



DEBEN ESTUARY WORKSHOP #3 REPORT

Ipswich Town FC, Portman Road, Ipswich | Thursday 13 February 2020

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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 2019, The Suffolk Coast & Heaths AONB commissioned the Universities of Hull and Aberdeen on behalf of the Suffolk Marine Pioneer to design and deliver two participatory mapping workshops. These took place on Wednesday 27 March 2019 and Tuesday 11 June 2019. As an output of the first workshop, natural features of the Deben Estuary and their associated benefits were identified and mapped. The second workshop examined changes in how benefits were delivered under possible future scenarios. The scenario assessment identified a lack of stakeholder knowledge regarding who the 'winners' and 'losers' of the change scenarios were. As such, Daryl Burdon Ltd. was commissioned by Suffolk Coast & Heaths AONB to design and deliver a third workshop to identify and assess stakeholder reliance on the benefits provided by the natural features of the Deben Estuary.

This report summarises the third and final workshop of the Suffolk Marine Pioneer Project, attended by 21 stakeholders, representing 19 different organisations (Table 1).

Table 1: Workshop organisations and previous attendance at Deben Estuary workshops (WS).

Organisation	WS #1	WS #2	WS #3
Adnams	No	No	Yes
Anglian Water	No	No	Yes
AONB	Yes	Yes	Yes
Blyth Estuary Partnership	Yes	Yes	Yes
Daryl Burdon Ltd.	Yes	Yes	Yes
Deben Estuary Partnership	Yes	Yes	Yes
Eastern IFCA	Yes	Yes	Yes
Environment Agency	Yes	Yes	Yes
IFM	Yes	Yes	Yes
Marine Pioneer (x2)	Yes	Yes	Yes
National Farmers Union	No	No	Yes
New Anglia LEP	Yes	Yes	Yes
River Deben Association (x2)	Yes	Yes	Yes
Robertson's Boatyard	Yes	Yes	Yes
RSPB	No	No	Yes
Simper Farms & Fishing	No	No	Yes
Suffolk County Council	No	No	Yes
University of Aberdeen	Yes	Yes	Yes
Wolds Environmental Consulting Ltd.	No	No	Yes

Session 1: Introduction

Daryl Burdon (Daryl Burdon Ltd.) welcomed the group and invited all of the attendees to introduce themselves and their interest in the workshop. Daryl introduced the project team and the facilitators for the day (Tavis Potts - University of Aberdeen; Steve Barnard – Wold Environmental Consulting Ltd).

Daryl outlined the structure of the day, which comprised of four sessions:

- A plenary introduction session;
- An interactive session which identifies the links between benefits and beneficiaries;
- A second interactive session which assess the links between the benefits and beneficiaries;
- A plenary discussion session.

Pete Cosgrove (Suffolk Marine Pioneer) provided a recap of the Suffolk Pioneer Project and set out how the stakeholder workshops would inform the final reporting of the Pioneer.

Daryl summarised the activities and outputs from the first two workshops, recounting how stakeholders identified and mapped the natural features and benefits in the Deben Estuary and reviewed the scenarios assessments that incorporated the Matrix Approach developed by Potts et al. (2014)¹ (see Suffolk Coast and Heaths website for outputs).

Finally, Daryl introduced the concept of logic chains and outlined the aims and objectives of the workshop. That being, to assess the reliance of stakeholders on the benefits delivered by the natural features of the Deben Estuary. Where the first two workshops worked from natural capital towards benefits, this final workshop considered the relationship of beneficiaries and the benefits (Figure 1). All of the slides from the presentations are provided in Annex 1.

THE LOGIC CHAIN APPROACH

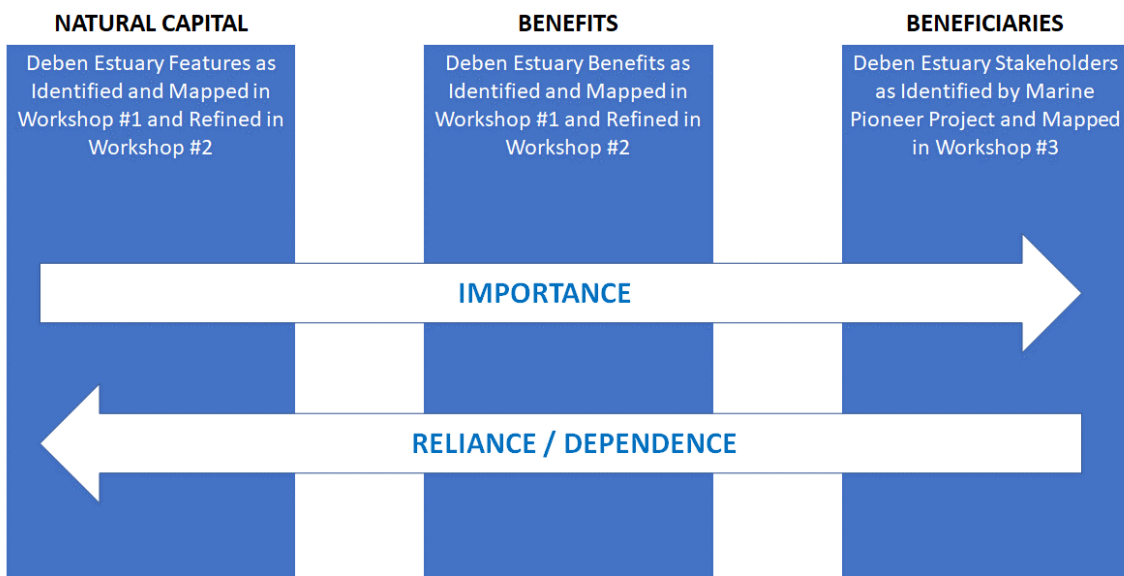


Figure 1: The logic chain approach as applied to the Deben Estuary.

¹ Potts, T., Burdon, D., Jackson, E., Atkins, J.P., Saunders, J., Hastings, E. & Langmead, O., 2014. Do marine protected areas deliver flows of ecosystem services to support human welfare? *Marine Policy*, 44, pp. 139–148.

Session 2: Identifying links between benefits and beneficiaries

The first exercise sought to establish where linkages between stakeholders and natural capital benefits existed in the Deben Estuary. For this, attendees were divided between three tables, each facilitated by members of the project team. A linkage was defined as a stakeholder having a reliance or dependence on a particular benefit known to derive from the Deben Estuary. The list of benefits was identified by stakeholders attending the first Suffolk Marine Pioneer workshop (see Suffolk Coast and Heaths website for outputs).

A stakeholder list was provided by the Suffolk Pioneer Project in advance of the workshop. This was comprised of organisations with an active interest in the Deben Estuary, with a strong bias towards workshop attendees. For facilitation purposes, a number of organisations were grouped together in sectors. For example 'Local Partnerships' incorporated the Deben Estuary Partnership, the River Deben Association and the AONB and 'Recreational Water Users' comprised the RYA, Deben Rowing Club and the Deben Yacht Club. The final list defined 16 stakeholders that could be considered as beneficiaries (Figure 1). During the workshop, the sector of 'Port Authorities' was not be assessed as no port authorities were operating on the Deben Estuary. This left 15 beneficiaries, all of whom were all represented at the workshop.

By way of demonstration, the project team completed the exercise for three beneficiaries prior to the workshop: The Environment Agency, Eastern IFCA and Recreational Water Users. Stakeholders were required to first sense-check the results from these and discuss the linkages made.

Once all participants were happy with the approach, each table worked systematically to identify the linkages for the remaining 12 beneficiaries and their benefits. Each table completed the same exercise by highlighting cells to identify linkages on a pre-printed matrix (Figure 2). The facilitator took notes, where required, to explain the scores. The order of the beneficiaries was staggered between tables to ensure that all rows were completed by at least two tables, though all three managed to complete the exercise. The results from each table are presented in Figures 3 to 5.

Beneficiaries	Ecosystem Services & Benefits															Abiotic Benefits			Economic								
	Primary production	Nutrient cycling	Formation of species habitat	Formation of seascape	Natural hazard regulation	Waste breakdown and detoxification	Carbon sequestration	Food (wild, farmed)	Wildlife feed (wild, farmed, bait)	Healthy climate	Prevention of coastal erosion	Sea defence	Tourism/nature watching (general)	Spiritual and cultural wellbeing	Aesthetic benefits	Education, Research	Physical health benefits	Psychological health benefits	Renewable energy	Sand supply (process)	Dredging materials (product)	Water resources (quantity and quality)	Archaeology / Geology / Geomorphology	Place to live	Place to work / Employment	Biodiversity	
Environment Agency																											
Eastern IFCA																											
Recreational Water Users (Sailing, Rowing)																											
Adnams																											
Anglian Water																											
Boat Yards																											
Local Authorities																											
Local Partnerships																											
National Farmers Union/Suffolk																											
National Trust																											
Natural England																											
New Anglia LEP																											
Port Authorities																											
RSPB																											
Simpers Farms & Fishing																											
Universities																											

KEY No linkage Linkage 0 No reliance 1 Low reliance 2 Moderate reliance 3 High reliance

Figure 2: Matrix for recording the linkages (yellow cells) between beneficiaries and benefits.

Session 3: Assessing links between benefits and beneficiaries

Building on the outputs from the first exercise, Session 3 aimed to score the relative reliance of the linkages (yellow cells). The attendees were reminded that the scores were relative to the other beneficiaries. For example, scores for 'Education, Research' should be scored against Universities which would score '3' for this category whereas the scores for 'Sea defence' should be scored against the Environment Agency who would score '3' for this category given their remit for flood protection. The overall scoring system was as follows:

- 0 = No linkage.
- 1 = Low reliance – defined as an indirect linkage.
- 2 = Moderate reliance – defined as an intermediate category between Low and High.
- 3 = High reliance – defined as a direct linkage.

The matrix from exercise one was updated to include relative scores for reliance on benefits (Figure 1). This allowed the results from exercise one to be refined following the opportunity for participants to reflect on the linkages. All highlighted cells have a score (1-3) inserted in them, whilst all white cells (i.e. identifying no linkage) score zero. Additional notes were taken on each table by the facilitator, where required.

