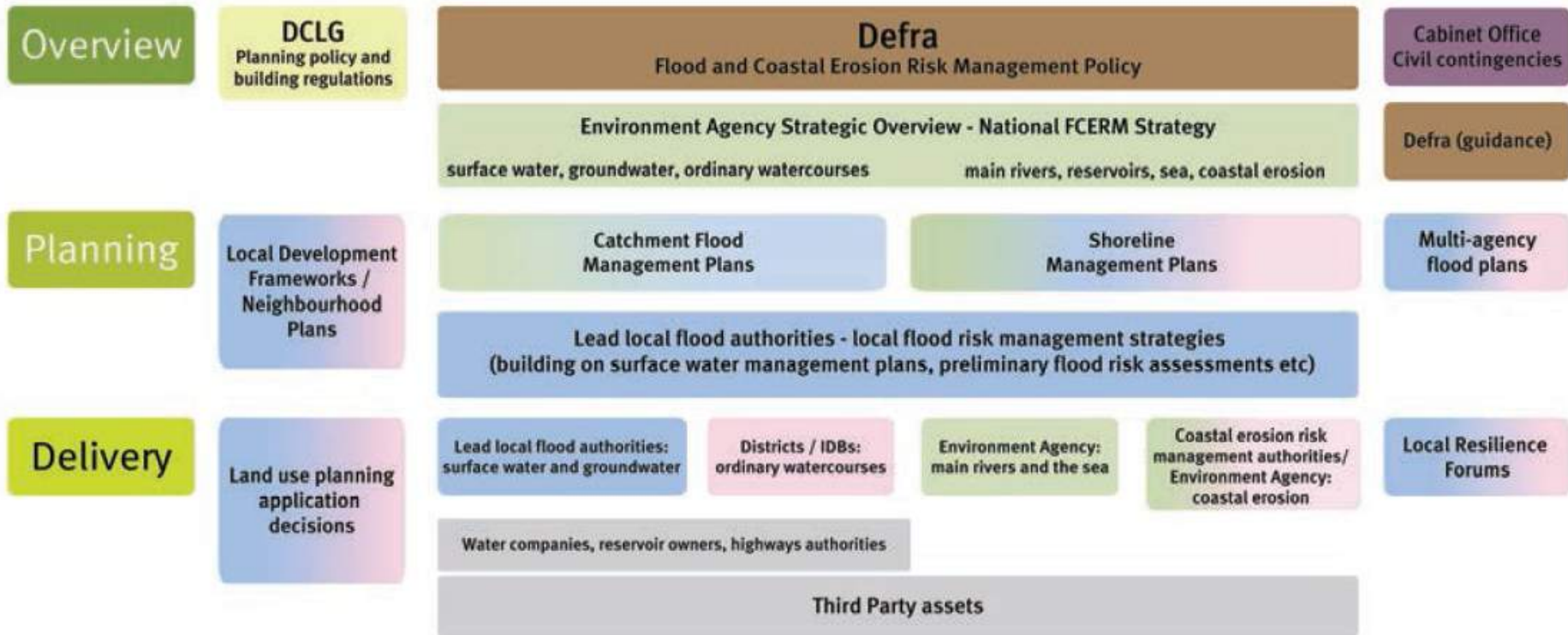


Planning for the impacts of coastal change

Application of Coastal Monitoring Data to identify flood and erosion risk areas in Shoreline Management Plans

Andrew Colenutt
Coastal Projects Officer
NFDC/CCO



- Department for Communities and Local Government
- Department for the Environment Food and Rural Affairs
- Cabinet Office
- Environment Agency
- Lead Local Flood Authorities (county and unitary authorities)
- District Councils
- Major infrastructure owners and third parties



What is a Shoreline Management Plan?

- Strategic approach to managing the coast
- Non-statutory policy documents but are a material consideration in planning
- Sustainable coastal protection & flood defence and management policy for 3 epochs:-
 - Short-term (0-20 years)
 - Medium-term (20-50 years)
 - Long-term (50-100 years)
- 4 policy options
 - Hold The Line (HTL)
 - No Active Intervention (NAI)
 - Advance The Line (ATL)
 - Managed Realignment (MR)



- Implications of interactions between defences and natural coastal processes and sea level rise
- Determining flood and erosion risks to coastal communities, property, heritage features, and the natural environment
- Technical, Environmental and Economic assessments
- Consultation and Communication
- SMPs don't guarantee public funding to implement the recommended policies
- Each SMP contributes to determining national funding requirement for the management of coastal flood and erosion risks

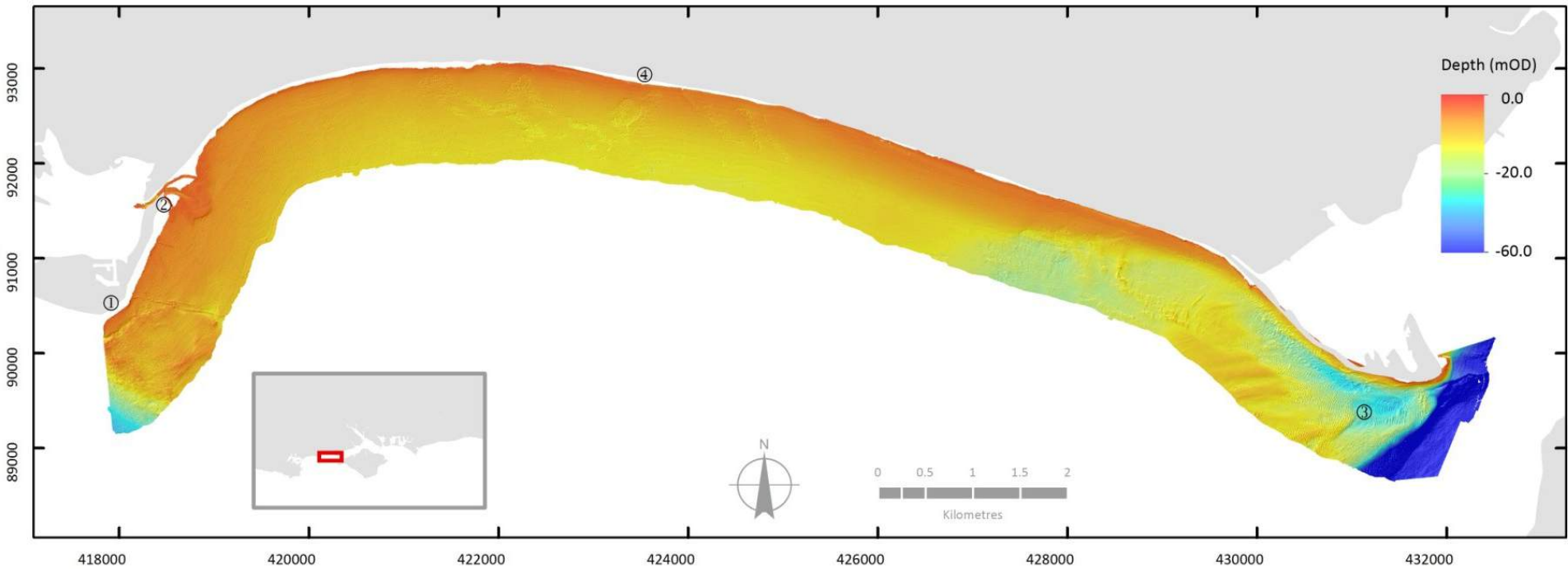


- Defra funded programme
- Managed on behalf of the Coastal Groups in partnership with the maritime Local Authorities and the Environment Agency Regions
- Consistent specification and project design
- Data and metadata freely available
- Compliant with INSPIRE Directive and MEDIN

