived from it, including motivations, influences, and barriers to involvement. Each behaviour change will be targeted at specific user groups and their identified pressures on the Solent Seascape. Behaviour change interventions will be explored through the stakeholder workshops and use varying communications, messaging and engagement strategies to increase people's awareness, understanding and buy in for the project.

3. Project Design

3.1. Biodiversity Baseline

The Solent Seascape Project is launching a State of Nature report and Data Viewer to provide access to the latest open-access data on biodiversity and habitat health across the Solent's coastal and marine environment, as well a current management measures and pressures impacting nature. This report will provide the latest condition assessments, updating the ones below. A non-technical summary of the State of Nature report is available here: https://solentseascape.com/solent-state-of-nature-report-reveals-

wildlife-could-be-lost-from-solent-forever/.

Marine Protected Area conditions assessments have been carried out for some of the designated features (sandbanks, mudflats, coastal lagoons) of the Solent Maritime SAC between 2018 and 2020 (table below).

Solent Maritime SAC Condition Assessment Summary (2018 – 2020)			
Feature	**Sub-feature**	**Condition**	**Date of Assessment**
Sandbanks which are slightly covered by sea water all the time	Subtidal coarse sediment	Unfavourable No Change	28/08/2019
	Subtidal mixed sediments	Unfavourable No Change	28/08/2019
	Subtidal sand	Unfavourable No Change	28/08/2019

	Subtidal seagrass beds	Unfavourable Unknown	28/08/2019
Mudflats and sandflats not covered by seawater at low tide	Intertidal coarse sediment	Unfavourable No Change	28/08/2019
	Intertidal mixed sediments	Unfavourable No Change	11/06/2020
	Intertidal mud	Unfavourable No Change	11/06/2020
	Intertidal sand and muddy sand	Unfavourable No Change	11/06/2020
	Intertidal seagrass beds	Unfavourable Unknown	28/08/2019

Natural England condition assessment surveys for the SAC do not include oysters or seabirds. For oysters, baseline densities are < 0.2 oysters /m2 at all sites (SIFCA stock surveys). Baseline data on sediment type and oyster density has been gathered for Langstone Harbour, Hamble Harbour and Newtown Harbour by University of Portsmouth and Blue Marine. For seabirds, a condition assessmentof the SPAs will be carried out by Natural England in the future however other existing baseline data can include BTO WeBS Reports.

Baseline data exists for all of the major seabird breeding sites within the Solent. Approximatepopulation data for the whole Solent exists as follows (based on a compilation of most recent censusfor each site up to 2021):

- Black-Headed Gull: 10,000 pairs
- Mediterranean Gull: 1345 pairs
- Sandwich Tern: 608 pairs
- Common Tern: 229 pairs
- Little tern: 64 pairs
- Ringed plover: 69 pairs
- Oystercatcher: 74 pairs

Baseline data on the current extent of seagrass meadows in the Solent gathered is by many NGO's and other agencies, originally published in the HIWWT Seagrass Inventory, now updated as a public seagrass extent layer held by Natural England. Total seagrass extent in the Solent is approx. 700 ha based on HIWWT 2014 survey data.

Saltmarsh baseline extent has recently been assessed (2022) in the Natural England Research Report NECR404. The extent of saltmarsh in the Solent has decreased by a total of 1784.3 ha or on average by 51.19% since the 1940's. In 2019 there was a total of 1033.3 hectares of saltmarsh present within the Solent.

Without intervention, the ecosystems around the Solent are predicted to continue to decline. Continued input of nitrogen and phosphorous will increase eutrophication rates, leading to increased macroalgae on intertidal mudflats and declines in water quality, impacting on important species such as overwintering birds who depend on these habitats for feeding and roosting. Recreational activities, particularly water sports are becoming more popular. It is predicted that this will continue to increase without active intervention of community engagement and recreational activities management. The Solent Marine Sites 2022 annual management report highlighted that over the last year, there has been an increase in some recreational activities impacting on the designated sites. These included dog walking, increased litter, and powerboating/ sailing with an engine. Increased recreational activity is likely to

result in disturbance to breeding and overwintering seabirds, trampling of intertidal habitats, and increased pollution. As a result, it is likely that the condition assessments for the Solent will remain in unfavourable condition.

3.2. Socioeconomic Baseline

The Solent is one of the busiest waterways in Europe. Portsmouth is the second most densely populated city in the UK (after central London). In one of the city's electoral wards, 40% of children are living in poverty. Those living near and using the Solent face several issues including poor water quality and coastal erosion. However, econometric forecasts indicate than an additional 35,600 jobs (6.1%) will be created between 2018 and 2036, primarily driven by new employment opportunities in Eastleigh, Portsmouth and Southampton.

Nearly 20% of the Solent communities are employed in maritime related sectors as outlined below:

Tourism,water sports, and recreational boating: More than 36,000 people are employed in the tourism sector in the Solentand it is globally renowned for sailing and other water sports. The Solent is one of the most densely populated sailing areas in the world and enjoys an international reputation. There are circa 24,000 moorings and marina berths in the area. The Solent accounts for 25% of the coastal marina berths inEngland. The RYA estimates that the average annual economic contribution arising from marina based boats is between £9,500 and £19,000. In addition to the economic contribution from recreational boating are the social benefits the sector brings to people and communities, both directly and indirectly. Recreational angling is one of the UK's most popular sports, with up to two million people taking part each year, and spending an estimated £800M.

Commercial fisheries: 361 licensed commercial fishing vessels (under 12m) currently operate in the Solent. In the Annual UK fishing industry report which includes detailed figures on the UK fishing fleet, the number of fishers, the quantity and value of landings, international trade and the state of keyfishing stocks the data showed that 900 tonnes was landed in Portsmouth in 2018, worth £2.8 million,this was down from 1,900 tonnes in 2017.

Landowners including the Crown Estate, Local Authorities, Harbour Authorities and private landowners that own parts of the seabed in the Solent can generate income through fees associated with leases and activities carried out on the seabed. For example, The Crown Estate's will charge fees to carry out activities including restoration. The River Hamble Harbour Authority generated a turnover of £658,000 before costs through a combination of increased harbour dues and dry launch fees in 2021. Private Landowners such as the Manor of Bosham will generate income through mooring fees in Chichester Harbour. The project will consult and engage with all of the above primary stakeholders to ensure success and critical support from the surrounding communities. This could include sharing leases, promoting behaviour changes decreasing negative impacts, and an increased awareness of the benefits of a healthy coastal ecosystem. Increased water quality, fish stocks, and decreased events of coastal erosion and flooding due to protected and restored coastal ecosystems in the area will provide indirect benefits to all primary and local stakeholders.

