

Workshop Report

Suffolk Marine Pioneer Values and Priorities Workshop

Wednesday 27 March 2019

Ipswich Town FC, Portman Road, Ipswich

The Suffolk Marine Pioneer was established by Defra to test the application of a natural capital approach in practice. In doing so, the pioneer's purpose is to inform the implementation and iteration of the Government's 25 Year Environment Plan. The pioneer is delivering this objective by examining how the implementation of natural capital thinking applies locally – on the basis that any intervention to improve the state of the environment will affect people living, working and recreating in that environment.

In order to take this vision forward, a workshop took place on Wednesday 27 March 2019, which was attended by 24 people from a range of organisations (Table 1). The aim of the workshop was to expand the role of participatory mapping and deliberation for the enhancement of natural capital within the Deben Estuary. The workshop included interactive sessions on identifying and mapping features from Sentinel-2 satellite images, identifying and mapping the benefits society gains from these features, and initiated discussions between stakeholders of the potential to enhance natural capital assets within the Deben Estuary. The workshop covered the full length of the Deben Estuary, with maps provided for the upper, middle and lower estuary. This report summarises the outcomes of this workshop.

Table 1: Workshop attendees, organisations and break-out groups.

Name	Organisation
Daryl Burdon	University of Hull (Facilitator)
Tavis Potts	University of Aberdeen (Facilitator)
Sue Boyes	University of Hull (Facilitator)
James Allen	LEP
Phoebe Atkins	Environment Agency
Christine Block	Deben Estuary Partnership
Robin Whittle	River Deben Association
David Keeble	Deben Rowing Club
Robert Whitehouse	Waldringfield Sailing Club
Stephen Thompson	EIFCA
Andy Millar	Natural England
Richard Steward	Blyth Estuary Partnership
Dee McLeavy	Pioneer Assistant
James Evinson	Robertsons Boatyard/Melton

Name	Organisation
Jane Herbert	Essex & Suffolk Rivers Trust
Steve Colclough	IFM
Beverley McClean	DV & SCH AONB
Rachel Holtby	Northumbria University
Iris Möller	University of Cambridge
Martin Rogers	University of Cambridge
Aisling Lannin	MMO
Pete Cosgrove	Suffolk Marine Pioneer
Imogen Player	Port of Felixstowe
John Rainer	Suffolk Institute of Archaeology and History

Session One: Introduction (Plenary)

Daryl Burdon welcomed the attendees and thanked them all for attending the event. Daryl introduced the project team (Table 2) and the aims, objective and structure of the workshop.

Table 2: The Project Team.

Name	Organisation	Role
Daryl Burdon	IECS, University of Hull	Workshop lead, presenter, Facilitator Lower Deben, Co-Chair of Discussion.
Tavis Potts	Aberdeen University	Co-convener of the workshop, presenter, Facilitator Upper Deben.
Sue Boyes	IECS, University of Hull	Facilitator Middle Deben, post-workshop GIS mapping.
Pete Cosgrove	Suffolk Marine Pioneer	Co-convener of the workshop, presenter, Co-Chair of Discussion.
Rodney Forster	IECS, University of Hull	Production of satellite images.
Shona Thomson	IECS, University of Hull	Production of satellite images, post-workshop GIS mapping.

The remainder of the first session comprised two short introductory presentations:

- *The Suffolk Marine Pioneer* (Pete Cosgrove).
- *Developing a practical approach to assessing coastal ecosystem services: lessons from a UK pilot* (Tavis Potts).

The presentations will be circulated to all participants alongside this report.

Session Two: Identifying and Mapping Features & Sub-Features (3 Groups)

Following a brief introduction to the session, participants were split into 3 groups to identify and map the features and sub-features of the Deben Estuary. Given the size of the Deben Estuary, the mapping exercises covered the full length of the Estuary, with the 3 groups focussing on the Upper, Middle and Lower Deben, respectively. Two satellite images, captured from the Sentinel-2 satellite, were provided for discussion at each table to reflect seasonality, however, for the purposes of the mapping exercises only the 26 February 2019 image was used (Figure 1).



Figure 1: Satellite images of the Deben Estuary captured on 5 August 2018 (left) and 26 February 2019 (right).

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 (summer and winter)
- 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.

