







Workshop 1 Report

Solent - Sea the Value Workshop 1

Wednesday 19th July 2023 10am

Richmond Building, University of Portsmouth

The Sea the Value project aims to understand the different values communities hold towards their local marine environment, the diverse benefits it provides, and how nature-based solutions can support and integrate with community development. The project is focusing on two case studies in the UK, the Solent on the south coast of England and the Cromarty Firth in Scotland. The project outputs will be used to inform the wider management and planning of marine biodiversity across the UK.

The University of Portsmouth facilitated a participatory mapping workshop, with support from Plymouth Marine Laboratory and the University of Aberdeen, to identify and map the features and benefits provided by the coastal ecosystems in the Solent, using Langstone Harbour and Chichester harbour as case studies. The workshop was held at Richmond Building, University of Portsmouth and was attended by a mix of stakeholders from 12 organisations (Table 1). A full list of participants and their contact details is provided in Appendix 1.

Table 1: Workshop attendees organisations

Organisation	
Hampshire County Council	Three Harbours Project/RSPB
Chichester Harbour Conservancy	Hampshire and Isle of Wight Wildlife Trust
Langstone Harbour Office	Natural England
Blue Marine Foundation	Royal Society for the Protection of Birds
Environment Agency	Wightlink
Crown Estate	University of Portsmouth

Participants collectively identified and mapped the natural, modified/managed, and man-made features around the Langstone and Chichester Harbours and the benefits which they associate with these features. All the project outputs, including maps, data and reports will be provided back to stakeholders for future use. This report summarises the initial outcomes of the first Solent workshop.









Session One: Introduction (Plenary)

Gordon Watson welcomed the attendees and thanked them for attending the event. Gordon introduced the Sea the Value project team (Table 2), the Sea The Value project and outlined the aims and objectives of the workshop.



Image 1: Gordon Watson introducing participants to the project.

Table 2: The Solent Workshop Team.

Name	Organisation	Role
Gordon Watson	University of Portsmouth	Co- convener of the workshop,
		Presenter, Cofacilitator
		Langstone Harbour
Andrew van der Schatte Olivier	University of Portsmouth	Co- convener of the workshop,
		Presenter, Cofacilitator
		Langstone Harbour
Anthony Ndah	Plymouth Marine Laboratory	Cofacilitator Langstone
		Harbour
Stephen Watson	Plymouth Marine Laboratory	Cofacilitator Chichester
		Harbour
Jeremy Anbleyth-Evans	Aberdeen University	Cofacilitator Chichester
		Harbour
Karolina Skalska	University of Portsmouth	Co- convener of the workshop,
		Presenter

The remainder of the first session comprised two further introductory presentations: The Solent and Sussex seascape restoration network: Karolina Skalska; Participatory Mapping: Andrew van der Schatte Olivier. The presentation slides presented on the day are included in Appendix 2.









Session Two: Identifying and Mapping Features & Sub-Features (2 Groups)

Following a brief introduction, participants were split across two tables to identify and map the features and sub-features of the Langstone Harbour and Chichester Harbour. Features mapping is important to identify habitats and species in addition to the modified/managed and man-made features that make up the seascape of the case studies used in the Solent. Identification of multiple features supports the investigation of the benefits which they provide which can improve societal welfare.

A recent Sentinel-2 satellite image from 26 May 2023 was generated within the SentinelHub EO displaying the Earth in natural colour (https://apps.sentinel-hub.com/eobrowser/?zoom=13&lat=50.81326&lng=-1.0292&themeId=DEFAULT-

THEME&visualizationUrl=https%3A%2F%2Fservices.sentinel-hub.com%2Fogc%2Fwms%2Fbd86bcc0f318-402b-a145-015f85b9427e&datasetId=S2L2A&fromTime=2023-05-

26T00%3A00%3A00.000Z&toTime=2023-05-

26T23%3A59%3A59.999Z&layerId=1 TRUE COLOR&demSource3D=%22MAPZEN%22) and was used for the workshop (Figure 1). The images were generated and cropped for the two harbours (Langstone and Chichester) (Figure 2). The satellite images were then imported into QGIS and mapped over the background Open Street (OS) map available in QGIS to aid participants in locating particular geographic areas and/or features (Figure 2).



