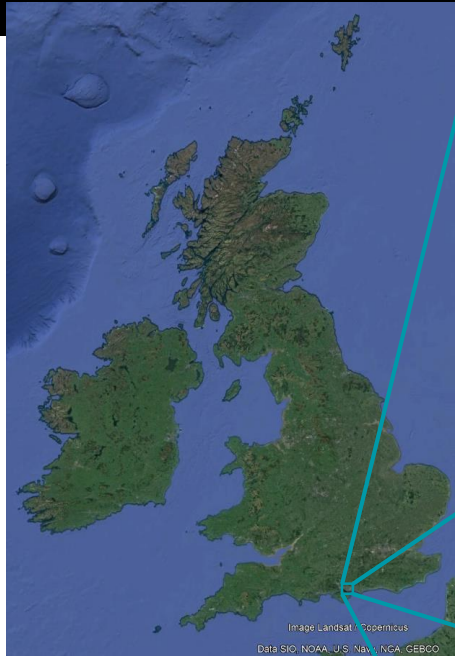




**North Portsea Island Coastal Defence Scheme**  
*Information Pack*

# Location



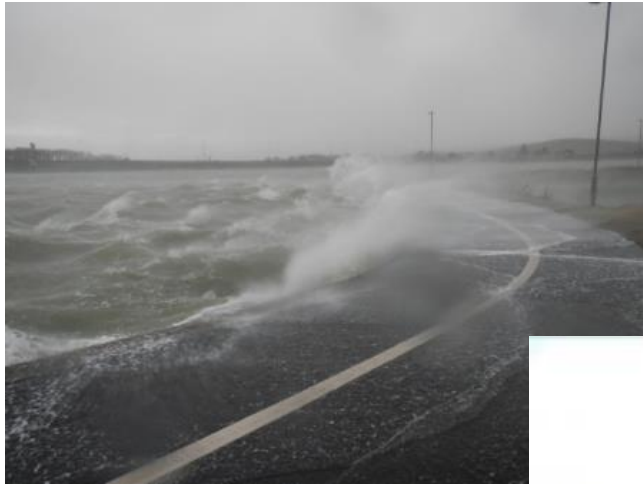
The UK's only island city

Most densely populated city outside London

Nationally and internationally designated habitats

Precious and nationally important historic assets

# Why build new defences?



Risk of coastal flooding both now and in the future as sea levels rise

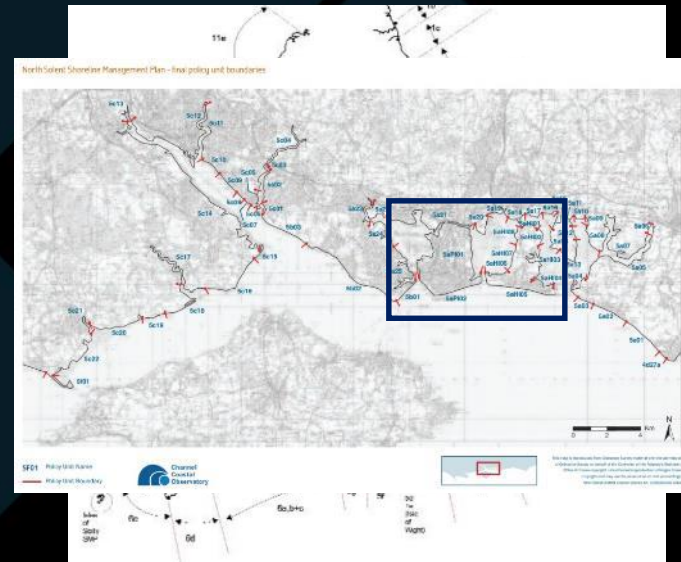
Current standard of protection is much lower than 1:200 recommended by PICCS

