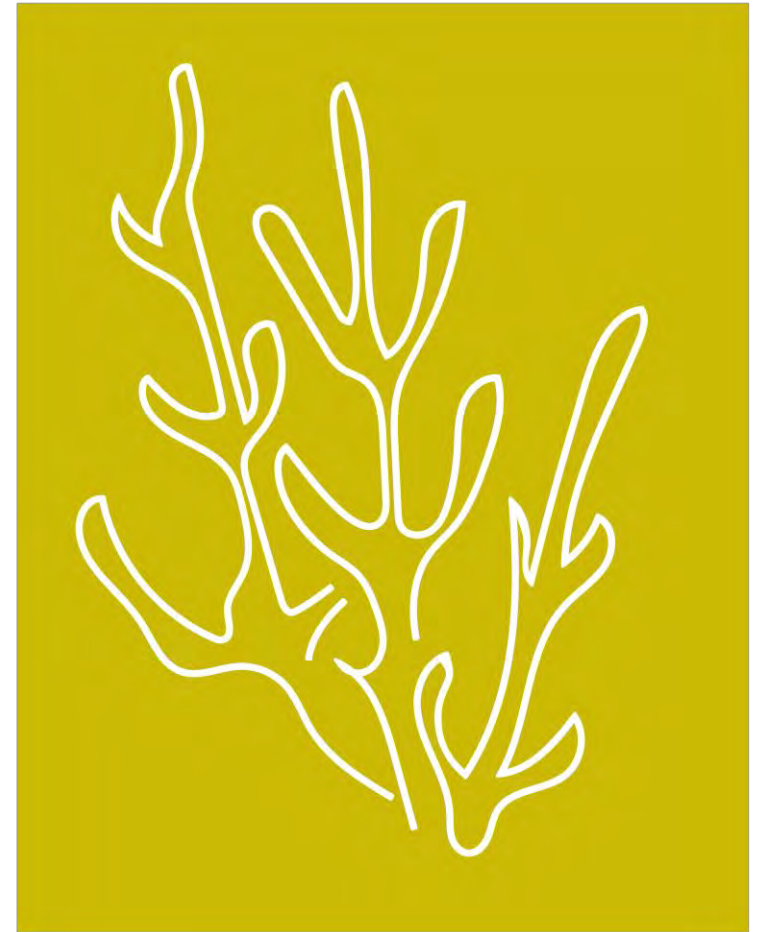


Our Future Coast

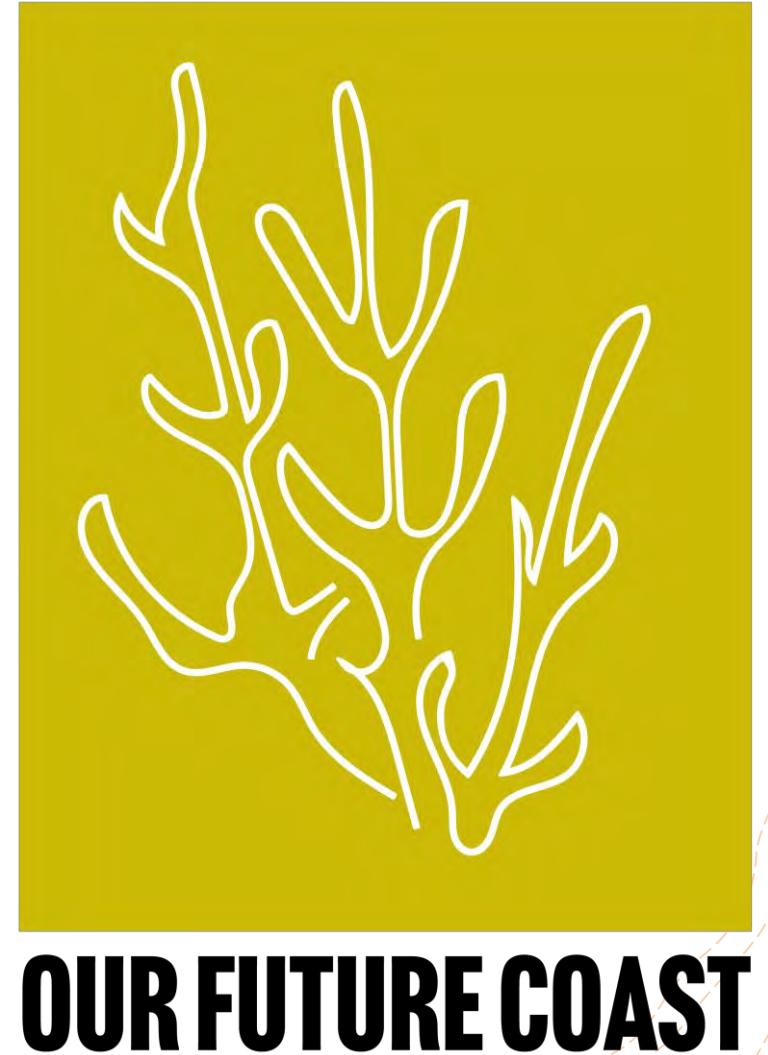
Partners Workshop May 2024



OUR FUTURE COAST

Agenda:

- Arrival and Coffee Mingle 9.30
- Programme Overview & Work Package Integration 10.00
- Site Leads Share Progress 10.20
- Questions for PM & Site leads 11.00
- Starting with the SMP 11.15
- Jack Flusk on ELMs for Coastal Landowners 11.25
- Lunch 11.45-12.30
- Adaptation Pathways Activity 12.30
- Thank you and Close 14.00



Imagine a World...



Working with nature to safeguard coastal communities

www.ourfuturecoast.org

Sites

14 Sites

9 Local Authorities

8 Core ENG0s

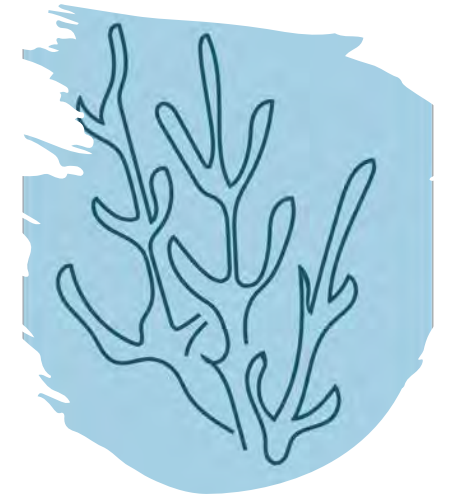
Over 16 different landowners

Saltmarsh, Dune and Hinterland Wetland



Work Packages

1. Community Resilience – Engagement & Communications
2. Nature Based Solutions Test & Trials
3. Monitoring and Evaluation
4. Adaptation Pathways
5. Changing Practice & Policy
6. Dissemination



Project Objectives

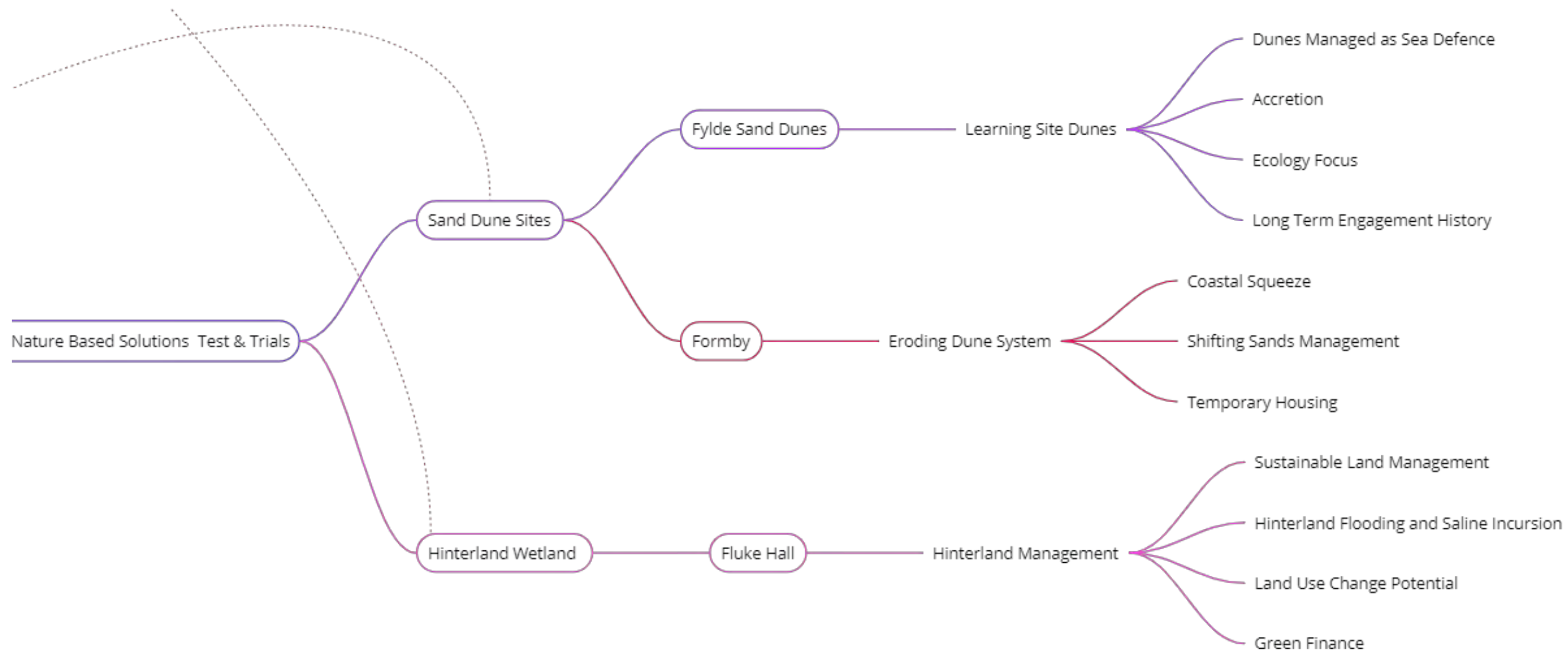
- Highlighting Current Blocks to Coastal Nature Based Solutions 1-3
- Raising Community Resilience and Support 1-3
- Collecting Evidence through a Series of Trials 1-3
- Developing a Road Map for NBS 4
- Changing Policy and Practice for the Future 5
- Sharing Learning 6