Figure 1: Satellite images of the Solent captured at 11:17 on 26 May 2023.











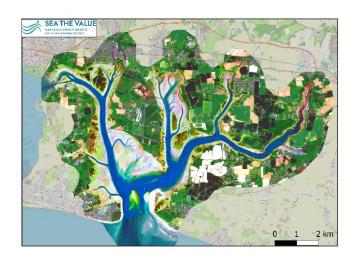


Figure 2 – Langstone and Chichester harbour maps used in the workshop

Following a brief introduction to the activity, each group was tasked with the following:

- Introduce yourselves within your group
- Familiarise yourselves with the case study maps
- Spend 5 minutes individually making a list of features/sub-features
- Compile a list of features/sub-features on the flipchart as a group
- Map the features/sub-features which are visible from the satellite image creating your own key for each feature directly on the map.

After 60 minutes, each group was given the opportunity to view, comment and contribute to the lists and mapping undertaken at the other case study table.



Image 2: Participants undertaking the features mapping exercise.











Image 3: Participants undertaking the features mapping exercise.

A summary of the features/sub-features identified by each group are presented below (Table 3). These lists have been taken directly from the flipcharts and some post-workshop standardisation may be required before the maps are digitised. A photo record of the pre-digitised maps from session two is included in Figure 3.

Table 3: Summary of features/sub-features identified by each group.

Features		
Langstone Harbour	Chichester Harbour	
Bridges	Shingle banks	
Saltmarsh	Ancient woodland	
Seagrass meadows	Bass nursery	
Sand dunes	AONB	
Marina	SSSI	
Pontoons	Bathing/Recreation area	
Saline lagoons	Seabird nesting area	
Sandflats	BUDs trial	
Shellfish beds	Marina Pontoons	
Mudflats	Saline lagoon	
Mulberry Harbour	Sand dune	
Vegetated Shingle	Ministry of Defence area	
Coastal grazing land	Seal haul out sites	
Arable land	Moorings	
Railway Track	Sand/shingle	
Bird Nesting site/Seabird colony	Tern nesting area	
Public Access footpath	Agriculture	
Billy line	Mudflat	
Hard defences	Freshwater streams	
Gravel and shell beach	Seawall	







Sewage treatment works	Waste water treatment centre
Outdoor water sports centre	Sewage outfall
Aggregate industry	Seagrass/Zostera marina
Golf course	Oysters
Sub tidal mixed sediments	Solar farm
Waterskiing area	Kelp
Hayling Ferry	Cetaceans (porpoise/dolphins)
Sailing Club	Fishing
Shipping channel	Anchoring
Scrub	Reed beds
Seal haul out	RSPB management area
Car parks	Invasive plant species (R. cugosa)
Fresh water input	Shingle recharge restoration
Oyster reef	Dredging
Reed bed	Viewpoint
Scrub	Saltmarsh
Historic monument	Access points
Slipways	Clams/cockles (Hand gathered)
Bird Island (Restored)	Fish
sewage discharge point	Housing
Wader Roost	Managed Realignment
Breeding Waders	Roman Landing
Dive boats	
Hampshire and Isle of Wight Trust Seagrass	
restoration area	
Algal cover	
Mixed Woodland	
Proposed shingle recharge area	
Windsurfing	
Bait digging/hand gathering	
salt pans	
Sinah lane (Future brent goose refuge	
RSPB Ownership/management area	
Seawall	
Boat storage	
Shingle and Shell	
Brent Geese area	
Motorway embankments	
Nudist beach	
Wrecks	
Moorings	
SSSI	
SPA SAC	
RAMSAR	
NACIVIAN	











Figure 3: Features mapping for the Langstone (top) and Chichester (bottom) harbours (outputs from Session 2).









Session Three: Identifying and Mapping Benefits (3 Groups)

This session started with a brief introductory presentation on natural capital and ecosystem services followed by an introduction to the second activity (Andrew van der Schatte Olivier). Each group was tasked with the following:

- Individually make a list of benefits that society gets from the two harbours (Langstone and Chichester) on post-it notes.
 Compile the list of benefits, with participants taking it in turn to contribute to the list.
 Assign a number to each benefit using pre-defined list or using additional numbers where required.
- □ Using numbered sticky dots, map which features/sub-features deliver each benefit.