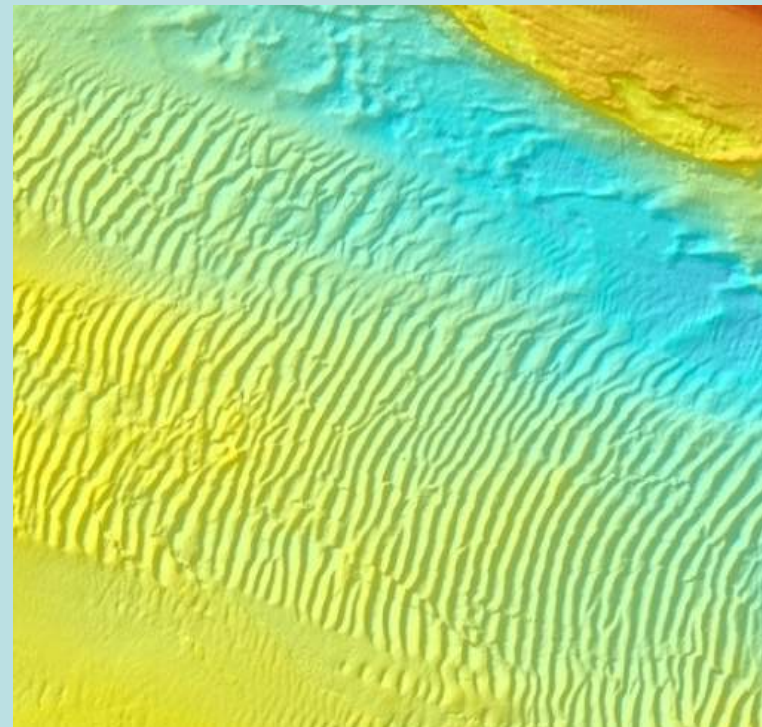
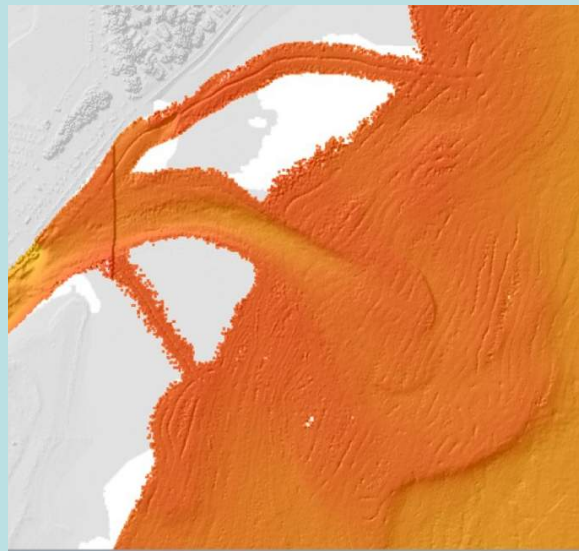
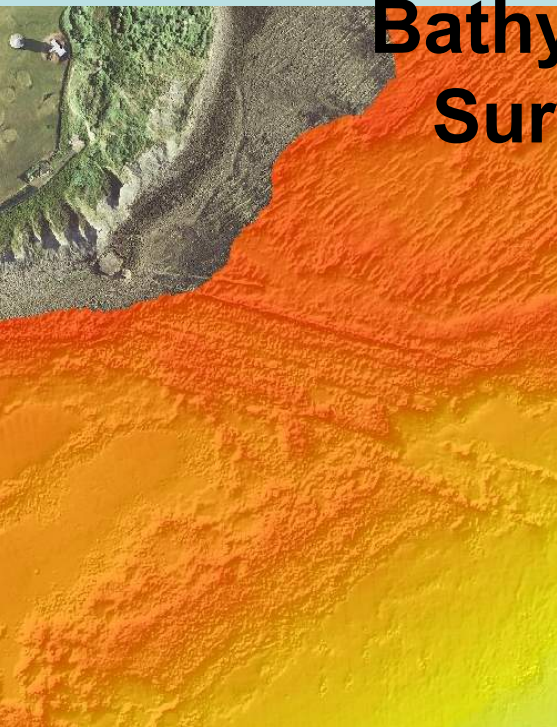