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 features/sub-features identified by each group are presented below (Table 3). These lists have been taken directly

from the flip-charts and some post-workshop standardisation may be required when the maps are digitised.

A photo record of pre-digitised maps from session two is included in Figure 2.

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

Features		
Upper Deben	Middle Deben	Lower Deben
Access points	Abstraction points	Arable/Pastoral fields
Bird roosting sites	Access points	Beaches
Channels	Arable fields	Cliffs
Conservation sites	Borrow pits/dykes	Crag headland
Crag beach	Car parks	Creeks (>10m)
Farmland (Arable)	Creeks	Cultural history
Farmland (Livestock)	Freshwater marsh	Flood bank
Flood gates	Grazing land	Flood plain
Former intertidal (Farms)	Grazing saltmarsh	Golf course
Freshwater reedbeds	Mudflat	Intertidal sand/mud
Heritage Sites	Phragmites / Reedbed	Mobile sandbanks
Housing	River walls/banks	Promenade
Industry	Saltmarsh	Reedbeds
Mudflats	Sandy beach	Residential
Natural flood defence	Shellfish beds (oyster)	Saltmarsh
Raised banks	Vantage points	Sand dune
Roads/transport	Wildlife sites	Spit
Saltmarsh		Subtidal channel
Saltwater reedbeds		Vegetated shingle
Seabanks		Woodland
Tidally exposed mudflat		
Woodland (Conifer)		
Woodland (Deciduous)		

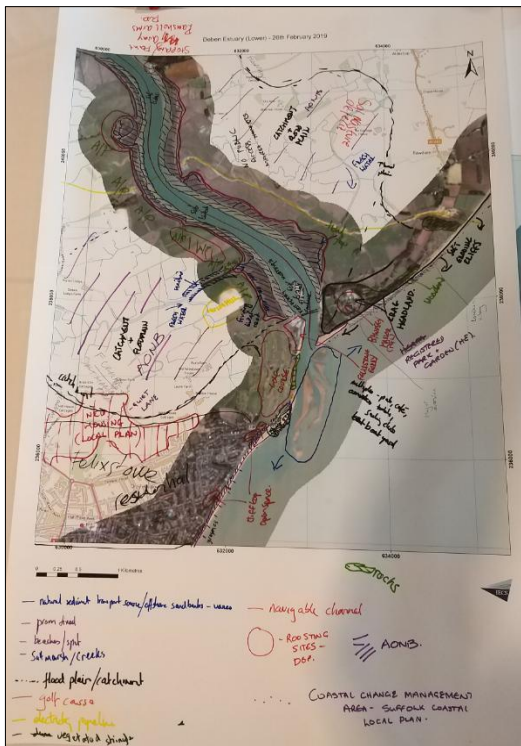
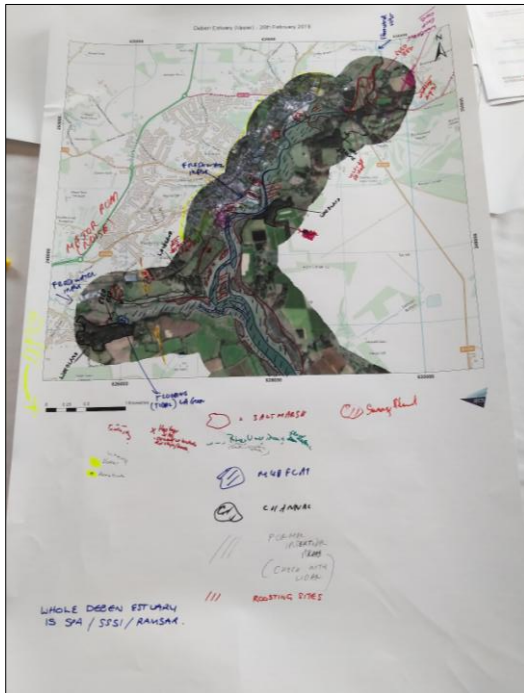


Figure 2: Features mapping for the Upper (top left), Middle (top right) and Lower (bottom left) Deben Estuary (outputs from Session 2).

Session Three: Identifying and Mapping Benefits (3 Groups)

This session started with an introductory presentation on natural capital and ecosystem services followed by an introduction to the second activity (Daryl Burdon). Each group was tasked with the following:

- Individually make a list of benefits that society gets from the estuary 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 flip-charts 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 3.

