

ReMeMaRe



Scarborough Spa
11-12th July, 2023



ReMeMaRe Conference 2023

Welcome



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Conference Details

<http://coastal-futures.net/rememare-2023>

Twitter: #ReMeMaRe23
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Scarborough Spa
11-12th July, 2023



ReMeMaRe Conference 2023
Restoring Estuarine & Coastal Habitats

Delegate notes



11th & 12th July 2023 | Scarborough Spa, England

ReMeMaRe

Q&A / Panel Debate

Slido

<https://www.slido.com/>

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OPENING ADDRESS

Trudy Harrison MP

Defra Minister



Scarborough Spa
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WELCOME

**Richard Flinton, Chief Executive,
North Yorkshire Council**



Scarborough Spa
11-12th July, 2023



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WELCOME
Wave Crooks
Director, Seagrown



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WELCOME

Matt Jones, The Wave Project
Changing young lives through surf therapy



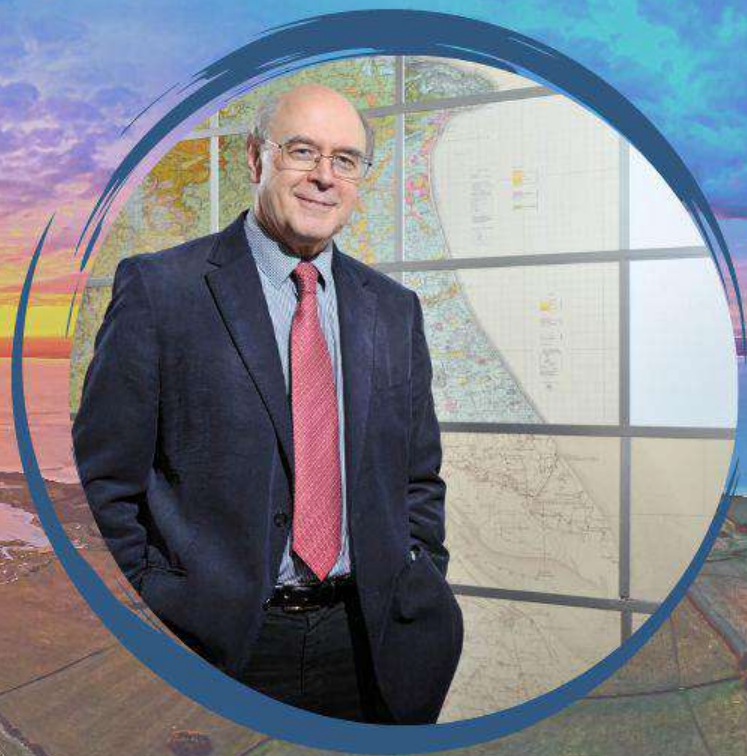
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ReMeMaRe Conference 2023

Strategic Leadership

Session 1



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SESSION ONE

CHAIR: Mike Elliot

**Emeritus Professor in Estuarine & Coastal Sciences,
University of Hull**



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SESSION ONE: STRATEGIC LEADERSHIP

Setting and achieving ambitious targets

How do we deliver the ambitions for estuarine and coastal restoration?



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STRATEGIC LEADERSHIP

Dr Robert Bradburne

Chief Scientist, Environment Agency

Working with the System



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STRATEGIC LEADERSHIP

Dr James Robinson

Conservation Director, WWT

Catalysing coastal restoration in the UK – leading from the front



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Catalysing coastal restoration in the UK - leading from the front

Dr. James Robinson
Director of Conservation, WWT



WWT

Tuesday 11 July 2023

Leadership for coastal restoration



What is leadership?