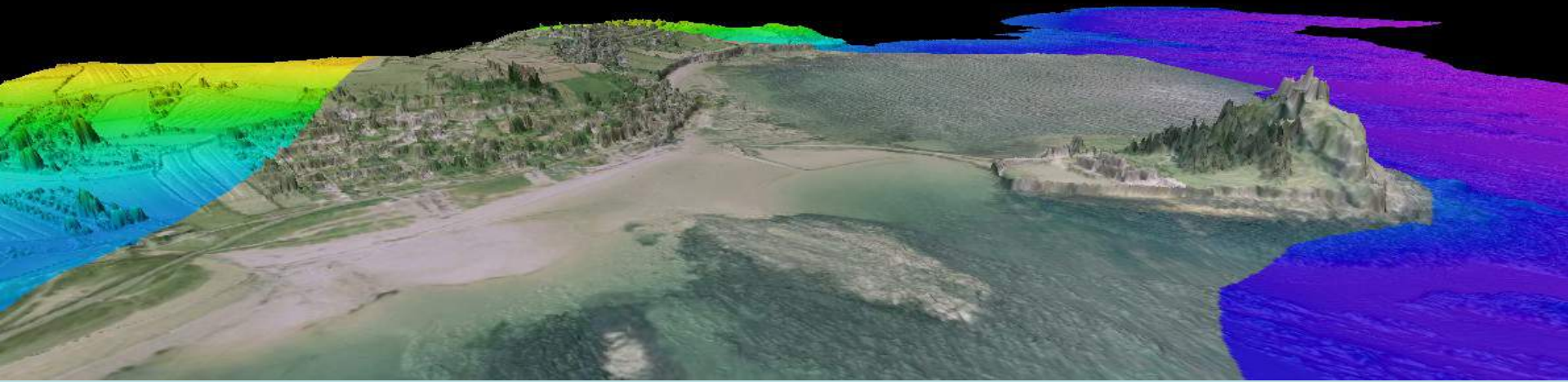
Topographic Surveys



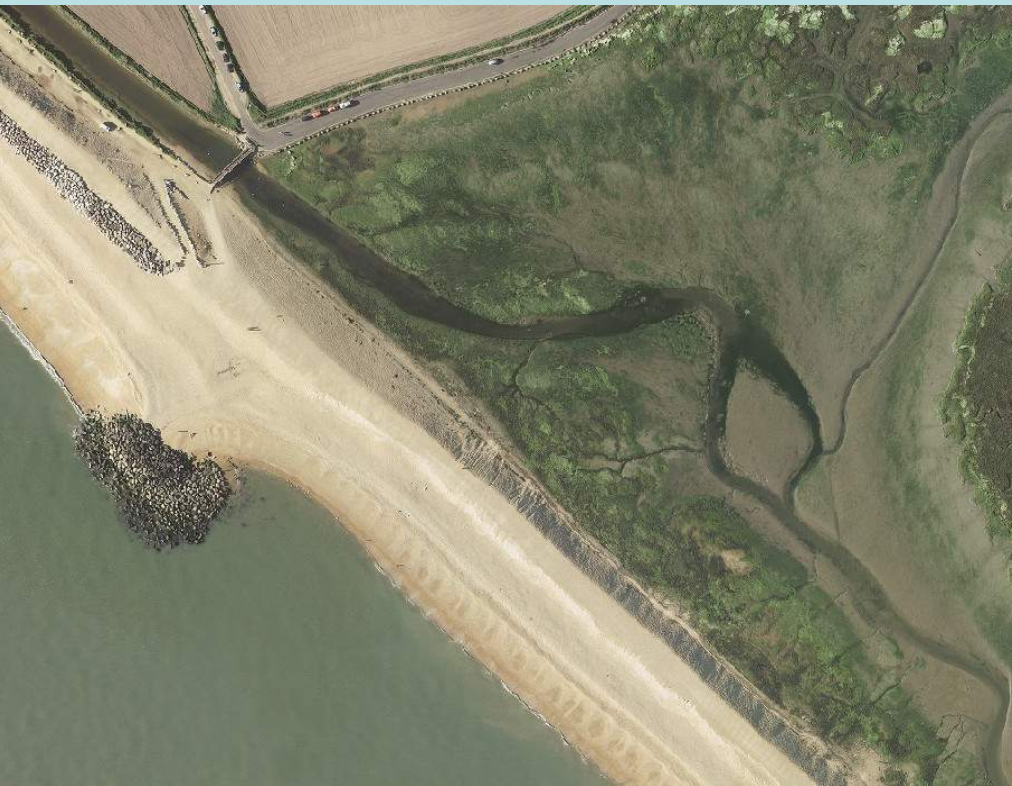


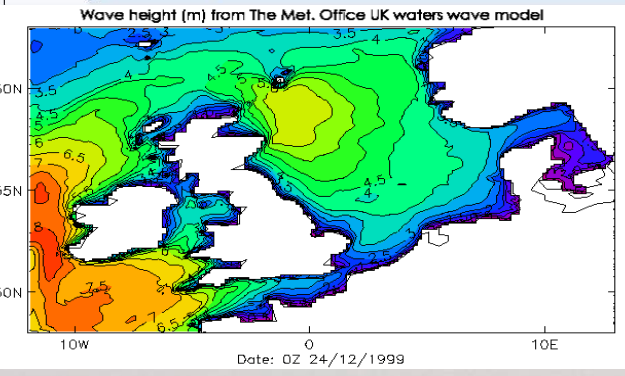
Bathymetry Surveys





Remote Sensing & Mapping





Hydrodynamic Monitoring



Southsea 2005 © Portsmouth City Council

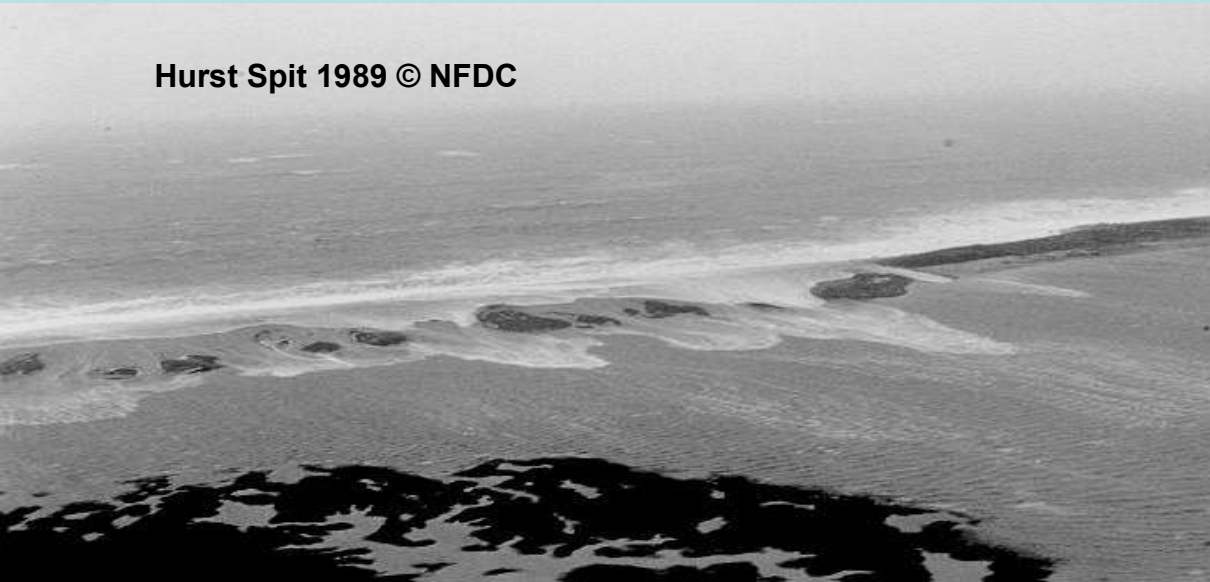


EAST HEAD - CHICHESTER HARBOUR ENTRANCE
OCTOBER 2004
Copyright: Chichester Harbour Conservancy/ M. Simmons