3.3. Environmental Baseline

Coastal habitats will naturally adapt to a changing climate by migrating inland, but in highly populated areas like the Solent there is no room for this process to happen as the land is used for industry, housing or recreation and will be defended due to its high commercial value. Furthermore, saltmarshes and sand

dunes act as natural coastal defences and their loss will lead to increasing pressure on manmade defences. Defences will need to be bigger and higher and the cost of their construction and maintenance will rise as this happens.

The combination of sea level rise and the likelihood of flooding and greater coastal erosion is a real threat to both people and the existing habitats and species around the Solent. There may also be a significant effect on the coast due to storminess and associated wave and surge actions and rivers discharging higher flows and sediment loads into the sea. Such physical changes to the coast will alsosignificantly impact on human activity.

Ecosystem	Status
Saltmarsh	Over 50% of the area's saltmarsh has been lost since the 1860s alone, equivalent to an estimated carbon fixing potential of around 5,000 tonnes per year. Between 2008 and 2016, 13 of the 17 SSSI sites containing saltmarsh, across the Solent showed loss in saltmarsh extent. Changes between 2008 and 2019, show an 8.29% saltmarsh loss, which equates to 0.75% yr-1. Changes between 2008 and 2016 revealed the greatest rate of saltmarsh loss, being 1% yr-1 . However, the rate of saltmarsh loss between 2016 and 2019 was much lower than between 2008 and 2016, being 0.14% yr-1 . Long established saltmarshes are one of the greatest coastal habitats for sequestering carbon, with rates in the UK of around 1.20 – 1.50 t C ha-1 yr-1. It can be estimated 148 Natural England Commissioned Report NECR404 that the remaining saltmarsh from the Solent, sequesters around 1,274.4 – 1,593.0 t C yr-1 . From the remaining saltmarsh we estimate that the saltmarsh within the Solent provides between £35,710 – £122,198 of carbon sequestration per year. If the Solent's saltmarshes are maintained at their current extent, their sequestration capacity over the period 2020-2100 is valued to be in the region of £10 million UK sterling.
Seagrass	The seagrass is under threat from anchoring, mooring and launching of recreational boats, as well as trampling from walkers and bait collectors. UK seagrass meadows have declined by 49%, and all 650 hectares of seagrass meadows in the Solent are in unfavourable condition.

Oysters	Native oyster populations have declined by 95% across the UK including in the Solent, with a 96% loss in Chichester Harbour in the last 20 years alone. The unsustainable harvest, disease, pollution and numerous other factors have caused the collapse of the Solent fishery, once the largest in Europe – 15 million or 840 tonnes in 1978/9 alone. The population is now functionally extinct, meaning that without intervention and active restoration the population will not recover.

3.4. Project Logic

Table 3.4 Initial Project Logic

Aim Over 50% of the area's saltmarsh has been lost since the 1860s alone, equivalent to an estimated carbon fixing potential of around 5,000 tonnes per year. Oyster populations have declined by 95%, causing the collapse of the fishery. UK seagrass meadows have declined by 49%, and all 650 hectares of seagrass meadows in the Solent are in unfavourable condition. Nesting islands for seabirds and high tide roosts are being lost to erosion and sea level rise. This large-scale habitat degradation has led to a loss of connectivity between coastal habitats, further exacerbating their decline. Yet these habitats are of high ecological, social and economic value and are considered some of the most threatened, requiring conservation action under the UK Biodiversity Action Plan. The aim of the project will be to reconnect the Solent into a functioning seascape by improving the condition, extent, and connectivity of oyster reef, seagrass meadow, saltmarsh, and seabird nesting habitats using protection and restoration initiatives.		
	Description	**Assumptions/Risks**
Outcomes – Intended overall project aim		

Biodiversity Benefit	Key marine and coastal habitats are being better managed and actively restored, increasing habitat extent and condition, catalysing recovery across the wider seascape, improving ecological connectivity.	Area of habitat to be restored to depend on site suitability and marine licence/ consentingprocesses. The majority of the Solent is designated therefore considerations are needed to ensure any recovery of certainhabitats / species do not posedetriment of other designated features. Restoring marine and coastal habitats across the seascape will improve the connectivity for marine species that utilisethe habitats (e.g. fish and birds)
Socioeconomic Benefit	Local communities are engaged with and involved in the project. Positive behaviours are adopted by primary stakeholders to reduce pressures on seascape habitats. The restored ecosystems will lead to reduced water pollution, recovery of fish stocks, and better coastal protections from floods and coastal erosion. These benefits will positively impact the health, wellbeing and livelihoods of the local communities.	Communities are interested in being involved/engaging with the project from the beginning. Community involvement will increase positive behaviours and a desire for continued participation and engagement.
Environmental Benefit	Ecosystem service benefits from restorationare increasing across the landscape, including carbon sequestration and storageand nutrient cycling, while increasing the resilience of these ecosystems to potential future climate change impacts.	Restoring marine and coastal habitats at seascape scale will have quantifiable ecological benefits - increase associated biodiversity, sequester and store carbon and mitigate nutrient inputs.
Outputs		
Output 1	A long term seascape recovery plan has been co-created and implemented with key	**Risk:** We are assuming that stakeholders are willing to

	stakeholders supporting the better management of existing Solent habitats	engage and adopt a seascape plan. It is assumed that a seascape plan will allow anthropogenic pressures to be reduced or removed, slowing the rate of degradation of marine and coastal habitats. **Mitigation**: Develop an engagement plan that reaches as wide an audience as possible, prioritising key stakeholders already identified in mapping work. This means we will be working directly with those who have the power to make changes to anthropogenic pressures and also ensuring many people have a voice in the recovery plan, encouraging local buy in. Our community engagement work also means we are raising awareness and producing open-access resources for people to make informed decisions about their seascape.

Output 2	Active restoration including seagrass/salt marsh planting, cultch relaying, oyster brood stock enhancement, and sea bird shingle habitat deployment over: 7ha (seagrass), 8ha (salt marsh), 4ha (oyster habitat), 2ha (seabird habitat).	**Risk**: Restoration cannot occur in sites that impact other designated features. **Mitigation**: Work with regulators during feasibility studies to select appropriate sites and minimise impacts on adjacent designated feature integrity. **Risk**: Fishing impacts conflict with restoration efforts. **Mitigation**: Work with regulators including MMO and IFCAs to select sites within existing areas closed to damaging fishing activity and engage with the fishing community to gain buy-in.
Output 3	Assess ecosystem service benefits (carbon, biodiversity, nitrates):Quantitative assessment of the impact of protection/management and restoration initiatives on: habitat recovery, biodiversity enhancement, ecosystem service delivery including water quality, nutrient cycling, and blue carbon.	**Risk**: Effects of climate change, such as rising temperatures and sea levels, affect habitats' ability to store carbon. **Mitigation**: Work to ensure other pressures upon habitats are minimised allowing them to build resilience and extend their range, regaining the health required to store carbon effectively.

