

Environment Agency: Climate Change Actions

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Page 1

Flood & Coastal Risk Management
Partnership & Strategic Overview Team

14 January 2020



EA 2025

A NATION RESILIENT
TO CLIMATE CHANGE



EA 2025

HEALTHY AIR,
LAND AND WATER



EA 2025

GREEN GROWTH AND
A SUSTAINABLE FUTURE

National Flood and Coastal Erosion Risk Management Strategy for England

Page 2



“A nation ready for,
and resilient to,
flooding and coastal
change – today,
tomorrow and to the
year 2100”



EA Role

- Strategic Overview of flooding and coastal erosion risk management.

Page 3

Managing the risk of flooding from:

- Rivers
- Reservoirs
- Sea

Monks Brook, Chandlers Ford



A3057, Romsey



Emsworth Millpond

Environment Agency Carbon Footprint

Carbon Net Zero by 2030

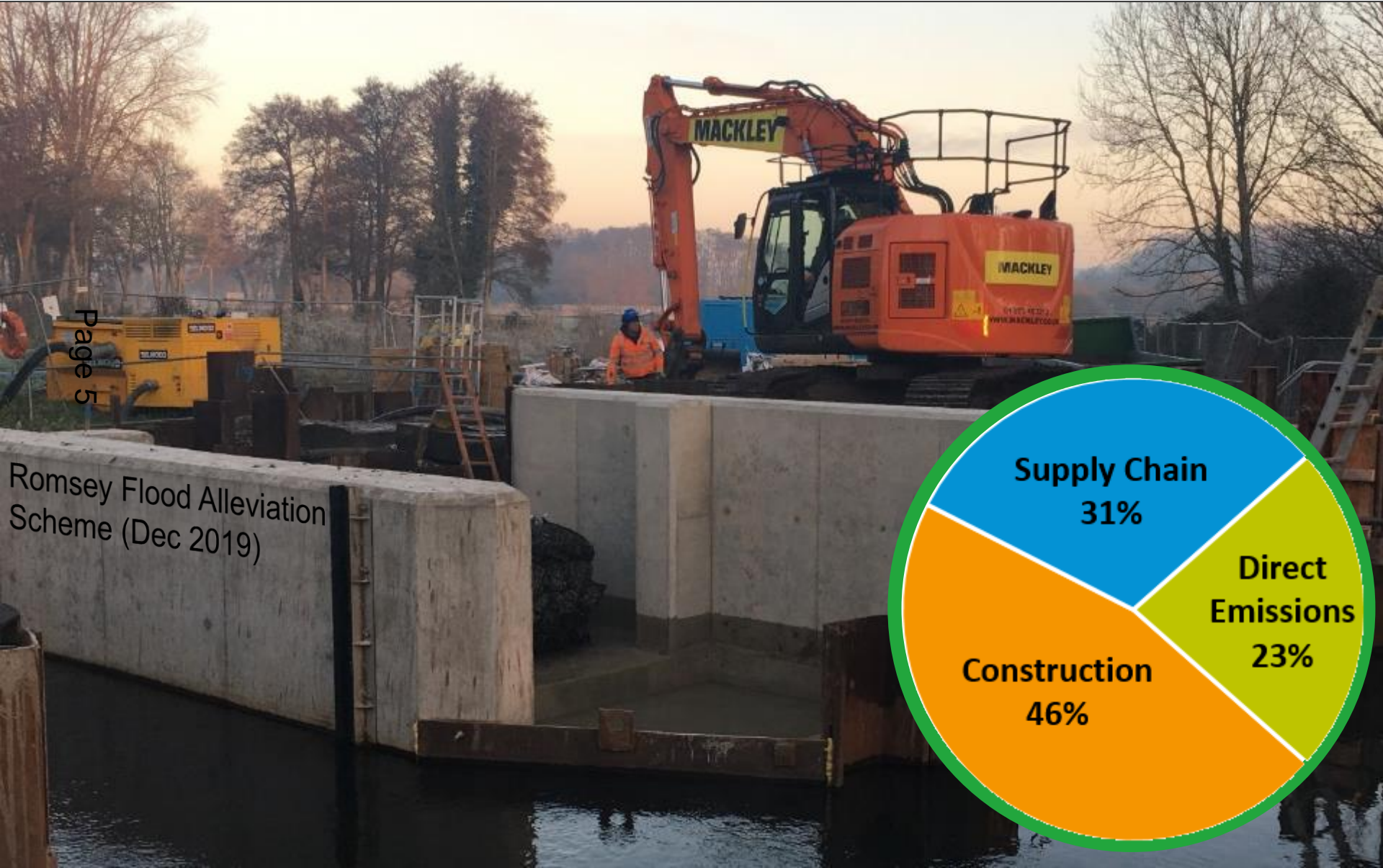
- 45% Reduced emissions
- 55% Offsetting