Beneficiaries (relative importance as completed by Table 1 : 13/2/20 - Facilitator: Daryl Burdon)	Ecosystem Services							Goods and benefits							Abiotic Benefits			Economic								
	Primary production	Nutrient cycling	Formation of species habitat	Formation of seascape	Natural hazard regulation	Waste breakdown and detoxification	Carbon sequestration	Food (wild, farmed)	Wildlife feed (wild, farmed, bait)	Healthy climate	Prevention of coastal erosion	Sea defence	Tourism/nature watching (general)	Spiritual and cultural wellbeing	Aesthetic benefits	Education, Research	Physical health benefits	Psychological health benefits	Renewable energy	Sand supply (process)	Dredging materials (product)	Water resources (quantity and quality)	Archaeology / Geology / Geomorphology	Place to live	Place to work / Employment	Biodiversity
Environment Agency	1	1	2	1	3	3	2	2	1	3	3	3	1	0	1	2	1	1	0	0	1	3	1	1	1	3
Eastern IFCA	2	2	2	1	0	1	1	3	1	2	0	0	2	1	1	2	1	1	0	0	1	1	0	0	2	2
Recreational Water Users (Sailing, Rowing)	0	1	0	2	0	2	0	0	0	2	0	0	3	2	2	2	3	3	0	0	0	3	0	1	1	2
Adnams	1	0	0	0	0	0	1	1	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	1
Anglian Water	0	0	0	0	3	3	1	0	0	2	3	3	0	0	0	2	0	0	0	0	0	3	1	0	1	3
Boat Yards	1	1	1	3	3	3	1	0	0	2	1	3	3	2	3	2	1	1	0	0	0	3	1	3	3	1
Local Authorities	1	1	1	1	1	1	1	2	1	3	3	3	3	1	2	2	1	1	2	1	1	2	2	3	3	3
Local Partnerships	1	1	1	2	1	1	1	2	1	2	3	3	2	1	3	2	1	1	0	1	1	2	2	3	3	3
National Farmers Union/Suffolk	3	3	2	1	2	2	1	3	2	1	2	2	1	1	1	1	1	1	0	1	3	2	1	3	2	
National Trust	1	1	3	2	1	1	1	1	1	1	1	1	3	1	2	2	1	1	0	0	0	1	3	0	1	2
Natural England	2	1	2	2	2	1	1	2	2	2	1	1	2	1	2	2	1	1	1	1	1	1	1	0	1	3
New Anglia LEP	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
RSPB	2	2	3	1	1	1	1	1	2	2	1	1	2	2	1	1	1	1	1	1	1	1	1	1	0	3
Simpers Farms & Fishing	3	3	3	3	1	1	1	3	3	2	2	2	1	1	1	1	1	1	0	1	1	3	2	1	3	2
Universities	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1

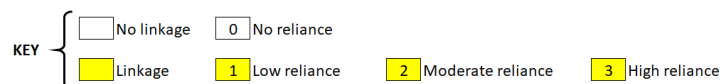


Figure 3: Assessment of linkages between beneficiaries and benefits (Table 1). Beneficiaries in bold were represented on the table.

Beneficiaries (relative importance as completed by Table 2 : 13/2/20 - Facilitator: Steve Barnard)	Ecosystem Services						Goods and benefits										Abiotic Benefits			Economic							
	Primary production	Nutrient cycling	Formation of species habitat	Formation of seascape	Natural hazard regulation	Waste breakdown and detoxification	Carbon sequestration	Food (wild, farmed)	Wildlife feed (wild, farmed, bait)	Healthy climate	Prevention of coastal erosion	Sea defence	Tourism/nature watching (general)	Spiritual and cultural wellbeing	Aesthetic benefits	Education, Research	Physical health benefits	Psychological health benefits	Renewable energy	Sand supply (process)	Dredging materials (product)	Water resources (quantity and quality)	Archaeology / Geology / Geomorphology	Place to live	Place to work / Employment	Biodiversity	
Environment Agency	1	1	2	1	3	3	2	2	1	3	1	3	1	0	1	2	1	1	0	0	0	3	1	0	1	3	
Eastern IFCA	2	1	2	1	0	1	1	3	1	2	0	0	1	2	1	2	1	2	1	0	1	2	0	0	3	3	
Recreational Water Users (Sailing, Rowing)	0	1	0	2	1	1	0	0	0	2	0	3	3	2	2	2	3	3	0	0	0	3	0	1	1	2	
Adnams	0	1	1	1	3	0	0	0	1	1	2	2	3	2	1	1	2	3	0	0	0	0	0	2	1	1	
Anglian Water	0	3	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	2	
Boat Yards	0	0	0	3	3	2	0	0	0	0	3	3	3	1	3	1	3	3	0	0	0	3	0	3	3	0	
Local Authorities	0	2	2	2	2	1	2	0	0	1	3	2	1	1	1	1	2	2	2	1	1	3	2	3	2	2	
Local Partnerships	3	0	3	3	3	0	0	3	0	0	3	3	3	2	2	3	3	3	0	0	3	2	0	3	3	2	
National Farmers Union/Suffolk	3	1	1	0	2	1	0	3	1	1	1	1	2	2	1	1	0	0	1	0	0	3	1	3	3	2	
National Trust	1	0	3	3	1	1	1	1	1	1	1	0	3	3	3	3	3	3	0	0	0	3	0	3	0	1	3
Natural England	0	3	3	3	1	0	1	0	3	3	1	1	2	2	2	2	0	0	2	0	3	3	3	0	0	3	
New Anglia LEP	1	0	0	0	0	0	0	2	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	3	0	
RSPB	2	2	3	3	1	2	0	3	3	1	0	1	3	3	2	1	2	2	0	0	3	3	0	0	0	3	
Simpers Farms & Fishing	3	3	0	0	3	3	0	3	3	1	2	2	2	2	2	1	2	2	0	0	3	3	0	3	3	2	
Universities	0	0	1	1	0	0	1	0	0	0	1	0	0	0	0	2	0	2	0	0	0	2	0	1	1	1	

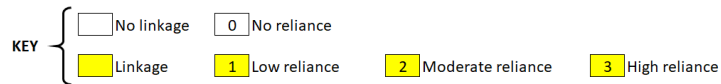


Figure 4: Assessment of linkages between beneficiaries and benefits (Table 2). Beneficiaries in bold were represented on the table.

Beneficiaries (relative importance as completed by Table 3 : 13/2/20 - Facilitator: Tavis Potts)	Ecosystem Services						Goods and benefits										Abiotic Benefits			Economic						
	Primary production	Nutrient cycling	Formation of species habitat	Formation of seascape	Natural hazard regulation	Waste breakdown and detoxification	Carbon sequestration	Food (wild, farmed)	Wildlife feed (wild, farmed, bait)	Healthy climate	Prevention of coastal erosion	Sea defence	Tourism/nature watching (general)	Spiritual and cultural wellbeing	Aesthetic benefits	Education, Research	Physical health benefits	Psychological health benefits	Renewable energy	Sand supply (process)	Dredging materials (product)	Water resources (quantity and quality)	Archaeology / Geology / Geomorphology	Place to live	Place to work / Employment	Biodiversity
Environment Agency	1	1	2	1	3	3	2	2	1	3	3	3	1	1	1	2	1	1	0	0	2	3	1	0	1	3
Eastern IFCA	1	1	2	1	1	1	1	3	1	2	1	1	2	1	1	2	1	1	0	0	0	1	0	0	2	2
Recreational Water Users (Sailing, Rowing)	0	1	0	2	2	1	0	0	0	2	2	2	3	2	2	2	3	3	0	0	0	3	0	1	1	2
Adnams	0	0	0	0	1	1	0	1	0	1	1	1	3	2	2	0	2	2	0	0	0	0	0	2	2	1
Anglian Water	1	2	0	0	1	2	1	0	0	1	3	3	0	0	0	0	0	0	0	0	0	3	2	0	0	2
Boat Yards	0	1	0	2	2	1	0	0	0	1	3	3	3	1	2	0	0	0	0	0	3	2	0	1	1	1
Local Authorities	1	0	1	1	1	1	1	0	1	1	2	2	2	1	1	1	3	3	0	0	0	3	3	3	3	2
Local Partnerships	1	1	1	2	3	1	1	0	1	1	2	2	3	2	2	2	2	2	0	0	0	3	3	3	2	3
National Farmers Union/Suffolk	0	0	1	0	3	2	1	3	2	1	3	3	2	1	2	2	0	0	0	0	1	0	2	3	1	2
National Trust	1	0	3	3	2	2	1	2	1	1	1	2	3	2	2	2	2	0	0	0	1	1	2	1	1	2
Natural England	2	2	3	3	2	2	0	0	3	1	1	1	3	1	1	3	2	2	0	0	2	3	0	0	0	3
New Anglia LEP	0	0	1	1	1	1	1	1	0	1	1	1	1	0	0	2	2	1	0	0	0	0	1	1	2	1
RSPB	2	2	3	1	1	1	1	0	3	1	1	1	3	3	2	2	2	0	0	0	1	2	2	1	1	3
Simpers Farms & Fishing	3	3	3	1	2	3	1	3	0	1	1	1	0	0	0	1	0	0	0	0	2	3	1	1	1	2
Universities	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0	2	0	0	2	2

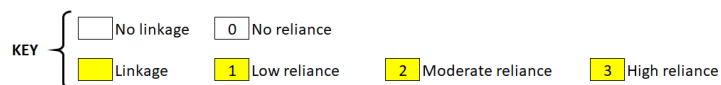


Figure 5: Assessment of linkages between beneficiaries and benefits (Table 3). Beneficiaries in bold were represented on the table.

The mean of the three tables was calculated to give the final beneficiaries-benefits matrix scores (Figure 6). At this stage only the mean of the scores between tables has been calculated however all the data has been included in this report as there is scope to undertake a more detailed analysis (e.g. looking at differences between tables who identified a linkage between a benefit and a beneficiary and those that did not) in the future. A full comparison between the assessments made at each table and the mean scores is provided in Annex 2. It is clear from the comparison in Annex 2 that there was general agreement between all three tables for some of the relationships between benefits and beneficiaries. There were some benefits such as ‘Renewable Energy’ and ‘Sand Supply (process)’ which very few beneficiaries identified any reliance upon. On the other hand there were some benefits such as ‘Healthy Climate’ and ‘Biodiversity’ which all beneficiaries felt some reliance upon. Providing an opportunity for stakeholders to sense-check and refine the scores would hopefully reduce the differences that were observed between tables.