Output 4	Work with governments and regulators to develop key interventions and financial mechanisms to upscale the potential for seascape restoration in the longer term. This will happen through the creation of a long-term seascape recovery plan has been co-created and implemented with primary and local stakeholders supporting the better management of existing Solent habitats.	**Risk**: Stakeholders are willing to engage and adopt a seascape plan. It is assumed that a seascape plan will allow anthropogenic pressures to be reduced or removed, slowing the rate of degradation of marine and coastal habitats. **Mitigation**: We will co-designit with all local stakeholders.
Output 5	Using income generated from the sale of biodiversity certificates, citizen science and volunteer programs will be available to local communities. This will also allow for investment in outreach and education programs, citizen science, and the of purchase sustainable fishing gear. These activities will ensure the longevity of the recovery of the Solent waters securing the above mentioned benefits for the community. Income can also be used for the establishment of eco-moorings to prevent damaging anchoring practices and the purchase of lower impact fishing gear.	**Risk:** Not enough income is generated from the sale of biodiversity certificates to cover all community-based programmes. **Mitigation:** Other funding (public and private) is acquired to provide additional income for project and community activities.

3.5. Proposed Biodiversity Monitoring

Table 3.5 Proposed Biodiversity Monitoring

Selected Biodiversity Monitoring Tool	**Taxonomic Groups(s) the Biodiversity Monitoring Tool will target**	**The reason why this tool has been selected**	**Considerations for PV Nature when selecting and monitoring these groups in the Project Region**
Required Target Groups (delete as appropriate)			
High-Resolution Imagery Transects	Vegetation	Required under PV Nature methodology (marine)	Water is more turbid in the winter months so monitoring will need to be carried out in the spring/summer.

			For submerged habitats, the sampling will ideally take place at slack water to increase the likelihood of collecting clear imagery. Species identification from photo quadrats can be challenging in diverse and dense patches of saltmarsh.
Baited Remote Underwater Videos (BRUVs)	Fish	Required under PV Nature methodology (marine)	Area is a known spawning site for some species of fish, and so monitoring should be carried out at the same time each year. The harbour is a known European sea bass (*Dicentrarchus labrax*) nursery ground. Species lists from small fish surveys undertaken in the area are available to provide an indicator of the species likely to be observed. Monitoring will take place at high-water slack where to minimise poor visibility conditions and ensure all habitats are submerged. BRUV units will only be deployable outside of the main navigation channels. Deployment of the BRUV units will not be able to take place directly in the saltmarsh habitat, they will be deployed as close as possible to the leading edge of the habitat. Depending on tidal height this may also apply to the area of seagrass and they may have to be deployed in the channel entrance.

			Deployment locations will need approval and consent from the Harbour Authority before they can take place – this should be a simple conversation and email confirmation.
Additional Recommended Target Groups (delete as appropriate)			
BRUVs	Mobile macro-invertebrate e.g. molluscs and crustaceans.	The area is known for a variety of crustacean species and molluscs including cuttlefish.	Monitoring will take place at high-water slack where to minimise poor visibility conditions and ensure all habitats are submerged. BRUV units will only be deployable outside of the main navigation channels. Deployment of the BRUV units will not be able to take place directly in the saltmarsh habitat, they will be deployed as close as possible to the leading edge of the habitat. Depending on tidal height this may also apply to the area of seagrass and they may have to be deployed in the channel entrance. Deployment locations will need approval and consent from the Harbour Authority before they can take place – this should be a simple conversation and email confirmation.
Benthic grabs	Sessile invertebrates (epifauna) within the oyster reef	Benthic grabs have been selected for sessile invertebrates for the area of oyster reef as imagery or visual assessment of the seabed would not provide	Within the oyster reef, benthic grabs will be taken and photographed before being sent off to a third-party consultant for

		sufficient data due to the cryptic nature, size and burrowing nature of many species.	benthic species identification to obtain community assemblage assessment. **The locations of grab samples will need to be determined prior to Marine licence application so that they can be incorporated.**

3.6. Additionality

Table 3.6 Initial Barrier Analysis

Project Intervention	Main Barriers	Activities to Overcome Barriers
Restoration: Actively restore 8ha of saltmarsh, 7ha of seagrass, 4ha of oysters, and 10 breeding seabird nesting sites to increase habitat extent and catalyse recovery across the wider seascape, improving ecological connectivity.	Poor water quality: high levels of nitrogen and sediment suspension restrict the natural recruitment of habitats.	We aim to establish a positive feedback loop whereby restored habitats contribute to nutrient reduction and decreased turbidity, facilitating habitat recovery and expansion. More immediate nutrient inputs also represent an ongoing threat which will be addressed through water company asset performance, land management improvements, and sewage disposal options for boaters. Engagement with stakeholders contributing to poor water quality will be engaged with the development of the Solent seascape recovery plan.
Restoration: Actively restore 8ha of saltmarsh, 7ha of seagrass, 4ha of oysters, and 10 breeding seabird nesting sites to increase habitat extent and catalyse recovery across the wider seascape, improving ecological connectivity.	Habitat disturbance: disturbance from recreational activities, fisheries and boating damages habitats and is a threat to breeding seabirds. Intertidal and bottom impact fishing activities result in sediment plumes, habitat damage, and reduced foraging for birds.	Engagement with primary stakeholders such as boat owners and recreational users will be carried out as part of the Solent seascape recovery plan development.

Restoration: Actively restore 8ha of saltmarsh, 7ha of seagrass, 4ha of oysters, and 10 breeding seabird nesting sites to increase habitat extent and catalyse recovery across the wider seascape, improving ecological connectivity.	Lack of financing: Restoration is expensive and there is little government and private investment .	Through the creation of the Seascape Recovery Plan standardized methods for active and passive restoration may be established. The sale of biodiversity certificates may allow for future funding for restoration, however this is likely to significantly increase the cost of the credits.
Improved Management: Work with government and regulators to develop key interventions and financial mechanisms to upscale the potential for seascape restoration in the longer term.	Marine licensing processes: These can be complicated, expensive, and are not streamlined for restoration work.	We will engage with regulators and marine licensing bodies to evidence difficulties with licensing systems for restoration projects. The future sale of biodiversity certificates can help cover licensing costs.
Protection/ Improved Management: Work with local stakeholders and communities to develop and co-create a long-term seascape recovery plan, that supports better management of existing Solent marine and coastal habitats.	Land ownership engagement: Many areas of the Solent are privately owned or owned by the Crown Estate.	Through this project, we will engage with landowners to make them aware of nature positive alternatives.