“Leadership is a process of social influence which maximizes efforts of others towards achievement of a goal”

The role of conservation non-governmental organisations

- Conservation organisations are in a unique position to respond to arguably the most pressing issues of time, climate change and biodiversity loss, while adapting to changing societal pressures
- They need to be leading from the front, acting as:
 - trusted sources of evidence and research,
 - campaigners for change in policy,
 - whilst also driving the reorientation of finance and investment towards conservation aims



The challenge of scaling up the restoration of coastal habitats in the UK requires this approach

- Build the evidence
- Drive the action
- Create a movement



A new partnership with Aviva



A new partnership

- Aviva is partnering with WWT on an innovative saltmarsh creation project in the UK, one of the largest in the UK
- The work supports Aviva's ambition to make the UK the most climate-ready large-economy by 2030
- The partnership will see Aviva donate £21 million to WWT to restore up to 250 hectares of saltmarsh
- The project will develop best practice in saltmarsh restoration, to help combat the interlinked emergencies of climate change and catastrophic nature loss
- Saltmarsh habitat has been estimated to protect more than 90,000 properties and more than £2 billion of assets¹ through reducing flooding in the UK– an increasing impact of climate change



Closing thoughts and questions

- There's a huge amount happening and we should be proud of the progress made by the coastal restoration community – let's celebrate the successes better
- But how many estuarine and coastal wetlands have actually been restored, or are about to be restored, since we last met? Are we winning?
- Let's not let 'the perfect' be the enemy of 'the good'
- How do we make coastal wetlands as important as forests and as popular as football?
- What's the collective leadership of our community and how do we ensure the whole effort is greater than the parts?



STRATEGIC LEADERSHIP

Dr Colm Bowe & Jim Wardill, Nature North

**Introduction to Nature North &
Thriving Northern Coasts and Estuary Programme**



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Driving Green Growth through Nature Recovery in the North of England

Colm Bowe, Development Manager, Nature North
Jim Wardill, Operations Director Northern England,
RSPB



Nature North

naturenorth.org.uk



@_NatureNorth





“Northern Leaders and organisations with a strategic interest in the health of nature in the North, should create a joint forum for discussion with and where appropriate, aligned decision making across the North”. IPPR Natural Assets North Final Report (2020)

A Northern Focus

The North of England has diverse and significant natural assets – but these are not all in a favourable condition

Drive green growth, build thriving communities and increase resilience to climate change

Create an environment that support Nature Recovery at scale across the North of England





Policy: Embed nature and its benefits across policy areas in the North of England to support delivery of green growth and climate resilience

Propositions (for investment): We aim to drive greater investment into nature recovery in the North of England from both public and private sources.

Partnership: We can achieve more through collaboration and partnership

Nature North's existing cross-regional Investable Propositions

The Northern Forest



Woodland Trust & Community
Forests

The Great North Bog



6 Peatland Partnerships

The art of the possible:

- Clear vision
- Ambitious target
- Delivery costed at a high level
- Benefits defined
- Common goal
- Delivered by local partnerships
- Building on existing work and knowledge

The Northern Forest

Vision: Plant over 50 million trees from Liverpool to Hull by 2043

Key benefits:

- Over 5 million trees established by spring 2022
- 7.5 million tonnes of CO₂e sequestered over 25 years

Brings together 4 Community Forests, Community Forest Trust (CFT) and the Woodland Trust in the North of England

- Investment of £500 million over 25 years
- £2.2bn GVA and £2.5bn of social, economic and environmental benefits
- Kick start government Investment of £5.7 million + support from Defra Nature for Climate Fund of over £60m (c4000 ha of woodland creation)

Current status:

This IP is being led by **The Woodland Trust, 4 Community Forests & the Community Forest Trust**

The vision and project pipeline is well –developed.

The partnership are working towards a blended finance model.



The Great North Bog

Restore the majority degraded peat across a 7000 km² of upland landscape in the North of England

- Stores 400 million tonnes carbon
- Once restored 3.7 million t/CO₂e/yr additional is stored, not emitted
- Reduces flood risk/improves water quality
- Restores a key heritage landscape – people and nature (increased biodiversity)

Brings together 6 existing peatland restoration partnerships

- Investment of £200 million over 20 years
- GVA – Peatland Restoration £1 spent - £4.62 returned (RSPB/Cambridge Econometrics 2021)
- Co-benefits include an uplift in the opportunities for jobs and careers delivering and supporting peat restoration.

Current status:

This IP is being led by **6 Peatland Partnerships**.

The vision is developed, the project pipeline is well developed and a Co-ordinating group is well-established.

Work is underway to establish potential revenue streams and buyers through carbon credits.

A prospectus for potential buyers/investors has been published finance partner(s) by Autumn 2023.