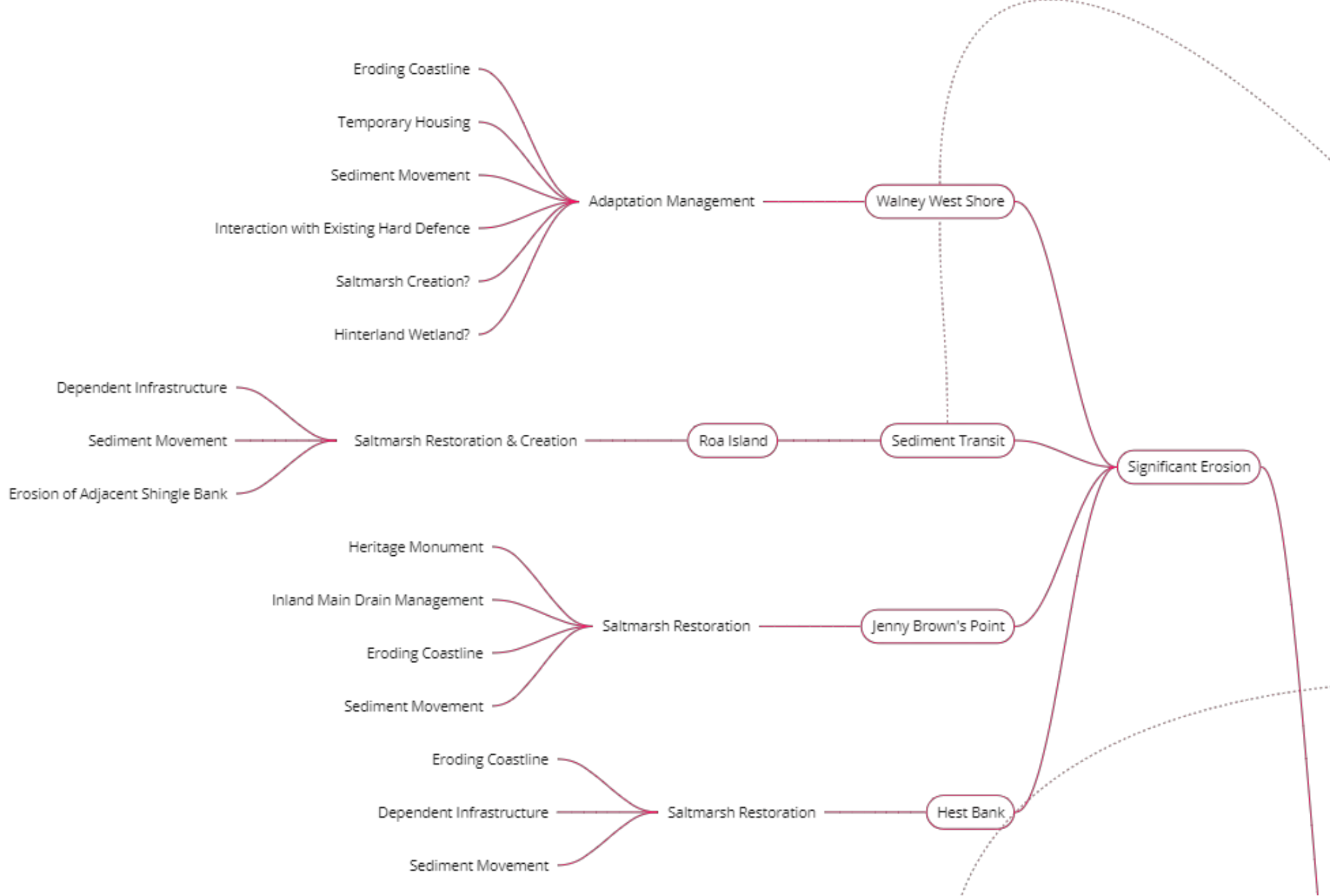


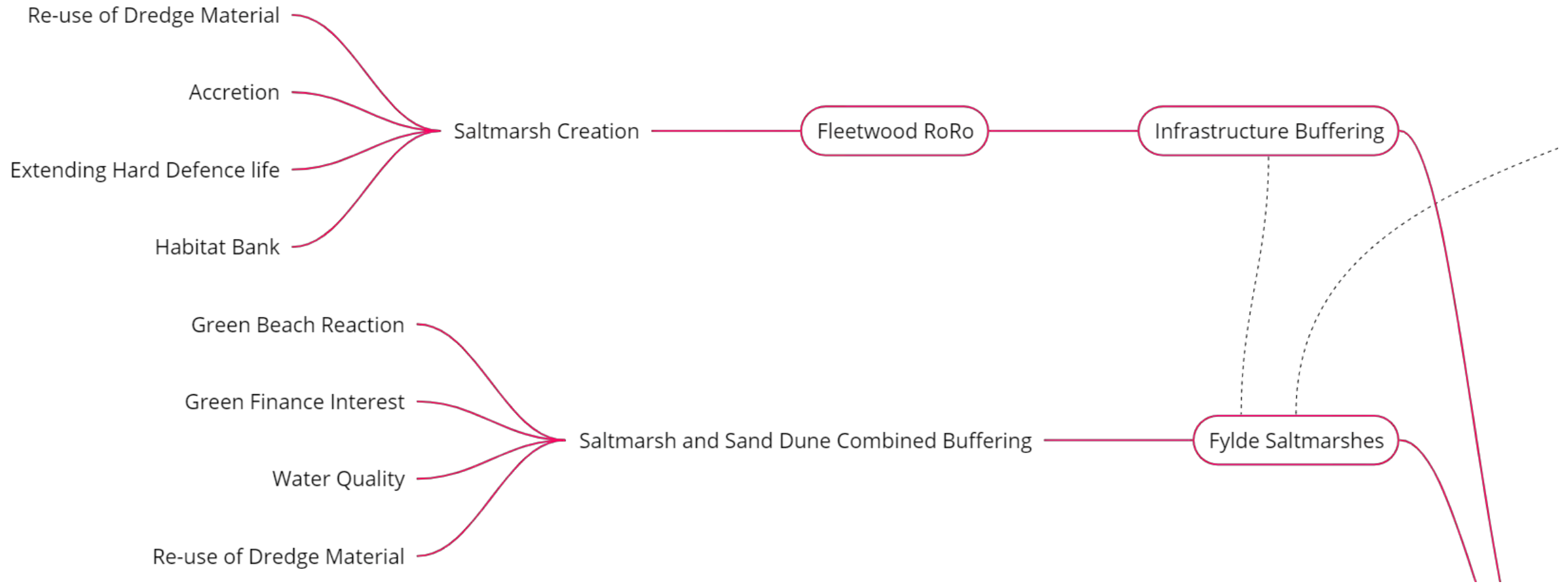
Project Innovations

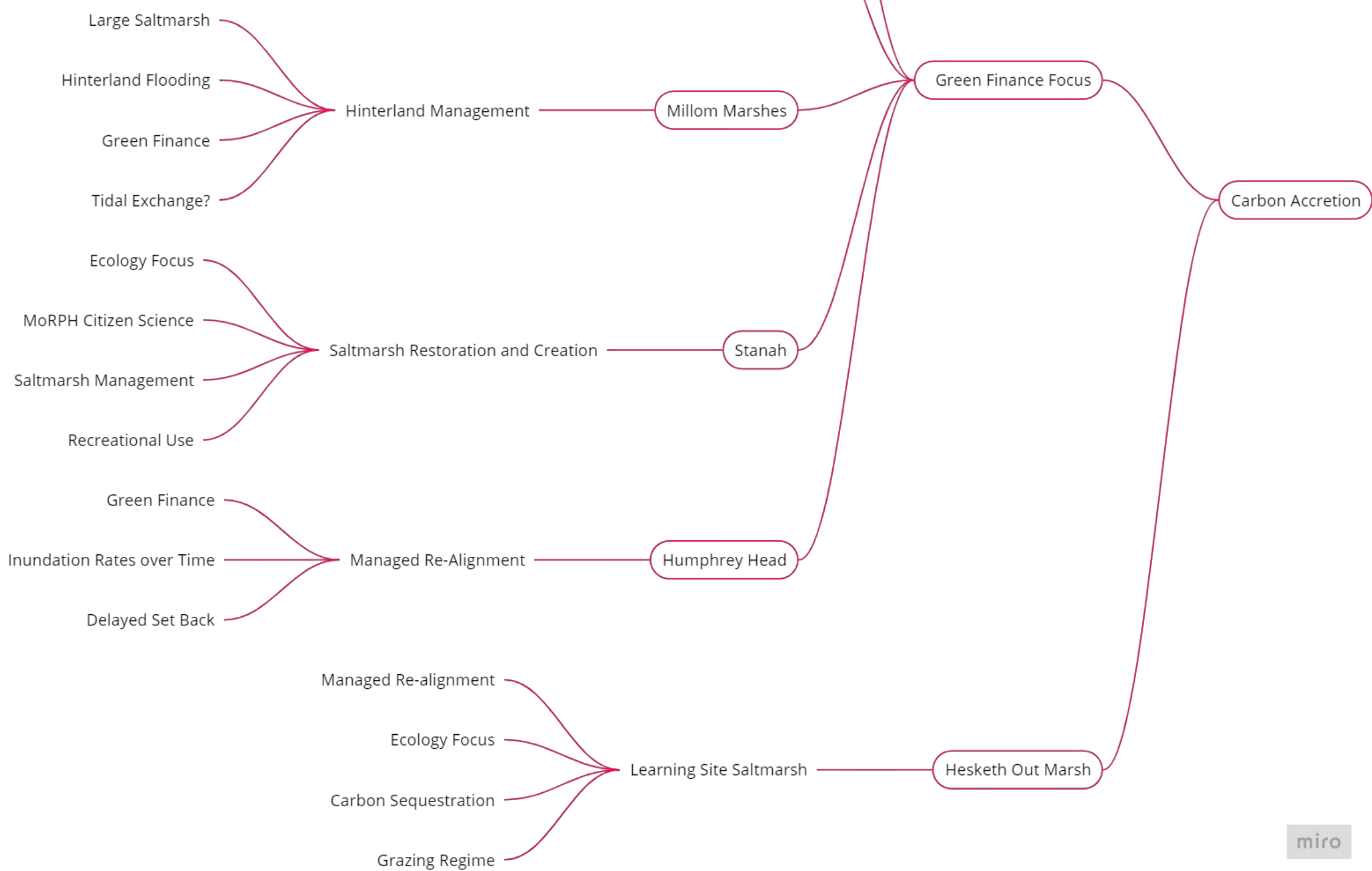
- Engagement role hosting
- Co-Design, co-planning strategy
- Landscape scale project
- Collaboration with large range of stakeholders
- Sites
- New Radar Technology and Citizen Science
- Challenge the status quo
- Intend to influence significant change