Improved Management: Empower local communities and build capacity to ignite and improve understanding of seascape processes, catalyse behavioural change, and increase involvement in seascape recovery. *Protection/ Improved Management:* Work with local stakeholders and communities to develop and co-create a long-term seascape recovery plan, that supports better management of existing Solent marine and coastal habitats.	Local objections for addressing key pressures that may impact on businesses and livelihoods, e.g., fisheries, boating industry, development and recreation. Lack of technical skills for local communities to engage with and participate in protection and management practices including monitoring and outreach.	We will involve local communities and businesses in the development and decision making for strategic solutions to remove pressures. We will support the development of community-led initiatives to inform behavioural and management changes. We will train and engage local community volunteers to participate in citizen science programs eg. Collecting water samples for eDNA testing or monitoring bird populations. This will enable future community engagement and help increase understanding of the biodiversity in the local coastal ecosystems.

3.7. Exclusion List

The project does not include any activities listed in the Plan Vivo Exclusion List.

3.8. Environmental and Social Screening

Table 3.8 Environmental and Social Risks

Risk Area	Potential Risks
Vulnerable Groups	Based on the 2019 Hampshire index of multiple deprivation there are vulnerable groups within the project area. Those living near and using the Solent face several issues including poor water quality and coastal erosion. This project and the activities associated with it will benefit and help to connect vulnerable communities with the seascape and provide opportunities for collaboration and involvement.
Gender Equality	None - We do not at this stage anticipate vast differences between men and women in the involvement and implementation of thisproject but if identified this will be built into our engagement and mitigation plans for our project interventions.
Human Rights	None - All four of the main partners (Blue Marine, University of Portsmouth, Hampshire & Isle of Wight Wildlife Trust and RSPB) have safeguarding and human resource policies in place that will be adhered to during the project duration to ensure no risk of breaching human rights law. Other partners have agreed to adhere to the policies for each lead partner.
Community, Health, Safety & Security	We do not anticipate there to be significant health, safety and security risks to communities as part of this project. Community groups may become involved in volunteer opportunities for active restoration. Risk assessments are completed prior to volunteer activities occurring on site and health and safety procedures followed throughout.
Labour and Working Conditions	None – we do not anticipate that there will be a risk to labour or working conditions.

Resource Efficiency, Pollution, Wastes, Chemicals and GHG emissions	Increased resources are expected for undertaking the project. This includes vessels being used to carry out active restoration activities, which would in turn contribute to increased emissions through the use of fuel. However, given the nature of the project, recovery and restoration work is expected to increase carbon sequestration and improve water quality with no significant increase in GHG emissions.
Access Restrictions and Livelihoods	Whilst the project is seeking to catalyse behaviour change, rather than restrict activities (unless completely necessary), there may be some potential to affect certain community groups such as fishers and recreational sea users. For each element and stage of the project we will work with all the partners to explore the stakeholders, communities, households and groups that could potentially be affected by the project activity. We will undertake participatory mapping exercises in the initial stages of the project to understand the user landscape and produce a series of stakeholder and wider community maps. These maps will collate information on these groups and their interaction with the project area and value derived from it. Each behaviour change will be targeted at specific user groups and their identified pressures on the Solent Seascape. Behaviour change interventions will be explored through the stakeholder workshops and use varying communications, messaging and engagement strategies to increase people's awareness, understanding and buy in for the project.
Cultural Heritage	None – We do not anticipate there to be significant risk to cultural heritage practices. The Solent was once the largest native oyster fishery in Europe but has since collapsed.
Indigenous Peoples	None - No indigenous communities present in the project area.
Biodiversity and Sustainable Use of Natural Resources	None – The project is expected to be beneficial for biodiversity and sustainable use of natural resources. However, restoration work should ensure that this does not impact on any other important features within the area. The project will be following all habitat regulation

	assessment requirements to ensure no likely significant effects.
Land Tenure Conflicts	There is a risk of land tenure conflicts occurring with private landowners. As part of the project development phase we have engaged with and gained support from key landowners including the Crown Estate, RSPB and Harbour Authorities for our planned restoration work. There is also the opportunity to work as part of the Local Natural Recovery Strategy to identify sites for nature recovery and through that process there will be engagement and agreement with landowners. In some areas where habitats will be restored and disturbance will undermine efforts it's possible that access to places and resources will be restricted. The project will seek to mitigate this by using sensitive zoning techniques and community participation and co-design. Many of the sites chosen within the project have been identified through collaboration with stakeholders and communities and their continued involvement will be vital for the project success and minimizing conflict.
Risk of Not Accounting for Climate Change	This project will work to ensure other pressures upon habitats are minimised, allowing them to build resilience and extend their range, regaining the health required to store carbon effectively and reduce the impacts of climate change.
Other – e.g. Cumulative Impacts	None

3.9. Stacking and Double Counting

There are currently no PES, greenhouse gas emission reduction projects, programs, or initiatives that overlap with the proposed project regions.

However, in the future, we would like to use this site as a pilot for the domestic saltmarsh and seagrass codes that are in development for the UK. Both of these codes are in very early stages, but will be more appropriate for the smaller fragmented habitats present in the UK. This site could be an interesting pilot, due to the potential to stack the biodiversity benefits alongside the carbon credits that are generated from these codes.