Funding the Great North Bog

- ◆ A comprehensive and commercially attractive restoration offer to landowners / investors
- ◆ This offer will include:
 - a) One stop shop service for landowners - scoping, planning, permitting and restoration.
 - b) Access to existing grant schemes and management of accreditation with Peatland Code (etc), and
 - c) Provision of a compelling restoration and carbon financing package.

a) and b) = "business as usual" for GNB members.



Nature North's developing cross-regional Investable Propositions

Healthy Northern Rivers



Environment Agency/
The Rivers Trust

Green Northern Connections



Wildlife Trusts

Thriving Northern Coasts and Estuaries



RSPB

Resilient Northern Farming



Natural England

Liveable Northern Towns and Cities



National Trust

Investable Propositions



Investable Propositions will provide:

Attractive at scale offer to funders, buyers and investors

Brings together landowners, project developers and deliverers behind ambitious vision

Thriving Northern Coasts & Estuaries

Working towards an Investible Proposition



Nature North

naturenorth.org.uk



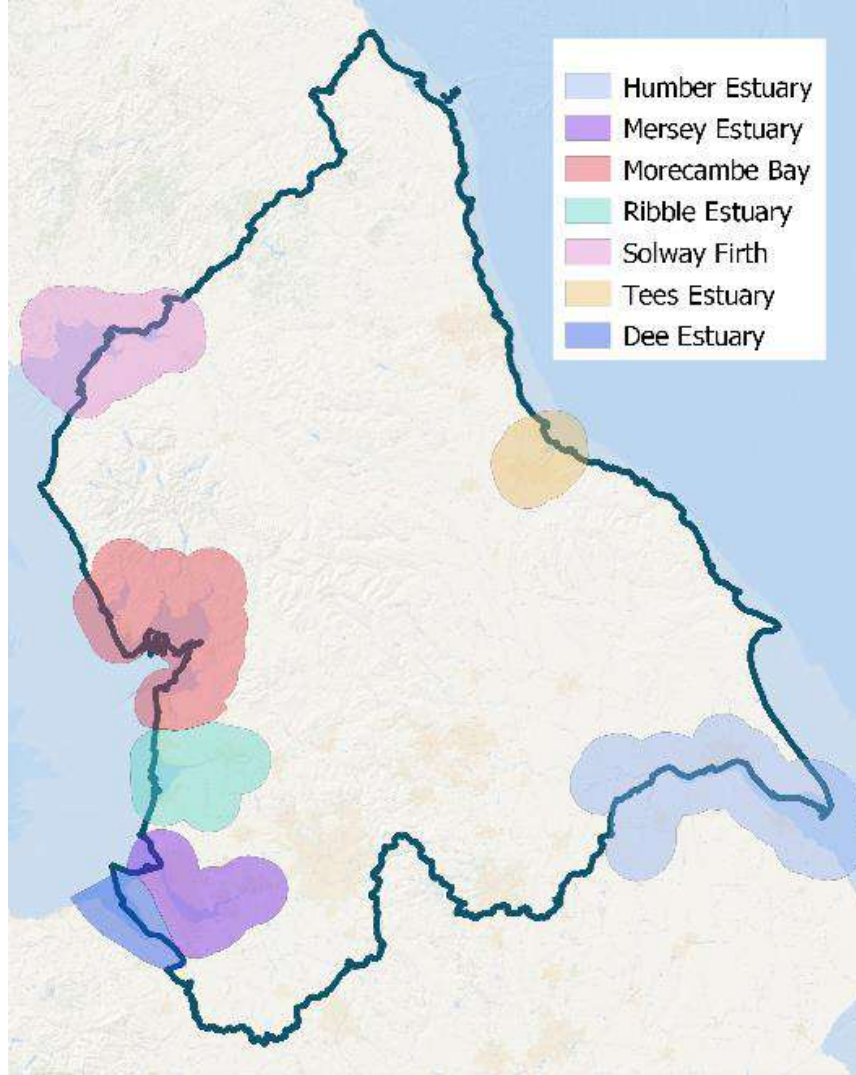
@_NatureNorth



Large or small?



Aggregate!



Benefits of Saltmarsh

Ecosystem service from saltmarsh include:

- reducing flooding of coastal properties and infrastructure
- drawing down carbon from the atmosphere
- processing water pollutants
- providing vital habitat for a variety of wildlife
- recreation, such as walking and birdwatching.