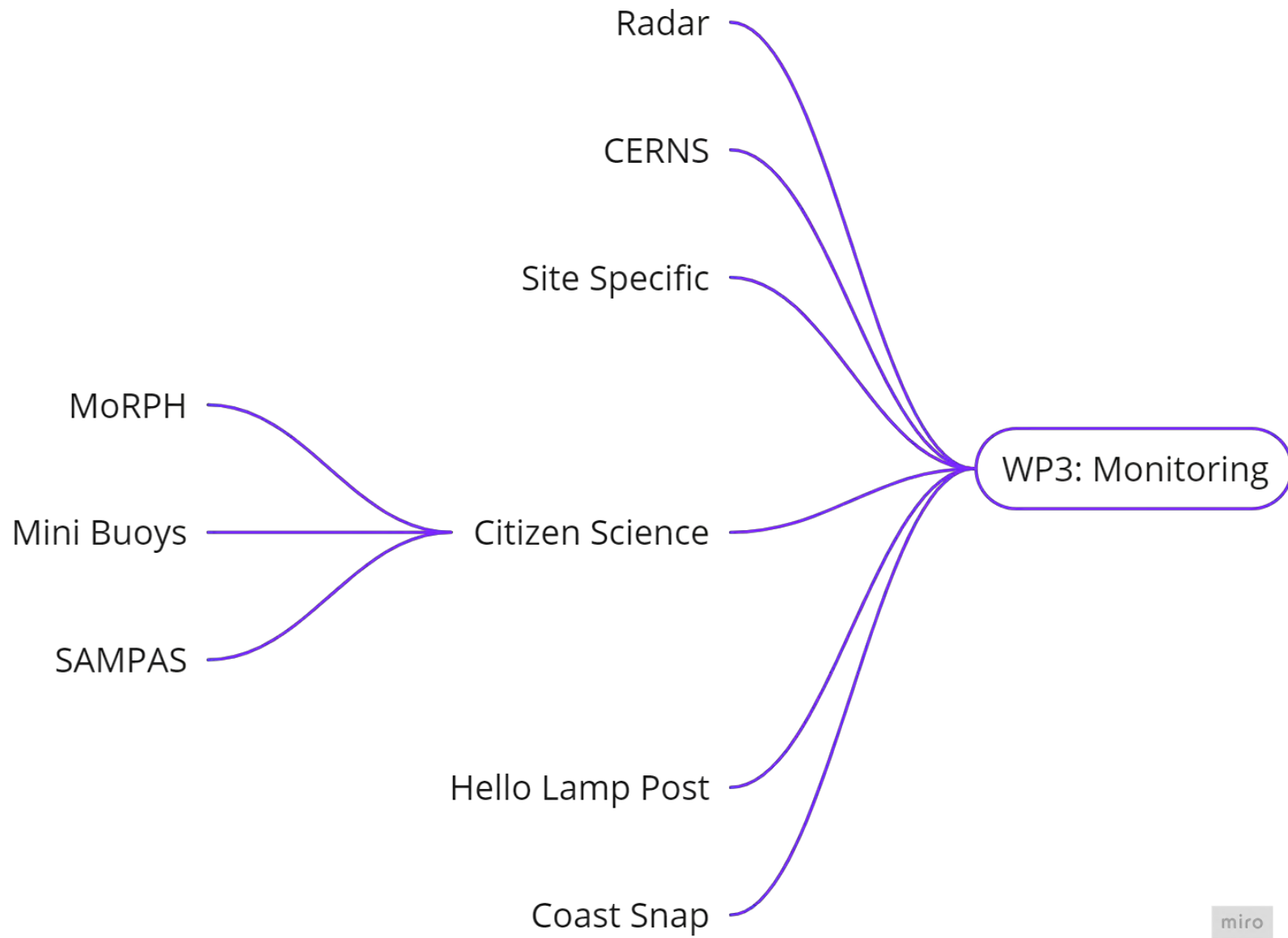




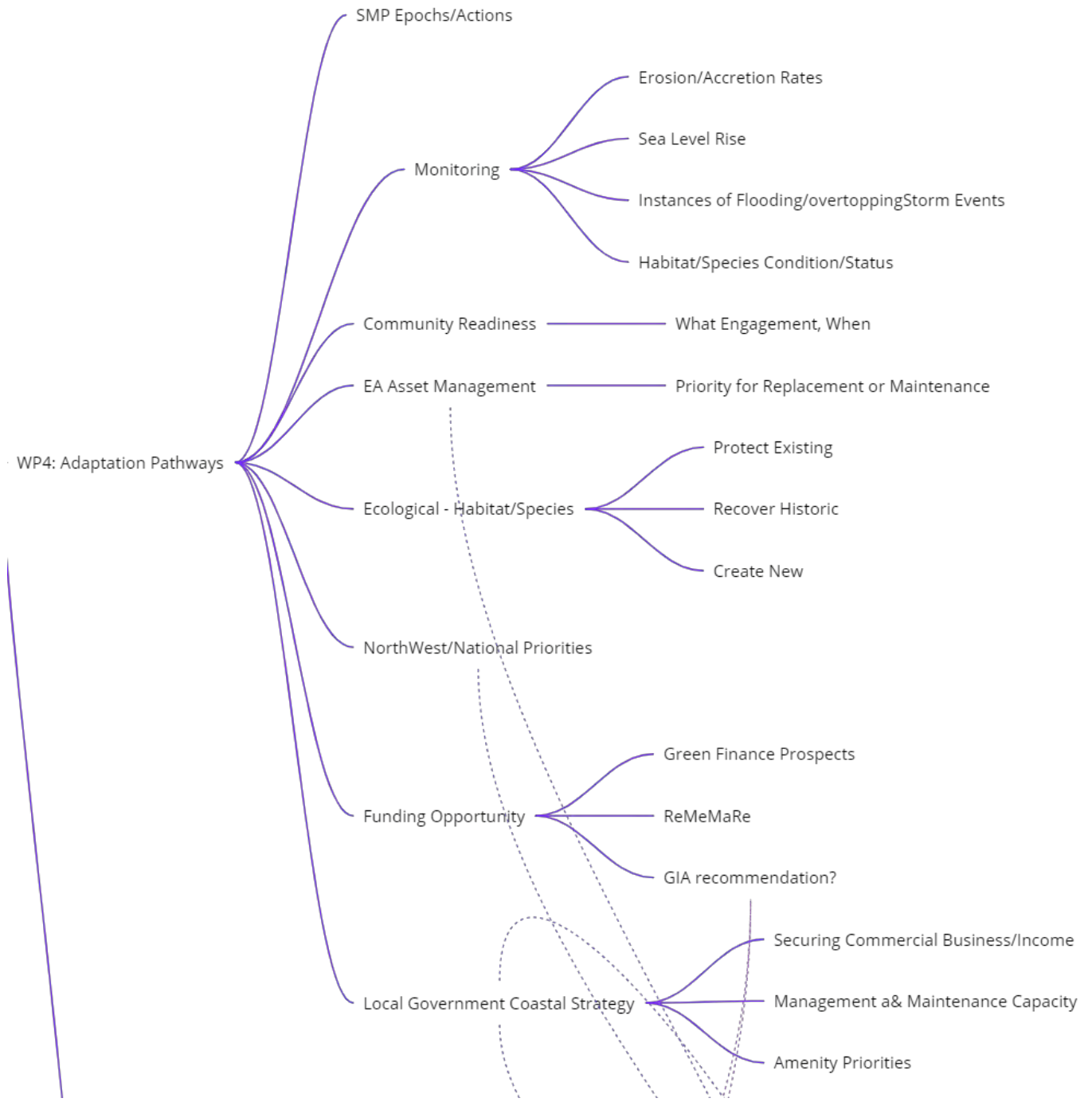


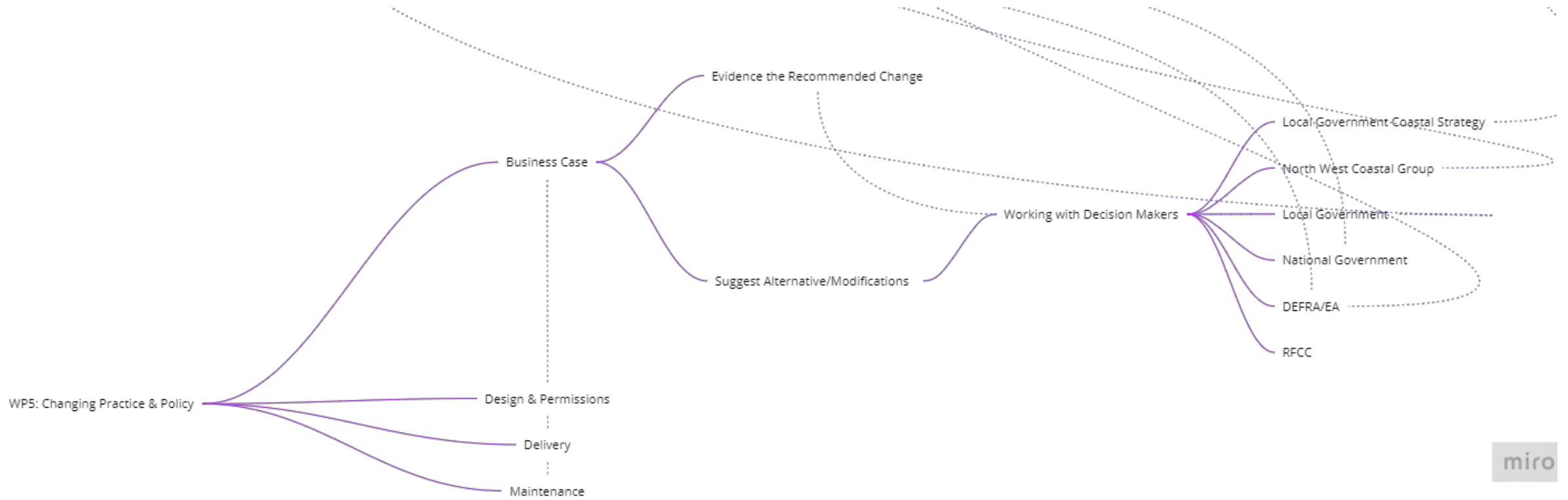






miro



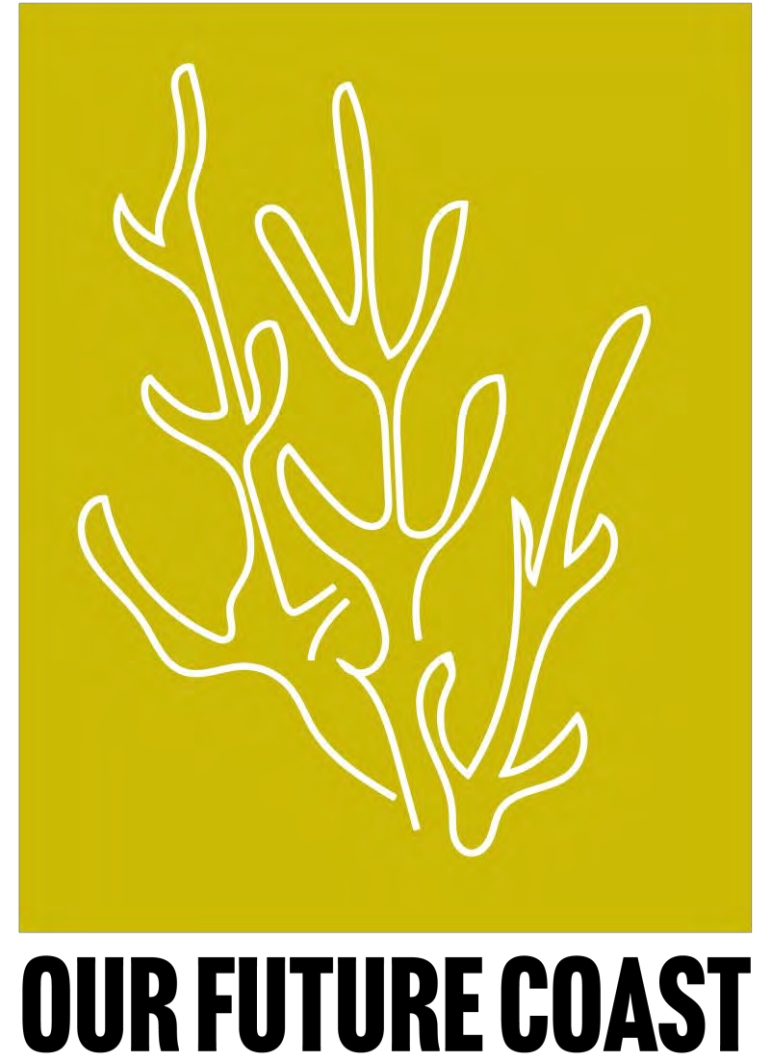


Work Package Integration

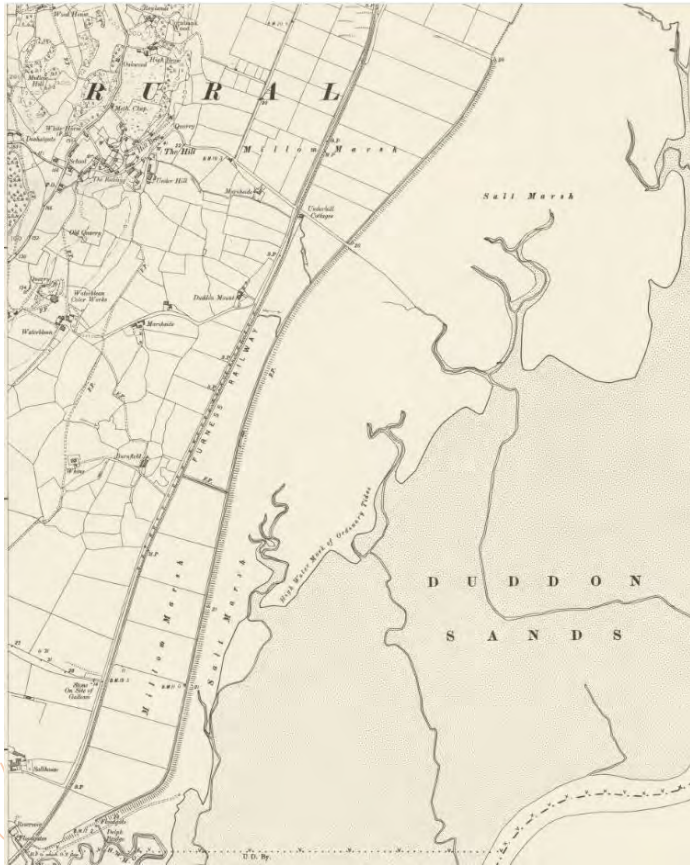
- WP1 facilitates the community aspect of WP2, is a factor within WP4 and can extend to areas of WP5
- WP2 creates the range and breadth of scenarios and coastal management opportunities from which the learning will influence WP4 and evidence WP5
- WP3 records the impact, dependent factors and measurements which evidence the findings of WP2 for WP5 and is a key determining factor in WP4
- WP5 is the collation and development of the evidence required to influence change and the presentation of this in the appropriate arenas

WP1 – Engagement & Communications

- Engagement Team & Claire from MBP



WP1 - Historic Coastal Change

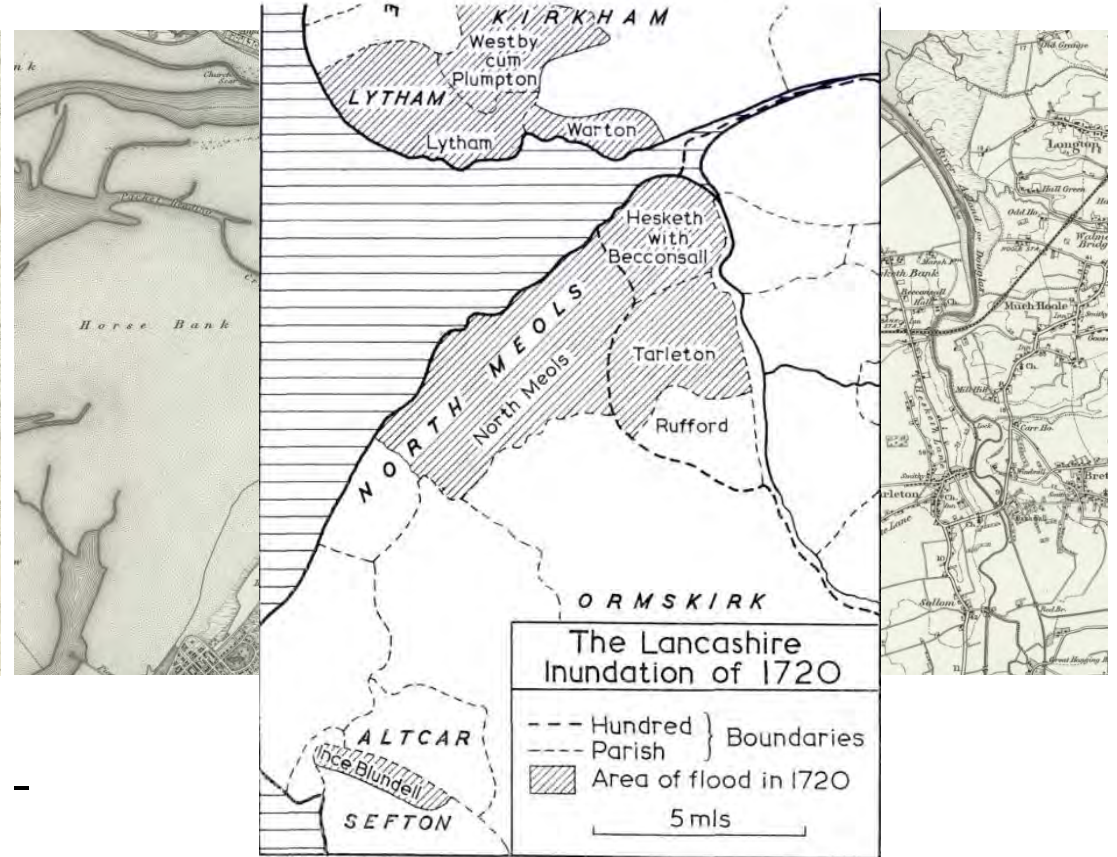


Common questions

- History of sea defenses
- Changes in saltmarsh extent
- Historic flood events
- Changes in river channels