3.10. Relevant Legislation and Policies

Table 3.10 National Level Legislation, Policies and Instruments

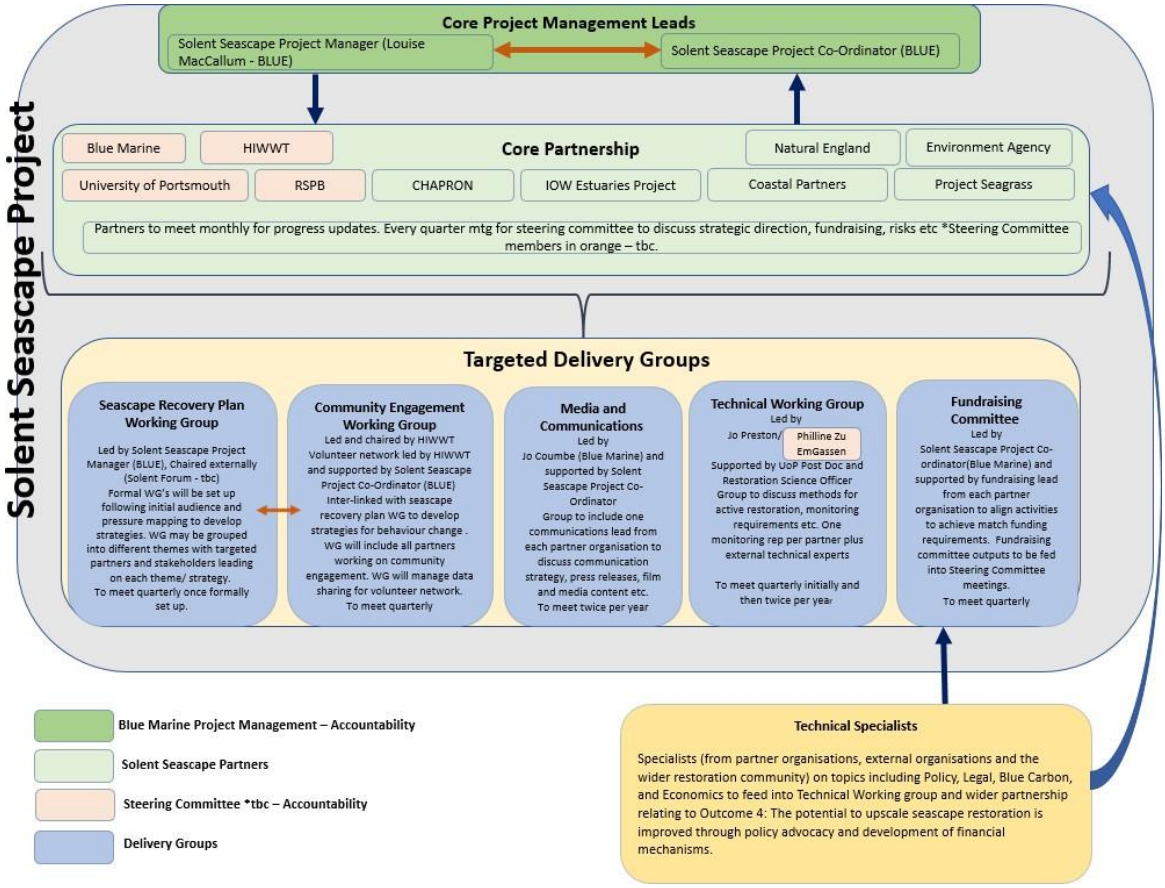
	Yes/No/Unsure	**Details**

Does the country receive or plan to receive results-based biodiversity or climate finance through bilateral or multilateral programs?	No	There is currently no plan to receive climate or biodiversity finance from other sources.
Are there any other relevant regulations, policies or instruments?	No	Programs like Marine Net Gain and Local Nature Recovery Plans are currently being developed and may include coastal habitats in the future.

4. Governance and Administration

4.1. Governance Structure

The project involves expert organisations already working on marine habitat restoration across the Solent and these organisations were approached due to their shared goals and ambitions to recover the Solent's seascape, as well as their expertise on habitat restoration. Hampshire and Isle of Wight Wildlife Trust as well as Project Seagrass are experts in seagrass restoration. Blue Marine Foundation are experts in oyster restoration and have been working in this space since 2015. The University of Portsmouth has been involved in several restoration projects in the Solent and further afield. The Environment Agency and Natural England are technical experts helping to guide decision making and best practice. RSPB are experts in seabirds and are important in providing the link between coastal and marine seascapes, evidencing the importance of connectivity. Coastal Partners, CHAPRON, and IOW Estuaries Project are all working on saltmarsh restoration. The partners represent a wide range of expertise and are the leading organisations on their respective habitats. Other technical specialists will also be brought in to the discussions, design and implementation of the project through the technical working groups such as IFCA's, Solent Forum, and the MMO.



4.2. Legal and Regulatory Compliance

Natural England have statutory requirements to help conserve, enhance, and manage the natural environment. The project is required to engage with Natural England before and during licensing processes to ensure likely significant impacts on designated sites are considered. Natural England are also responsible for issuing consents to work within SSSI's. Natural England are a partner on the project and has been fully engaged in project development.

The Environment Agency is responsible for enforcing laws that protect the environment and we are required to engage with them to ensure protected features are not impacted, including migratory fish species. The Environment Agency is a project partner and has been involved in project development.

The Marine Management Organisation is responsible for issuing marine licensing. The MMO were approached to be a partner on the project and whilst supportive of it, they felt they needed to remain impartial. The MMO will be engaged with throughout the implementation of the project as part of the stakeholder workshops and any pre-application advice.

The IFCA's are responsible for fisheries management up to 6nm. The IFCA's were approached to be a partner on the project however they felt they needed to remain impartial. However, the IFCA's are supportive of the project and have been involved in project development, and will continue to be involved throughout the implementation of the project, such as though engaging with the fishing community, monitoring work and development of a Seascape Recovery Plan. Letters of support from both local IFCA's have been provided.

Private landowners and The Crown Estate own areas of land within the project boundaries. The Crown Estate have been engaged with thought the project and are supportive. The project will be required

to lease land from the Crown Estate to carry out the works. The Crown Estate has provided a letter of support which is attached to this PIN.

The Harbour Authorities across the Solent also lease land from the Crown Estate therefore the project is required to engage with the Harbour authorities on necessary permissions before carrying out work. The Harbour authorities will also be involved in project implementation through stakeholder engagement workshops on developing a Seascape Recovery Plan as well as active restoration within their jurisdictions.

RSPB owns the project areas at Medmerry and have a long-term lease on the surrounding land. RSPB owns the area of their Langstone Harbour reserve and are working with Havant Borough Council at the adjacent West Hayling local nature reserve under a management agreement. RSPB are partners on the project.

While the North Solent NNR is owned by various landowners, NE manage the site and have positive engagement with these landowners. Other landowners have been engaged and are supportive of the project, we will continue to engage landowners throughout the project.

Blue Marine has engaged with Hampshire County Council and the Isle of Wight Council on the project and received letters of support from both. The local authorities are responsible for implementing future local nature recovery strategies, and whilst these do not yet cover subtidal habitats, HCC and IOW are keen to engage with the project on how these can be potentially added. Therefore, local authories require engagement to ensure longevity of the project going forward.

The project will operate with full compliance with all national and international laws, policies, and regulations.