Economic data currently allows us to value saltmarsh benefits as £5,600-6,800 per hectare per year. The true value will be much higher and will vary considerably by location

Selected Services	Quantity, per ha, per year	Value, per ha, per year 2022 prices	Notes
Carbon Sequestration	13.3 (± 15.0) tCO ₂ e 8.2 (± 5.9) tCO ₂ e	£2,016-3,276 (central, non-traded, 2023 price).	For restored marshes (< 20 years old) For natural marshes (in situ) ⁵
Flood Risk	Not available	£1,248	Average value of flood risk protection given by saltmarsh in England ⁴
Air Quality	0.002 tPM ₁₀ 0.00045 tPM _{2.5}	£61 £31	Average absorbed per ha habitat
Water Quality	360 kg, Nitrogen ⁵ 47 kg, Phosphorus ⁵	£428 ⁶ £1,830 ⁶	Average Nitrogen and Phosphorous attenuated

Without action, saltmarsh habitat in the UK is predicted to shrink by 4.5% in the next twenty years due to climate change.

Table 1. Value (economic welfare) and quantities for selected ecosystem services provided by saltmarsh.

² Adnitt et al. (2007)

³ Mason et al. (2022)

⁴ ONS (2022)

⁵ Watson et al. (2020)

⁶ Defra (2021)

Benefits of Seagrass

90% of seagrass in the UK has disappeared since the 1800s.

Restored seagrass meadows will:

- sequester and store significant amounts of carbon
- help to remove pollutants from water and stabilise sediment
- support a variety of wildlife
- provide nursery habitats for fish, so sustaining populations.

Economic data currently allows us to value these benefits as £1,178-1,283 per hectare per year. The true value will be much higher than this.

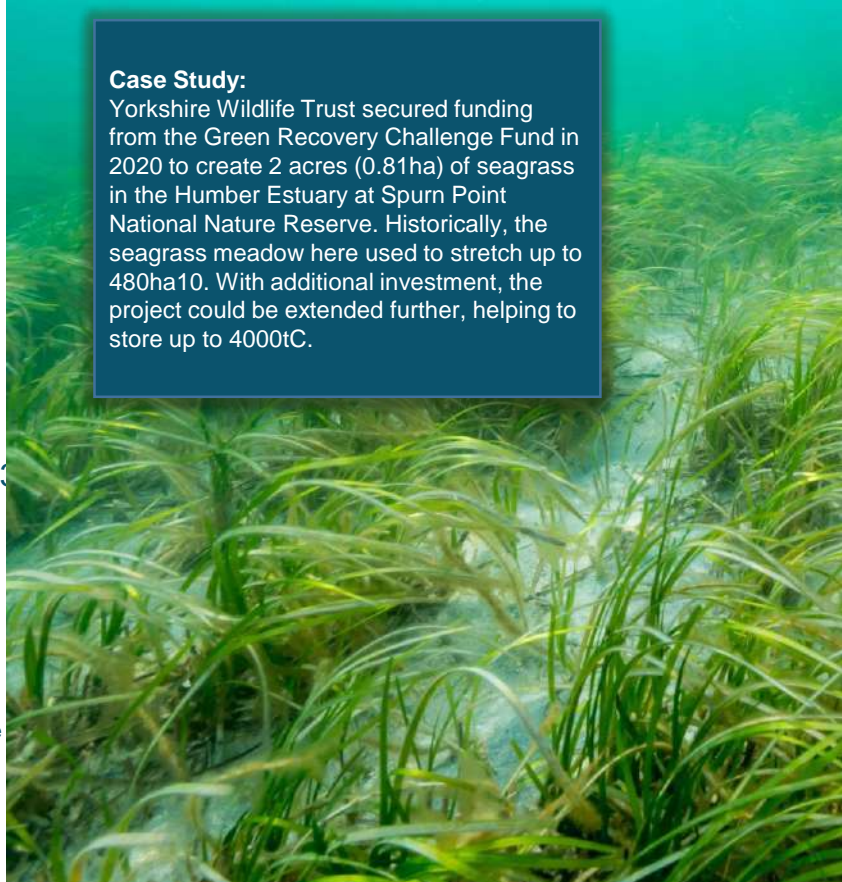
Selected Services	Quantity, per ha, per year	Value, per ha, per year 2022 prices
Water Quality	150-240 kg, Nitrogen ⁷	£178-283 (2022 prices) ⁸
Carbon Sequestration	4tCO ₂ e ⁹	£1000 (central, non-traded, 2023 prices).