Current defences reaching or at end of serviceable life

000's of homes, businesses and other assets at risk

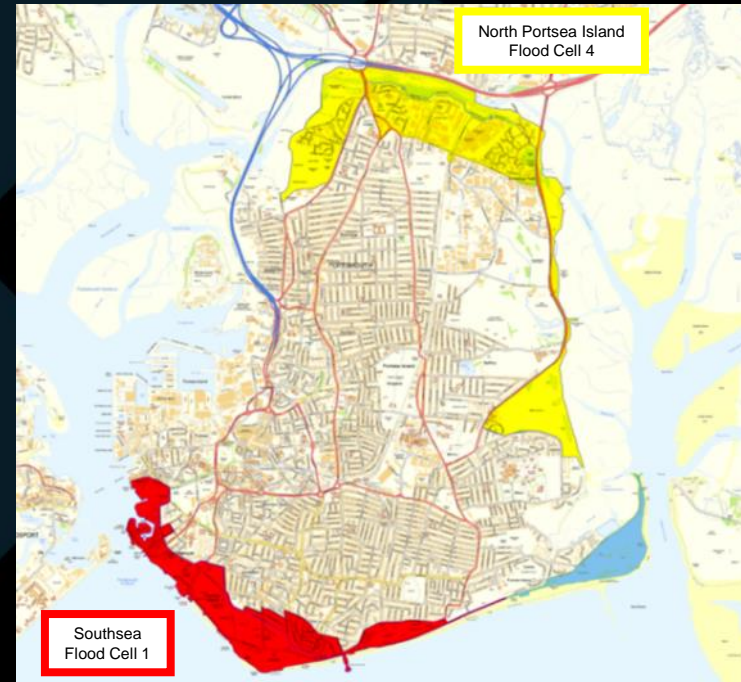
# Shoreline Management Plan (SMP)

- SMP should identify the best approach or approaches to managing risks over the next 100 years from flooding and coastal erosion.
- The first SMP's were completed in 2000 and were based on sediment cell boundaries.
  - Hold the line
  - Advance the existing defence
  - Managed realignment management
  - No active intervention
- North Solent SMP completed in 2010



# The early years (2010 – 2014)

- 2010 SMP recommended Hold the Line for Portsea Island
- Portsea Island Coastal Strategy Scheme identified 7 discrete flood cells on the island
- Flood Cell 1 (Southsea) and Flood Cell 4 (North Portsea) identified as priority schemes
- 2010 – 2014 both schemes developed in parallel as one project to deliver outline design options
- In 2014, North Portsea Island placed on accelerated programme and schemes progressed on separate trajectories

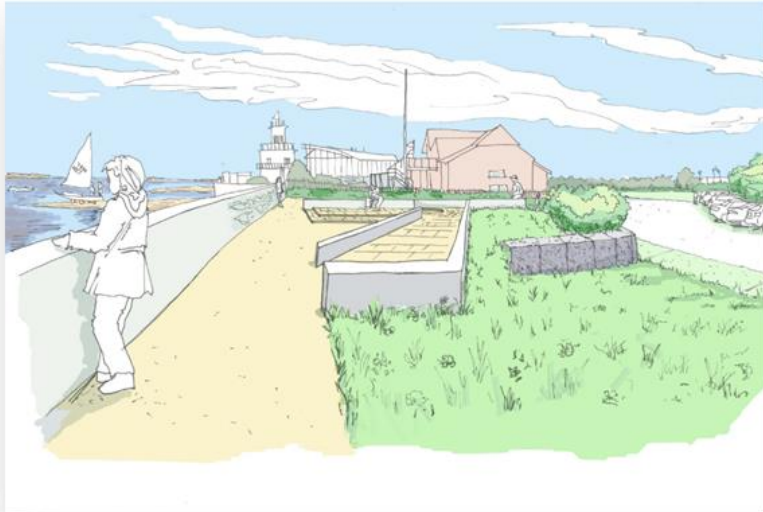


# North Portsea Island

North Portsea Coastline  
8.4km

Phased Construction:  
2015 - 2025

Approval £58m inc  
contingency



- Phase 1: Anchorage Park
- Phase 2: Milton Common
- Phase 3: Tipner Lake
- Phase 4: Eastern Road
- Phase 5: Ports Creek

1 in 500 year SoP

Environmental  
Designations: SPA, SAC,  
Ramsar, SSSI

Portsmouth and Langstone  
Harbours, both important  
locally, nationally and  
internationally

# Objectives

- Provide defences for North Portsea Island frontage providing 0.2% (1:500 year) Standard of Protection (SOP) against flooding for 100 years including climate change effects;
- Ensure 'Value for Money';
- Deliver environmental and social realm benefits and enhancements to the area;
- Improve connectivity around the island, encouraging non-motorised transport in the city.