4.3. Financial Plan

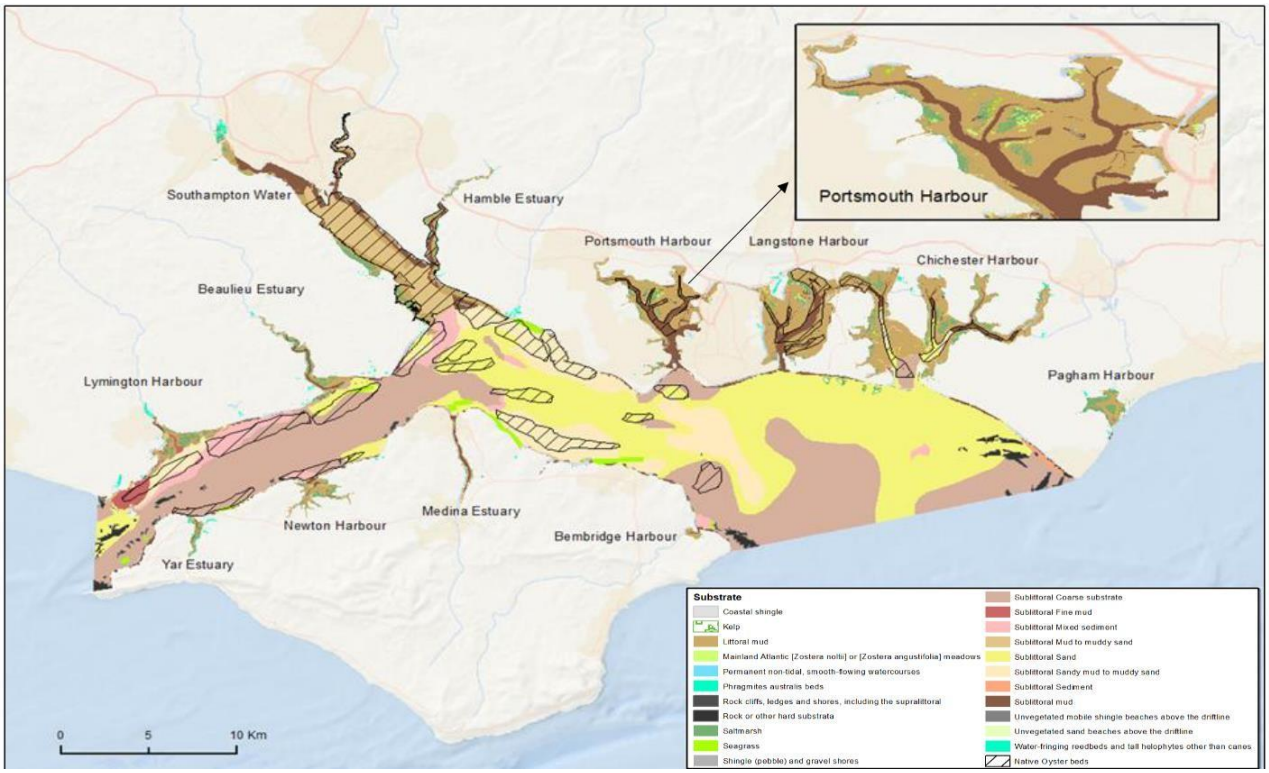
We have successfully received an Endangered Landscapes Program grant that provides $5 million over five years starting November 2022. This funding will be used to cover the implementation of restoration programs, community engagement programs, and biodiversity monitoring.

5 Annexes

5.1. Annex 1 – Project Boundaries

Ref: Watson et al, 2022

[(PDF) Valuing the Solent Marine Sites Habitats and Species: A Natural Capital Study of Benthic Ecosystem Services and how they Contribute to Water Quality Regulation (researchgate.net)]



5.2. Annex 2 –Registration Certificate

Attached in PIN submission email.

5.3. Annex 3 – Exclusion List

Activities	**Included in Project ('Yes' or 'No')**
Any project activities leading to or requiring the destruction [1] of critical habitat [2] or any forestry project which does not implement a plan for improvement and/or sustainable management.	No
Any activity which could be associated with the significant impairment of areas particularly worthy of protection of cultural heritage (without adequate compensation in accordance with international standards).	No
Trade in animals, plants or any natural products not complying with the provisions of the CITES/Washington convention [3].	No

Destructive fishing methods or drift net fishing with a net more than 2.5 km in length, explosives and/or poison.	No
Large-scale commercial logging operations for use in primary tropical moist forest.	No
Production or trade in wood or other forestry products other than from sustainably managed forests [4].	No
Exploitation of diamond mines and marketing of diamonds where the host country has not adhered to the Kimberley Process.	No
Activities involving harmful or exploitative forms of forced labour [5] or harmful child labour [6].	No
Projects that include involuntary physical displacement and/or forced eviction.	No
Production or activities that encroach on lands owned, or claimed or occupied by Indigenous Peoples, without full documented consent of such peoples.	No
Production, use, sale or trade of pharmaceuticals, pesticides/herbicides, ozone layer depleting substances [7], and other toxic [8] or dangerous materials such as asbestos or products containing PCB's [9], wildlife or products regulated under CITES, including all products that are banned or are being progressively phased out internationally	No
Production or trade of arms, ammunition, weaponry, controversial weapons, or components thereof (e.g., nuclear weapons and radioactive ammunition, biological and chemical weapons of mass destruction, cluster bombs, anti -personnel mines, enriched uranium).	No
Procurement and use of firearms.	No
Provision of finances to military institutions involved in conservation or security activities.	No
Production or trade of strong alcohol intended for human consumption or other alcoholic beverages (excluding beer and wine).	No
Production or trade of tobacco and other drugs	No
Gambling, gaming establishments, casinos or any equivalent enterprises and undertaking [10].	No
Any trade related to pornography or prostitution.	No
Production or trade in radioactive material. This does not apply to the procurement of medical equipment, quality control equipment or other application for which the radioactive source is insignificant and/or adequately shielded	No

Production or trade in unbound asbestos. This does not apply to the purchase or use of cement linings with bound asbestos and an asbestos content of less than 20%.	No
Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.	No
Transboundary trade in wastes, except for those accepted by the Basel Convention and its underlying regulations [11].	No
Any activity leading to an irreversible modification or significant displacement of an element of culturally critical heritage [12].	No
Production and distribution, or investment in, media that are racist, antidemocratic or that advocate discrimination against a part of the population.	No
Projects involving the planting or introduction of invasive species	No
Projects that increase the dependency of primary participants and other stakeholders on fossil fuels.	No

Notes:

[1] Destruction means (1) the elimination or severe reduction in the integrity of a habitat/area caused by a major and long-term/prolonged change in land-use or water resources or (2) the modification of a habitat such that this habitat's ability to fulfil its function/ role is lost.