Beneficiaries - Mean Scores	Ecosystem Services										Goods and benefits										Abiotic Benefits			Economic		
	Primary production	Nutrient cycling	Formation of species habitat	Formation of seascape	Natural hazard regulation	Waste breakdown and detoxification	Carbon sequestration	Food (wild, farmed)	Wildlife feed (wild, farmed, bait)	Healthy climate	Prevention of coastal erosion	Sea defence	Tourism/nature watching (general)	Spiritual and cultural wellbeing	Aesthetic benefits	Education, Research	Physical health benefits	Psychological health benefits	Renewable energy	Sand supply (process)	Dredging materials (product)	Water resources (quantity and quality)	Archaeology / Geology / Geomorphology	Place to live	Place to work / Employment	Biodiversity
Environment Agency	1	1	2	1	3	3	2	2	1	3	2	3	1	0	1	2	1	1	0	0	1	3	1	0	1	3
Eastern IFCA	2	1	2	1	0	1	1	3	1	2	0	0	2	1	1	2	1	1	0	0	1	1	0	0	2	2
Recreational Water Users (Sailing, Rowing)	0	1	0	2	1	1	0	0	0	2	1	2	3	2	2	2	3	3	0	0	3	0	1	1	2	
Adnams	0	0	0	1	0	0	1	0	1	0	1	1	1	3	2	1	0	1	2	0	0	0	0	1	1	1
Anglian Water	0	2	0	0	2	3	1	0	0	1	2	2	0	0	0	1	0	0	0	0	3	1	0	1	2	
Boat Yards	0	1	0	3	3	2	0	0	0	1	2	3	3	1	3	1	1	1	0	0	2	3	0	2	2	1
Local Authorities	1	1	1	1	1	1	1	1	1	2	3	2	2	1	1	1	2	2	1	1	1	2	2	3	3	2
Local Partnerships	2	1	2	2	1	1	2	1	1	3	3	3	3	2	2	2	2	0	0	1	2	2	3	3	3	
National Farmers Union/Suffolk	2	1	1	0	2	2	1	3	2	1	2	2	2	1	1	1	0	0	1	1	2	2	2	2	2	2
National Trust	1	0	3	3	1	1	1	1	1	1	1	1	3	2	2	2	2	2	0	0	1	3	0	1	2	
Natural England	1	2	3	3	2	1	1	1	3	2	1	1	2	1	2	2	1	1	1	0	1	2	2	0	0	3
New Anglia LEP	1	0	1	1	1	1	1	1	0	1	1	1	2	0	0	1	1	1	1	0	0	1	1	2	1	2
RSPB	2	2	3	2	1	1	1	1	3	1	1	1	3	3	2	1	2	2	0	0	2	2	1	0	0	3
Simpers Farms & Fishing	3	3	2	1	2	2	1	3	2	1	2	2	1	1	1	1	1	0	0	2	3	1	2	2	2	
Universities	0	0	1	1	0	0	1	0	0	1	1	0	0	0	0	3	0	1	0	0	0	0	2	0	1	1



Figure 6: Mean scores across the three tables for the linkages between beneficiaries and benefits.

Tool Development and Application

As part of this project, two visualisation tools were developed to aid natural capital discussions in the Deben Estuary.

The Natural Capital Tool

The first tool allows the user to select a natural capital feature and automatically generates a radar plot illustrating the relative importance of that feature in delivering a range of ecosystem services and benefits. This tool builds on the UK National Ecosystem Assessment Follow-On framework for marine ecosystem services (Turner et al., 2015)² and the Matrix Approach developed by Potts et al. (2014)³ for designated habitats and species. Output radar plots from this tool were used for the future scenarios assessments during Workshop #2 however the tool has since been tailored specifically for

² Turner, R.K., Schaafsma, M., Mee, L., Elliott, M., Burdon, D., Atkins, J.P. & Jickells, T., 2015. Chapter 2. Conceptual framework. In: Turner, R.K. & Schaafsma, M. (Eds.) Coastal zones ecosystem services: from science to values and decision making. Studies in Ecological Economics, Volume 9, Springer, Switzerland.

³ Potts, T., Burdon, D., Jackson, E., Atkins, J.P., Saunders, J., Hastings, E. & Langmead, O., 2014. Do marine protected areas deliver flows of ecosystem services to support human welfare? *Marine Policy*, 44, pp. 139–148

the Deben Estuary, with the radar plots now being automatically generated. A summary of the Deben Estuary natural features which are included within the tool and the related habitat is presented in Table 2. The first Deben Estuary workshop identified 16 natural features as being present within the Deben Estuary – seven of these natural features (highlighted in bold) are included within the Natural Capital Tool given that appropriate assessments are available of their relative importance in providing ecosystem services and benefits. The user-interface of the Natural Capital Tool is present in Figure 7.

Table 2: Summary of Deben Estuary natural features included within the tool.

Deben Estuary Natural Feature	Relevant Habitat Assessment
Arable / pasture	Stakeholder assessment undertaken in Deben Estuary Workshop #2
Channel	No assessment available
Cliff	No assessment available
Coastal waters	No assessment available
Creeks	No assessment available
Freshwater tributary	No assessment available
Intertidal mud	Intertidal mud (Potts et al., 2014)
Intertidal sand	Intertidal sand and muddy sand (Potts et al., 2014)
Mobile sand banks	Subtidal sand (Potts et al., 2014)
Reedbed	Coastal saline reedbeds (Potts et al., 2014)
Rocks	No assessment available
Saltmarsh	Coastal saltmarsh (Potts et al., 2014)
Shellfish beds	Blue mussel beds (Potts et al., 2014)
Spit	No assessment available
Vegetated shingle	No assessment available
Woodland	No assessment available

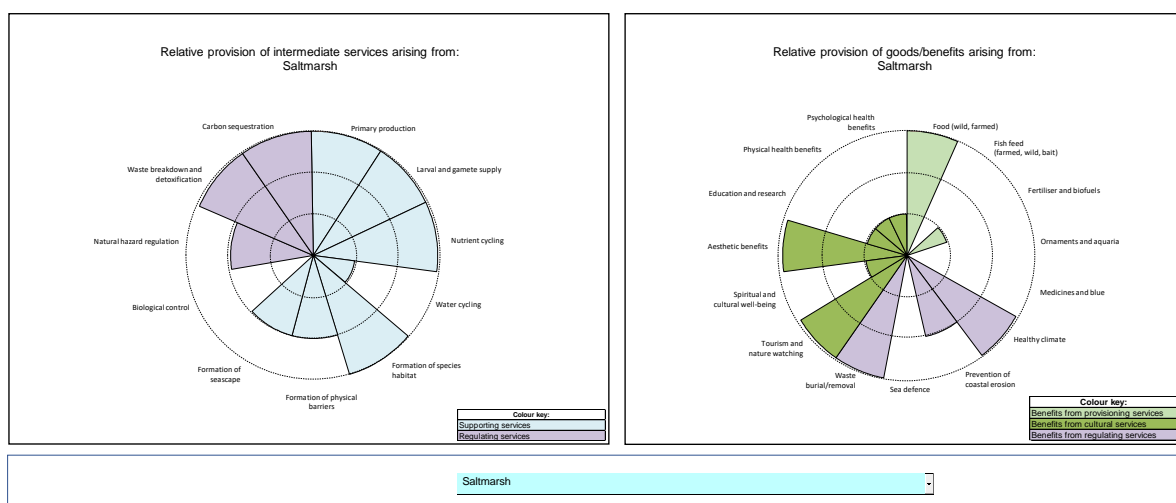


Figure 7: The Natural Capital Tool for natural features of the Deben Estuary. Example outputs shown for Saltmarsh.

The Beneficiaries Tool

The Beneficiaries Tool automatically generates radar plots illustrating the reliance of beneficiaries on the 26 benefits provided by the Deben Estuary (Figure 8). The mean data, presented in Figure 6 underpins the visualisations. Radar plots for all 15 beneficiaries are presented in Annex 3. Though the workshop only focussed on a short-list of 15 beneficiaries, the method can be employed in the future to capture the reliance of other beneficiaries. The Beneficiaries Tool has therefore been built with additional blank rows which can be completed by other Deben Estuary beneficiaries if required. The Beneficiaries Tool has also been built with the ability to change the scores in each cell, for example, if a beneficiaries remit or priorities change in the future. This tool will provide a valuable aid when discussing the reliance of your organisation, or to gain more understanding of the reliance of other organisations present around the Deben Estuary, on the benefits provided by the Estuary.

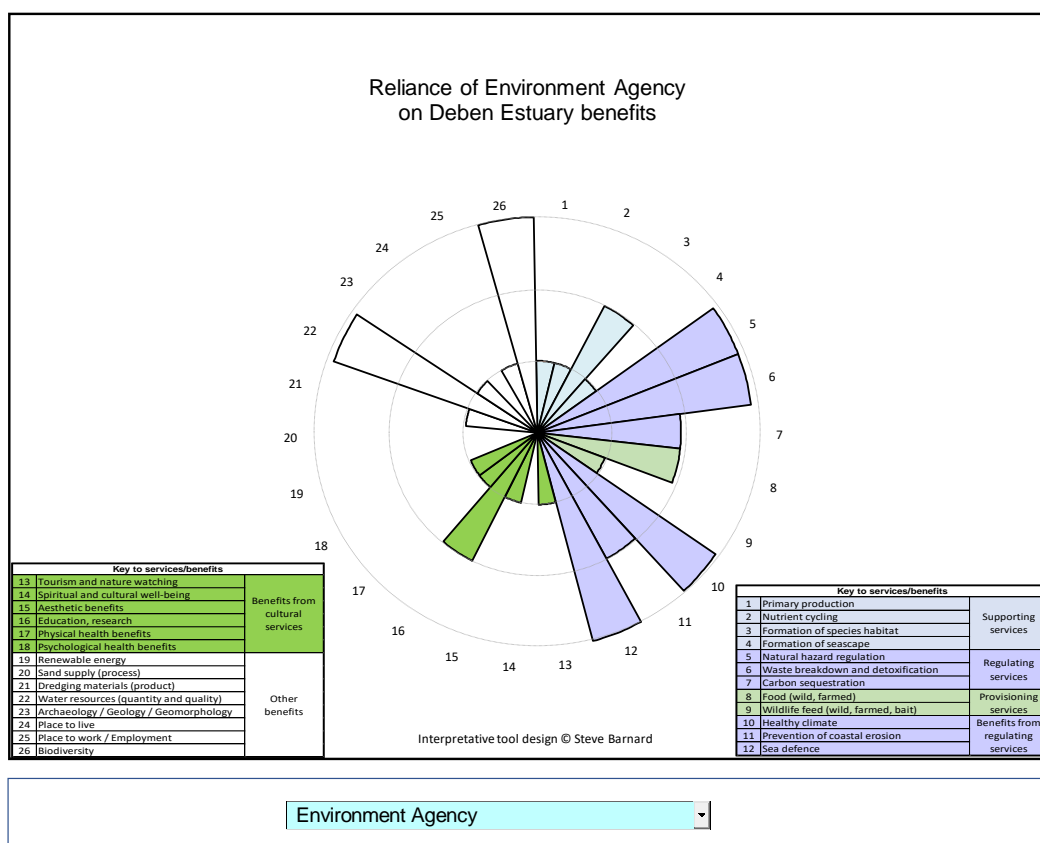


Figure 8: User-interface of the Beneficiaries Matrix Tool. Example shown is for the Environment Agency.

Logic Chain Results

The overall aim of this workshop was to demonstrate the multi-directional logic chain sequence between natural capital, benefits and beneficiaries of the Deben Estuary. It is argued here that depending on the focus of the narrative, the logic chain can move from left to right to identify the importance of the natural capital features providing benefits to beneficiaries, taking natural capital as the starting point of the logic chain. Alternatively, the narrative can move from right to left, starting with the beneficiaries, to describe the reliance of beneficiaries on the benefits which are in turn provided by the underlying natural capital features.

An example is presented below which demonstrates the application of the logic chain approach to the 'Sea Defence' in the Deben Estuary (Figure 9).

Viewing the logic chain through a natural capital lens (left to right). Eleven natural features which deliver a form of sea defence as a benefit have been identified. By using the Natural Capital Tool, one identifies; reedbeds, saltmarsh and shellfish beds as being the most important features delivering this service (all scoring 2 'moderate importance' in the matrix approach developed by Potts et al., 2014).