After 60 minutes, each group was given the opportunity to view, comment and contribute to the lists and mapping undertaken at the other two case study tables. A summary of the benefits identified by each group is presented below (Table 4). Numbers were assigned to each benefit for the purpose of the mapping exercise. This information was taken straight from the flipcharts and some degree of post-workshop standardisation may be required across the sites.

A photo record of pre-digitised maps from session two is included in Figure 4.

Table 4: Summary of benefits identified by each group.

	Langstone Harbour		Chichester Harbour
3	Nutrient remediation	4	water provisioning
5	Fish nursery provision	5	Fish Nursery habitat
6	Roosting habitats	5	Wildlife refuge
7	wave dissipation	5	Bird feeding areas
11	regulation of pollutants	5	Roosting sites
11	Human waste treatment	11	Reduction of pollutants (Herbicides/pesticides etc)
12	Carbon sequestration/capture	11	Water nitrate reduction
13	Food	11	Denitrification
13	Seafood	12	Blue carbon
18	Clean air	12	Green carbon
19	erosion protection	13	Food supply
19	Sediment stabilisation	13	Recreational fishing
20	Coastal flood protection	14	Wild fowling
22	Recreation	17	Medicine
22	Tourism	17	Disease control
22	Ecotourism	18	air pollution reduction
24	Intrinsic benefit of ecosystem itself	19	Soil stability
25	Educational awareness	19	Sediment supply
26	Health benefits	19	Wave attenuation
27	human mental health benefits	19	Flood risk management
30	Aggregate supply	20	coastal defence
34	Beauty of nature	20	Reduction in maintenance of sea walls









36	Conservation	20	Slowing flow of water
40	Transportation	22	Boat trips
22c	Windsurfing	22	Recreation boating
22c	Kayaking	22	Recreational activities
22c	Paddleboarding	22b	bird watching
22k	Swimming	23	Cultural services
221	Walking	23	Cultural/art inspiration
35	Contribution to local fishing economy	23	Heritage
		24	Aesthetic
		24	Green/blue space
		25	Educational services
		26	Physical wellbeing
		27	Mental wellbeing
		31	Drinking water
		31	water dilution
		33	Beneficial use of dredged material
		34	Sense of space
		34	Homes/ settlements
		35	Increased employment
		35	Economic benefits
		35	Investment opportunities
		36	Biodiversity
		39	Connectivity
		40	Pollinators
		40	Marine pollinators
		41	Noise pollution reduction
		42	Timber/forestry provision
		43	Dark skies
		44	Reducing water turbidity
		45	Transport network
		46	Mooring/anchoring
		47	Protected areas for species protection













Figure 4: Benefits mapping from Langstone harbour (Top) and Chichester harbour (Bottom) (outputs from Session 3).







Discussion Points from Langstone Harbour

- There were questions about if already mapped why there was a need to map the features again.
- Seawall around Farlington will be re-armoured and have a life of 30-60 years but after that will be allowed to breach.
- The motorway at the top has access issues (I think was about people coming on to the intertidal habitats.
- Some discussion about the Brent goose sites and that these are noted in the strategy RSPB and Barratts home in dispute over legacy site on Hayling Island.
- Dredged areas and notes of larger ship routes would be useful, not sure if included.
- Oyster reefs in name only as none left. Salt pans also included, but participants not sure if mapped.
- Participants thought CSOs were already mapped as a layer that could be added and the same for landfill and footpaths from Hants County Council.
- No landing policy at bottom of Long Island, not many people use it apart from odd paddle boarder.
- Classified beds and shellfish areas also already mapped.
- Abandoned boats and houseboats an important community component and discharge (Black water source) as well as input of contaminants. Participants not sure if mapped.
- Footpath on Hayling island may have to be moved due to sea level rise.
- Wind surfers in same place as jet skiers.