[2] The term critical habitat encompasses natural and modified habitats that deserve particular attention. This term includes (1) spaces with high biodiversity value as defined in the IUCN's classification criteria, including, in particular, habitats required for the survival of endangered species as defined by the IUCN's red list of threatened species or by any national legislation; (2) spaces with a particular importance for endemic species or whose geographical range is limited; (3) critical sites for the survival of migratory species; (4) spaces welcoming a significant number of individuals from congregatory species; (5) spaces presenting unique assemblages of species or containing species which are associated according to key evolution processes or which fulfil key ecosystem services; (6) and territories with socially, economically or culturally significant biodiversity for local communities. Primary forests or high conservation value forests must also be considered as critical habitats

[3] https://cites.org/eng/disc/text.php

[4] Sustainably managed forests are forests managed in a way that balances ecological, economic and socio-cultural needs.

[5] Forced labour means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

[6] Harmful child labour means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development. Employees must be at least 14 years of age, as defined in the ILO’s Declaration on the Fundamental Principles and Rights at Work

(C138 – Minimum Age Convention, Article 2), unless local laws require compulsory school attendance or a minimum working age. In such circumstances, the highest age requirement must be used.

[7] Any chemical component which reacts with, and destroys, the stratospheric ozone layer leading to the formation of holes in this layer. The Montreal Protocol lists Ozone Depleting Substances (ODS), their reduction targets and deadlines for phasing them out

[8] Including substances included under the Rotterdam Convention, Stockholm Convention and WHO "Pharmaceuticals: Restrictions in Use and Availability".

[9] PCBs (polychlorinated biphenyls) are a group of highly toxic chemical products that may be found in oil-filled electrical transformers, capacitors and switchgear dating from 1950 to 1985.

[10] Any direct financing of these projects or activities involving them (for example, a hotel including a casino). Urban improvement plans which could subsequently incorporate such projects are not affected.

[11] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their disposal (1989).

[12] "Critical cultural heritage" is considered as any heritage element recognised internationally or nationally as being of historical, social and/or cultural interest.

5.4. Annex 4 - Environmental and Social Screening

Topic	**Risk Questions**	**Project Coordinator Response**
Environmental and Social Risks		
Vulnerable Groups	Are there vulnerable or disadvantaged groups or individuals, including people with disabilities (consider also landless groups, lower income groups less able to cope with livelihood shocks/ stresses) in the project area, and are their livelihood conditions well understood by the project?	Yes. Additional stakeholder mapping will be undertaken to further understanding within the project.
	Is there a risk that project activities disproportionately affect vulnerable groups, due to their vulnerability status?	No
	Is there a risk that the project discriminates against vulnerable groups, for example regarding access to project services or benefits and decision-making?	No

Gender equality	Is there a risk of adverse gender impacts due to the project/ project activities, including for example discrimination or creation/exacerbation or perpetuation of gender-related inequalities?	No
	Is there a risk that project activities will result in adverse impacts on the situation of women or girls, including their rights and livelihoods? Consider for example where access restrictions disproportionately affect women and girls due to their roles and positions in accessing environmental goods and services?	No
	Is there a risk that project activities could cause or contribute to gender-based violence, including risks of sexual exploitation, sexual abuse or sexual harassment (SEAH)? Consider partner and collaborating partner organizations and policies they have in place. Please describe.	No – project partners have safeguarding and human resource policies in place.
Human Rights	Is there a risk that the project prevents peoples from fulfilling their economic or social rights, such as the right to life, the right to self-determination, cultural survival, health, work, water and adequate standard of living?	No
	Is there a risk that the project prevents peoples from enjoying their procedural rights, for example through exclusion of individuals or groups from participating in decisions affecting them?	No
	Are you aware of any severe human rights violations linked to project partners in the last 5 years?	No
Community, Health, Safety & Security	Is there a risk of exacerbating existing social and stakeholder conflicts through the implementation of project activities? Consider for example existing conflicts over land or natural	There may be risk of conflict through the implementation of this project however this has been mitigated for by many landowners having been engaged with in the project to date and any future interventions will be

	resources, between communities and the state.	co-designed with community groups to reduce the risk of future conflicts.
	Does the project provide support (technical, material, financial) to law enforcement activities? Consider support to government agencies and to Community Rangers or members conducting monitoring and patrolling. If so, is there a risk that these activities will harm communities or personnel involved in monitoring and patrolling?	No – however it is possible that our pressure mapping work may reveal that activities managed by the IFCAs require further restrictions to allow habitats to recover (eg. bait digging, hand gathering) and any measures put in place by the IFCAs could cause displeasure amongst the fishing community.
	Are there any other activities that could adversely affect community health and safety? Consider for example exacerbating human-wildlife conflict, affecting provisioning ecosystem services, and transmission of diseases.	No
Labour and working conditions	Is there a risk that the project, including project partners, would lead to working conditions for project workers[1] that are not aligned with national labour laws or the International Labor Organization's (ILO) Declaration on the Fundamental Principles and Rights at Work (discriminatory working conditions, lack of equal opportunity, lack of clear employment terms, failure to prevent harassment or exploitation, failure to ensure freedom of association etc.)?	No
	Is there an occupational health and safety risk to project workers while completing project activities?	Volunteers may become involved in active restoration of seagrass and oysters during the project lifetime. Appropriate risk assessments are completed and managed by the host organisation.
	Is there a risk that the project support or be linked to forced labour, harmful child labour, or any other damaging forms of labour?	No

[1] Project workers include project coordinator staff, staff of other project partners, third party groups fulfilling core functions of the project, and community volunteers or contracted workers.

Resource efficiency, pollution, wastes, chemicals and GHG emissions	Is there a risk that project activities might lead to releasing pollutants to the environment, cause significant amounts of waste or hazardous waste or materials?	No – All restoration work will undergo a habitat regulations assessment to ensure no impact on other protected features or the surrounding environment.
	Is there a risk that the project will lead to significant consumption of energy, water or other resources, or lead to significant increases of greenhouse gases?	No
Access restrictions and livelihoods	Will the project include activities that could restrict peoples' access to land or natural resources where they have recognised rights (customary, and legal). Consider projects that introduce new access restrictions (eg. creation of a community forest), reinforce existing access restrictions (eg. improve management effectiveness and patrolling of a community forest) , or alter the way that land and natural resource access restrictions are decided (eg. through introducing formal management such as co-management).	Yes – however the project is seeking to catalyse behaviour change, rather than restrict activities (unless completely necessary) therefore in some areas where habitats will be restored and disturbance will undermine efforts, it's possible that access to places and resources will occur. This will be mitigated for by co-designing the vision for the Solent
	Is there a risk that the access restrictions introduced /reinforced/altered by the project will negatively affect peoples' livelihoods?	Yes – however the project is seeking to catalyse behaviour change, rather than restrict activities (unless completely necessary) therefore in some areas where habitats will be restored and disturbance will undermine efforts, it's possible that access to places and resources will occur. This will be mitigated for by co-designing the vision for the Solent.
	Have strategies to avoid, minimise and compensate for these negative impacts been identified and planned?	Yes - The project will be seeking some behaviour change, rather than restricting activities completely (unless absolutely necessary). It will be about doing things differently by using behaviour change interventions, comms, messaging and engagement to