Sea defence is an important benefit with respect to 13 beneficiaries (Figure 6). In particular, sea defence is of high importance to the Environment Agency (given their remit for flood defence), Boat Yards (given their location on the banks of the Deben Estuary) and Local Partnerships (due to their representation on Flood Defence committees). Therefore this logic chain, when working from left to right, identifies the importance of natural features in delivering the sea defence benefit, and the importance of sea benefit for a range of beneficiaries within the Deben Estuary. Both the Natural Capital Tool and the Beneficiaries Tool allow the relative importance of these relationships, respectively, to be taken into account.

Viewing the logic chain using a beneficiaries lens (right to left). Three beneficiaries are identified using the Beneficiaries Tool as being highly reliant on natural forms of sea defence, given their remits for; flood defence (Environment Agency); representation on local flood committees (Local Partnerships) and their locality on the banks of the Deben Estuary (Boat Yards). In turn, natural forms of sea defence are delivered by (and are thus reliant upon) a range of natural features, with coastal saltmarsh, coastal reedbeds and shellfish beds being identified as being the most important (Potts et al., 2014). Taking a beneficiaries lens enables businesses and organisations to assess their reliance on benefits but also to understand the reliance of other beneficiaries on the shared benefits provided by the natural capital of the Deben Estuary.

By taking a logic chain approach, the importance and/or reliance of linkages within the chain can easily be identified using both the Natural Capital Tool and the Beneficiaries Tool which were developed specifically for the Deben Estuary.

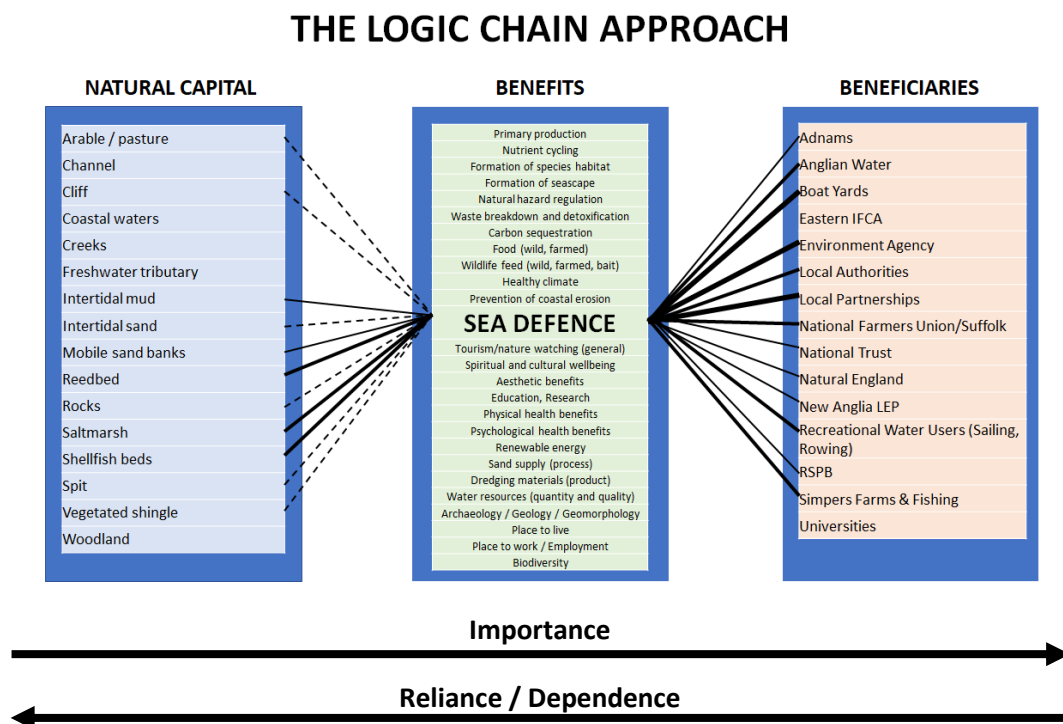


Figure 9: Logic Chain focussing on Sea Defence in the Deben Estuary.

Session 4: Discussion

A number of points for discussion were raised throughout the day. The aim of the final discussion session was to raise any questions or make any comments on the series of Suffolk Marine Pioneer Workshops and to discuss future research requirements. The following is a summary of points that were raised during the workshop.

Terminology/Definitions

- Participants questioned whether 'Beneficiaries' was an appropriate term to use given that some of the relationships were not beneficial to all individuals/organisations.
- Despite the benefits being identified by the participants in Workshop #1, it was felt that each benefit needed an agreed, written definition. This was particularly the case for participants who were not involved in the earlier workshops.
- The lack of written definition allowed room for interpretation of what 'benefit' meant. For example, benefits relating to 'renewable energy' were identified by some participants in relation to offshore windfarm cable routes and the Woodbridge tidal mill however other participants felt that this category of benefit was of no relevance to the Deben Estuary.
- There was a degree of confusion between stakeholders on the definitions of a number of supporting services such as primary production, nutrient cycling, formation of seascape, and formation of species habitat.
- The participants felt that there was a degree of overlap between some of the benefits and therefore streamlining of the benefits (alongside existing frameworks such as the UKNEAFO) may be a way to simplify the list of benefits which stakeholders have to work with.
- The cultural benefits (e.g. spiritual and cultural well-being) were particularly challenging to identify linkages with apart from identifying a general connection.
- It was proposed that Physical Health Benefits and Psychological Health Benefits could be combined into a 'Health and Wellbeing' category.
- The language around the links to benefits is important given that there were many different views around the table on how a stakeholder interacts with a benefit.

Scoring of Relationships

- Some participants found the scoring exercise challenging and suggested that this could have been overcome by providing definitions of each score and some more concrete examples. For example, we need to clarify the difference between the reliance on the benefit versus engaging with that benefit.
- A number of participants questioned whether scoring using 0-3 was sufficient to identify differences between beneficiaries. Some participants proposed that a broader scoring scheme may provide a more accurate reflection e.g. 0-5 or 0-7.
- It was felt that all beneficiaries will be reliant (often indirectly) on some benefits (e.g. healthy climate) whereas other benefits were more directly related to a core responsibility of a beneficiary (e.g. sea defence and the Environment Agency).
- A number of participants raised issues regarding benefits and disbenefits and how these should be taken into account within the scoring.
- The process was considered by some participants to be subjective with the scoring being influenced by the conversations at the table relating to understanding the benefits and the

relationship of the scoring allows for identification of who is affected most and who is responsible.

- One table proposed that the links between the beneficiaries and the benefits should be scored based on three criteria: the organisations responsibilities; the degree of impact; and the reliance on the benefit.
- Overall, scoring the linkages was supported as an approach, as it allows for identification of who is affected most and who is responsible.

Identification of Beneficiaries

- There was a lot of discussion around which beneficiaries were included within the workshop given that some participants represented individual businesses (e.g. Adnams) whereas others represented broader groupings of organisations (e.g. Local Partnerships).
- Additional suggestions included general recreational sectors such as cyclists, walkers; Tourism providers; Fisherman; Health services; Non-boat businesses; Adjacent landowners; Restaurants and the Marine Management Organisation.
- The reasons for inclusion of beneficiaries was made clear to the participants and it is hoped that the method provides an opportunity for other beneficiaries to score their own reliance on the benefits in the future.
- Participants recognised that some beneficiaries have a very wide remit (e.g. Local Authorities) and therefore would have linkages between many benefits – the scoring of the relative reliance on benefits may vary between departments within the organisation given their different remit. It is therefore challenging to score the differences between the reliance on each of the benefits.

Next Steps

- A number of participants identified the challenges associated with incorporating the risks / impacts to the natural capital within the scoring system. This was deemed outside the scope of the current workshop but could be incorporated into future work on the Deben Estuary.
- How we take this forward into policy is important. Will it change decisions? Will it change relationships? Will it enable stakeholders to build new coalitions? Will it inform the public? Will it influence new funding decisions and participation levels?
- It is hoped that the outputs from the three Deben Estuary workshops have enabled participants to be able to identify the links between natural capital, benefits and beneficiaries and it is proposed that these relationships can be discussed both in terms of importance and reliance depending on the narrative that is required.

Lessons Learnt

- There is a need for clear definitions of each of the benefits so that all participants are assessing links with the benefits in the same way.
- The scoring system is relatively subjective and therefore the production of scoring guides and definitions for scores would reduce the subjective nature of the scoring.
- There is support to further develop the method as the process was considered inherently useful and informative as participants get to learn about the roles and functions of different organisations in relation to the Deben Estuary and how they use and interact with benefits.

- Locality of the beneficiaries was an important issue, for example some beneficiaries are active on or around the Deben Estuary such as Robertson's Boatyard, whereas other beneficiaries are indirect e.g. RSPB and Adnams who do not currently have sites on the banks of the Deben Estuary.
- It would be useful to include an assessment of the conditions of the natural capital and how these influence benefits through the chain. However questions were raised regarding what the baseline for these assessments would be.
- Feedback from the participants (see Annex 4 and 5 for further details) has shown that the methodologies employed throughout the three workshops within the Deben Estuary (participatory mapping, scenarios assessments, the matrix approach and the logic chain approach) have resulted in:
 - increased understanding of the natural capital approach;
 - increased understanding of the links between natural capital and its benefits;
 - increased understanding of which groups benefit from natural capital and how; and
 - increased confidence in using the natural capital approach within their own organisation.

Annex 1: Workshop Presentations

SUFFOLK MARINE PIONEER: DEBEN ESTUARY WORKSHOP #3

Portman Road Stadium, Thursday 13 February 2020.

Dr Daryl Burdon, Daryl Burdon Ltd.
Dr Tavis Potts, University of Aberdeen
Steve Barnard, Wolds Environmental Consultancy Ltd.

Daryl Burdon Ltd. Marine Research, Training and Consultancy

DEBEN ESTUARY WORKSHOP #3 AGENDA

Workshop 3: Thursday 13 February 2020
10:00-10:30: Registration
10:30-10:45: Introduction (20min)
10:45-11:15: Activity 1: Identify the features that deliver benefits and how they do so (30min)
11:15-11:30: Lunch
11:30-11:45: Activity 2: Assess the links between features and benefits (15min)
11:45-12:15: Open Discussion (30min)
12:15-12:30: Close of workshop



MARINE PIONEER: DEBEN ESTUARY



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MARINE PIONEER: DEBEN ESTUARY #1



Daryl Burdon Ltd. Marine Research, Training and Consultancy

MARINE PIONEER: DEBEN ESTUARY #1



MARINE PIONEER: DEBEN ESTUARY #1



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MARINE PIONEER: DEBEN ESTUARY #2



MARINE PIONEER: DEBEN ESTUARY #2

SCENARIO ASSESSMENTS

- Can be used to investigate marine policy measures to aid future management decisions.
- Provide a valuable tool to enable new ways of thinking and to model changes in society.
- Scenarios must be plausible and credible, thus requiring local knowledge gained through stakeholder engagement.
- This activity will compare the delivery of benefits under two contrasting future scenarios against 'Business as Usual'.