Discussion Points from Chichester Harbour

- group agreed the channel area was multi-purpose including fishing, recreational use and underwater subtidal mud habitats.
- Fishing is restricted across the whole harbour area.
- Large MOD defence area (marked on map).
- Determining saltmarsh vs mudflat vs macroalgae mats was difficult and we decided to separate these although acknowledged overlaps.
- Freshwater inputs are an underappreciated pressure/benefit we marked inflows on the map.
- Sewage outfalls and treatment works important marked on map.
- Three harbours project mentioned as important but there was discussion if the terrestrial natural capital focus could be an issue.
- Wildlife trust and Natural England have an upcoming project 2024 to map and update seagrass mapping in Solent and Chichester Harbour.
- Current seagrass extent confirmed as unknown by multiple workshop attendees.
- No one knows where Native oysters are or any idea of numbers in Chichester harbour.
- Believed that the IFCA have mapped pacific oysters in Chichester harbour.
- Connectivity was determined to be ecological connectivity but also acknowledged the connectivity between business and environment as an important benefit.







- Sussex IFCA have a new hand gathering bylaw that would prohibit some areas of bait/recreational gathering of species – may have maps of this.
- Note the IFCA divide halfway through Chichester between southern and Sussex IFCAs.
- Few if any wrecks or sunk boats identified in Chichester.
- Cetaceans rare but do come into the harbour including bottlenose dolphins and seals. How to include mobile species on the maps?
- Include maps of coastal path network for recreation.
- Discussion was made that not all the benefits could be positive, and should we be mapping
 ecosystem disbenefits? Will we be measuring, mapping, or acknowledging these in the
 project?
- Identified that dredging material is being used in the harbour to create Saltmarsh (marked on map)
- "Stakes" heritage feature marked on map; Chichester archaeology society have good maps of heritage features that may be of use.
- Roman landing marked as heritage feature on map.
- Historical oyster consumption in Chichester harbour dating back to Romans.

Session Four: Discussion (Plenary)

An open discussion session was co-chaired by Andrew van der Schatte Olivier. The following issues were raised and discussed amongst the group:

- The workshop participants found the mapping approach interesting but suggested they
 would get more out of it if we came with pre-prepared maps of the habitats and features,
 then they could focus on
- providing the local knowledge context and "add value" to the existing maps. Noted by Solent
- Seascape project and Chichester Harbour Conservative (this was also expressed several times at other table discussions).
- There could be uncertainty in the habitat areas and extents because many stakeholders only have a 'broad overview' of the study area. (Many don't work on these harbours)
- Priority habitat maps and MAGIC portal referenced as useful.
- More details on what is useful to the project beyond features and benefits would be useful.
- Lots of stakeholders are missing, suggest repeat exercise with other groups may get different outcomes.
- Anecdotal information is useful but need to be fact checked will we compare the workshop
 #1 maps to actual habitat and feature maps before workshop #2?







Next Steps

Andrew van der Schatte Olivier outlined the following next steps for the project:

- The workshop will be summarised and sent out to participants and anyone else interested.
- All outputs from the workshop will be digitised, features and benefits will be standardised across the sites, and will be converted into an interactive pdf for the two harbours (Langstone and Chichester). These outputs will be circulated to all attendees for comment and will be used in Workshop #2.
- Workshop #2 is planned for November 2023. The aim of Workshop #2 will be to progress from
- the interactive pdfs created within Workshop #1, along with other resources, to discuss potential trade-offs of benefits under different future scenarios.
- Finally, all participants were reminded to complete the feedback forms, and to indicate
 whether they wish to attend Workshop #2. A summary of feedback is provided in Appendix
 3.

Acknowledgements

The Project Team wishes to thank all the attendees for their enthusiasm and valuable inputs
to the workshop. The Project Team also wish to thank Karolina Skalska for hosting the panel
discussion, discussing language disconnect between restoration and stakeholders. Finally,
we would like to thank UKRI for providing funding from NERC and ESRC under the Economics
of Biodiversity programme.