Table 2. Value (economic welfare) and quantities for selected ecosystem services provided by seagrass.

⁷ Watson et al. (2020)
⁸ Defra (2021)
⁹ Burrows et al. (2014)
¹⁰ Connections across the Humber Report (2021)

Case Study:

Yorkshire Wildlife Trust secured funding from the Green Recovery Challenge Fund in 2020 to create 2 acres (0.81ha) of seagrass in the Humber Estuary at Spurn Point National Nature Reserve. Historically, the seagrass meadow here used to stretch up to 480ha¹⁰. With additional investment, the project could be extended further, helping to store up to 4000tC.



Benefits of Native Oyster Beds

During the industrial revolution, oysters were a key food for working people, with enormous fisheries along our coasts and estuaries. Since then, their reefs have lost 95% of their former extent¹³.

The benefits of restored native oyster beds include:

- clean water: one adult oyster can filter up to 200 litres of water a day, removing pollutants and sediment.
- providing sea defence by absorbing wave energy.
- storing carbon and supporting a variety of wildlife. Some of these benefits are quantified in Table 3.

Economic data currently allows us to value these benefits as £3,376 per hectare per year. The true value will be much higher than this.

Selected Services	Quantity, per ha, per year	Value, per ha, per year 2022 prices
Water Quality	190kg, Nitrogen ¹¹	£224 (2022 prices) ¹²
	79kg, Phosphorus ¹¹	£3152 (2022 prices) ¹²

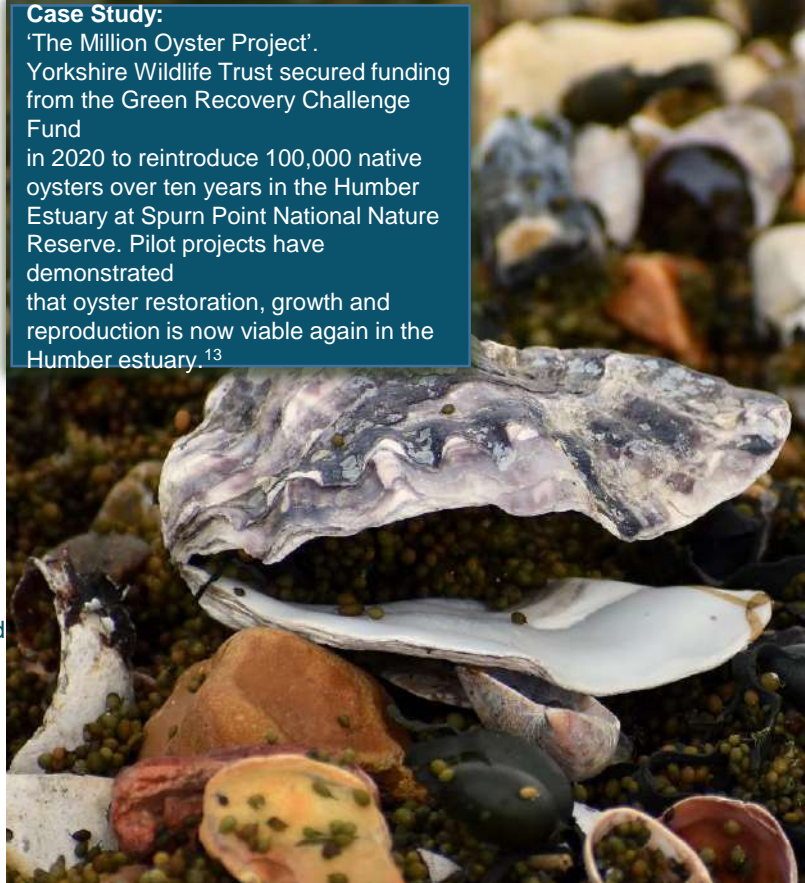
Table 3. Value (economic welfare) and quantities for selected ecosystem services for native oyster beds.