WP1 - Historic Coastal Change



Managed realignment and hinterland flooding - taking a longer view

WP3 – Monitoring

Completed:

Initial site monitoring using Radar and Pegasus

To do:

Coastal Process report for each radar deployment

Additional deployments for new sites with longer term deployments for sites where interventions will be undertaken

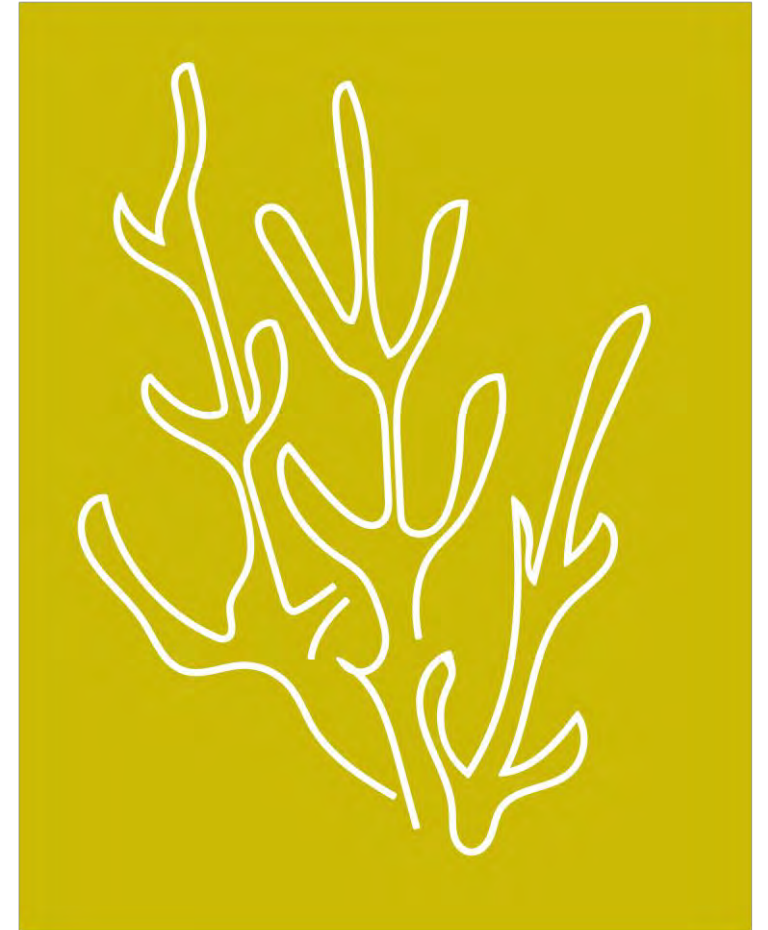
Literature review for Sand Dunes and Saltmarsh

Additional research on Saltmarsh

Link into Adaptation Pathways (WP4) and SMPs

Mini-buoys, Coast Snap and Citizen Science

Carbon Measurement



OUR FUTURE COAST

Sites Leads Progress

- David Bechelli – Millom Marshes
- Ben Davis – Walney West Shore & Humphrey Head
- Elanor Brown – Hest Bank & Jenny Brown's Point
- Carl Green – Fleetwood RoRo & Fluke Hall
- Charlotte Hebditch – Stanah
- Paul Wisse – Formby
- Julie Vale – Fylde Saltmarshes
- Kim Wisdom - Fylde Dunes Project

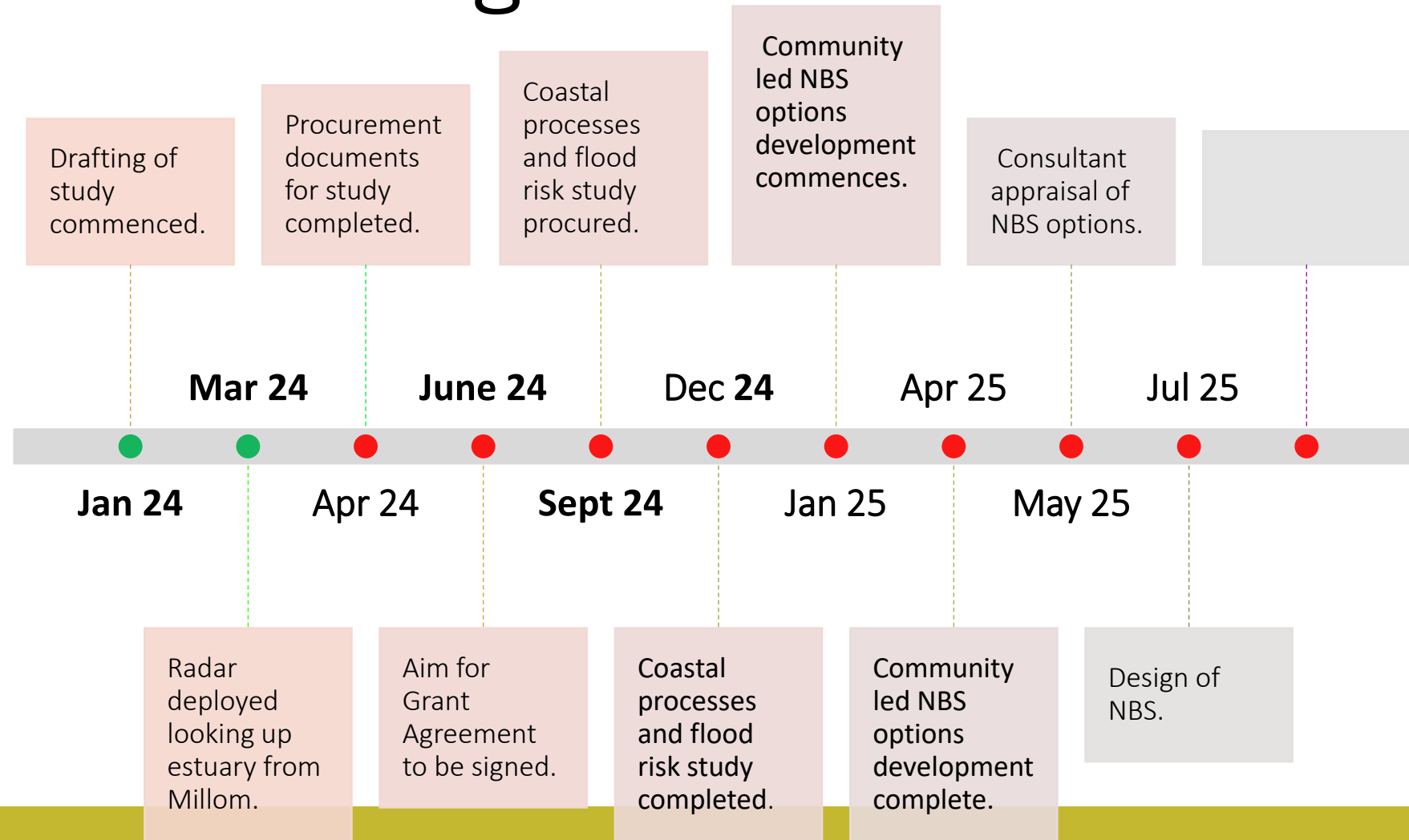


Millom Marshes

- Site challenge is to understand the implications of proposed SMP Policy of Managed Realignment, when it is unaffordable.
- SMP Actions were on EA to investigate Managed Realignment, with embankment currently an EA asset.
- Large expanse of saltmarsh on Cumberland side of Duddon Estuary appears stable, but narrower extent of saltmarsh on Westmoreland and Furness side.
- Issues of water management behind existing embankment.
- Study to look at coastal processes and flood risk to site with a view to increased risks due to climate change.
- Inland flood risks perceived as a higher risk than coastal by community.



Sites Leads Progress

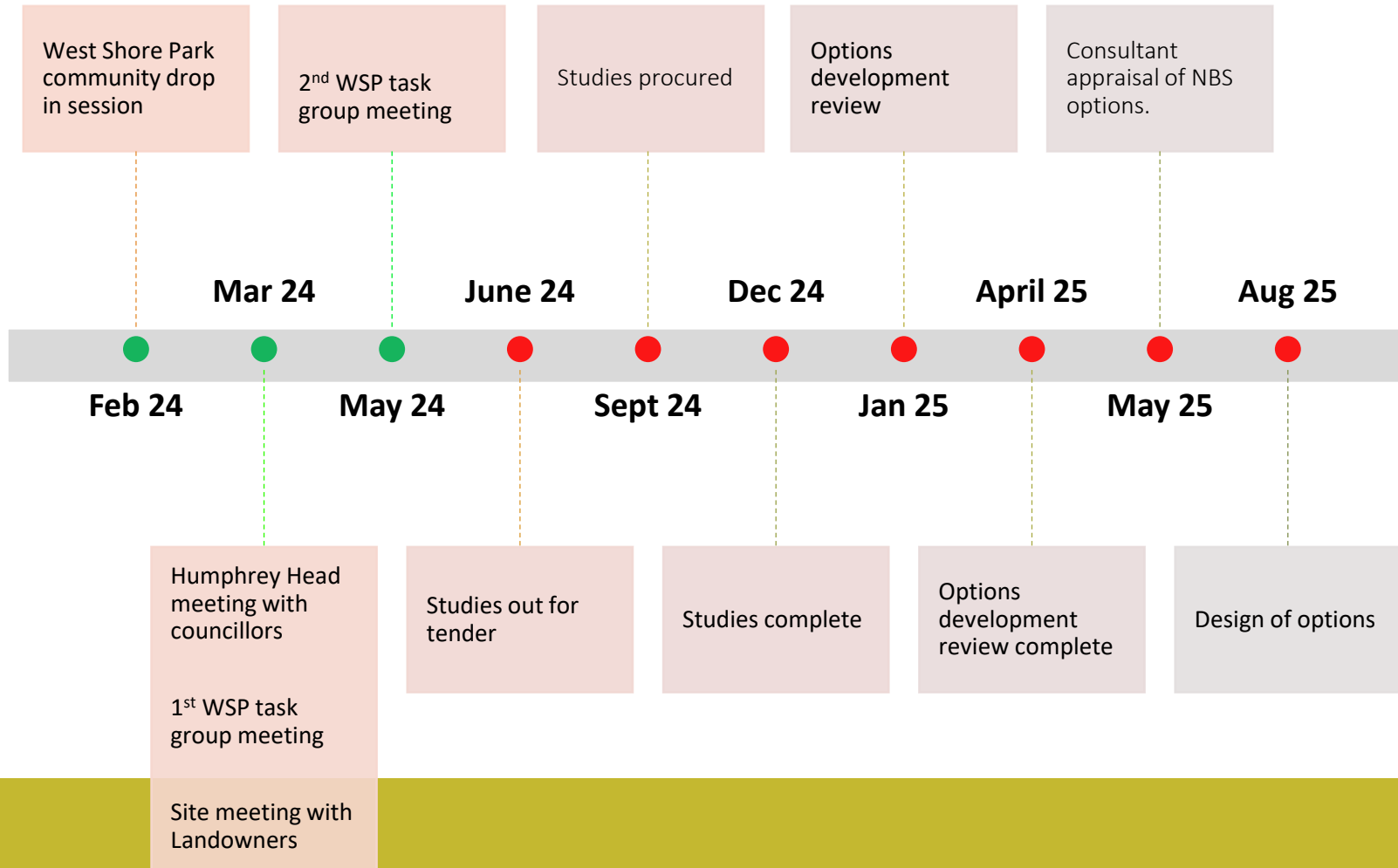


Walney West Shore & Humphrey Head

- How is this test site meeting whole project objectives?
 - West Shore
 - Early engagement with residents and residents park owners
 - Working together with residents and park owners on task group
 - Humphrey Head
 - Early engagement with landowners
 - Habitat creation
- What are your key monitoring foci?
 - West Shore
 - Look into minimising erosion rates by removal of fishtail groin and NBS
 - Humphrey Head
 - Habitat creation through NBS



Sites Leads Progress



Hest Bank & JBP

- Co-design
 - Designs from both Design Committees are viable
- Consents
 - Hest Bank- LCC planning still deciding whether need planning
 - MMO said we do not need a licence at Hest Bank, but we do at JBP
 - HRA for HB submitted 9/5/24
- Engagement
 - What does the coastline of Morecambe Bay mean to you- Sunderland Point to Silverdale
- Monitoring
 - CoastSense radar column consents
 - Citizen Science photo columns
- Launch our museums project
 - Get something in the ground this summer?