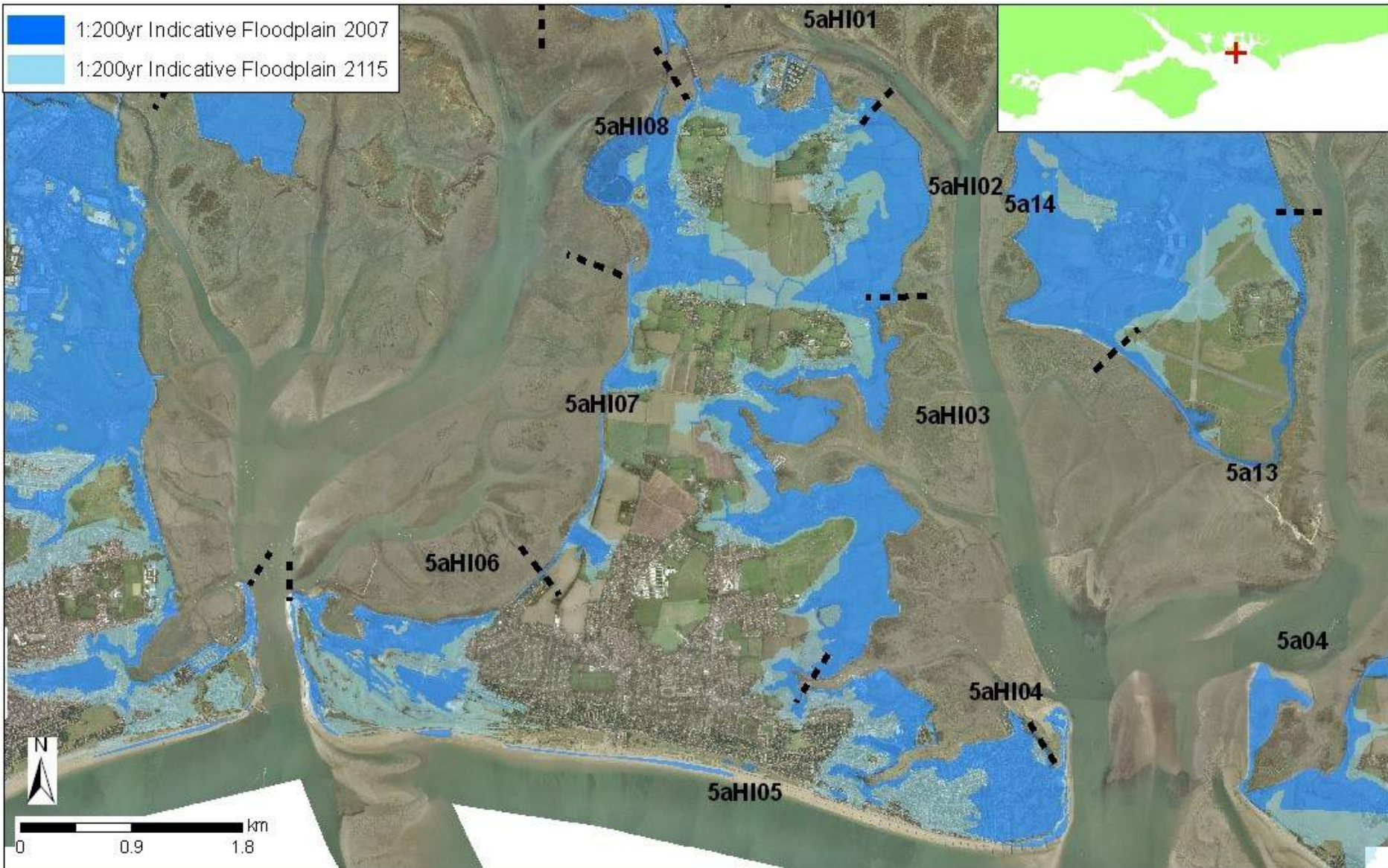


Tidal Flood Risk Mapping

Hurst Spit 1989 © NFDC



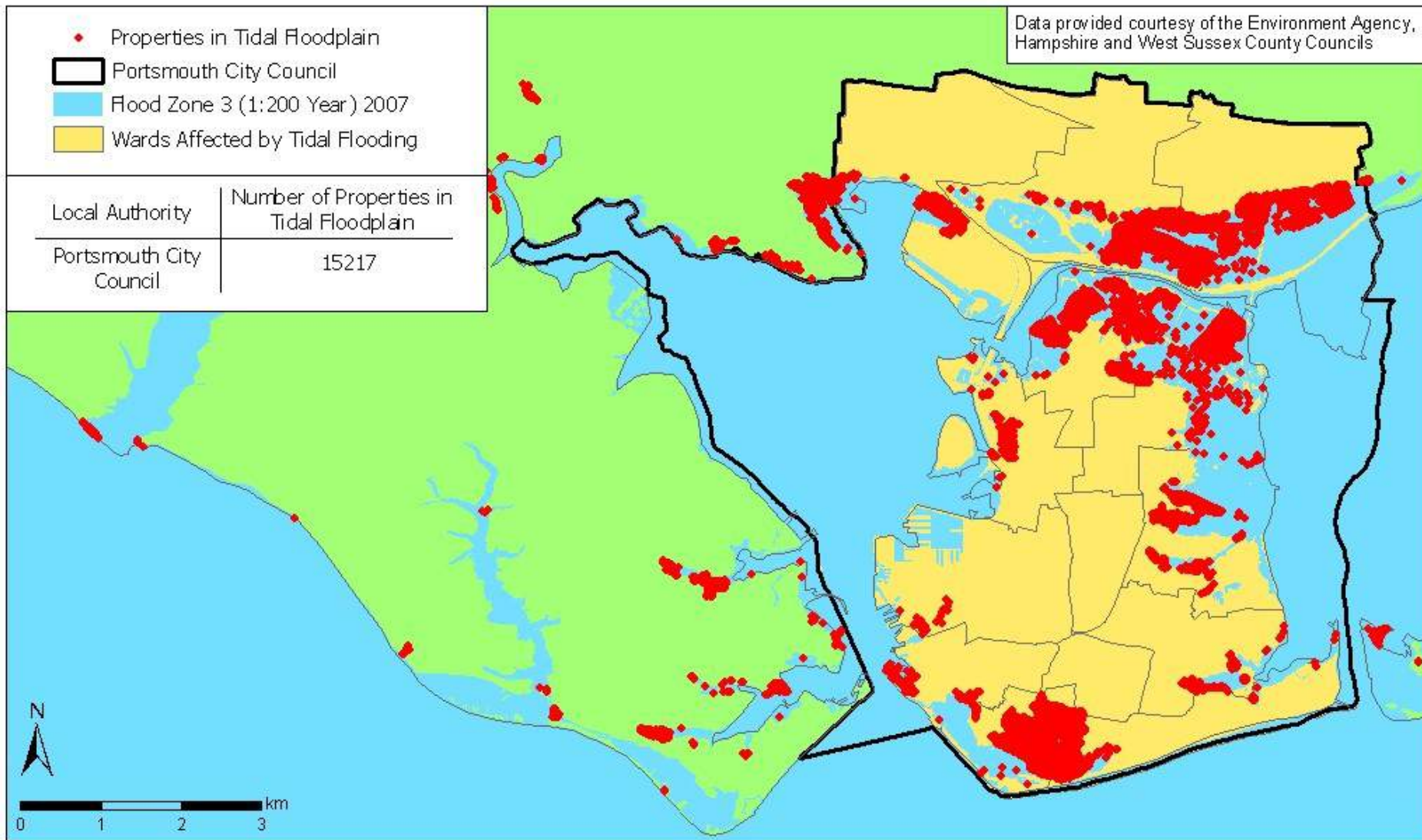
Hamble 1999
© Eastleigh Borough Council



- Properties in Tidal Floodplain
- ▭ Portsmouth City Council
- ▭ Flood Zone 3 (1:200 Year) 2007
- ▭ Wards Affected by Tidal Flooding

Data provided courtesy of the Environment Agency, Hampshire and West Sussex County Councils

Local Authority	Number of Properties in Tidal Floodplain
Portsmouth City Council	15217



◆ Properties in Tidal Floodplain

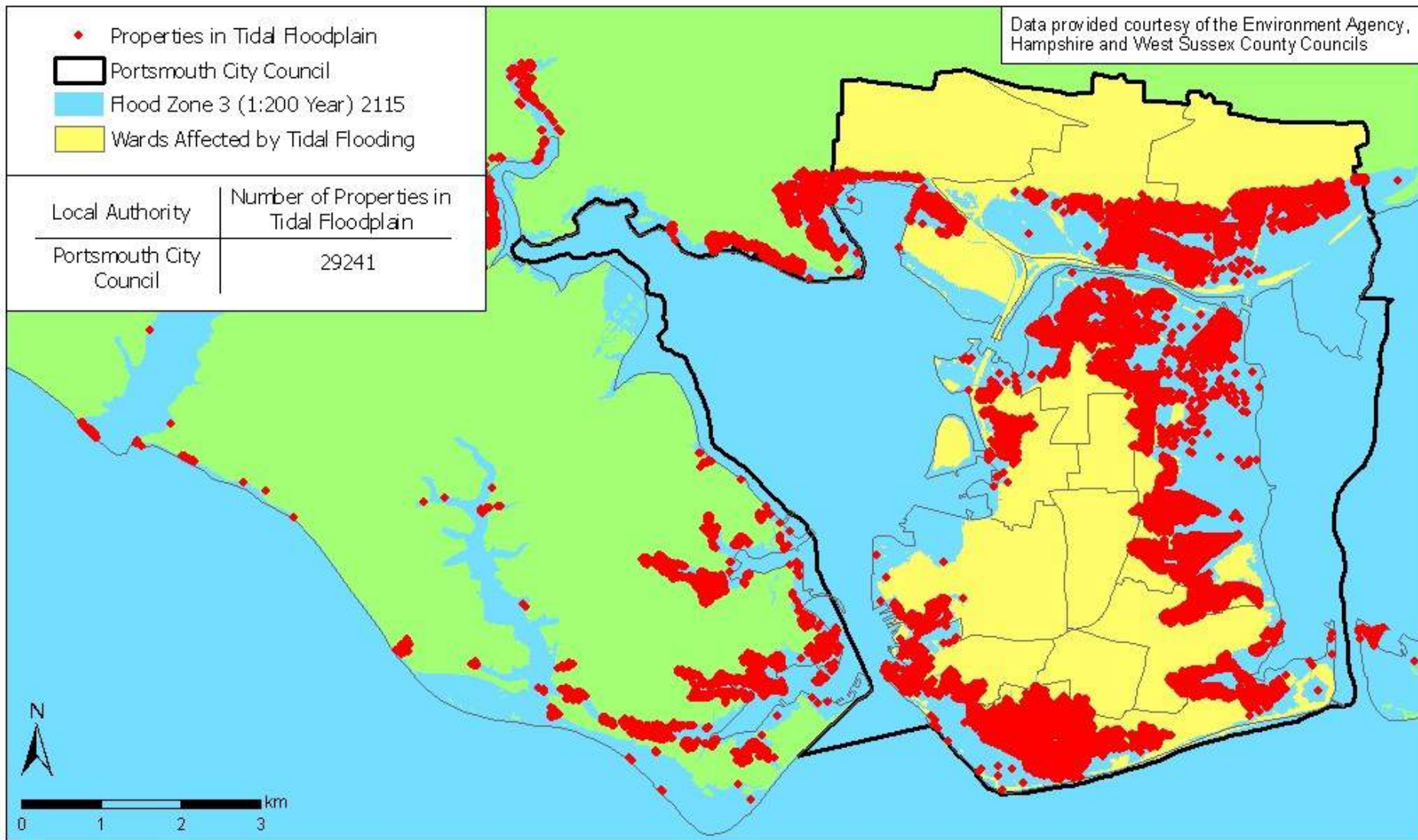
▭ Portsmouth City Council

■ Flood Zone 3 (1:200 Year) 2115

■ Wards Affected by Tidal Flooding

Data provided courtesy of the Environment Agency, Hampshire and West Sussex County Councils

Local Authority	Number of Properties in Tidal Floodplain
Portsmouth City Council	29241