¹¹ Watson et al. (2020)

¹² Defra (2021)

¹³ Humber Coastal Conservation Corridor Report (2021)

Case Study:
'The Million Oyster Project'.
Yorkshire Wildlife Trust secured funding from the Green Recovery Challenge Fund in 2020 to reintroduce 100,000 native oysters over ten years in the Humber Estuary at Spurn Point National Nature Reserve. Pilot projects have demonstrated that oyster restoration, growth and reproduction is now viable again in the Humber estuary.¹³



Benefits of Wetland (Marsh and Reedbeds)

Wetlands such as marshes and reedbeds provide us with many benefits. They clean our water and air, removing pollutants and sediment. They hold and store water, providing protection from flooding. They store carbon and support a variety of wildlife.

Economic data currently allows us to value these benefits at £7,300-10,700 per ha, per year (including physical health, recreation and biodiversity values, in addition to those shown in in Table 4). The true value will be much higher than this.

Table 4. Value (economic welfare) and quantities for selected ecosystem services for wetlands (marsh and reedbeds).

Selected Services	Quantity, per ha, per year	Value, per ha, per year, 2022 prices	Notes
Carbon Sequestration	8-16 tCO ₂ e ¹⁴	£2,000-4,000/ha (central, non-traded value, 2023 prices).	Creating marshes from arable.
Flood Risk	Not available	£788 ¹⁵	Value of flood risk protection given by marshes in England ¹⁵
Air Quality	0.002t tPM ₁₀ ¹⁶	£43 ¹⁶	Using 'rural average' damage cost
Water Quality	111 kg, Nitrogen 75 kg, Phosphorus	£132 ¹⁷ £2921 ¹⁷	Average Nitrogen and Phosphorous attenuated

¹⁴ Anderson, (2020)

¹⁵ Morris and Camino (2011)

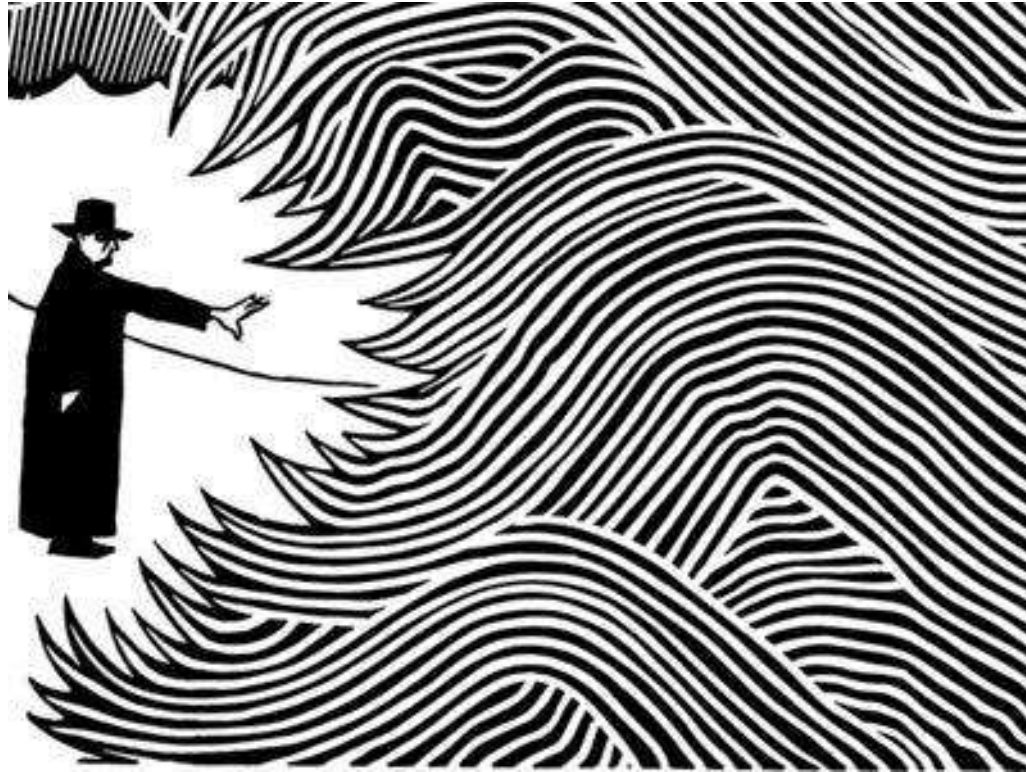
¹⁶ ONS (2016)

¹⁷ Watson et al. (2020)



Creating wetlands may generate between 1 to 7 BNG units, depending on the baseline habitat and local conditions.