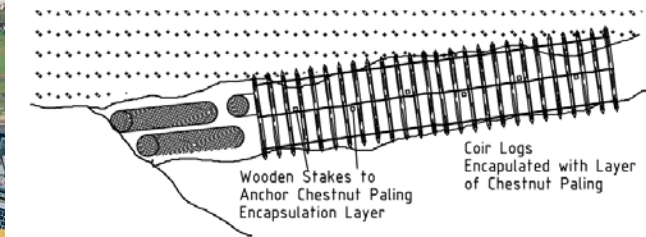
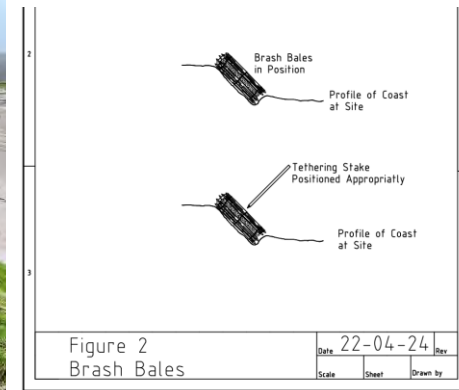
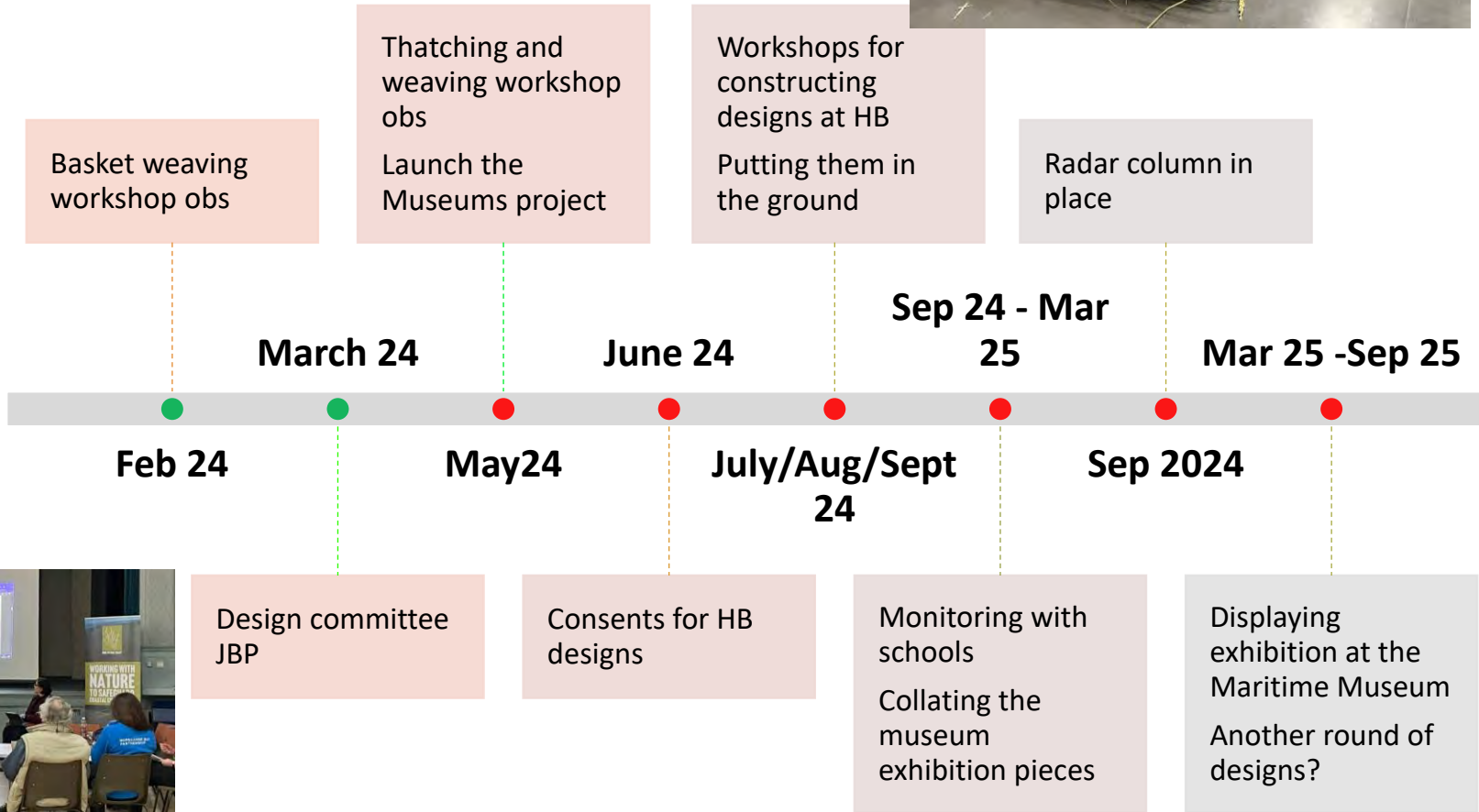


Figure 3
Coir Logs

Date	23-04-24	Rev
Scale	Sheet	Drawn by



Sites Leads Progress



Fluke Hall Marshes & Hinterland

Objectives

- Reduction in carbon usage and more efficient use of pumping station
- Tidal exchange schemes potential.
- Longterm strategic use of farmland – including payment options.

Monitoring

- Relative topographical differences offshore and onshore of embankments.
- Siltation buildup within tidal exchange system.
- Storage potential within the catchment.

Next 3 Months

- Understanding of pumped Cockers Dyke catchment
- Opportunities / Acceptance for Catchment farm advisers



Fleetwood Dock Saltmarsh

Objectives

- Creation of a low carbon alternative to steel sheet piles.
- Creation of a saltmarsh habitat
- Policy and licencing test of beneficial use of sediment.

Monitoring

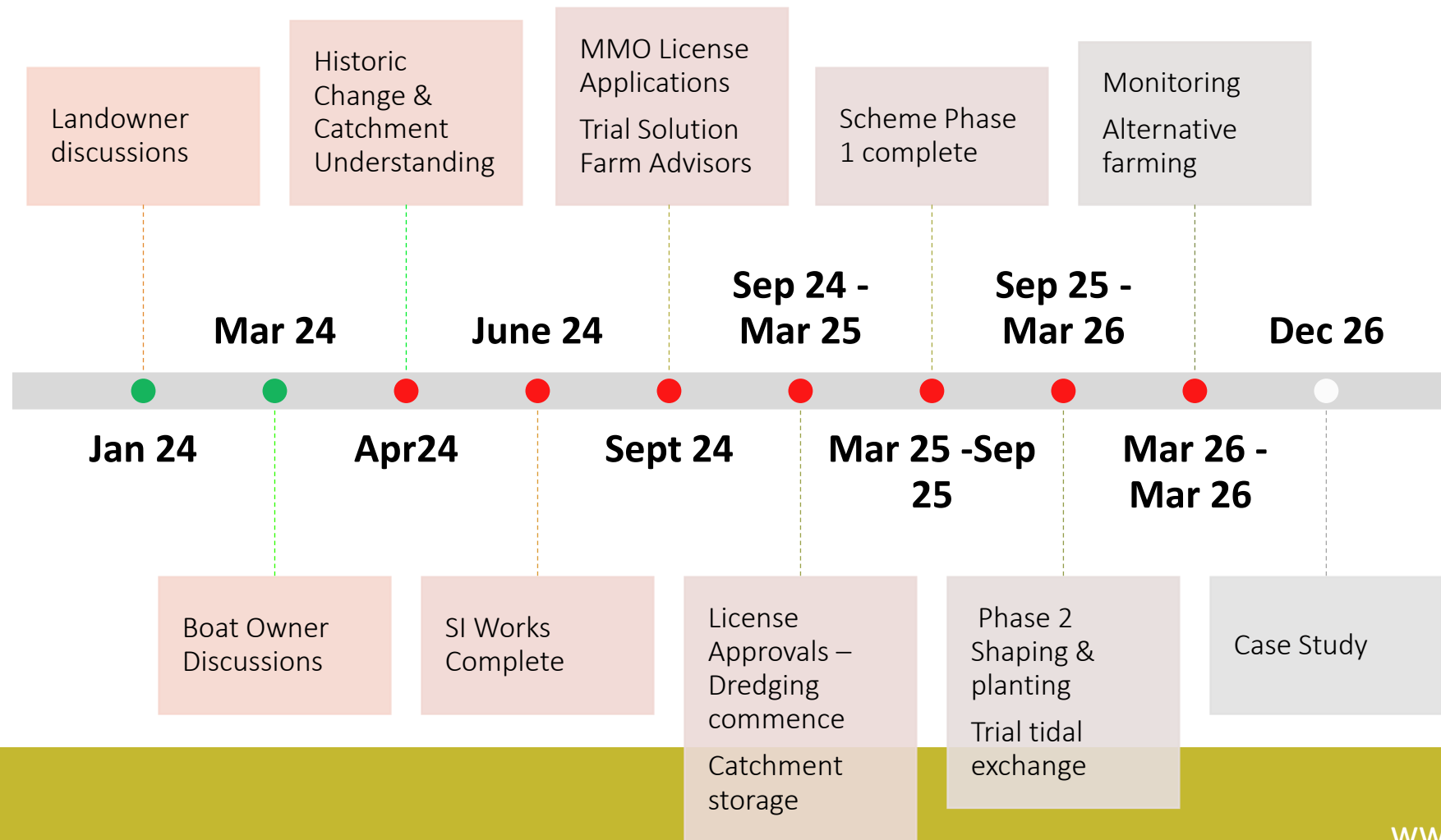
- Sediment sampling and MMO licence requirements
- Carbon sequestration and habitat creation.

Next 3 Months

- MMO dredging and deposition licence progression.
- SI works complete.
- Resolution of landowner – rights issues.



Sites Leads Progress



Stanah

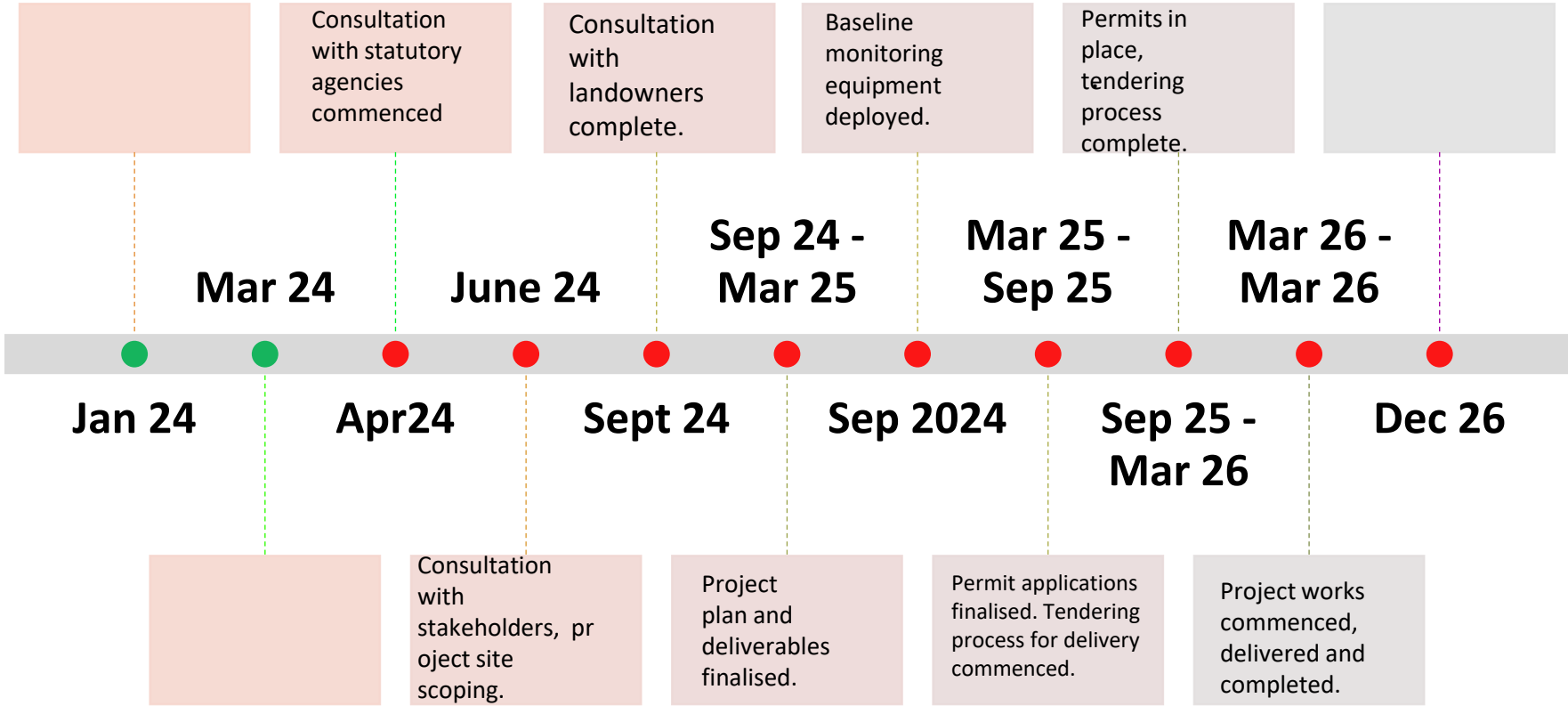
- Improve coastal resilience of site – restore saltmarsh.
- Nature-based solution to increase flood resilience.
- Reduce site disturbance.
- Provision secure breeding habitat for wetland birds.