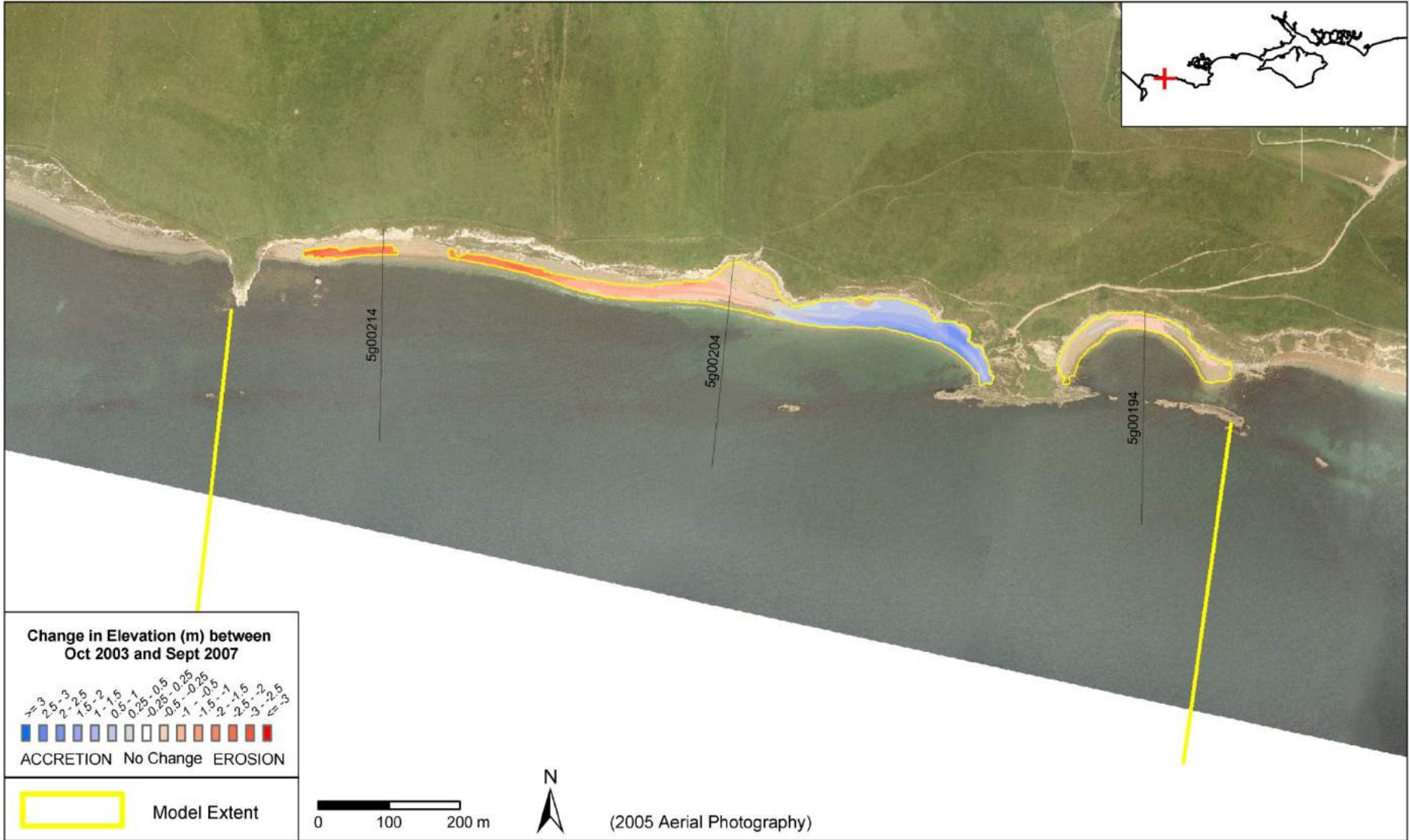
Coastal Erosion Risk

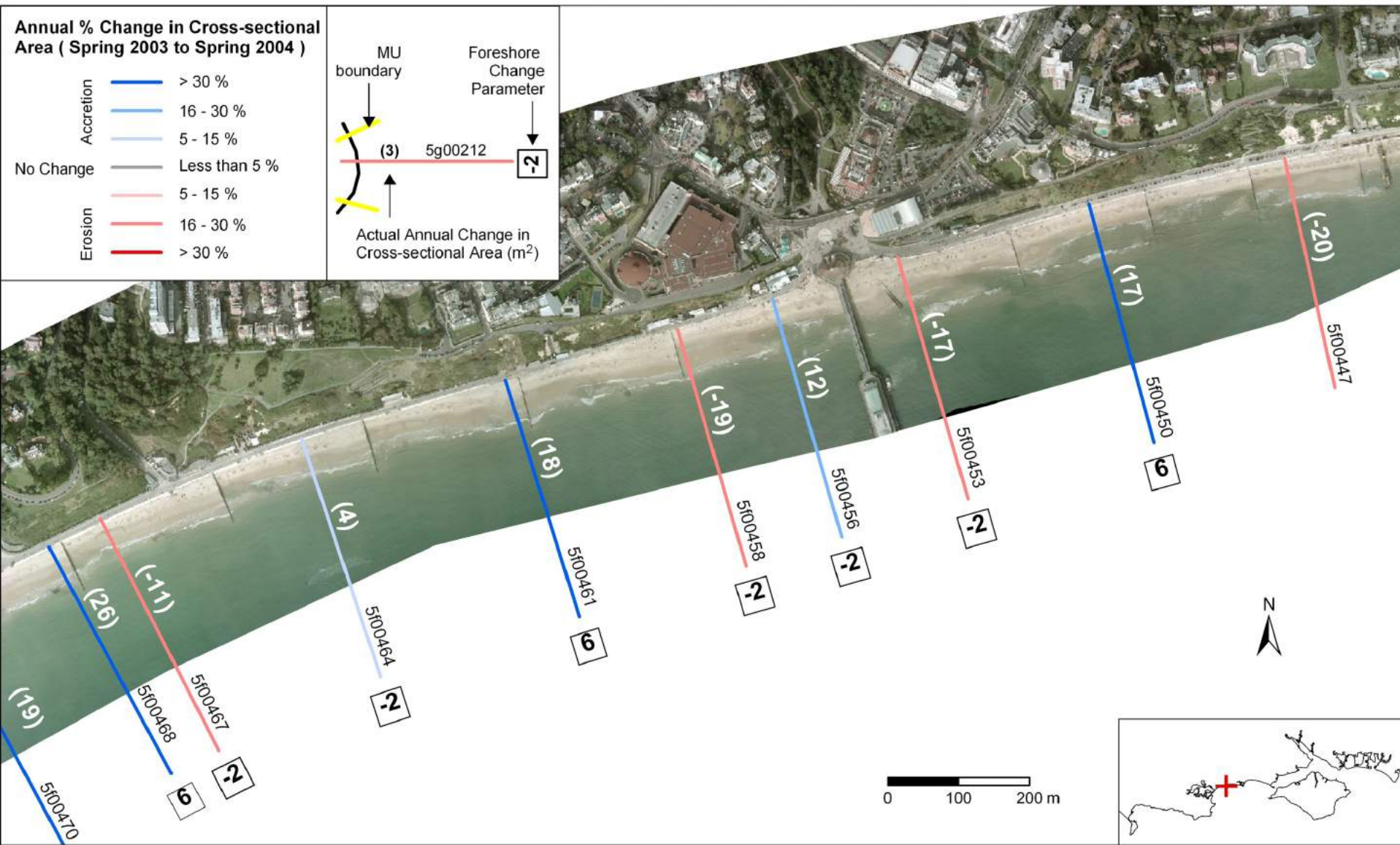


©Steve, Wessex Hang Gliding and Paragliding Club