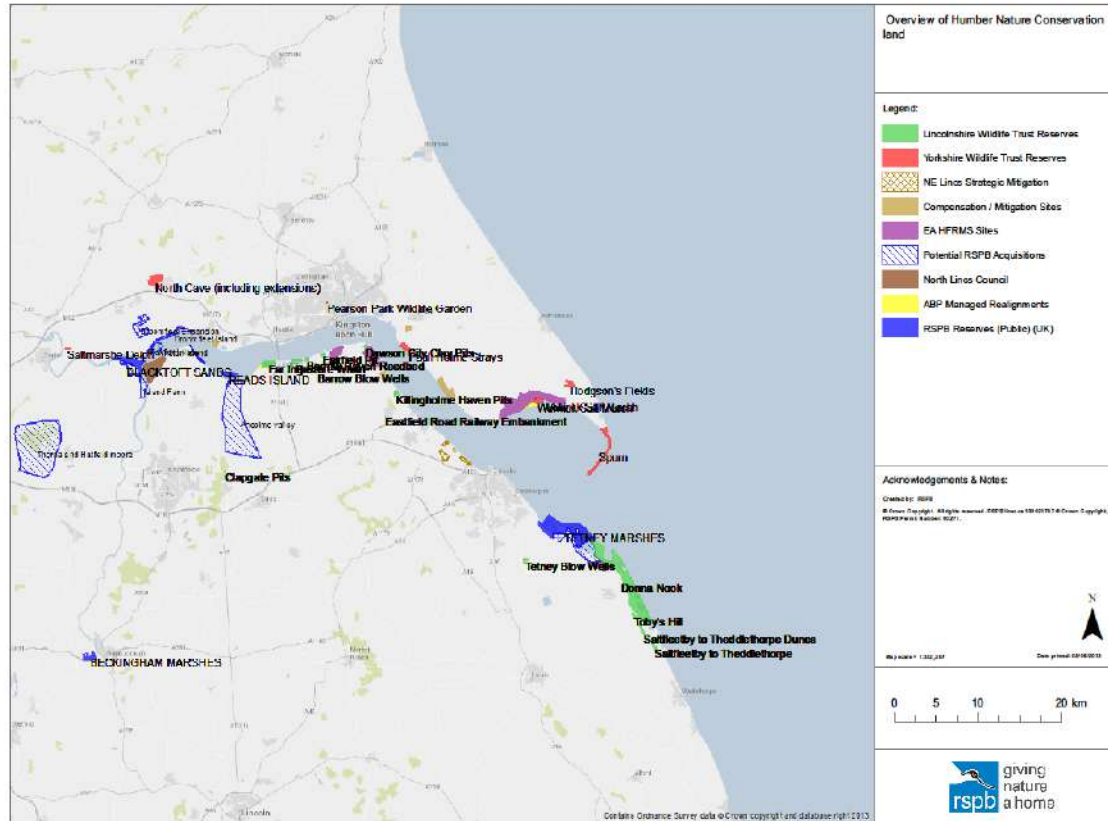
Drivers?



Drivers?