- Monitoring-
 - **MoRPH** Citizen Scientist surveying – estuary habitat assessment tool.
 - Monitoring of site usage. Biological, environmental & morphological surveying.

- BioBlitz - community engagement & data collection event.
- Consultation with landowners & statutory agencies.



Sites Leads Progress

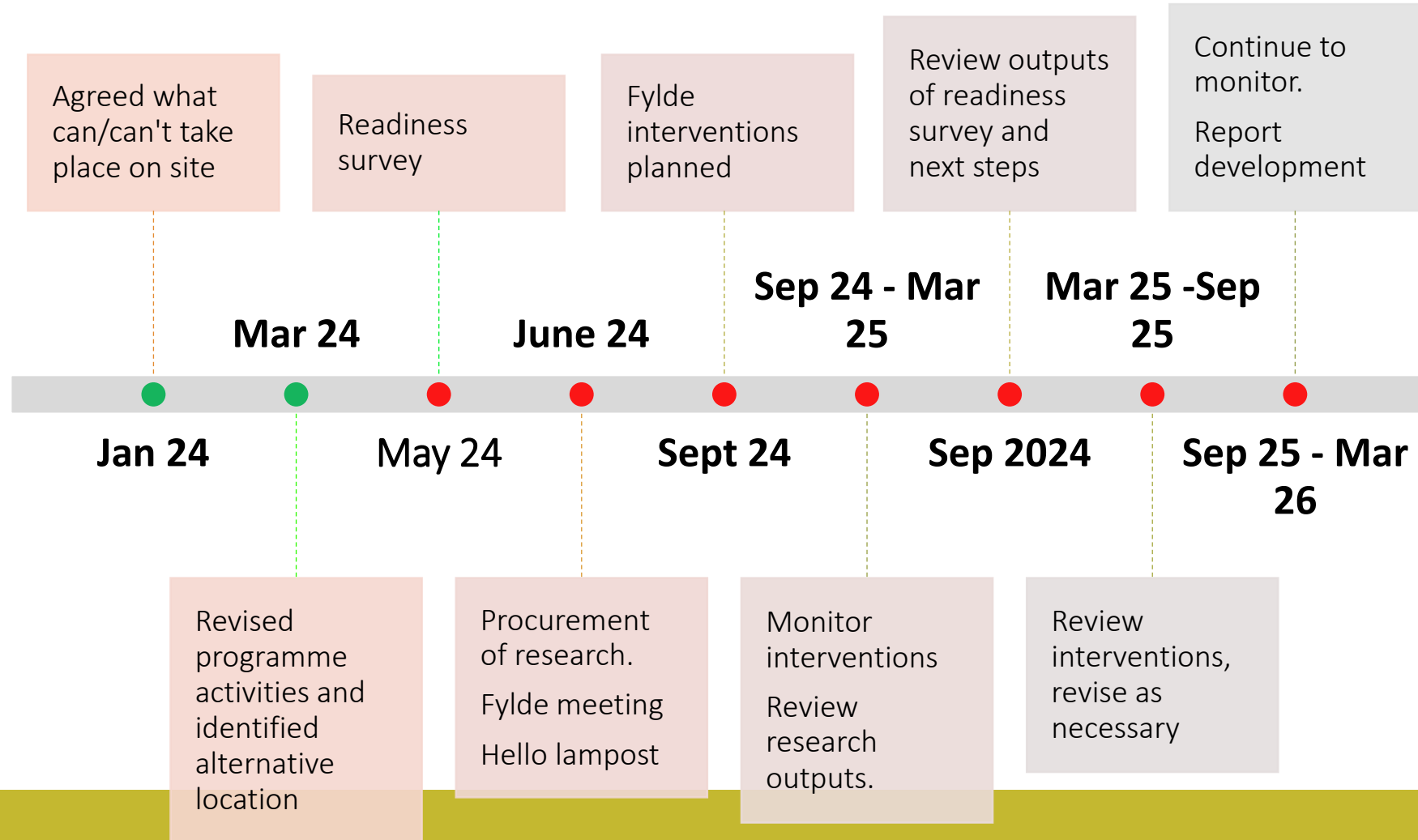


Formby

- Seeking to establish toolkit for managing dunes as a coastal defence. To include guidance on funding options, dune system size, monitoring methods and trigger points for interventions, intervention methods.
- Monitoring of dune dynamics, impact of interventions. Community understanding.
- Agree locations on the Fylde dunes, commission research works



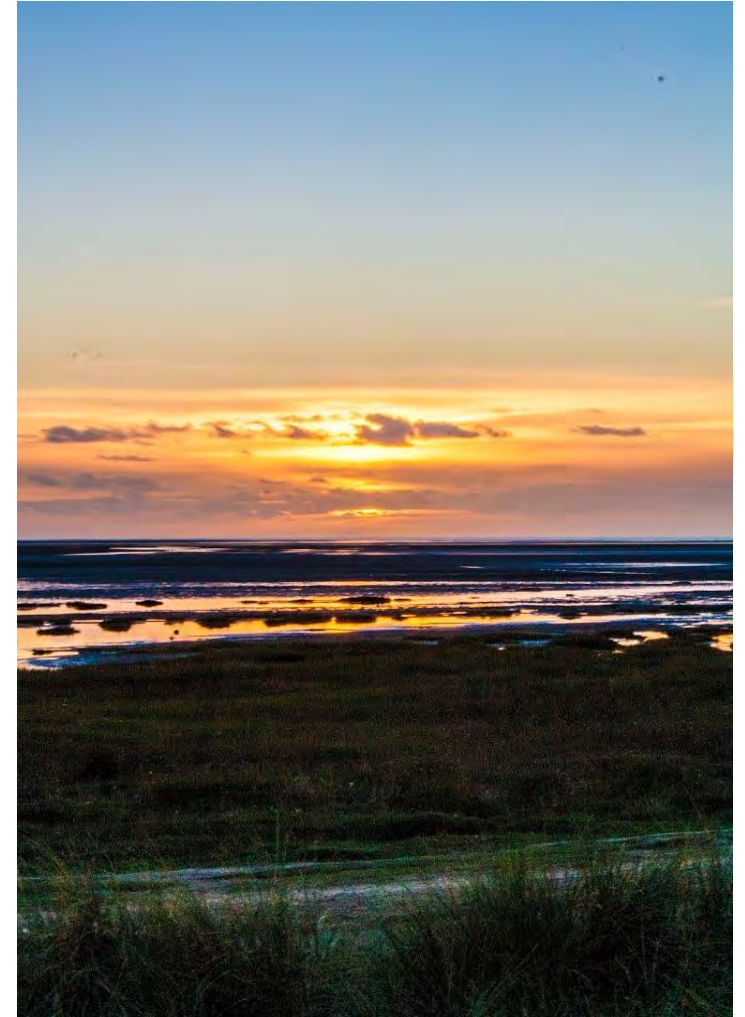
Sites Leads Progress



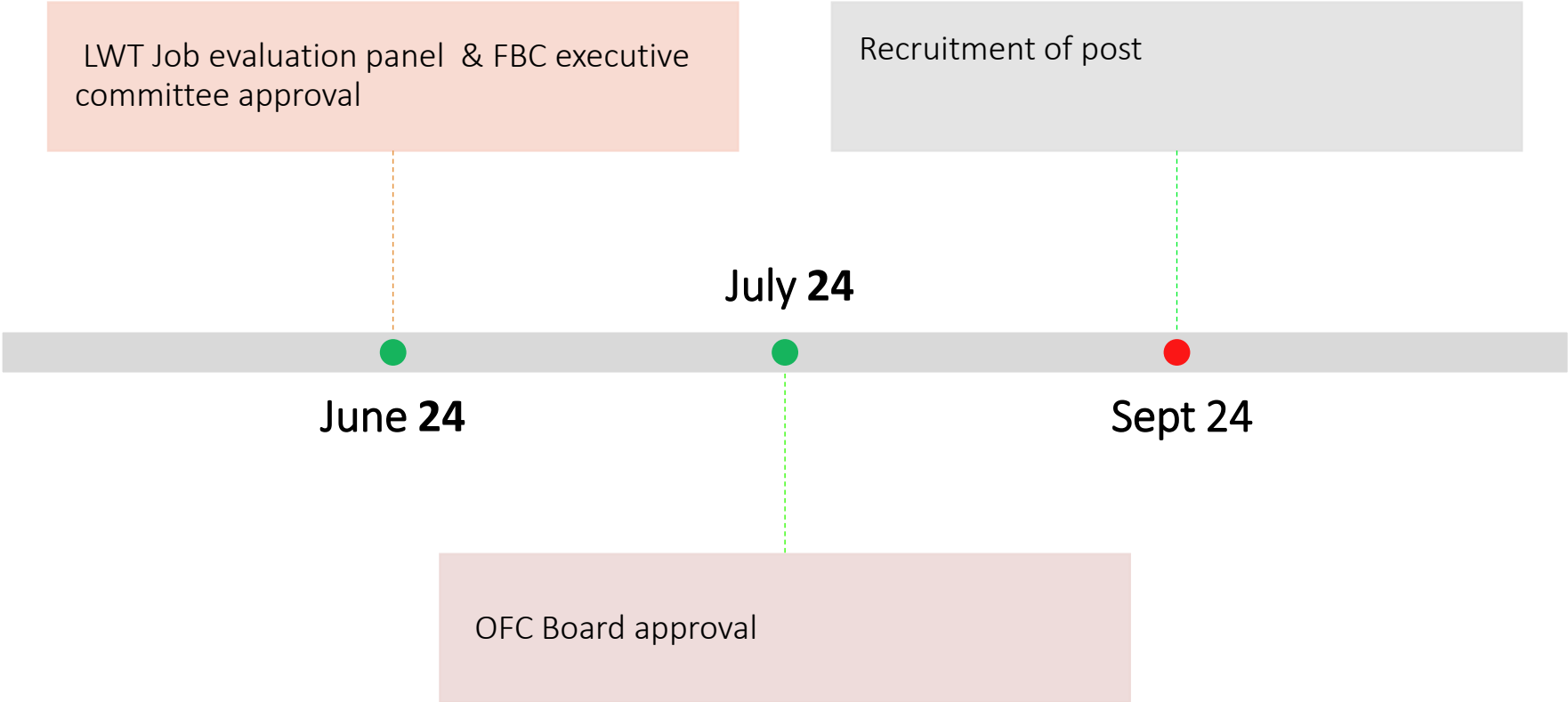
Fylde Saltmarshes

Project objectives

- Highlighting Current Blocks to Coastal Nature Based Solutions
 - Managing public perceptions
- Raising Community Resilience and Support
 - Community engagement and citizen science
- Developing a Road Map
 - Legacy management plans and innovation
- Collecting Evidence through a Series of Trials
 - Coastsense modelling data analysis and pilot interventions
- Sharing Learning
 - Influencing decision makers and linking with the coastal events calendar