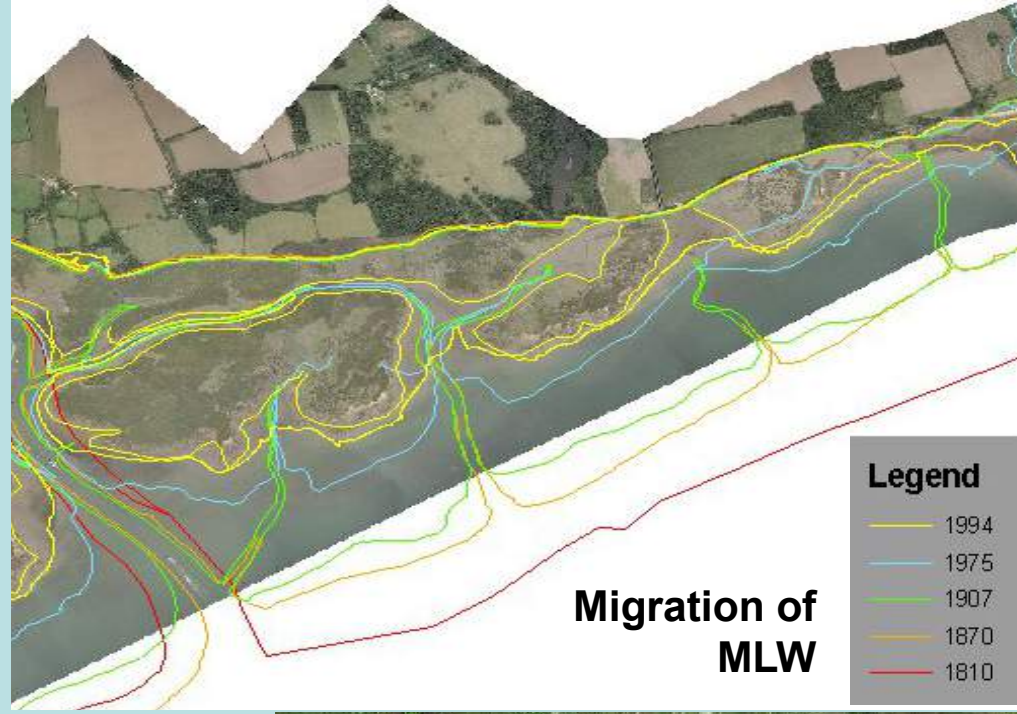
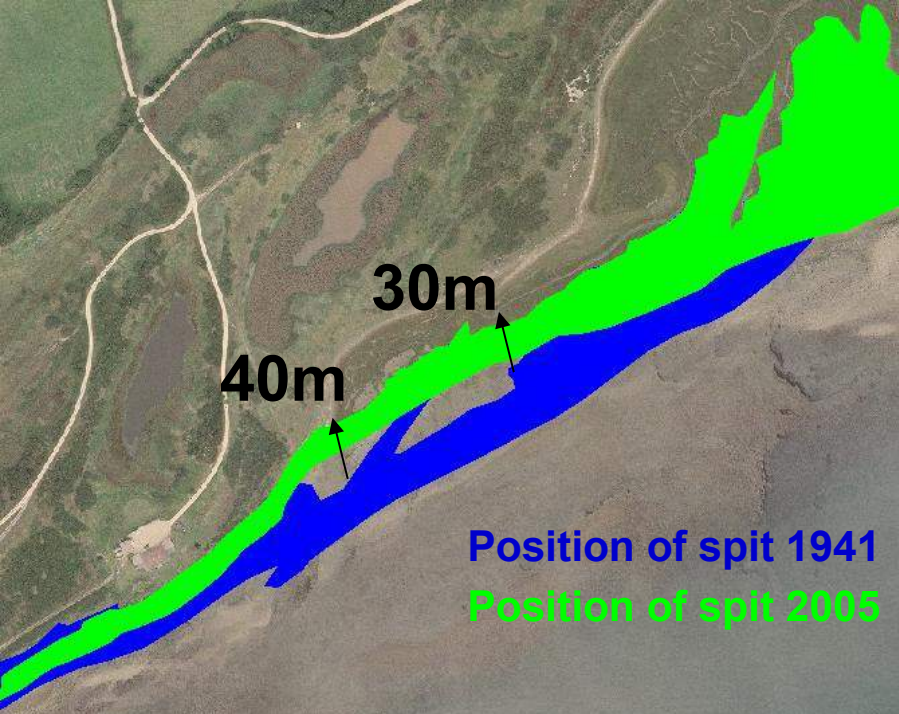
Cadland, West Solent



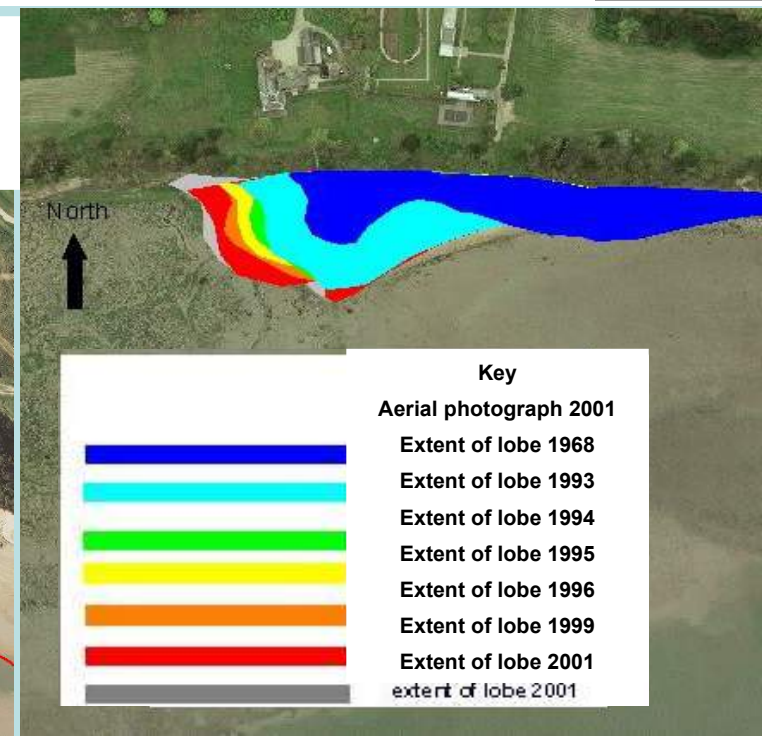
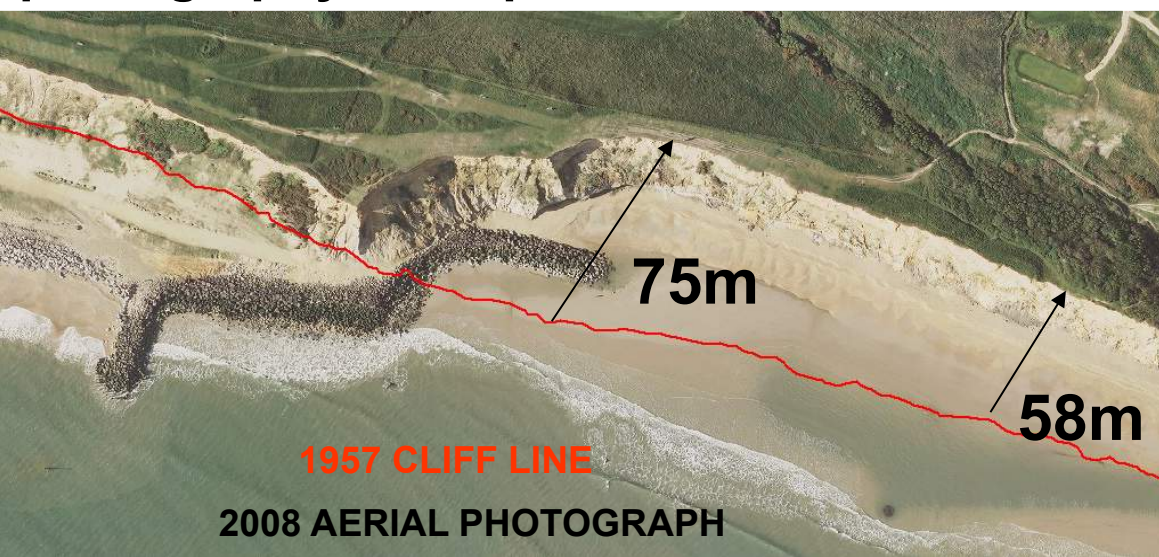