		increase people's awareness, understanding and buy in and make it easier or more appealing to make positive choices that support our aims and outcomes.
Cultural heritage	Is the Project Area officially designated or proposed as a cultural site, including international and national designations?	No
	Does the project site potentially include important physical cultural resources, including burial sites and monuments, or natural features or resources of cultural significance (eg. sacred sites and species, ceremonial areas) and is there risk that the project will negatively impact this cultural heritage?	No
	Is there a risk that the project will negatively impact intangible cultural heritage? Consider for example cultural practices, social and cultural norms in relation to land and natural resources.	No
Indigenous Peoples	Are there Indigenous Peoples[2] living within the Project Area, using the land or natural resources within the project area, or with claims to land or territory within the Project Area?	No
	Is there a risk that the project negatively affects Indigenous Peoples through economic displacement, negatively affects their rights (including right to FPIC), their self-determination, or any other social or cultural impacts?	No
	Is there a risk that there is inadequate consultation of Indigenous Peoples, and/or that the project does not seek	No

[2] As per the IUCN Environmental and Social Management System, Indigenous Peoples include: "(i) peoples who identify themselves as "indigenous" in strict sense; (ii) tribal peoples whose social, cultural, and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations; and (iii) traditional peoples not necessarily called indigenous or tribal but who share the same characteristics of social, cultural, and economic conditions that distinguish them from other sections of the national community, whose status is regulated wholly or partially by their own customs or traditions, and whose livelihoods are closely connected to ecosystems and their goods and services" (IUCN 2016).

	the FPIC of Indigenous Peoples, for example leading to lack of benefits or inappropriate activities?	
Biodiversity and sustainable use of natural resources	Is there a risk that project activities will cause adverse impacts on biodiversity (both in areas of high biodiversity value, and outside of these areas) or the functioning of ecosystems? Consider issues such as use of pesticides, construction, fencing, disturbance etc.	No – all habitats regulation assessments will be carried out for any active interventions to restoration to ensure no adverse effects.
	Is there a risk that the project will introduce non-native species or invasive species?	No – biosecurity protocols are in place for any introduction of species e.g. oysters.
	Is there a risk that the project will lead to the unsustainable use of natural resources? Consider for example projects promoting value chains and natural resource-based livelihoods.	No
Land tenure and conflicts	Has the land tenure and use rights in the project area been assessed and understood?	Yes – this will be further assessed as part of a stakeholder and land use mapping exercise.
	Is there a risk that project activities will exacerbate any existing land tenure conflicts, or lead to land tenure or use right conflicts?	Yes – However this is being mitigated by co-designing the vision for the Solent. All other landowners who have been engaged in the project to date are supportive.
Risk of not accounting for climate change	Have trends in climate variability in the project areas been assessed and understood?	Yes
	Has the climate vulnerability of communities and particular social groups been assessed and understood?	Yes
	Is there a risk that climate variability and changes might influence the effectiveness of project activities (eg. undermine project-supported livelihood activities) or increase community exposure to climate variation and hazards? Consider	No – it is anticipated that the benefits provided by the project will allow the seascape to become more resilient to climate impacts over the longer term.

	floods, droughts, wildfires, landslides, cyclones, etc.	
Other – eg. cumulative impacts	Is there a risk that the project will contribute cumulatively to existing environmental or social risks or impacts, for example through introducing new access restrictions in a landscape with existing restrictions and limited land availability?	No
	Are there any other environmental and social risks worthy of note that are not covered by the topics and questions above?	No
Safeguard Provisions		
Stakeholder engagement	Has a stakeholder analysis been conducted that has identified all stakeholders that could influence or be affected by the project, or is this still to be completed? Please describe.	Initial stakeholder mapping exercise has been carried out as part of a partner work shop to develop the project. This initial mapping exercise identified stakeholder with influence and high interested and further mapping work is required to identify all stakeholders that could influence or be affected by the project, to ensure they are considered in designing the vision for the Solent.
	Are the local community and indigenous peoples statutory or customary rights to land or resources within the project area already clear and documented, or is further assessment required? Please describe.	Local community resource will be mapped during the stakeholder engagement exercises at the beginning of the project to determine land ownership and potential conflicts.
	Are local governance structures and decision-making processes described and understood (including details of the involvement of women and marginalized or vulnerable groups), or is further assessment required? Please describe.	Governance structure has been completed for project partners but further assessment is required to outline decision making processes involving community groups. This will be formalised throughout the stakeholder engagement workshops.
	Are past or ongoing disputes over land or resources in the project area known and documented, or is there need for further assessment? Please describe.	No

Stakeholder consultation	Does the project have a Stakeholder Engagement Plan with clear measures to engage Vulnerable Groups, or is this plan still to be developed? Please describe.	Stakeholder engagement plan will be developed at the beginning of the project when initial stakeholder mapping work has been completed
	Has the Project Coordinator informed all stakeholders of the project, through providing relevant project information in an accessible format, or does this still need to be completed? Please describe.	Yes – community groups will be further engaged with at the beginning of the project.
Free, Prior and Informed Consent	Has the project analysed and understood national and international requirements for Free Prior and Informed Consent (FPIC)? Please describe.	No
	Has the project identified potential FPIC rightsholders and potential representatives in local communities and among indigenous peoples, or is this still to be completed? Please describe.	No
	Has the project worked with rightsholders and representatives of local communities and indigenous peoples to understand the local decision-making process and timeline (ensuring involvement of women and vulnerable groups), or is this still to be completed? Please describe.	No
	Has the project sought consent from communities to 'consider the proposed Project', and if so, where is this in principle consent documented? Please describe.	No – community groups will be approached and engaged with at the start of the project however we have involved the Solent Forum which includes community members through the industry who have been informed of the project and are supportive.
Grievance Mechanism	Does the project already have a Grievance Mechanism, or is this still to be established? Please describe.	Yes
	For projects with a GRM, is this accessible to project affected people? Please describe.	Yes

5.5. Annex 5 – Notification of Relevant Authorities

Please see zip files attached to submission email.