Table 4: Summary of benefits identified by each group.

Benefits					
Upper Deben		Middle Deben		Lower Deben	
1	Primary / secondary production	1	Primary production	5	Fish nursery
3	Nutrient cycling	3	Nutrient stripping / cycling	5	Habitat restoration
5	Fish nursery	5a	Fish nursery areas	9	Storm protection
5	Connectivity (biological)	5b	Crustacean habitat	11	Carbon storage
5	Biodiversity	5c	Breeding grounds	12	Food security / provision (fishing/agriculture/aquaculture)
11	Carbon sequestration	10	Waste breakdown	12	Commercial fishing
12a	Commercial fisheries	11	Carbon sequestration	17	Climate regulation
12b	Recreational fisheries	12a	Food source (wildlife)	19	Flood management
12c	Wildfowling	12b	Food source (people)	21	Tourism
12d	Agriculture	17	Climate (healthy)	21	Recreation
13	Bait digging	18	River wall protection	21	Golf
17	Carbon sequestration	19	Flood defence	21a	Sailing
18	Protection from erosion	21a	Wildfowling	21b	Swimming
19	Flood resilience	21b	Sailing	21c	Rowing/kayaking

Benefits					
Upper Deben		Middle Deben		Lower Deben	
21a	Sailing	21c	Swimming	21d	Recreational fishing
21b	Rowing	21d	Recreational fishing	21e	Bird watching
21c	Cruising	21e	Canoeing	21f	Windsurfing/kitesurfing
21d	Walking	21f	Water skiing	21g	Dog walking
21e	Photography	21g	Rowing	22	History/culture
21f	Swimming	21h	Pleasure trips	23	Aesthetics/colours/change
21g	Tourism	21i	Beach recreation	24	Education
22	Spirit of place	21j	Access	25	Physical health
22	Connectivity (social)	21k	Dog walking	26	Mental health
23	Landscape conservation	21l	Bird watching	27	Biodiversity
23	Riverscape	21n	Horse riding (bridleways)	28	Open space (landscape/seascape)
24	Nature conservation	22	Spiritual/cultural wellbeing	29	Water resources (quantity/quality)
24a	Education	23	Aesthetic benefits (landscape/views)	30	Peace and quiet/tranquillity
24b	Heritage	24	Research	31	Sand supply
26	Sense of belonging	24a	Education	32	Dredging
26	Peace of mind/Mental health	27	History / archaeological interest	33	Mooring
26	Physical well-being	28	Water resources (clean water)	34	Boat building
27a	Community/Social relations	29	Carbon storage	35	Industrial use
27b	Renewable energy	30	Anchoring/Moorings	36	Employment
27c	Employment	31	Small commercial element (boatyards)	37	Geology/geomorphology
27d	Housing	32a	Places to live	38	Place to live/work
		32b	Places to work	39	Beneficial use of dredge material
		33	Biodiversity	40	Renewable energy

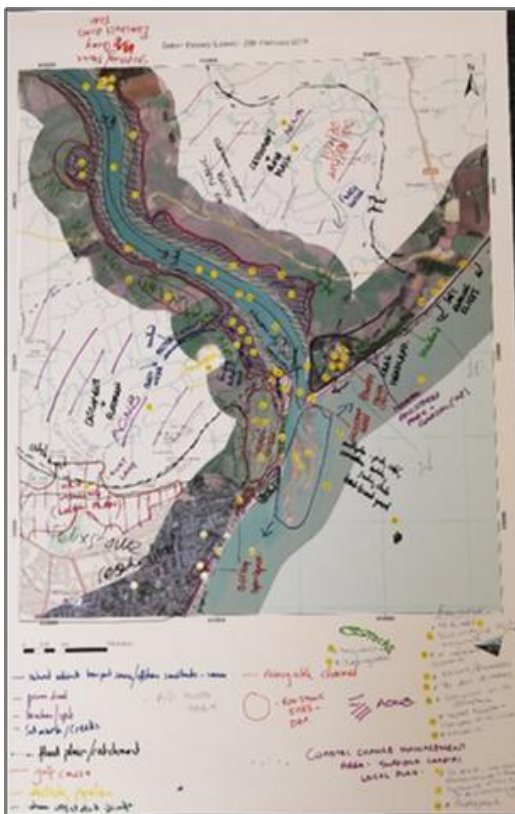


Figure 3: Benefits mapping from the Upper (top left), Middle (top right) and Lower (bottom left) Deben Estuary (outputs from Session 3).