Sites Leads Progress



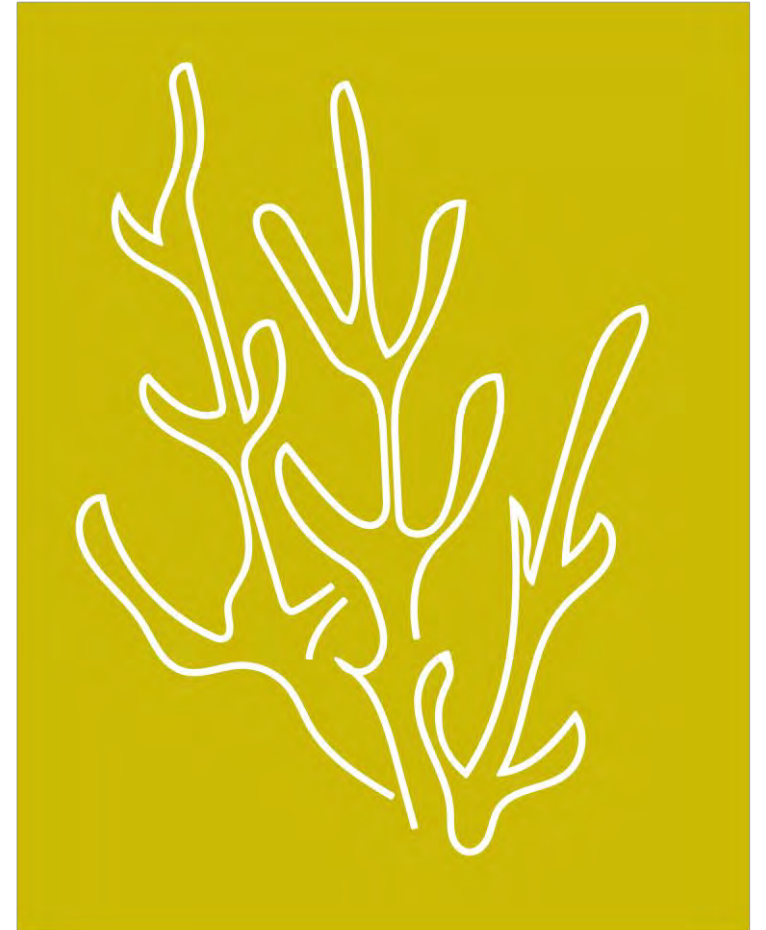
Fylde Sand Dunes

Ecological Review: What we do works! Speeds up natural processes. Past beach management prevented dune accretion. Access management and public engagement vital. Repeat NVC/rare plants in 2025?

Environmental Review: Excellent example of integrated delivery. "Right skills, right place, right time" BUT understaffed/££. £30K/m (hard) vs £22/m (soft). Weaknesses: lack of clear monitoring plan and numerical targets. Need new MOU & to review governance structure. Councillors a nightmare to engage with!

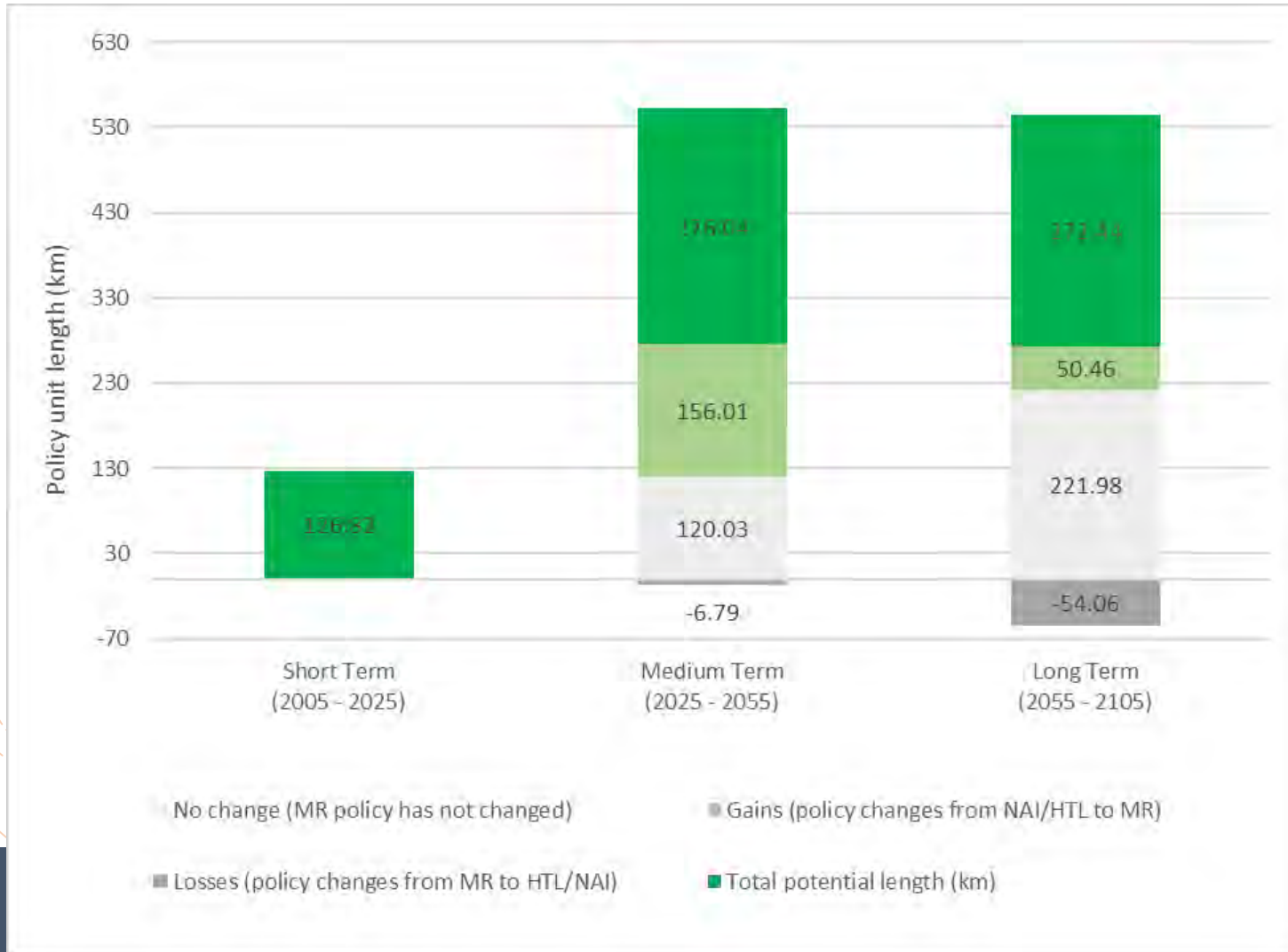


WP4 – Beginning with the SMP



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Managed Re-Alignment



HOME : Climate change adaptation & SMP implementation



CCC's Adaptation Sub-Committee reported in 2013:

***IF the 2030 goal stated in SMPs is to be met . . .
The rate of managed realignment would have to increase five-fold, from the current levels of around 6 km of coastline realigned every year, to around 30 km.***

North West Shoreline Management Plan (2011):
Aspiration for length of planned managed realignment in the first epoch (ie. to 2030) is **124 km**, out of total 795 km of coastline.

HOME: THE ONLY MANAGED REALIGNMENT BEING PROGRESSED – 2 km from 124 km

Is this the ONLY MR site in NW before 2030 ?

Richard Shires 2017

Implementing SMP Policies

Getting from A to B when the Driver is the SMP...

- Works well for areas requiring protection of houses
 - significant benefits
- Doesn't work well where there are few benefits
- Tends to introduce bias towards hard defences because of value placed on when benefits are achieved



Implementing SMP Policies

Getting from A to B when the Driver is the SMP...

- Our baseline is the current system
- We need to understand barriers to NBS
- We need to understand our pathway from one policy to the next or when undertaking Managed Realignment
 - What are our triggers
 - What are our actions
 - When do we need to do them
 - How long do they take



Implementing SMP Policies

Challenges

- How do we manage uncertainty?
- How do we value natural systems?
- How do we value maintaining options?
- Do we have the right evidence?
- How do we make this easy for practitioners?



OFC Sites - SMP Policies

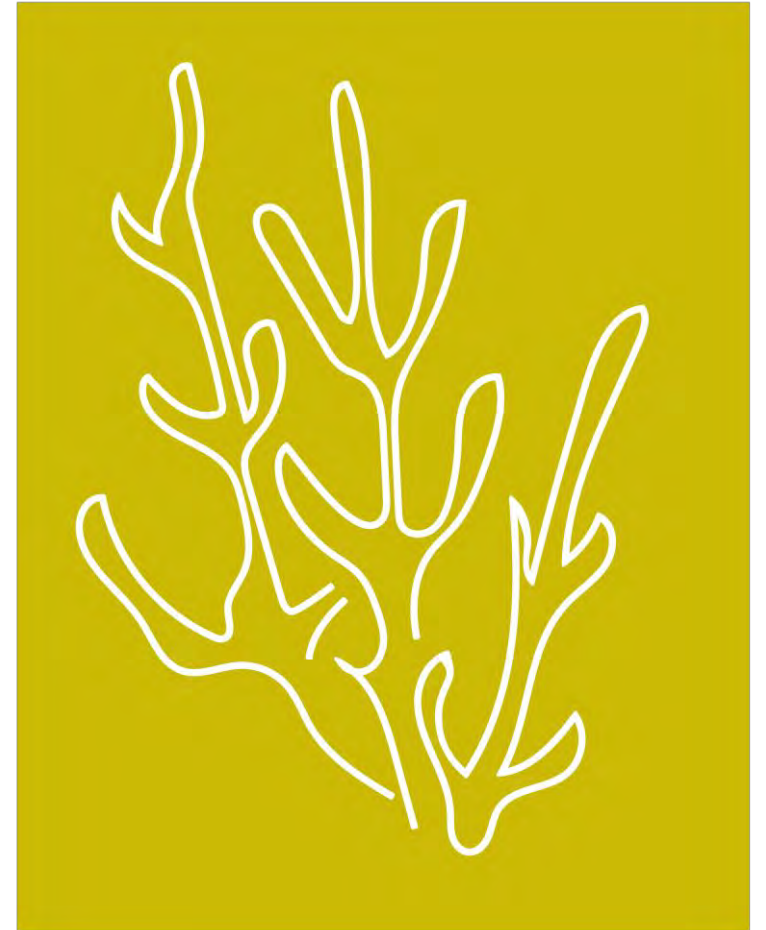
Sites	Short	Medium	Long
Hoylake	HTL	HTL	HTL
Formby	MR	MR	MR
Hesketh Out Marsh	HTL	HTL	MR
Fylde Saltmarshes	HTL	HTL	HTL
Fylde Sand Dunes	HTL/MR	HTL	HTL
Stanah	HTL	HTL/MR	HTL/MR
Fleetwood Ro-Ro	HTL	HTL	HTL
Fluke Hall	HTL	MR	HTL
Hest Bank	HTL	MR	HTL
Jenny Browns Point	NAI	NAI	NAI
Humphrey Head	HTL	MR	MR
Roa Island	HTL	HTL	HTL
Walney West Shore	MR	MR	MR
Millom Marshes	HTL	MR	MR