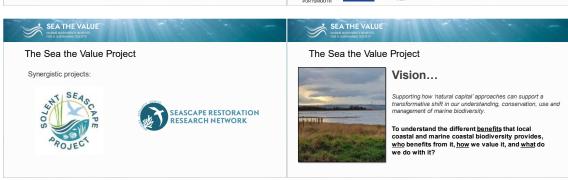


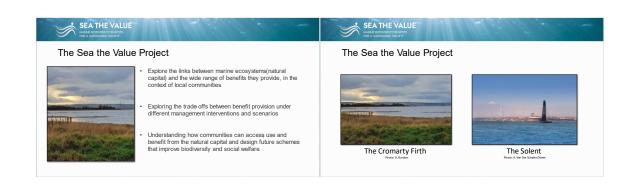


Appendix 2: Presentations





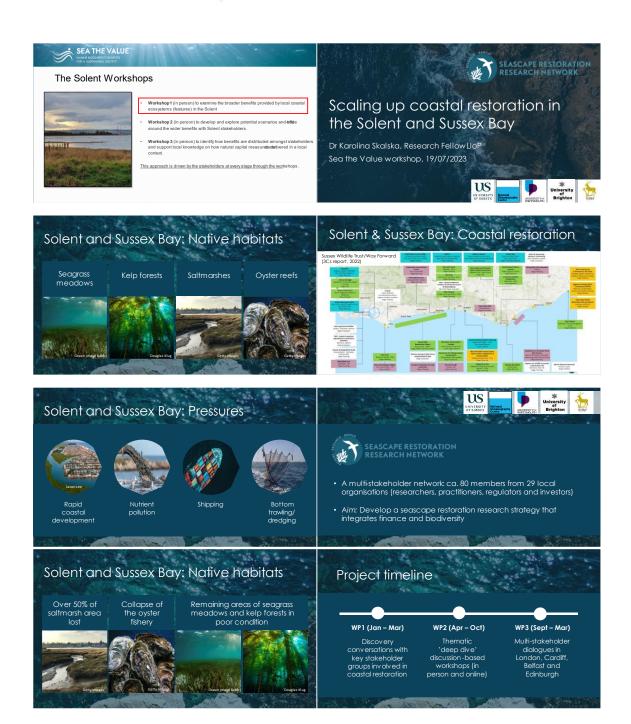


















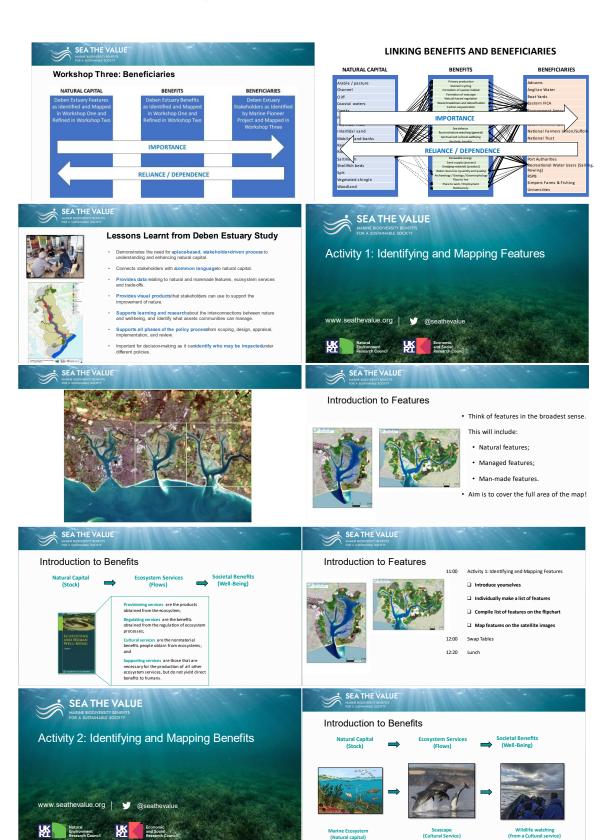










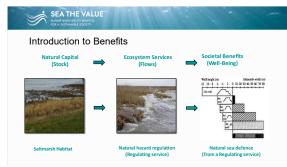


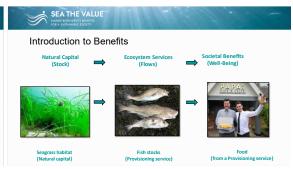


























Appendix 3: Summary of Workshop Feedback