Page 4

Romsey Flood Alleviation
Scheme (Dec 2019)

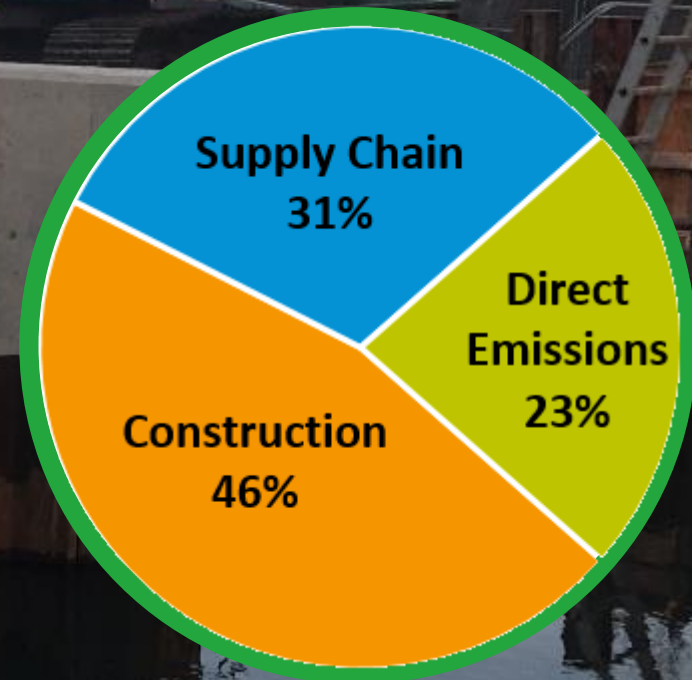


Environment Agency Carbon Footprint

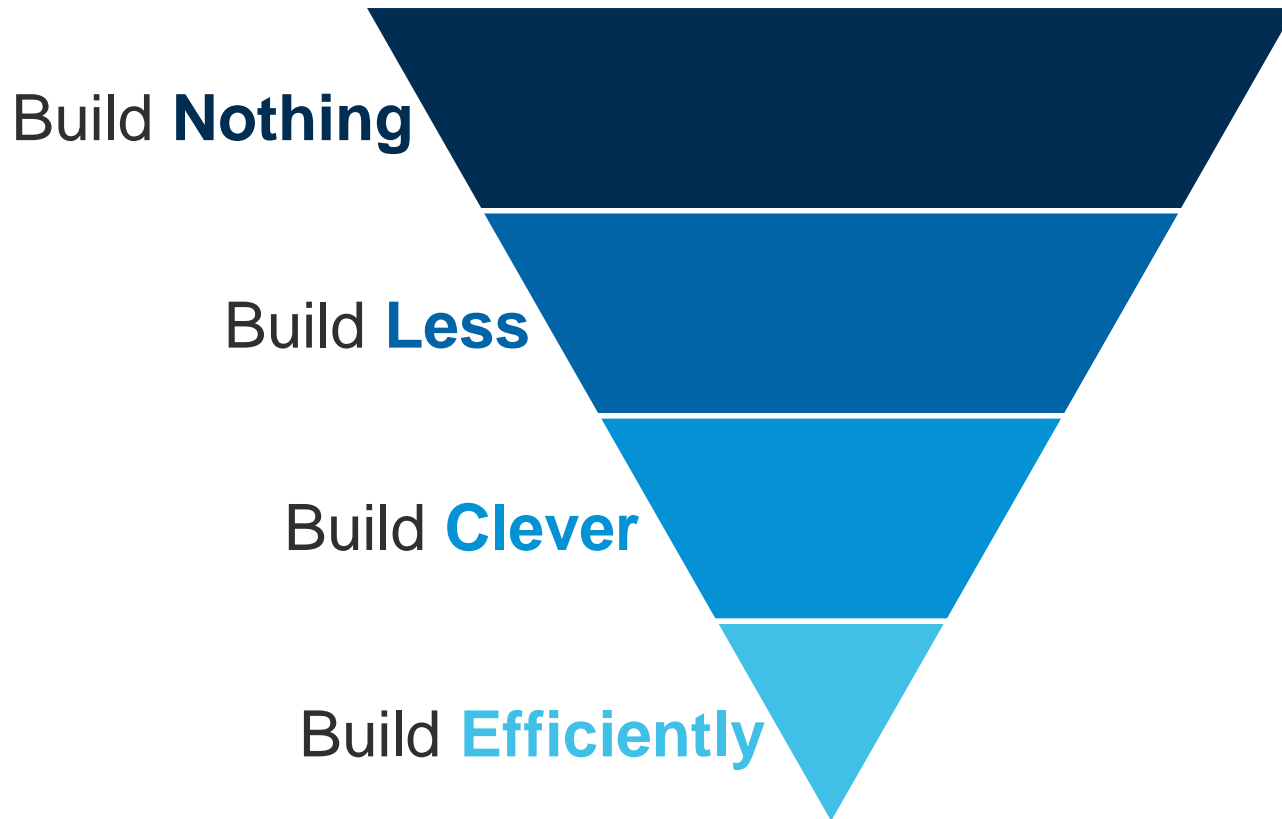


Page 5

Romsey Flood Alleviation Scheme (Dec 2019)



Carbon Reduction Hierarchy



Carbon Reduction Hierarchy



Wallington
Village

Hampshire Flood Risk

- Properties at River & Coastal Flood Risk: 26,230
- Predicted to double in 50yrs

Page 8

EA Climate Impacts Tool:

	By 2050	By 2080
Winter Average Rainfall	+44%	+75%
Peak River Flows	+50%	+105%
Sea Level Rise	+0.6m	+1.0m
Wave Height	+5%	+10%
Storm Surge	+35cm	+70cm
Extreme Rainfall Intensity	+20%	+40%

Hampshire Flood Risk

- Properties at River & Coastal Flood Risk: 26,230
- Predicted to double in 50yrs

EA Climate Impacts Tool:

Page 9

	By 2050	By 2080	
Winter Average Rainfall	+44%	+75%	Wetter Winters
Peak River Flows	+50%	+105%	
Sea Level Rise	+0.6m	+1.0m	Higher, Stormier Seas
Wave Height	+5%	+10%	
Storm Surge	+35cm	+70cm	
Extreme Rainfall Intensity	+20%	+40%	Heavier Rainfall

Spatial Planning & Climate Change Allowances

Page 10



Hambledon (2011)