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MARINE PIONEER: DEBEN ESTUARY #2



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MARINE PIONEER: DEBEN ESTUARY #2



MARINE PIONEER: DEBEN ESTUARY #2



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MARINE PIONEER: DEBEN ESTUARY #2

- The 'Business as Usual' scenario
- Scenario 1 - 'Change in Feature Type'

Project Outputs:

Workshop #1
Workshop #2
<https://www.suffolkecologicalresearch.org/marine-science/output/>

Logic Chain & Tool Development

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ECOSYSTEM LOGIC CHAINS



NATURAL CAPITAL

ECOSYSTEM LOGIC CHAINS

Natural England shows the links between ecosystem assets, services, benefits and value to people through the use of logic chains. These show the flow of value through the system, assets and services, and the benefits and value to people.

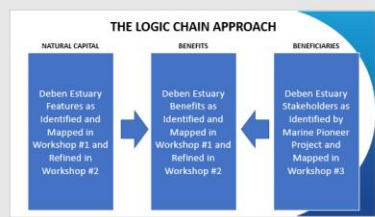


NATURAL CAPITAL

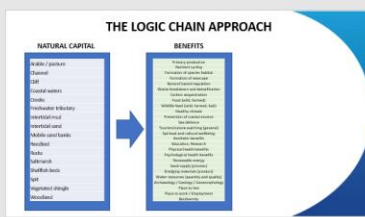
ECOSYSTEM LOGIC CHAINS



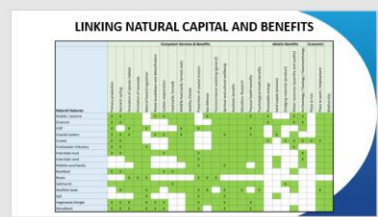
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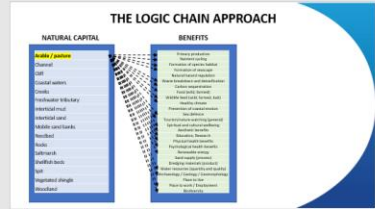
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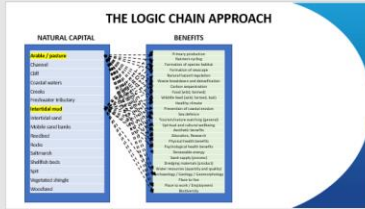
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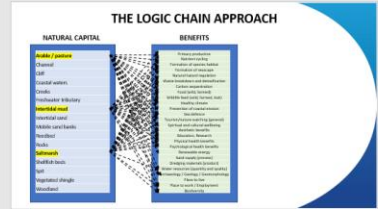
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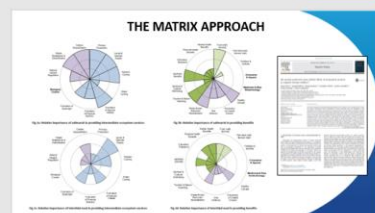
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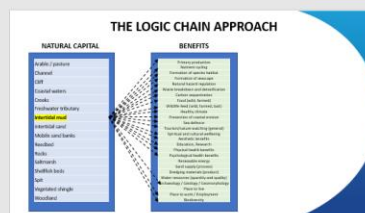
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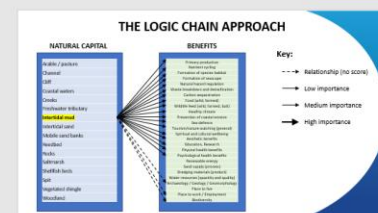
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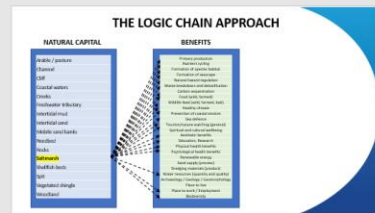
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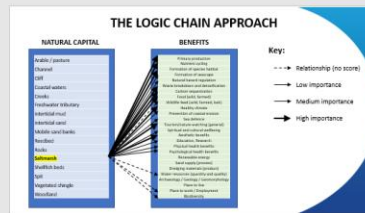
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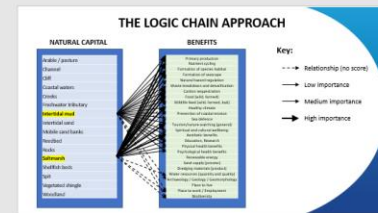
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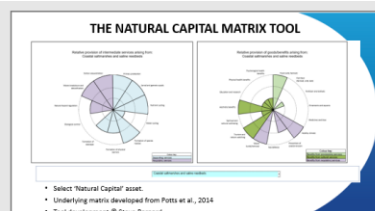
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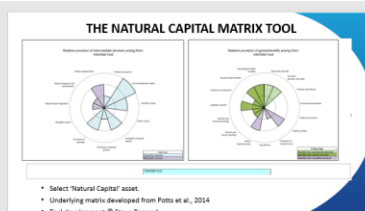
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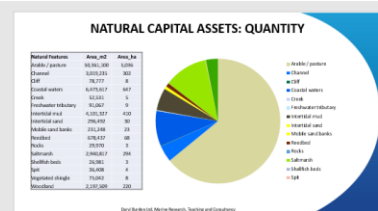
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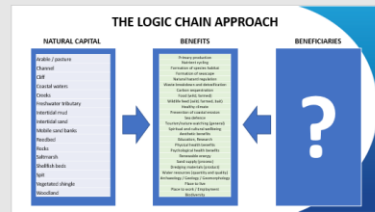
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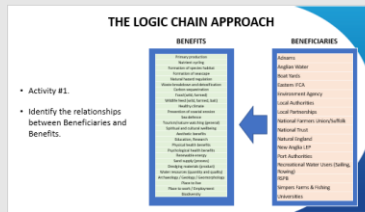
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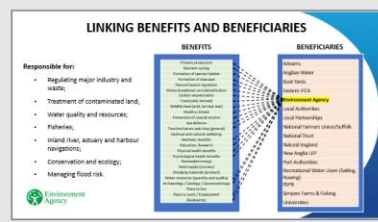
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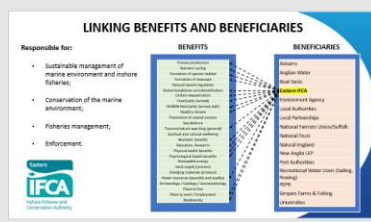
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LINKING BENEFITS AND BENEFICIARIES

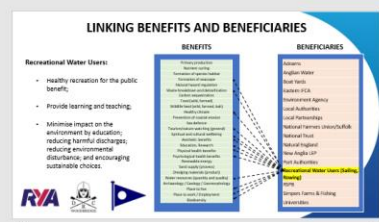
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LINKING BENEFITS AND BENEFICIARIES

Activity #1.

- Need to identify the relationships.
- Reliance / Dependence
- 10:45 to 12:15 (90 minutes)

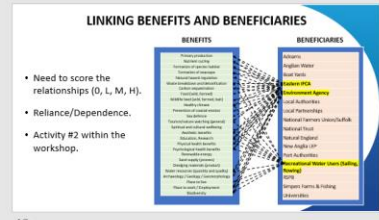
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Logic Chain & Tool Development

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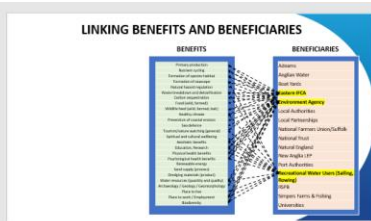


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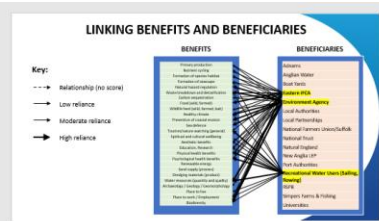
SCORING BENEFITS AND BENEFICIARIES

Need to score the relationships (0, L=M, H=3) based on reliance.

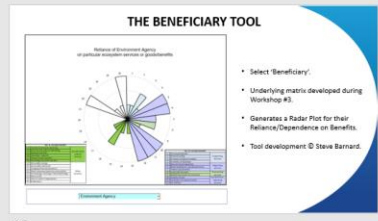
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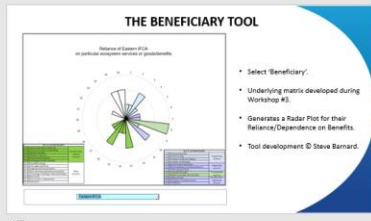
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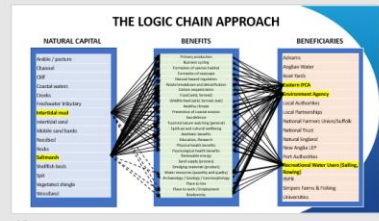
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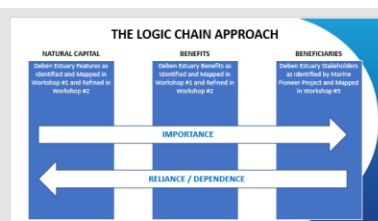
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LINKING BENEFITS AND BENEFICIARIES

Activity #2.

- Need to score the relationships (0, L, M, H).
- Focus on Reliance / Dependence.
- 13:00-14:30 (90 minutes)

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Logic Chain & Tool Development

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DISCUSSION

- Comments on the series of 3 workshops
- Natural Capital and the Deben Estuary
- Future work
- Feedback forms

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Annex 2: Comparison of Scores Between Tables

		Environment Agency	Eastern IFCA	Recreational Water Users	Adhams	Anglian Water	Boat Yards	Local Authorities	Local Partnerships	National Farmers Union	National Trust	Natural England	New Anglia LEP	RSPB	Simpers Farms & Fishing	Universities
Primary production	Table 1	1	2	0	1	0	1	1	1	3	1	2	1	2	3	1
	Table 2	1	2	0	0	0	0	0	3	3	1	0	1	2	3	0
	Table 3	1	1	0	0	1	0	1	1	0	1	2	0	2	3	0
	Mean	1	2	0	0	0	0	1	2	2	1	1	1	2	3	0
Nutrient cycling	Table 1	1	2	1	0	0	1	1	1	3	1	1	1	2	3	1
	Table 2	1	1	1	1	3	0	2	0	1	0	3	0	2	3	0
	Table 3	1	1	1	0	2	1	0	1	0	0	2	0	2	3	0
	Mean	1	1	1	0	2	1	1	1	1	0	2	0	2	3	0
Formation of species habitat	Table 1	2	2	0	0	0	1	1	1	2	3	2	1	3	3	1
	Table 2	2	2	0	1	0	0	2	3	1	3	3	0	3	0	1
	Table 3	2	2	0	0	0	0	1	1	1	3	3	1	3	3	0
	Mean	2	2	0	0	0	0	1	2	1	3	3	1	3	2	1
Formation of seascape	Table 1	1	1	2	0	0	3	1	2	1	2	2	1	1	3	1
	Table 2	1	1	2	1	0	3	2	3	0	3	3	0	3	0	1
	Table 3	1	1	2	0	0	2	1	2	0	3	3	1	1	1	0
	Mean	1	1	2	0	0	3	1	2	0	3	3	1	2	1	1
Natural hazard regulation	Table 1	3	0	0	0	3	3	1	1	2	1	2	1	1	1	1
	Table 2	3	0	1	3	3	3	2	3	2	1	1	0	1	3	0
	Table 3	3	1	2	1	1	2	1	3	3	2	2	1	1	2	0
	Mean	3	0	1	1	2	3	1	2	2	1	2	1	1	2	0
Waste breakdown and detoxification	Table 1	3	1	2	0	3	3	1	1	2	1	1	1	1	1	1
	Table 2	3	1	1	0	3	2	1	0	1	1	0	0	2	3	0
	Table 3	3	1	1	1	2	1	1	1	2	2	2	1	1	3	0
	Mean	3	1	1	0	3	2	1	1	2	1	1	1	1	2	0
Carbon sequestration	Table 1	2	1	0	1	1	1	1	1	1	1	1	1	1	1	1
	Table 2	2	1	0	0	0	0	2	0	0	1	1	0	0	0	1