ELMs For Coastal Landowners

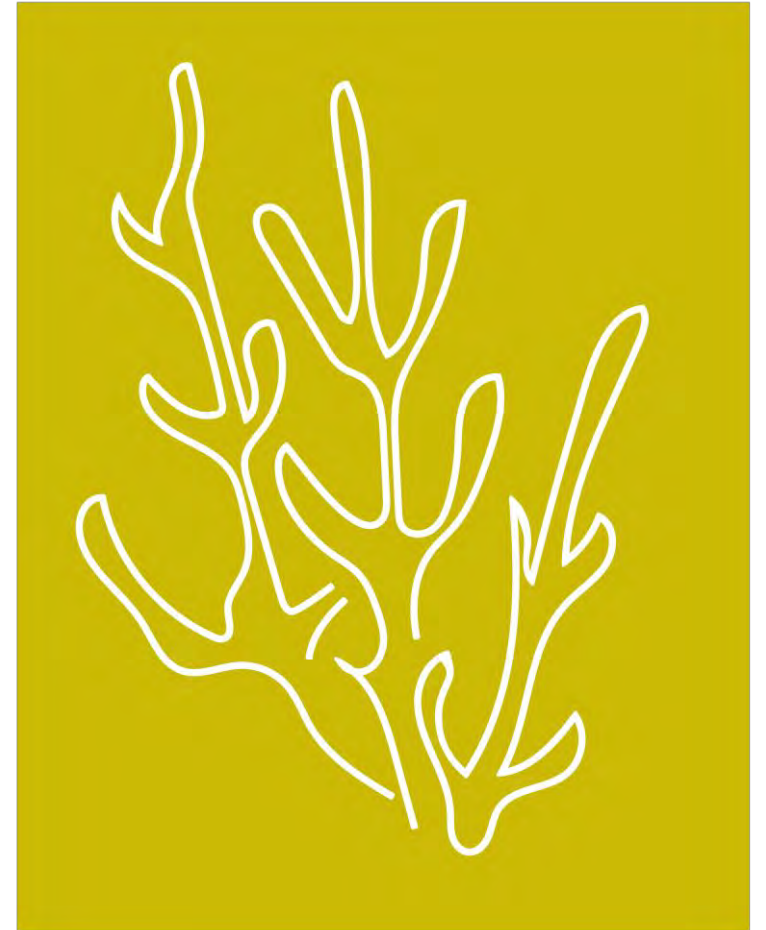
Jack Flusk

Catchment Sensitive Farming Advisor



OUR FUTURE COAST

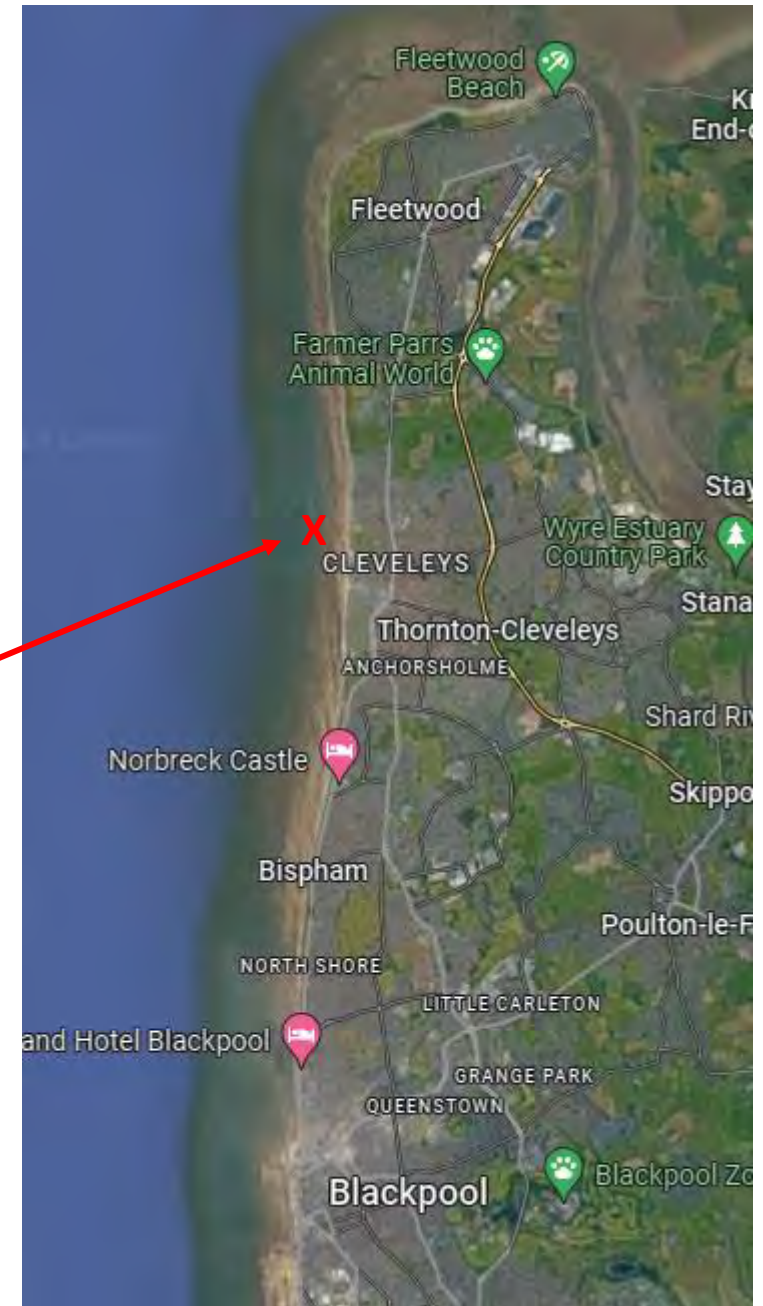
WP4 – Adaptation Pathways



OUR FUTURE COAST

*Adaptation as a process of
change to become better
suited to surrounding
conditions or environment*

Singleton Thorpe?







1988



2007



2020

Coastal change at Happisburgh

Adaptation Pathways: “sequence of linked strategies that are triggered by a change in environmental (social and economic) conditions, and in which initial decisions can have low regrets and preserve options for future generations”

SMP Epochs

0 to 20 years (2005 to 2025)

MR1 Managed realignment Set back defence

Where the intention is to defend elsewhere in flood plain inland from present shoreline or allow erosion/recession to a defined alignment. New defences might be constructed at that new location if needed. This may involve the creation of inter-tidal habitat.

20 to 50 years (2025 to 2055)

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50 to 100 years (2055 to 2105)

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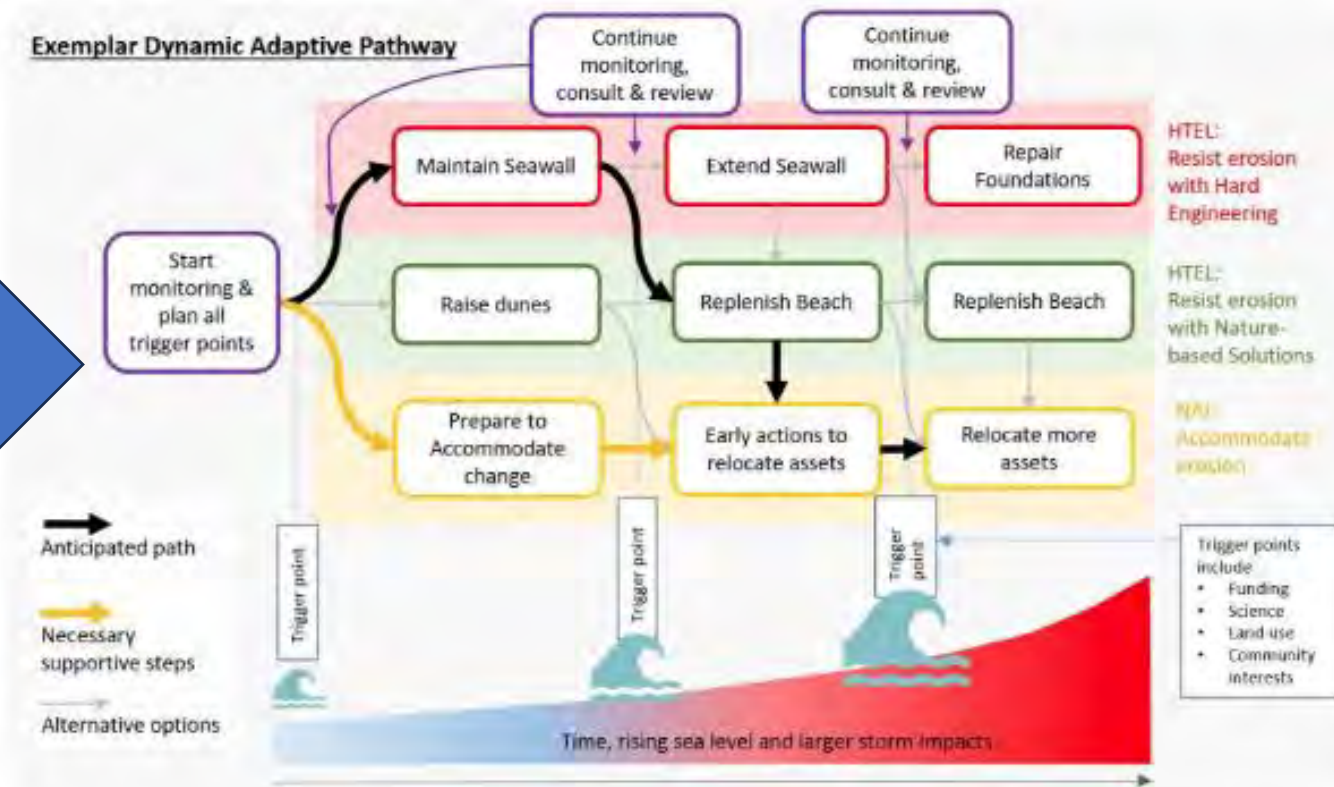
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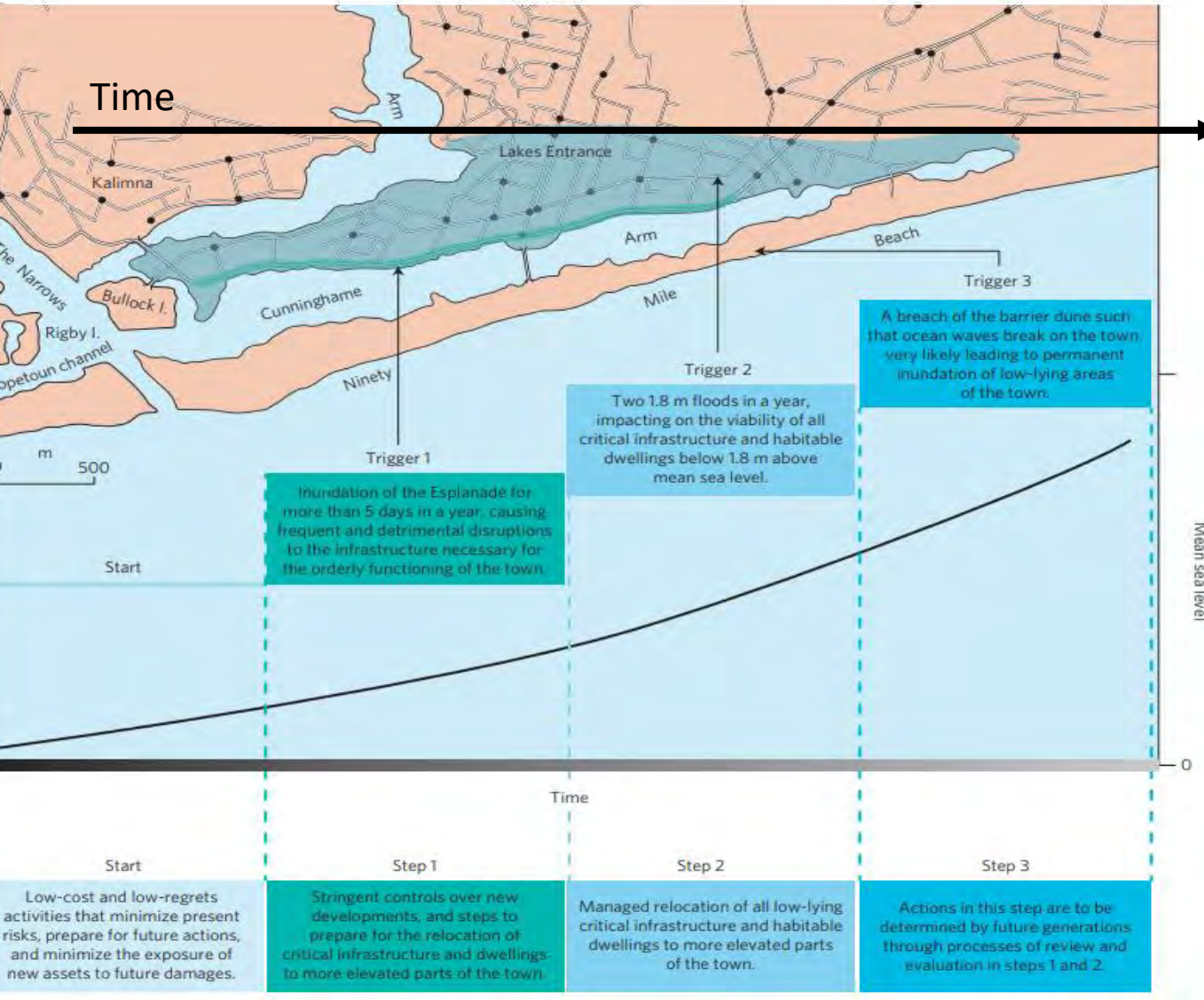
MR1 Managed realignment
Set back defence

Where the intention is to defend elsewhere in flood plain inland from present shoreline or allow erosion/recession to a defined alignment. New defences might be constructed at that new location if needed. This may involve the creation of inter-tidal habitat.

Adaptation Pathways



EXAMPLE: Lakes Entrance, Australia



Triggers

Actions

For each site...

Adaptive Management	Step 1	Step 2	Step 3	Notes
Triggers				Environmental Social Flooding frequency impacting specific groups or infrastructure Think about access to work, schools, supermarkets, public transport etc
Actions				These should consider both community engagement and engineering actions
Resources/ Capacity				What do we need to achieve these steps: <ul style="list-style-type: none"> • Funding • Skills • Staff • Policy • Time scales ect

Other considerations: What are the potential risks? Will your actions lead to conflicts and how could these be best managed/resolved?

Session 1: 12:40 – 13:10

Session 2: 13:15 – 13:30

Session 3: 13:35 – 13:50