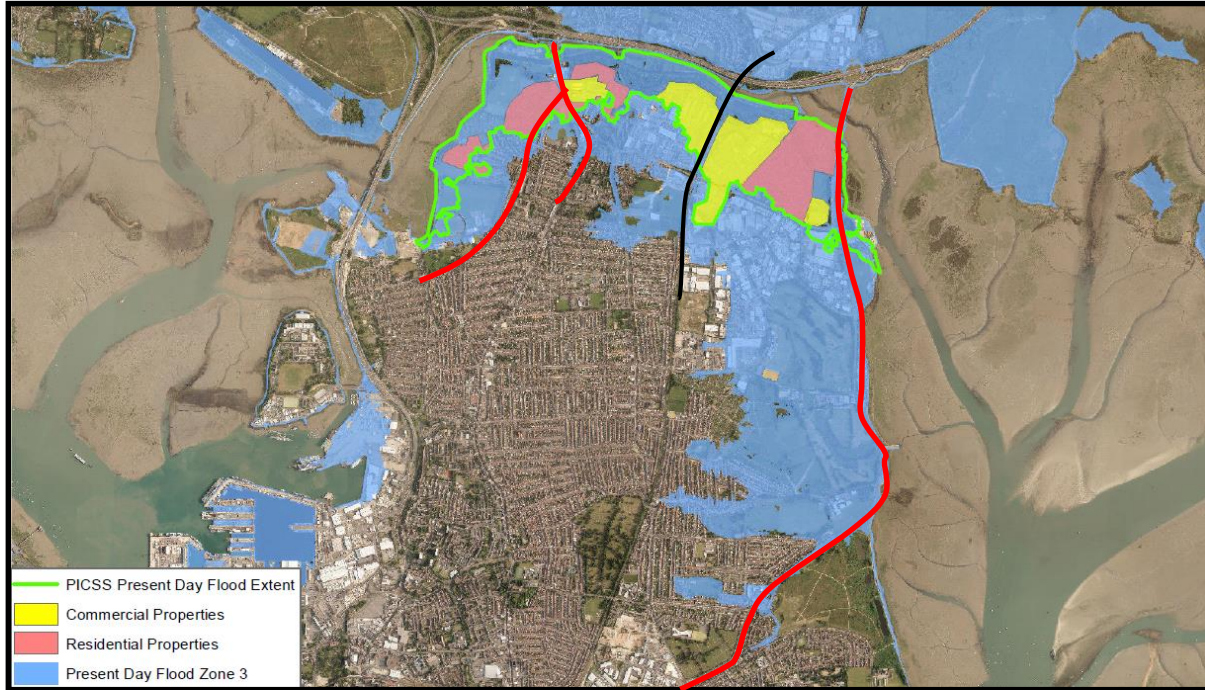
Tipner Coastal Defence Scheme post completion

# Flood risk – Present day



Flood Zone 3:



Land having 1 in 200 or greater annual probability of sea flooding.



## Present day risk:

- 1,906 Residential Properties
- 160 Commercial Properties
- 2 arterial Road Access Routes 
- Primary Rail Route 
- 2 Scheduled Monuments