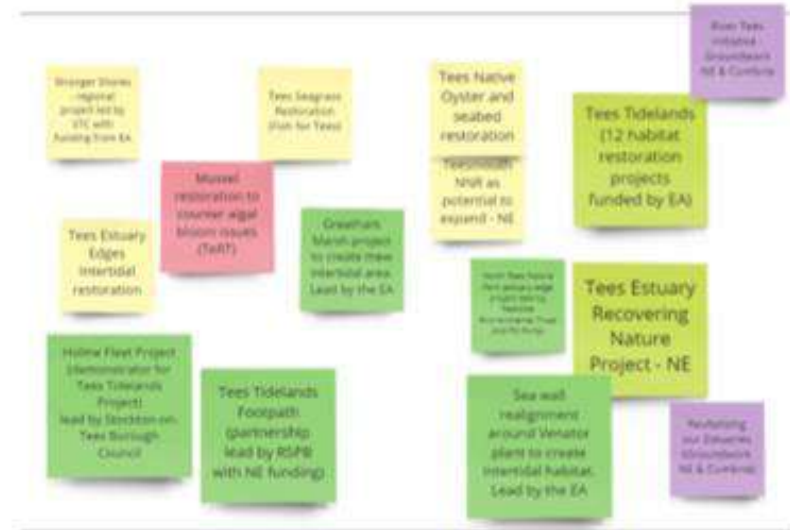


No competition or duplication



Bringing together the stakeholders

- 33 attendees
- Active projects
- Challenges facing estuaries
- Opportunities from nature recovery to meet challenges and de-risk major development



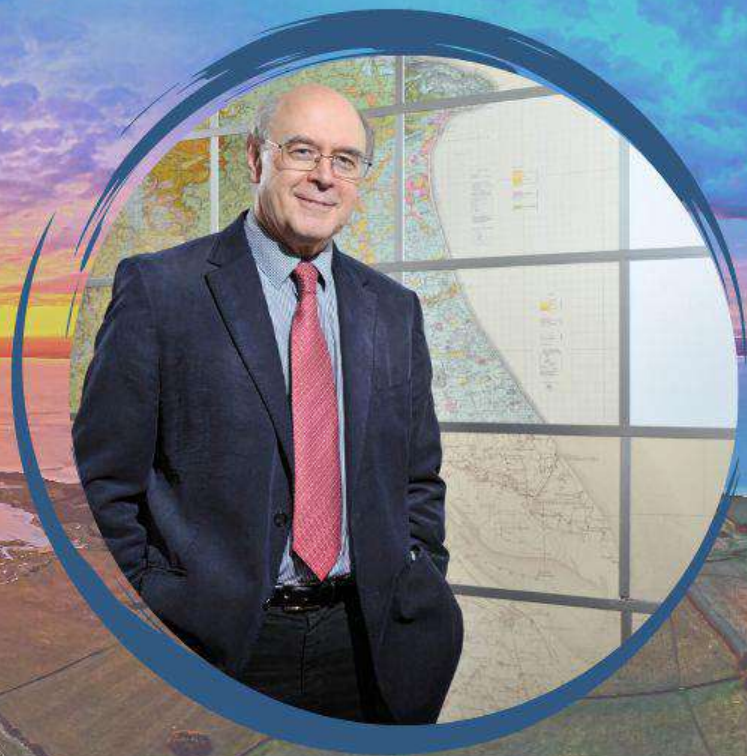
Breaking new ground



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Joanne Preston
University of Portsmouth



Peter Barham
SUDG



James Robinson
WWT



Aisling Lannin
MMO



Caroline Price
The Crown Estate



Roger Proudfoot
Environment Agency



Amy Pryor
CPN



Helen Hornby
Groundwork



Phillip Turner
The Crown Estate



Annika Clements
DAERA



Mike Williams
Environment Agency



Amelia Newman
Ocean Conservation Trust



Cass Bromley
NatureScot



Michael Thompson
Mott MacDonald



Zahra Ravenscroft
Environment Agency



Orlando Venn
Natural England



Kate Griffith
Natural Resources Wales



Evonne Maxwell
Jacobs



Eve Leegwater
Environment Agency



Louise MacCallum
Blue Marine Foundation



Natasha Lough
Natural Resources Wales



Natasha Bradshaw
Ocean & Coastal Futures



Ben Green
Environment Agency



Mike Elliott
University of Hull



Adam Rowlands
RSPB



Alison Debney
Zoological Society of London



Robert Bradburn
Environment Agency



David Tudor
Blue Marine Foundation



Jimi Wardill
Nature North/RSPB



Celine Gamble
Zoological Society of London



Matt Service
AFBI



Colm Bowe
Nature North



Richard Flinton
North Yorkshire Council



Samir Whitaker
Orsted



Andy Rees
Plymouth Marine Lab

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LUNCH
13:00 – 14:00



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