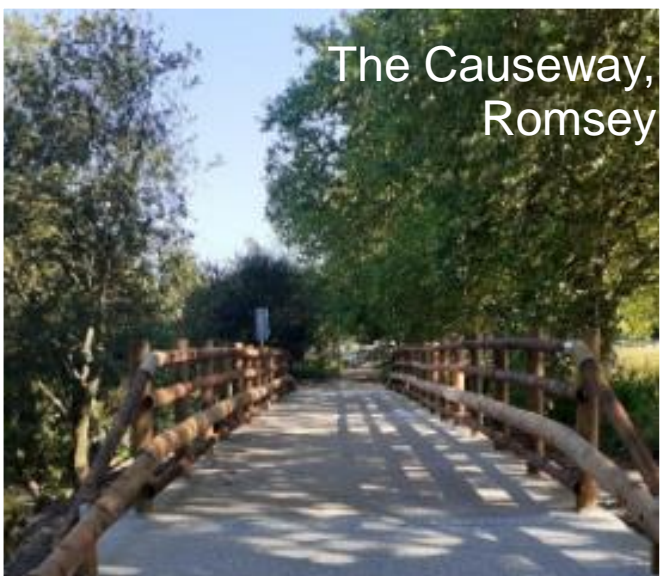


Old Fire Station, Winchester

“Require no increase to flood risk for lifetime for development, including climate change allowance”

Flood Alleviation Schemes

- 6yr Programme ends Mar 2021
- Homes better protected
 - Nationally: 300,000.
 - Hampshire & IOW: 4,938



The Causeway,
Romsey



Winchester
Phase 1

Flood Alleviation Schemes

- New 6yr Programme
- 1st April 2021
- £5.2 billion
- Homes to be better protected:
 - Page 12 Nationally: 336,000
 - Hampshire & IOW: 10,000
- New funding rules
- Significant private sector contributions needed
- Catchment Approach