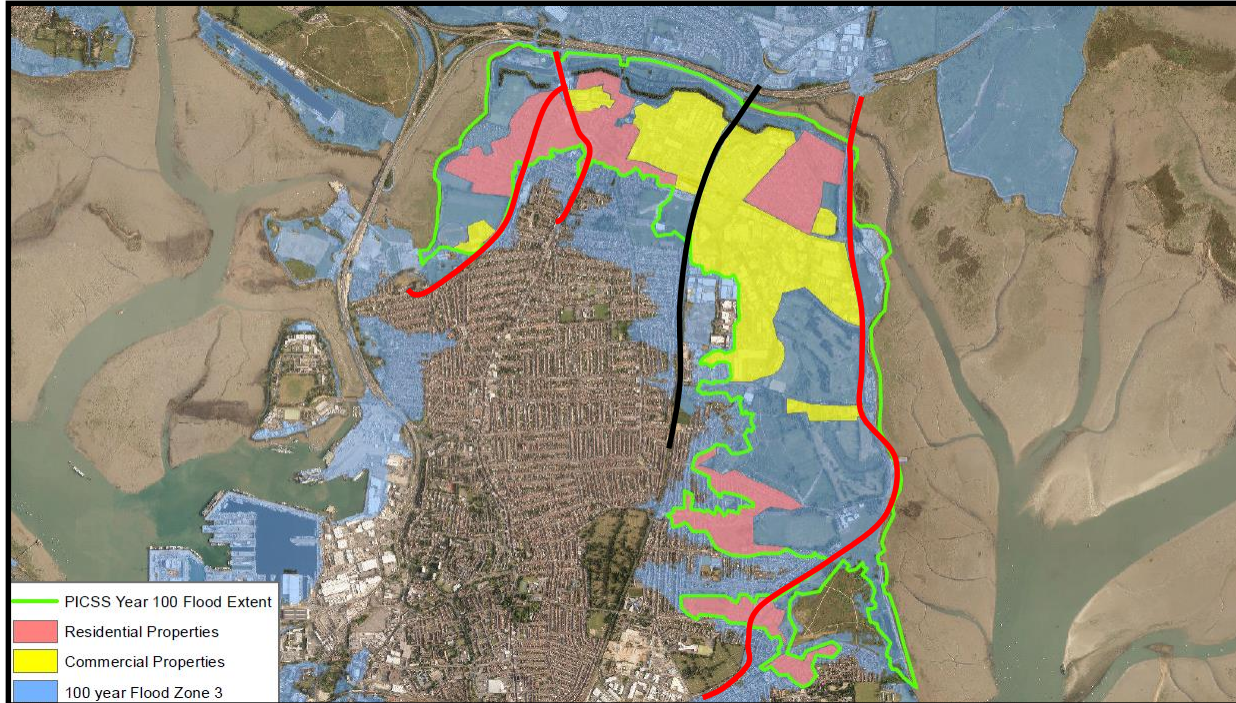


# Flood risk – 100 years

Flood Zone 3:



Land having 1 in 200 or greater annual probability of sea flooding.



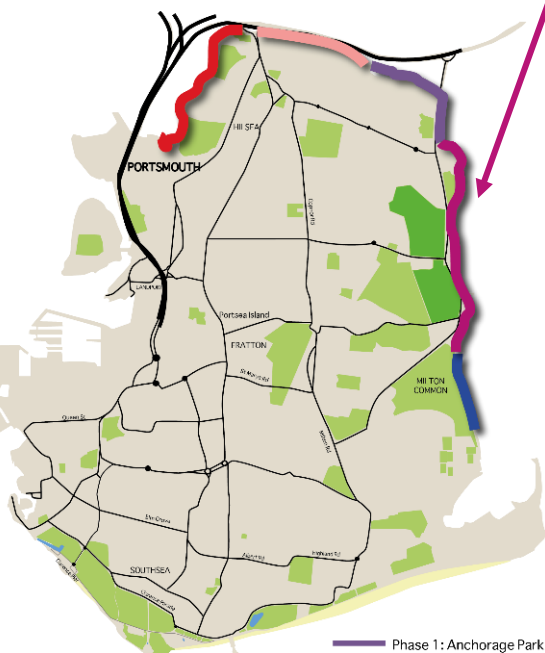
## Year 100 Risk:

- 4,234 Residential Properties
- 490 Commercial Properties
- 2 arterial Road Access Routes
- Primary Rail Route
- 2 Scheduled Monuments
- 89 Electrical Sub-Stations
- 2 MoD Properties

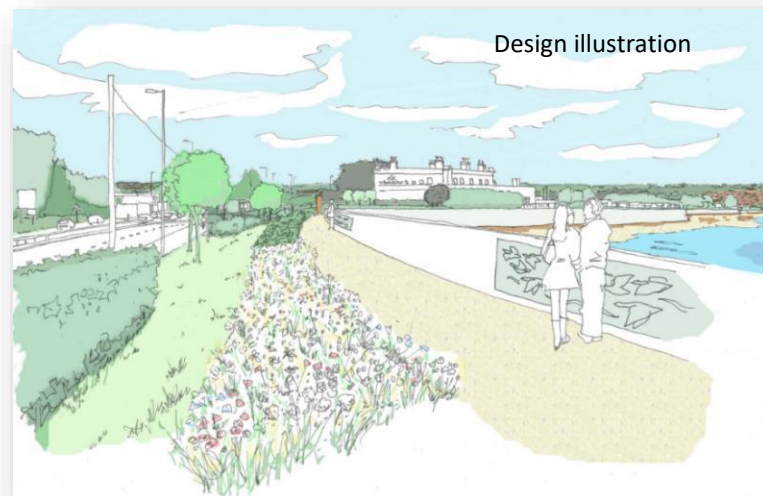
# Current Phase: 4 - Eastern Road

Construction 2021 - 2023

2.1km frontage



- Phase 1: Anchorage Park
- Phase 2: Milton Common
- Phase 3: Tipner Lake
- Phase 4: Eastern Road
- Phase 5: Ports Creek



Design illustration

On completion, as well as 1 in 500 SOP, this area will benefit from:

- improved access;
- new, improved, seating areas;
- art installations;
- glass flood walls in localised areas;
- improved foreshore habitat and
- improved landscaping with wildflower areas, bee posts and +125 new native trees.