		Environment Agency	Eastern IFCA	Recreational Water Users	Adnams	Anglian Water	Boat Yards	Local Authorities	Local Partnerships	National Farmers Union	National Trust	Natural England	New Anglia LEP	RSPB	Simpers Farms & Fishing	Universities
	Table 3	2	1	0	0	1	0	1	1	1	1	0	1	1	1	0
	Mean	2	1	0	0	1	0	1	1	1	1	1	1	1	1	1
Food (wild, farmed)	Table 1	2	3	0	1	0	0	2	2	3	1	2	1	1	3	1
	Table 2	2	3	0	0	0	0	0	3	3	1	0	2	3	3	0
	Table 3	2	3	0	1	0	0	0	0	3	2	0	1	0	3	0
	Mean	2	3	0	1	0	0	1	2	3	1	1	1	1	3	0
Wildlife feed (wild, farmed, bait)	Table 1	1	1	0	0	0	0	1	1	2	1	2	1	2	3	1
	Table 2	1	1	0	1	0	0	0	0	1	1	3	0	3	3	0
	Table 3	1	1	0	0	0	0	1	1	2	1	3	0	3	0	0
	Mean	1	1	0	0	0	0	1	1	2	1	3	0	3	2	0
Healthy climate	Table 1	3	2	2	1	2	2	3	2	1	1	2	1	2	2	1
	Table 2	3	2	2	1	0	0	1	0	1	1	3	0	1	1	0
	Table 3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1
	Mean	3	2	2	1	1	1	2	1	1	1	2	1	1	1	1
Prevention of coastal erosion	Table 1	3	0	0	0	3	1	3	3	2	1	1	1	1	2	1
	Table 2	1	0	0	2	0	3	3	3	1	1	1	0	0	2	1
	Table 3	3	1	2	1	3	3	2	2	3	1	1	1	1	1	0
	Mean	2	0	1	1	2	2	3	3	2	1	1	1	1	2	1
Sea defence	Table 1	3	0	0	0	3	3	3	3	2	1	1	1	1	2	1
	Table 2	3	0	3	2	0	3	2	3	1	0	1	0	1	2	0
	Table 3	3	1	2	1	3	3	2	2	3	1	1	1	1	1	0
	Mean	3	0	2	1	2	3	2	3	2	1	1	1	1	2	0
Tourism/nature watching (general)	Table 1	1	2	3	2	0	3	3	2	1	3	2	1	2	1	1
	Table 2	1	1	3	3	0	3	1	3	2	3	2	3	3	2	0
	Table 3	1	2	3	3	0	3	2	3	2	2	3	1	3	0	0
	Mean	1	2	3	3	0	3	2	3	2	3	2	2	3	1	0
Spiritual and cultural wellbeing	Table 1	0	1	2	1	0	2	1	1	1	1	1	1	2	1	1
	Table 2	0	2	2	2	0	1	1	2	2	3	2	0	3	2	0
	Table 3	1	1	2	2	0	1	1	2	1	3	1	0	3	0	0

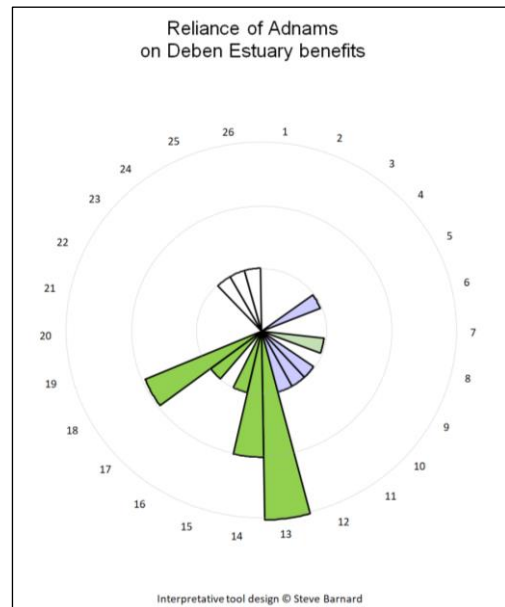
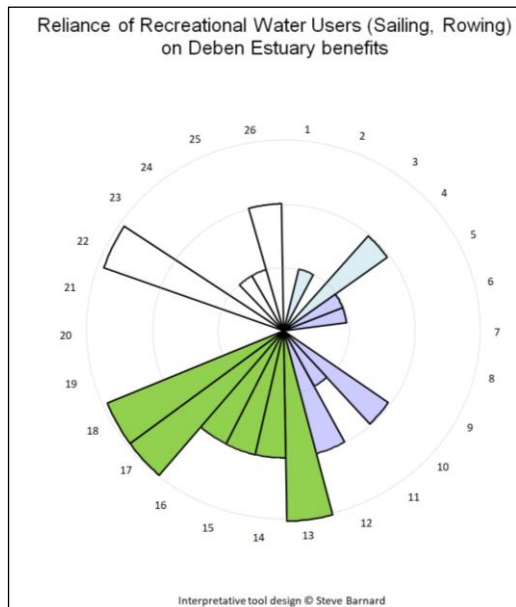
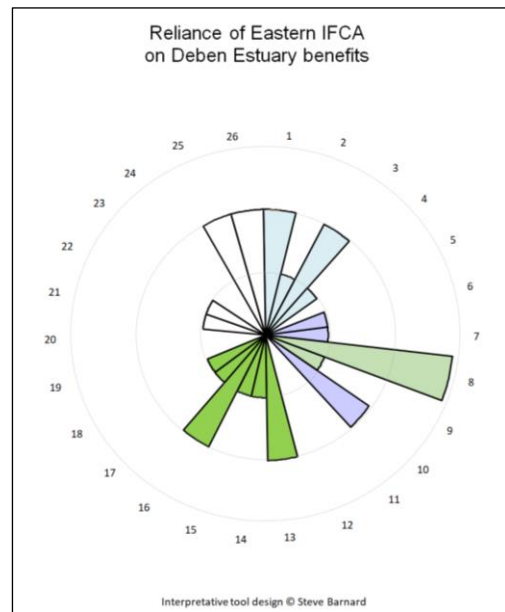
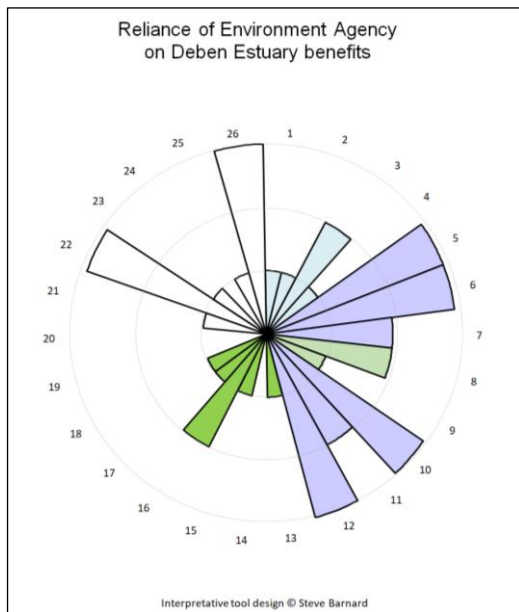
		Environment Agency	Eastern IFCA	Recreational Water Users	Adnams	Anglian Water	Boat Yards	Local Authorities	Local Partnerships	National Farmers Union	National Trust	Natural England	New Anglia LEP	RSPB	Simpers Farms & Fishing	Universities
	Mean	0	1	2	2	0	1	1	2	1	2	1	0	3	1	0
Aesthetic benefits	Table 1	1	1	2	0	0	3	2	3	1	2	2	1	1	1	1
	Table 2	1	1	2	1	0	3	1	2	1	3	2	0	2	2	0
	Table 3	1	1	2	2	0	2	1	2	2	2	1	0	2	0	0
	Mean	1	1	2	1	0	3	1	2	1	2	2	0	2	1	0
Education, Research	Table 1	2	2	2	0	2	2	2	2	1	2	2	1	1	1	3
	Table 2	2	2	2	1	0	1	1	3	1	3	2	0	1	1	2
	Table 3	2	2	2	0	0	0	1	2	2	2	3	2	2	1	3
	Mean	2	2	2	0	1	1	1	2	1	2	2	1	1	1	3
Physical health benefits	Table 1	1	1	3	0	0	1	1	1	1	1	1	1	1	1	1
	Table 2	1	1	3	2	0	3	2	3	0	3	0	0	2	2	0
	Table 3	1	1	3	2	0	0	3	2	0	2	2	1	2	0	0
	Mean	1	1	3	1	0	1	2	2	0	2	1	1	2	1	0
Psychological health benefits	Table 1	1	1	3	0	0	1	1	1	1	1	1	1	1	1	1
	Table 2	1	2	3	3	0	3	2	3	0	3	0	0	2	2	2
	Table 3	1	1	3	2	0	0	3	2	0	2	2	1	2	0	0
	Mean	1	1	3	2	0	1	2	2	0	2	1	1	2	1	1
Renewable energy	Table 1	0	0	0	0	0	0	2	0	1	0	1	1	1	0	1
	Table 2	0	1	0	0	0	0	2	0	1	0	2	1	0	0	0
	Table 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mean	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0
Sand supply (process)	Table 1	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1
	Table 2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	Table 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mean	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Dredging materials (product)	Table 1	1	1	0	0	0	0	1	1	1	0	1	1	1	1	1
	Table 2	0	1	0	0	0	3	1	3	0	0	3	0	3	3	0
	Table 3	2	0	0	0	0	3	0	0	1	1	0	0	1	2	0
	Mean	1	1	0	0	0	2	1	1	1	0	1	0	2	2	0