Session Four: Discussion (Plenary)

An open discussion session was co-chaired by Pete Cosgrove and Daryl Burdon. The following issues were raised and discussed amongst the group:

- Pete Cosgrove reiterated that today's workshop would allow the Marine Pioneer to supplement the natural capital evidence base it is building with the users' perspective of benefit from the Deben estuary environment. Moving forward it would be important to take the users' perspective into the next stages of the Pioneer. Prioritising benefits.
- A question was raised on how should governance be addressed within the project? It was suggested that governance could be included within the second workshop, or perhaps a third workshop which Rachel Holtby is planning as part of her PhD at Northumbria University.
- Concern was raised that natural Capital mainly focuses on human benefits. Would it not be better to split natural capital into natural and human benefits do avoid a human centric approach? Daryl Burdon explained that applying an ecosystem service approach differentiates between the flows of services that nature provides (i.e. the ecosystem services) and the use of these services by society (often following an input of complementary capital) in the form of societal benefits. Pete Cosgrove and the Suffolk Marine Pioneer recognise this question and will better address the concern in the next workshop on Tuesday 11 June.
- Nature continues to be degraded despite the best efforts of WWF, MCS etc. and therefore a new approach is required which truly captures the value of nature (be it economic, ecological or socio-cultural value).
- Bringing partnerships and stakeholders together was considered a good move to enable the successful application of a natural capital approach.
- A question was raised on how can benefits be 'measured'? Without 'measurements' how can 'trade-offs' be argued? Daryl Burdon explained that the development of hypothetical management scenarios allows us to assess the trade-offs (winners and losers) of different management options – this is something which will be addressed during Workshop #2.
- Priorities of benefits need to be considered. The safety of the land and people need to be considered as a priority. Safety and protection in the past has not been very strong e.g. the presence of the protected whorl snail stopped the river wall being repaired which resulted in the next flood tide breaching the river wall and flooding occurred. It was felt that having a system of priorities is important for communities.
- How will the views of people who could not attend the workshop be captured? For example, developers are a massive player around the estuary but were not present at the workshop. If they cannot attend the workshops, then the results of the workshops need to be channelled through planning officers to the developers.
- The Pioneer Projects are leading the way with applying a natural capital approach and will ensure that the right messages get across to government. The focus of the pioneer projects ensures that the natural capital approach is discussed and applied at the local level but that the findings are fed into local, regional and national governments.

Evidence Presentation

Following the close of the facilitated workshop, Iris Möller and Martin Rogers of the University of Cambridge provided a short presentation to the group on their work quantifying the coastal protection provided by the presence of saltmarsh on the Deben Estuary. This work was commissioned by the Suffolk Marine Pioneer as part of the natural capital evidence base that the workshop was supplementing. The presentation was provided to inform the workshop participants how the Pioneer is developing its natural capital evidence base and to inform the reporting of this information. The slides from this presentation will be circulated to participants with this document.

Next Steps

Daryl Burdon outlined the following next steps for the project:

- The presentations from the workshop will be circulated by Pete Cosgrove along with a brief Workshop Report.
- All outputs from the workshop will be digitised, features and benefits will be standardised across the sites, and will be converted into interactive pdf files for each site. These will be circulated to all attendees for comment, and will be used in Workshop #2.
- Workshop #2 is planned for Tuesday 11 June 2019. 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 management scenarios.
- Finally, all participants were reminded to complete the feedback forms, and to indicate whether they wish to attend Workshop #2. A summary of their feedback is provided below.

Acknowledgements

The Project Team wishes to thank all of the attendees for their enthusiasm and valuable inputs to the workshop. The project team also wish to thank Suffolk County Council for funding the project and to Pete Cosgrove and Dee McLeavy for their assistance in organising the workshop. The Project Team also wish to thank iris and Martin for presenting their research at the end of the workshop.

Summary of Workshop Feedback