# Improved connectivity & amenity



# More than just a flood defence

Play at the stepping stones



Extensive planting



Play - timber climbing posts



Information boards 'waytotems'



New seating areas



Bird hide view over Portsmouth Harbour



Ecoformliner



# Phase 4a: Kendall Wharf



The road now forms part of flood defence.

This area now benefits from improved:

- access;
- visibility;
- drainage;
- structure durability; and

Landscaping will provide wildflower areas, bee posts and 80 new native trees.

Before



After



# Kendall's construction Nov 2019 – Sept 2020



300m of steel sheet pile



175m of new tarmac road



Laid down end to end = 1530m of steel!



Increased levels by 2.5m

# Kendall's completed construction

Over 5000 woodland scrub whips planted



New paths installed



80 new native trees



2000m<sup>2</sup> of wildflower sown

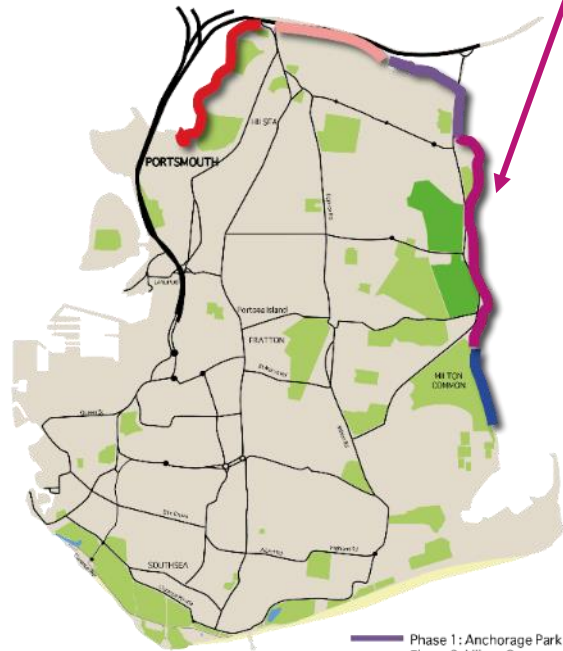
7 bee posts



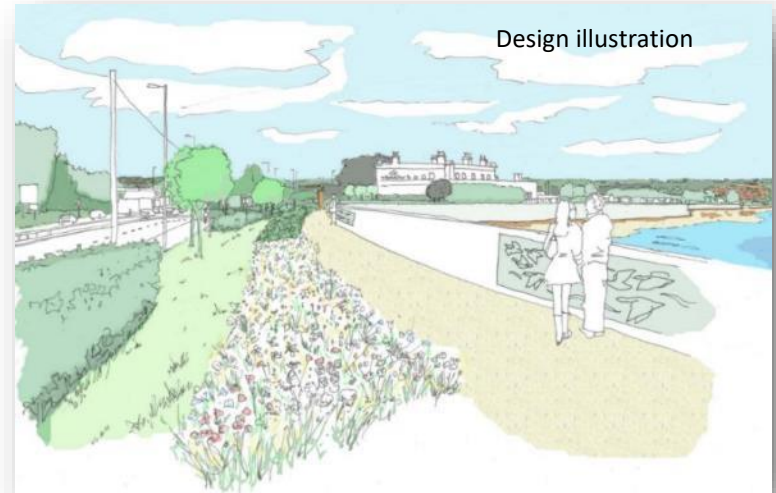
# Phase 4b: Eastern Road

Construction 2021 - 2023

2.1km frontage



- Phase 1: Anchorage Park
- Phase 2: Milton Common
- Phase 3: Tipner Lake
- Phase 4: Eastern Road
- Phase 5: Ports Creek