Hurst to Lymington



Page 13



2.28mAOD

2.08mAOD = 2100 MHWS

1.37mAOD = 2050 MHWS

1.12mAOD = Present Day MHWS



Google

Hurst to Lymington



Page 14

Flood Event with 5% chance of happening

2118 = 78cm overtop

2068 = 17cm overtop

2038 = 10cm overtop

2018 = 7cm overtop



2.28m AOD

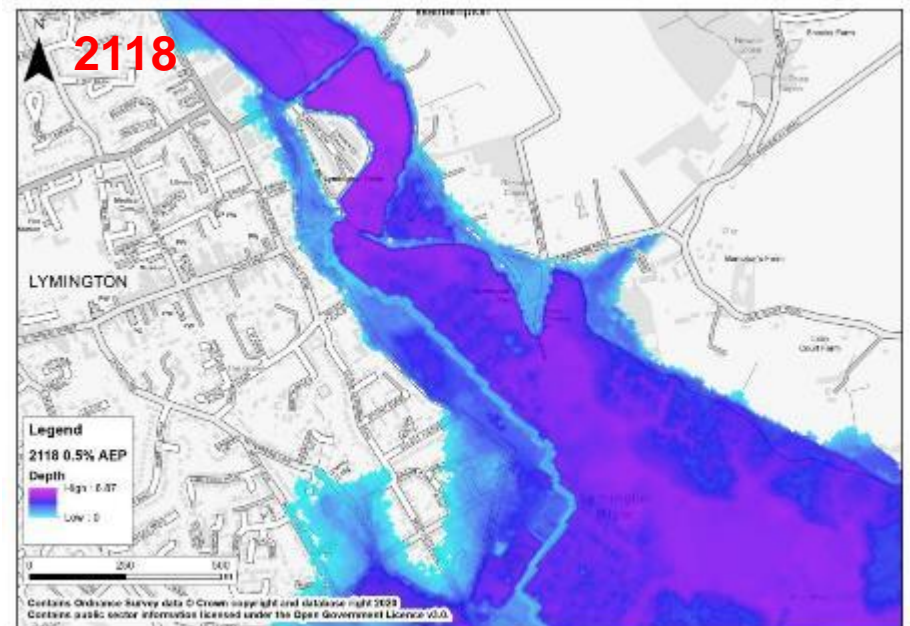
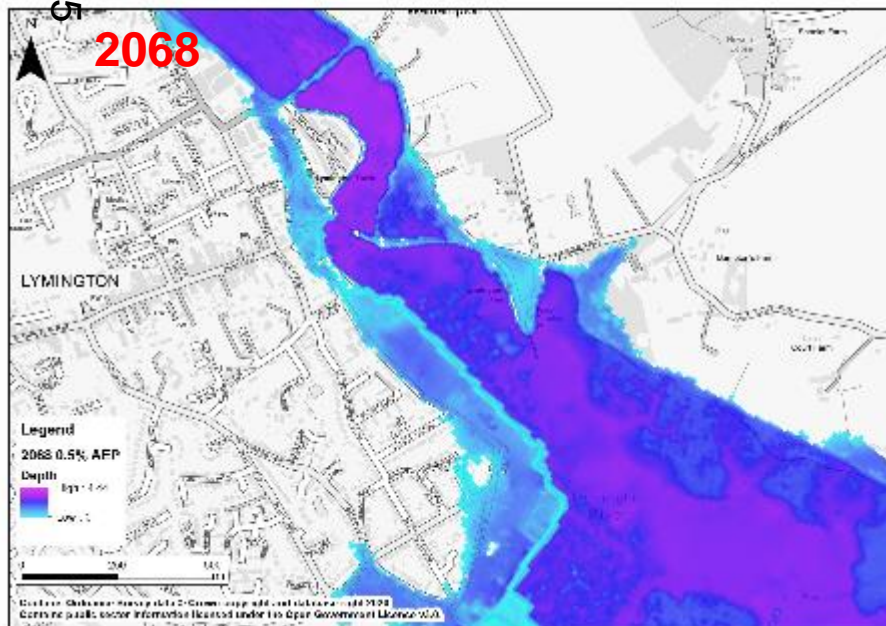
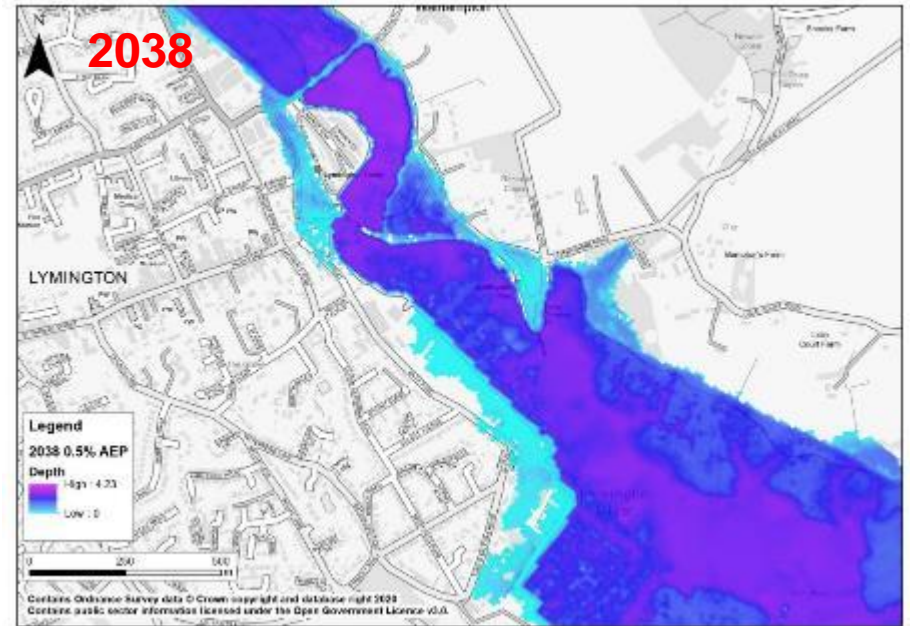
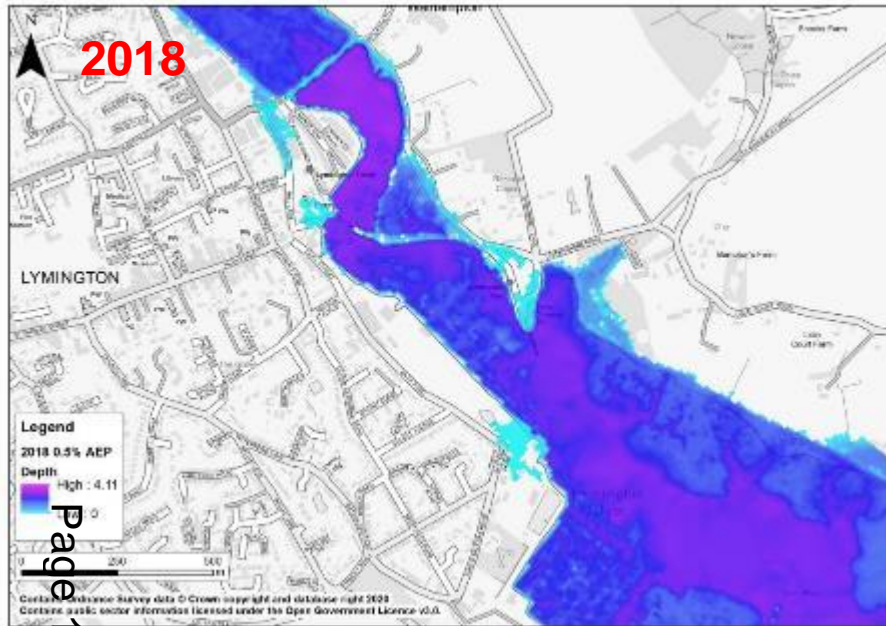
2.08m AOD = 2100 MHWS