Archive Aerial Photography





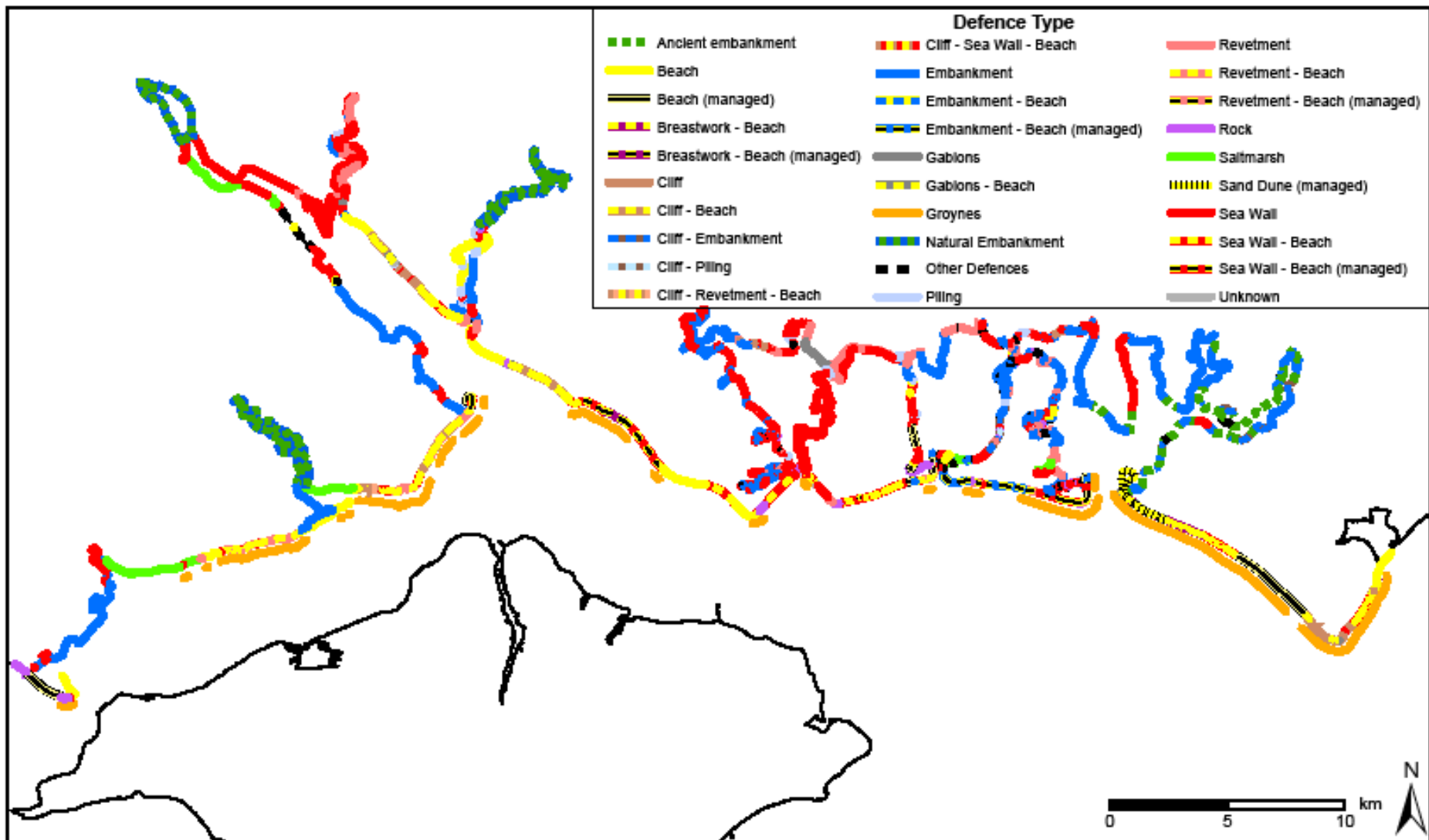
Analysis of historic charts, maps and aerial photography to map shoreline evolution