		Environment Agency	Eastern IFCA	Recreational Water Users	Adnams	Anglian Water	Boat Yards	Local Authorities	Local Partnerships	National Farmers Union	National Trust	Natural England	New Anglia LEP	RSPB	Simpers Farms & Fishing	Universities
Water resources (quantity and quality)	Table 1	3	1	3	0	3	3	2	2	3	1	1	1	1	3	1
	Table 2	3	2	3	0	3	3	3	2	3	0	3	0	3	3	0
	Table 3	3	1	3	0	3	2	0	3	0	1	2	0	2	3	0
	Mean	3	1	3	0	3	3	2	2	2	1	2	0	2	3	0
Archaeology / Geology / Geomorphology	Table 1	1	0	0	0	1	1	2	2	2	3	1	1	1	2	1
	Table 2	1	0	0	0	0	0	2	0	1	3	3	0	0	0	2
	Table 3	1	0	0	0	2	0	3	3	2	2	3	1	2	1	2
	Mean	1	0	0	0	1	0	2	2	2	3	2	1	1	1	2
Place to live	Table 1	1	0	1	0	0	3	3	3	1	0	0	1	0	1	1
	Table 2	0	0	1	2	0	3	3	3	3	0	0	0	0	3	0
	Table 3	0	0	1	2	0	1	3	3	3	1	0	1	1	1	0
	Mean	0	0	1	1	0	2	3	3	2	0	0	1	0	2	0
Place to work / Employment	Table 1	1	2	1	0	1	3	3	3	3	1	1	1	0	3	1
	Table 2	1	3	1	1	2	3	2	3	3	1	0	3	0	3	1
	Table 3	1	2	1	2	0	1	3	2	1	1	0	2	1	1	0
	Mean	1	2	1	1	1	2	3	3	2	1	0	2	0	2	1
Biodiversity	Table 1	3	2	2	1	3	1	3	3	2	2	3	1	3	2	1
	Table 2	3	3	2	1	2	0	2	2	2	3	3	0	3	2	1
	Table 3	3	2	2	1	2	1	2	3	2	2	3	1	3	2	2
	Mean	3	2	2	1	2	1	2	3	2	2	3	1	3	2	1

Annex 3: Radar Plot Outputs for Each Beneficiary

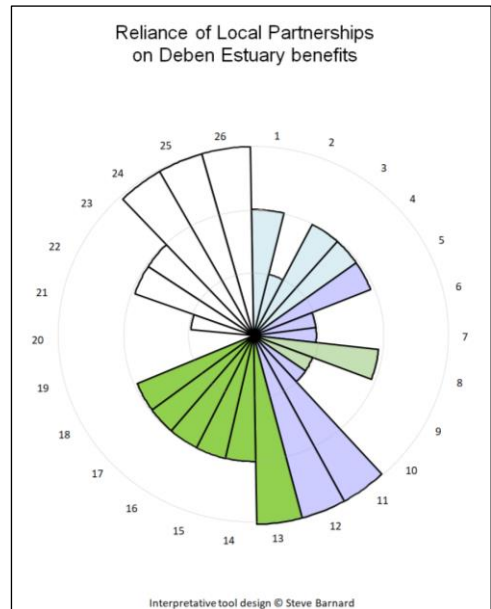
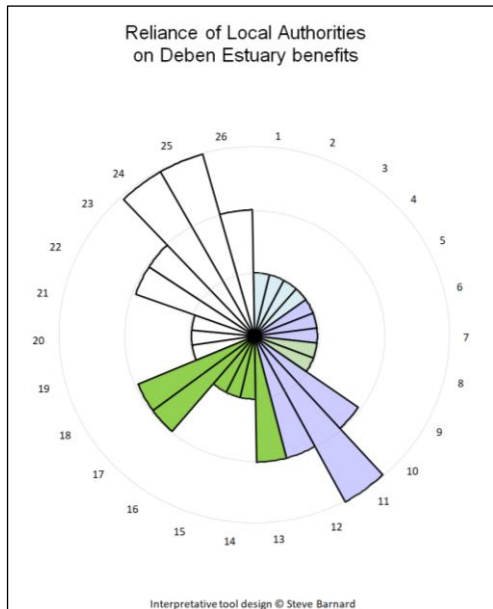
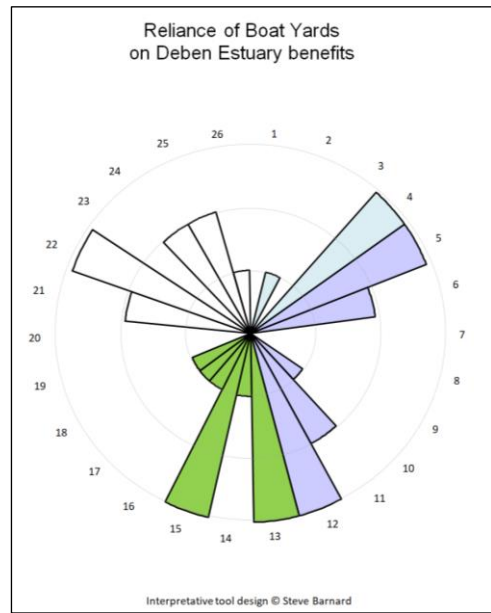
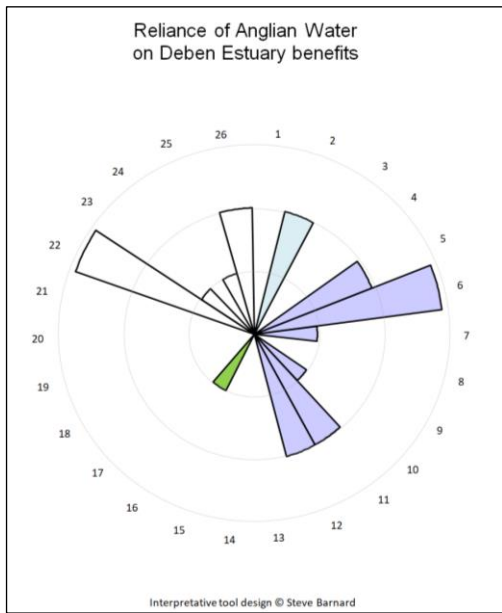
No.	Type	Benefits
1	Supporting	Primary production
2	Supporting	Nutrient cycling
3	Supporting	Formation of species habitat
4	Supporting	Formation of seascape
5	Regulating	Natural hazard regulation
6	Regulating	Waste breakdown and detoxification
7	Regulating	Carbon sequestration
8	Provisioning	Food (wild, farmed)
9	Provisioning	Wildlife feed (wild, farmed, bait)
10	Regulating	Healthy climate
11	Regulating	Prevention of coastal erosion
12	Regulating	Sea defence
13	Cultural	Tourism and nature watching

No.	Type	Benefits
14	Cultural	Spiritual and cultural well-being
15	Cultural	Aesthetic benefits
16	Cultural	Education, research
17	Cultural	Physical health benefits
18	Cultural	Psychological health benefits
19	Other	Renewable energy
20	Other	Sand supply (process)
21	Other	Dredging materials (product)
22	Other	Water resources (quantity and quality)
23	Other	Archaeology / Geology / Geomorphology
24	Other	Place to live
25	Other	Place to work / Employment
26	Other	Biodiversity



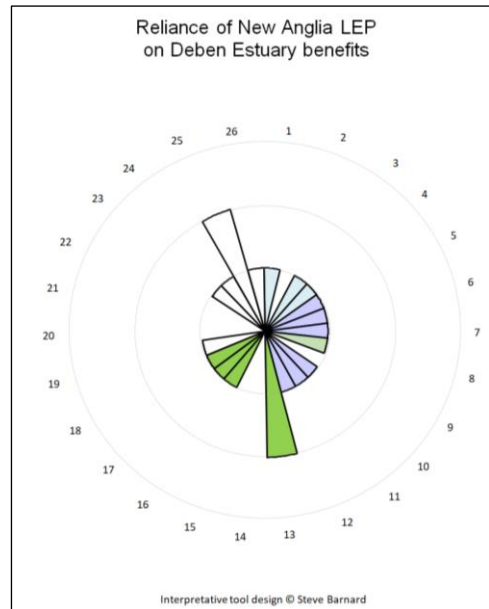
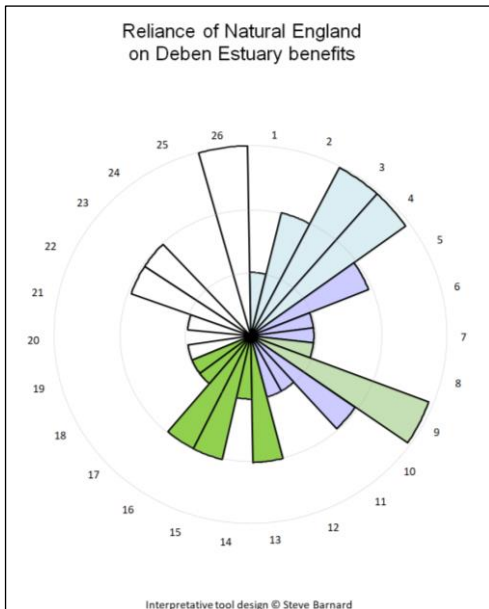
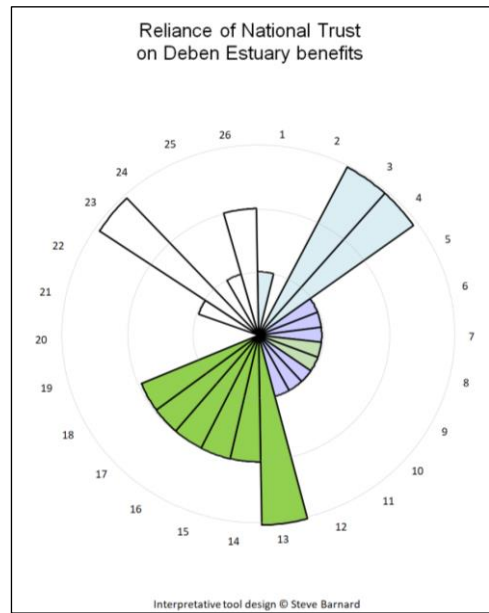
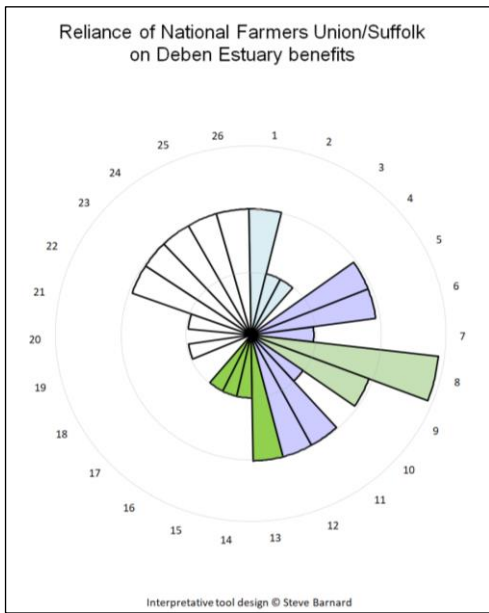
No.	Type	Benefits
1	Supporting	Primary production
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20	Other	Sand supply (process)
21	Other	Dredging materials (product)
22	Other	Water resources (quantity and quality)
23	Other	Archaeology / Geology / Geomorphology
24	Other	Place to live
25	Other	Place to work / Employment
26	Other	Biodiversity