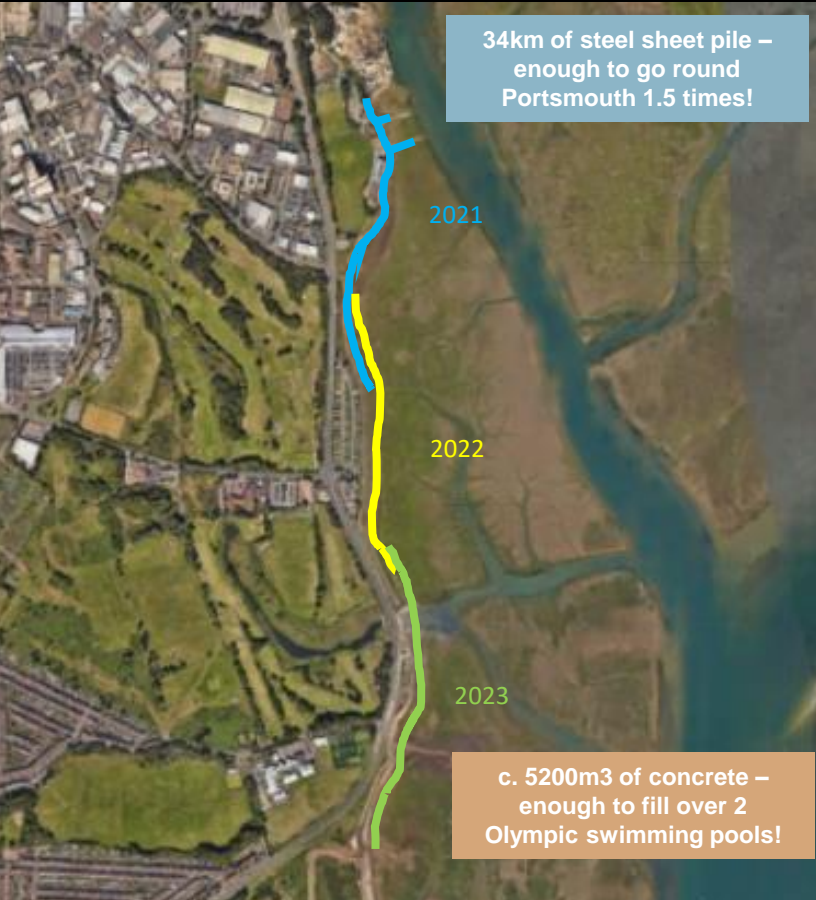
Design illustration

On completion, as well as 1 in 500 SOP, this area will benefit from:

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- art installations;
- glass flood walls in localised areas;
- improved foreshore habitat and
- improved landscaping with wildflower areas, bee posts and +125 new native trees.



# Eastern Road – phased construction

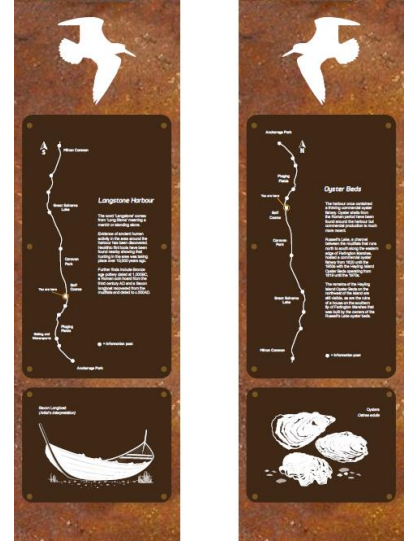


# Improved connectivity & amenity



380m of  
glass flood  
wall over  
three  
locations

11 locations  
for way  
marker  
totems



Planting of +120 native trees and wildflower planting to enhance the area along with high quality seating along the frontages.

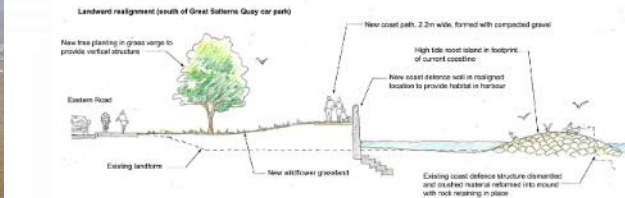


# Environmental Enhancement



New offshore **bird island** to provide high tide roost site with **salt marsh creation**

**48 Bee posts** within the km's of additional **wildflower beds**



**240 Tidal pools** to create intertidal habitat



# Eco-Engineering: developing an eco-formliner



*Ensuring environmental enhancements are built into projects so that projects not only protect people but create a better environment for people and wildlife...*



# Ports Creek – woodland park



Moats



Large open spaces



Areas of woodland



Orchard meadow



Defence type



Faggots



Pontoons