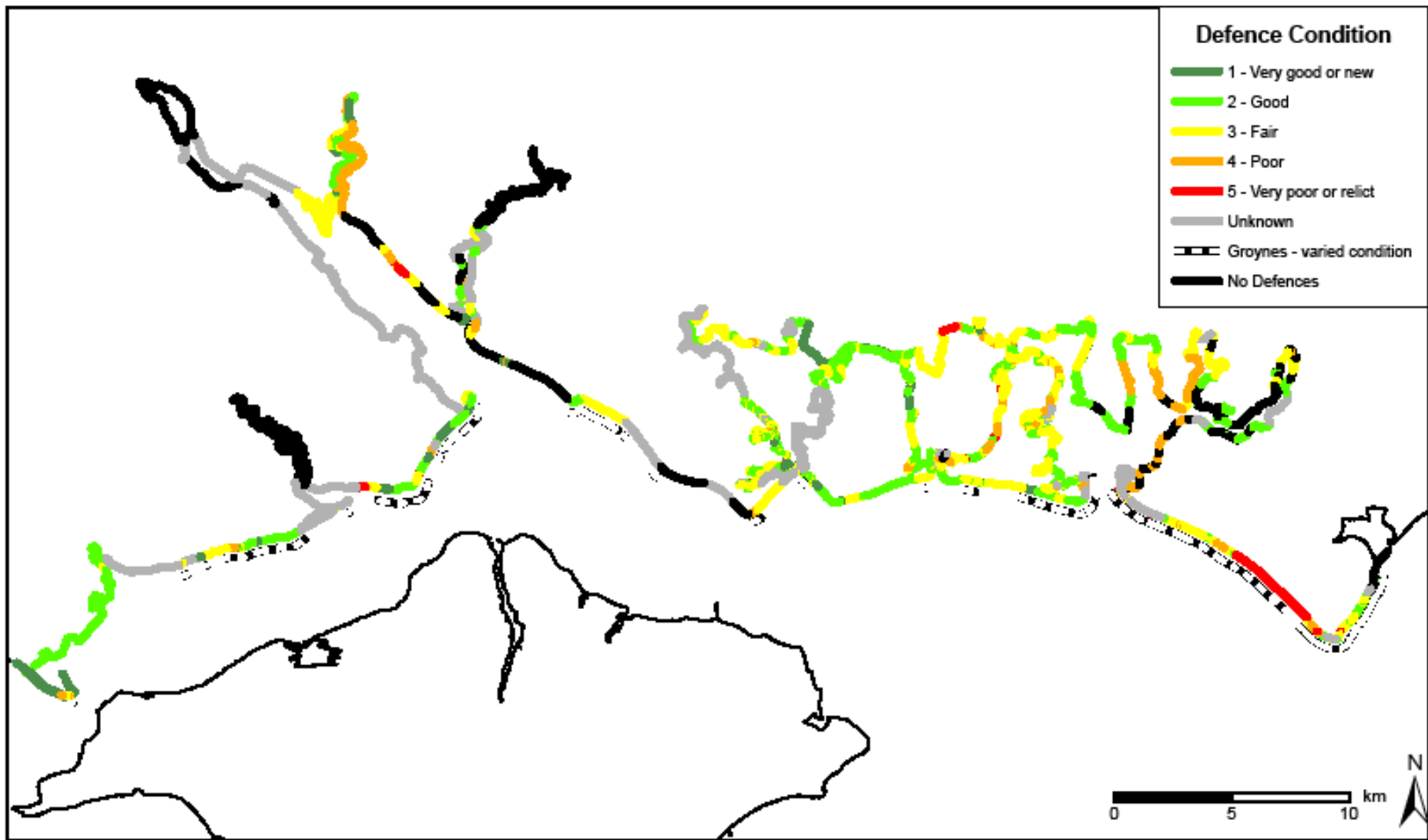




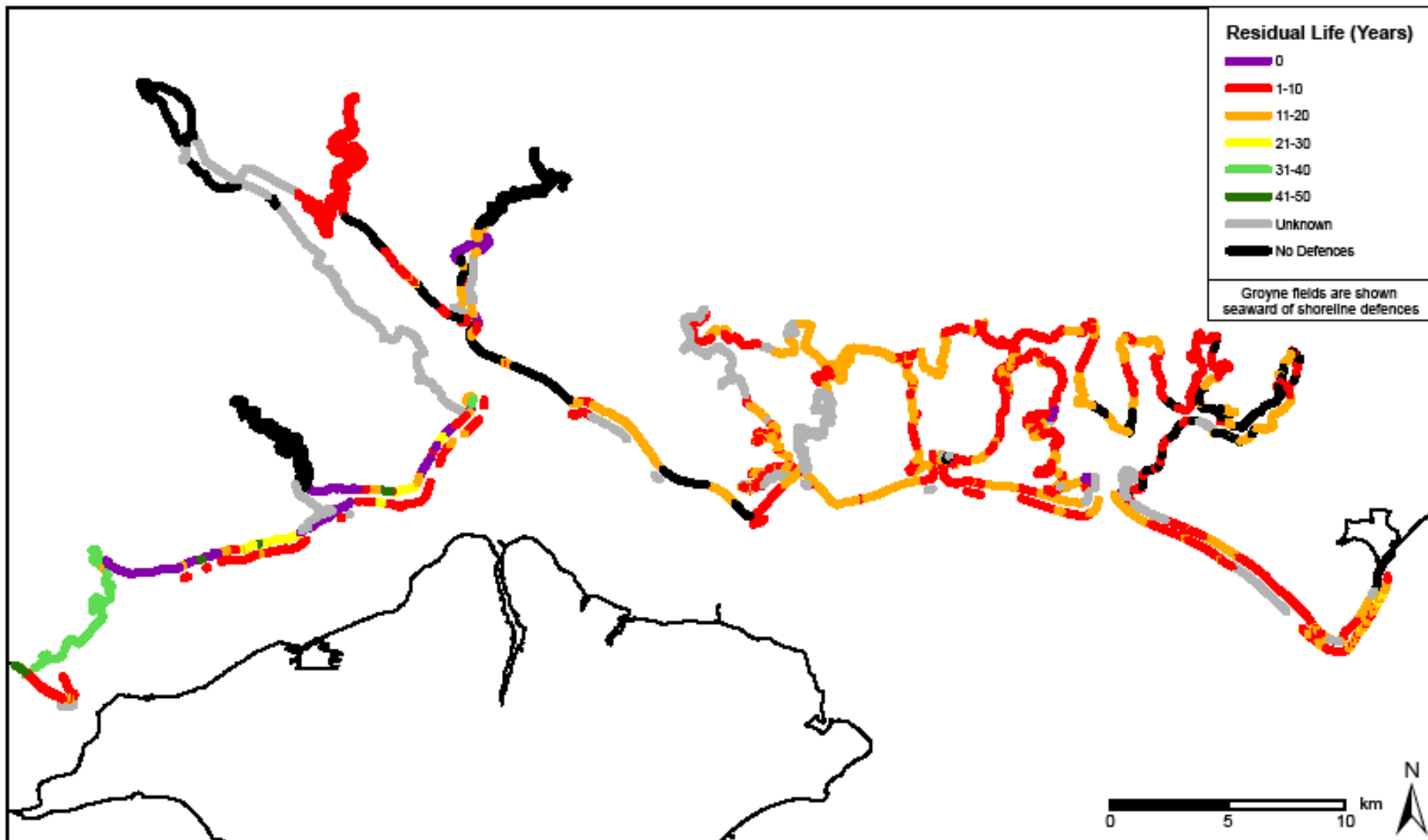
Assessment of Defence Assets

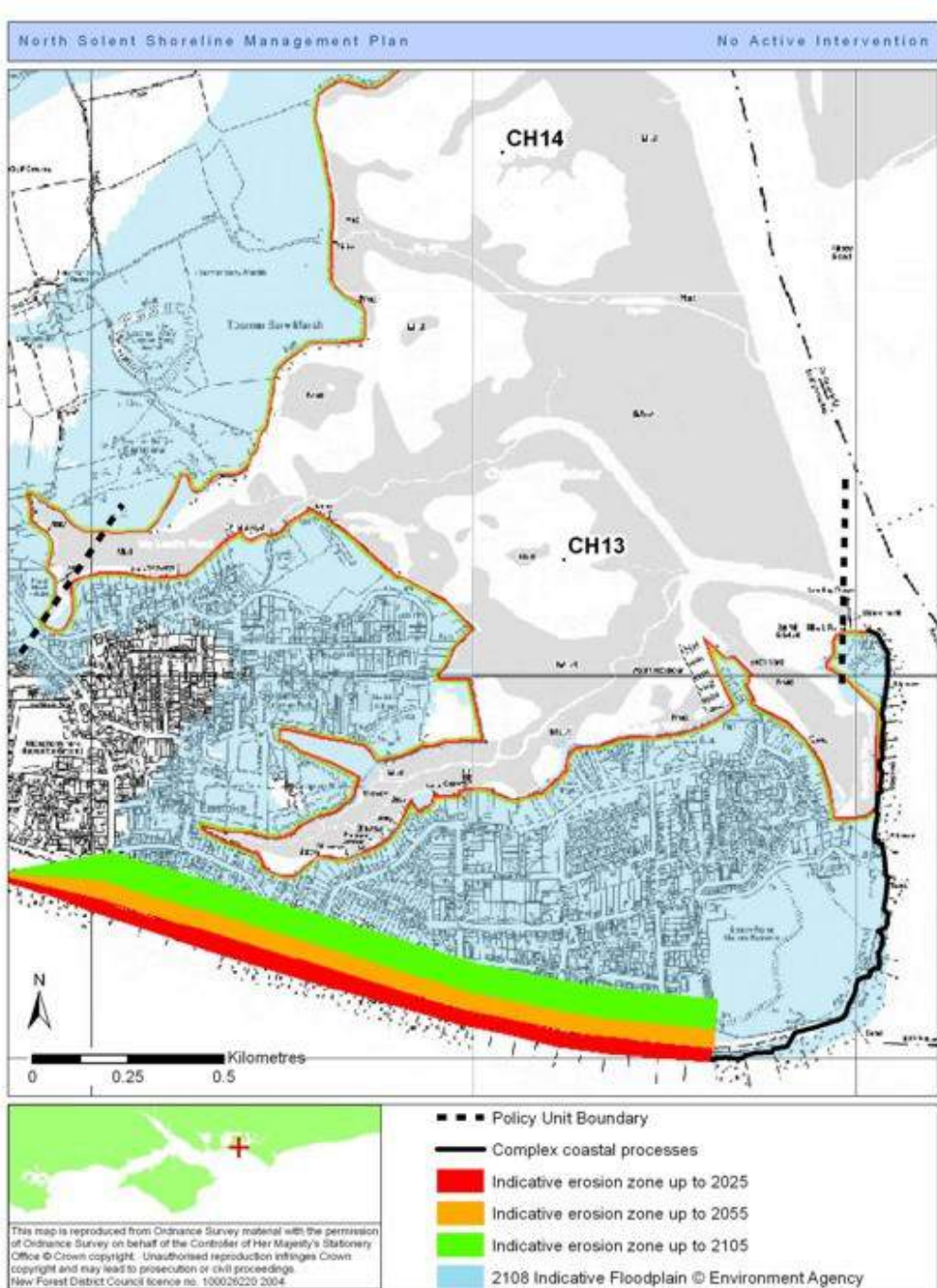
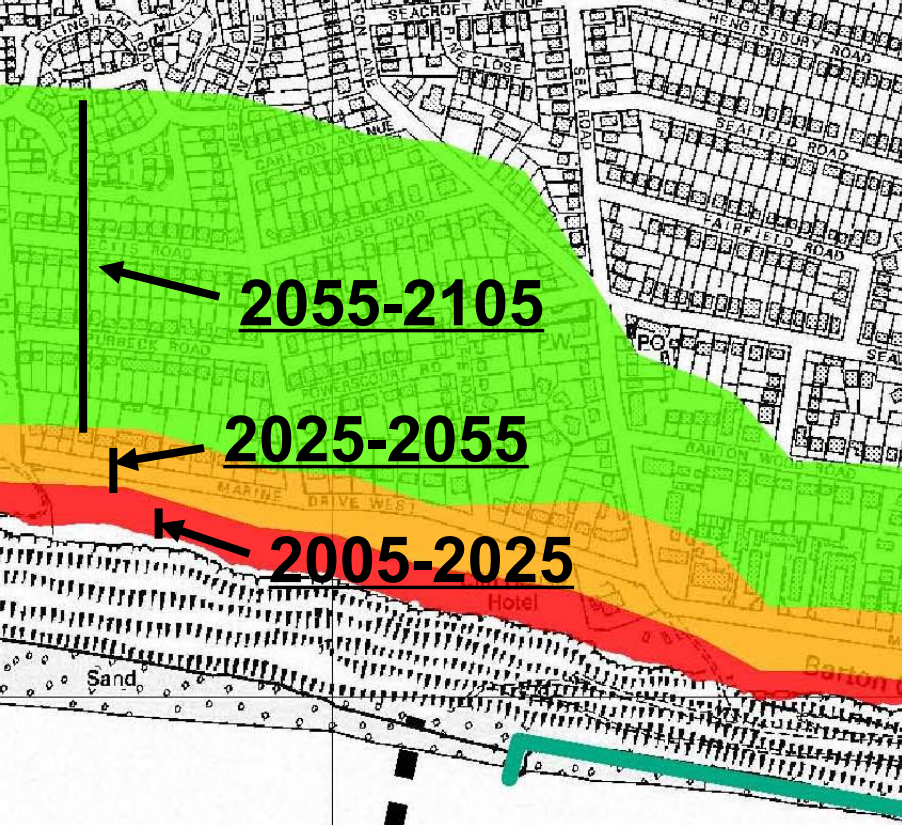






Defence Condition





Annual average rates

Indicative erosion risk zones per SMP epoch



© Eastleigh Borough Council



© Mark Stokes



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Summary

- High quality, freely available monitoring data
- SMPs provide indicative flood and erosion risk mapping
- LPAs may use SMP risk mapping as evidence base for Coastal Change Management Areas to aid planning decisions
 - Consultations with coastal communities



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Thank You



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www.northsolentsmp.co.uk





Managing flood and coastal erosion risks