1.37m AOD = 2050 MHWS

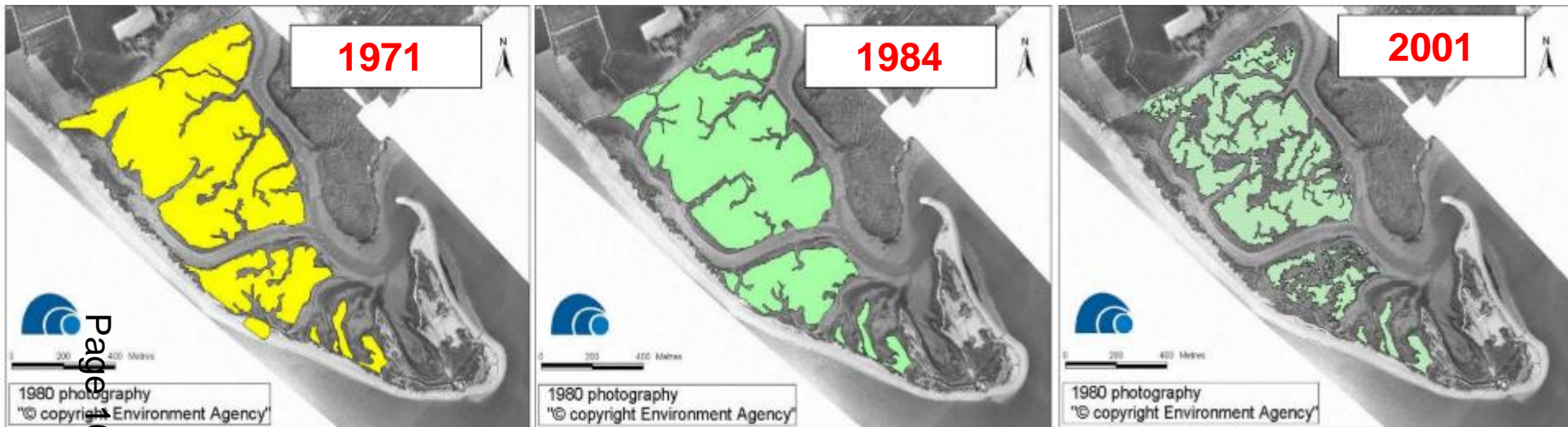
1.12m AOD = Present Day MHWS

Google

Hurst to Lymington



Hurst to Lymington: Habitat loss



Erosion of coastline / SMP Refresh



Property Flood Resistance



Page 18

Green Infrastructure



Bosco Verticale

<https://www.bbc.co.uk/news/av/science-environment-49973358>

Osnabrueck: Green Infrastructure





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