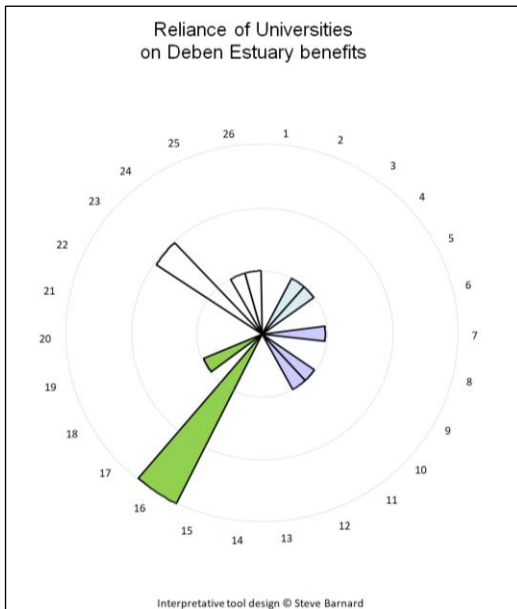
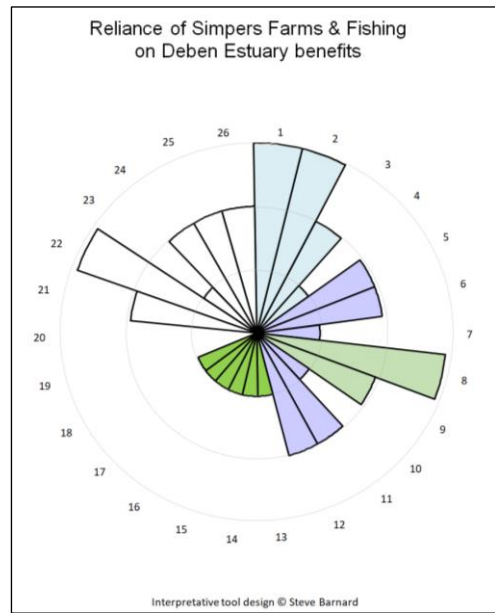
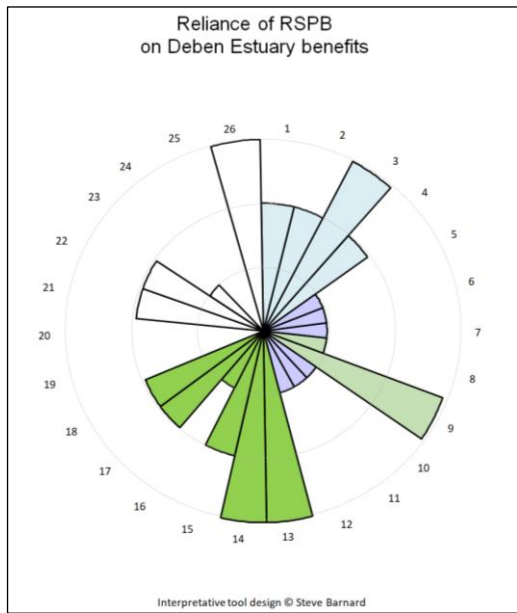
No.	Type	Benefits
1	Supporting	Primary production
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23	Other	Archaeology / Geology / Geomorphology
24	Other	Place to live
25	Other	Place to work / Employment
26	Other	Biodiversity

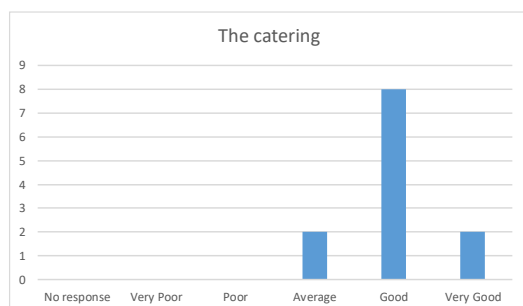
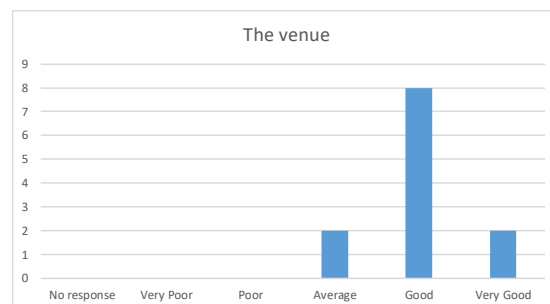
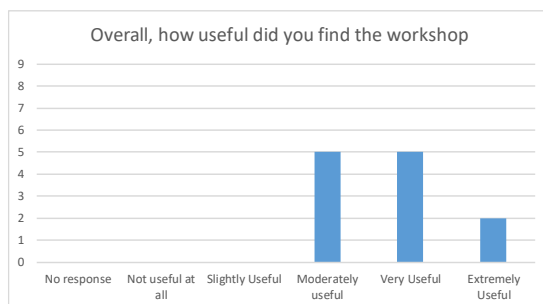
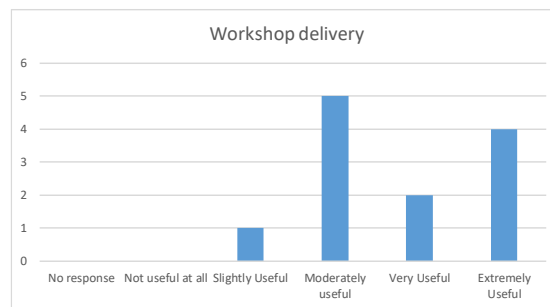
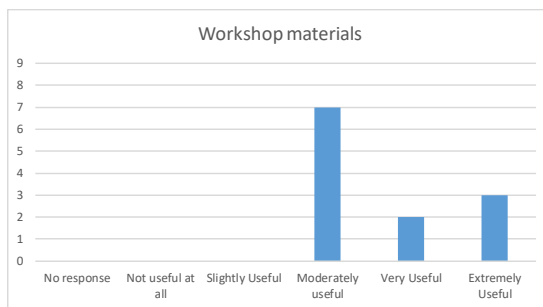
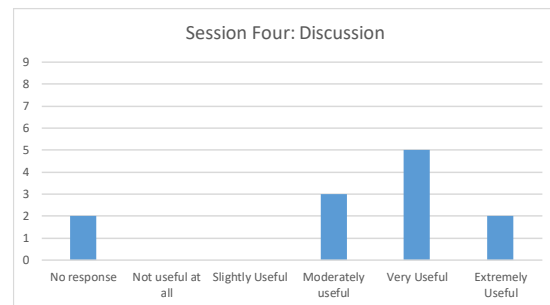
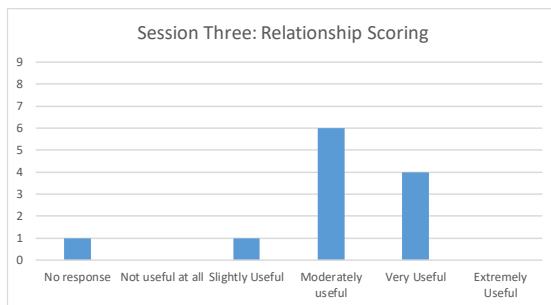
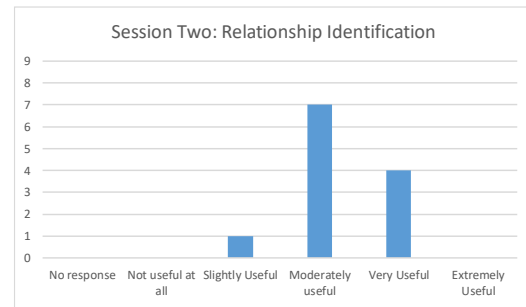
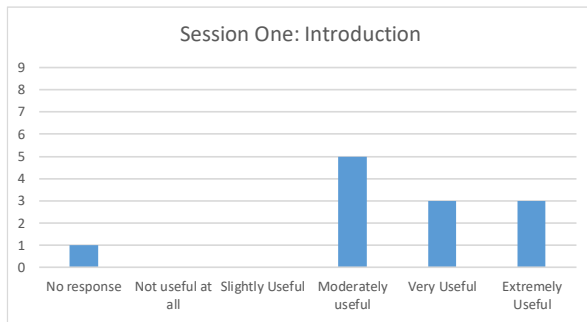


No.	Type	Benefits
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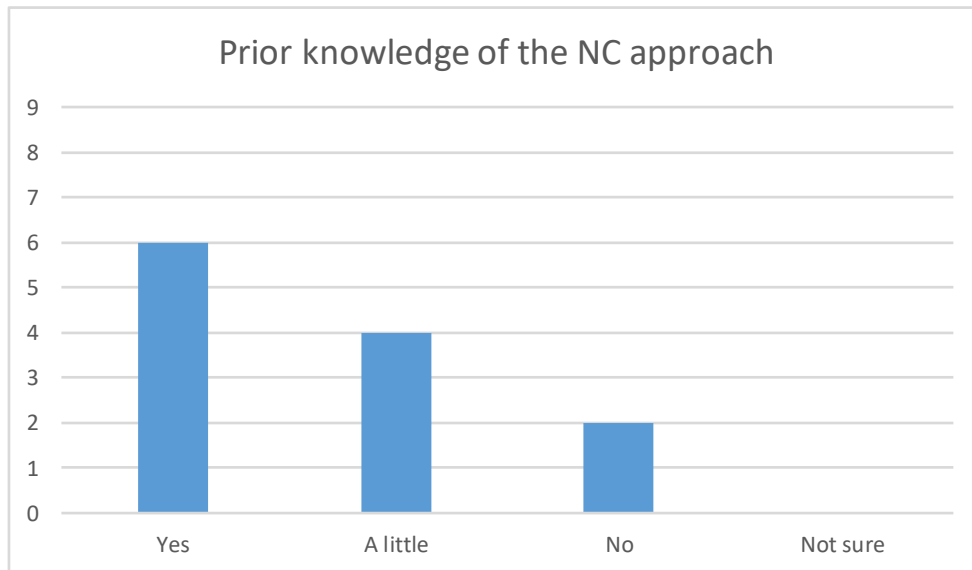


Annex 4: Workshop Feedback (n=12)



Annex 5: Natural Capital Knowledge Feedback (n=12)

The majority of attendees who provided feedback (10 out of 12) had some prior knowledge of the Natural Capital (NC) Approach before participating in any of the workshops run by the Suffolk Pioneer Project.



Following the Suffolk Pioneer Project workshops, respondents reported an increased understanding of the natural capital approach (12 out of 12), an increased understanding of the links between natural capital and its benefits (12 out of 12), an increased understanding of which groups benefit from natural capital and how (11 out of 12) and an increased level of confidence in using the natural capital approach within their own organisation (9 out of 12).

