



Historic England

Cultural Capital

Sandscapes conference 12th October 2016

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North West Regional Science Adviser

Cultural Capital

- What is it?
- Why does it matter?
- How can we make good use of it?



What does a Historic England Science Adviser have to do with coastal heritage?

<https://historicengland.org.uk/about/what-we-do>

We look after the historic environment, providing expert advice, helping people protect and care for it, and helping the public to understand and enjoy it.

- England, including offshore to the 12 nautical mile limit-
Integrated Coastal Zone Management perspective



Science adviser: remote sensing, dating methods, sediments,
Historic England plants, animals, human remains, climate change, industries...

Cultural Capital- What is it?

- ✓ Historic Environment? Landscapes, human habitats
- ✓ Heritage assets? Listed, designated, registered?
Historic Environment Records (HERs)
- ✓ Capital = cash value, employment & profits?
- ✓ A sense of place? Of belonging & wellbeing?

☐ Tangible & intangible

North West Marine Plan- *Environment, Economy, Society*
Historic environment integrates within all three –
perfect for Landscape Partnerships!



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Heritage Counts 2016

Headline findings

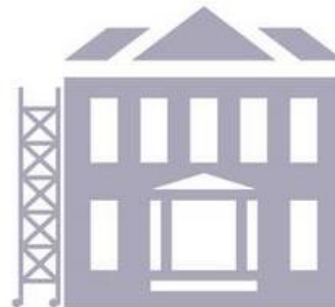
Heritage
Gross Value Added
(GVA)



Heritage
tourism expenditure



Heritage
workforce



Heritage
construction
output

£9.7bn

Headline findings from Heritage and the Economy 2016

Historic England



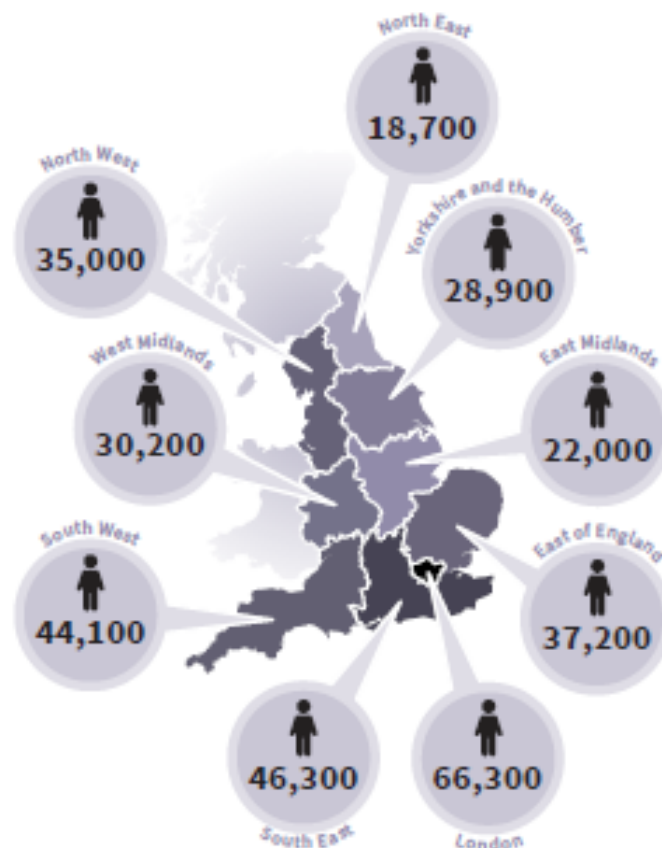
Heritage Economic Impact Indicator Workbook (TBR 2016)

In 2013, heritage directly generated £10 billion in gross value added (GVA) in England. If indirect and induced effects are considered, heritage sectors' contribution to GVA increases to £21.7 billion. This is equivalent to 2 per cent of national GVA (TBR 2016).

In 2013, there were 164,100 direct heritage jobs in England. If indirect and induced heritage employment is included then this figure rises to 328,700 heritage jobs or 1 per cent of total national employment (TBR 2016).



The regional makeup of direct, indirect and induced heritage GVA in England.



The regional makeup of direct, indirect and induced heritage employment in England.



HERITAGE COUNTS

NORTH WEST – HERITAGE ECONOMY 2016

HEADLINE FACTS

- Heritage directly contributed over £922m in Gross Value Added (GVA) in the North West in 2013
- In 2013, there were over 17,500 people directly employed in heritage in the North West.
- In 2014, heritage tourism generated nearly £1.7 billion in spending by domestic and international visitors in the North West
- Repair and maintenance of historic buildings in the North West directly generated over £1.2b in heritage-related construction sector output in 2015

This is money value, but what of the wider value to people & the environment?



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Heritage trails call for photos

**Thursday 17
March 2016**

Launch of the Southport Heritage Trails

6:30 pm

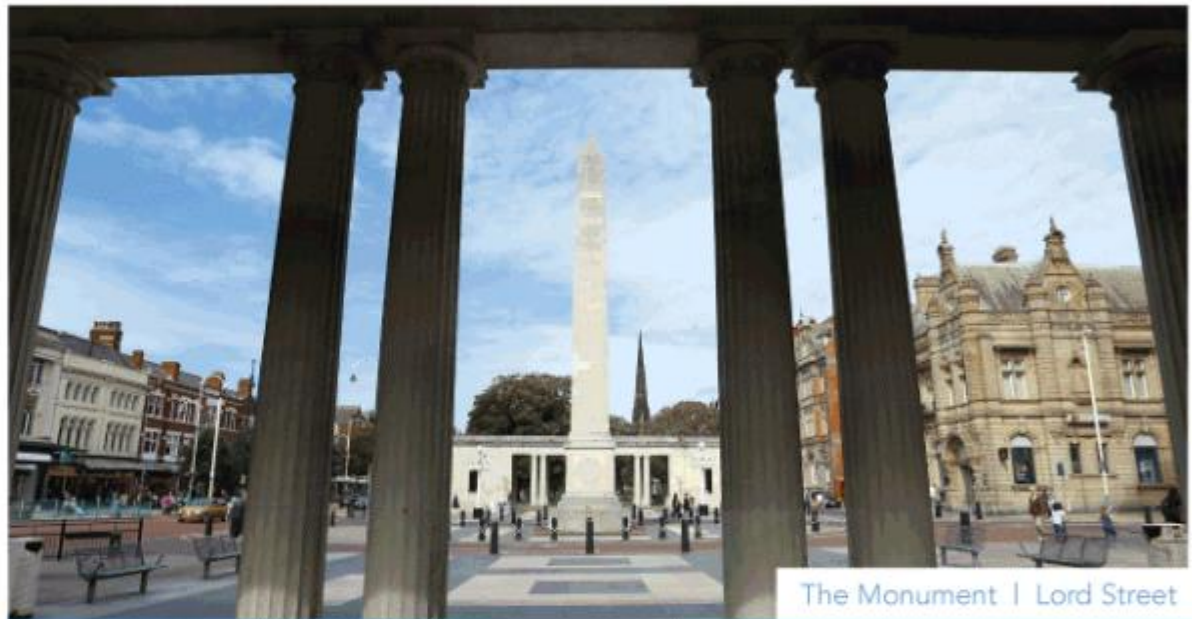
The Atkinson, Galleries

Free

HERITAGE TRAILS

MY SOUTHPORT

town life culture photography



The Monument | Lord Street

LOVE SOUTHPORT?
INTERESTED IN HERITAGE
AND PHOTOGRAPHY?

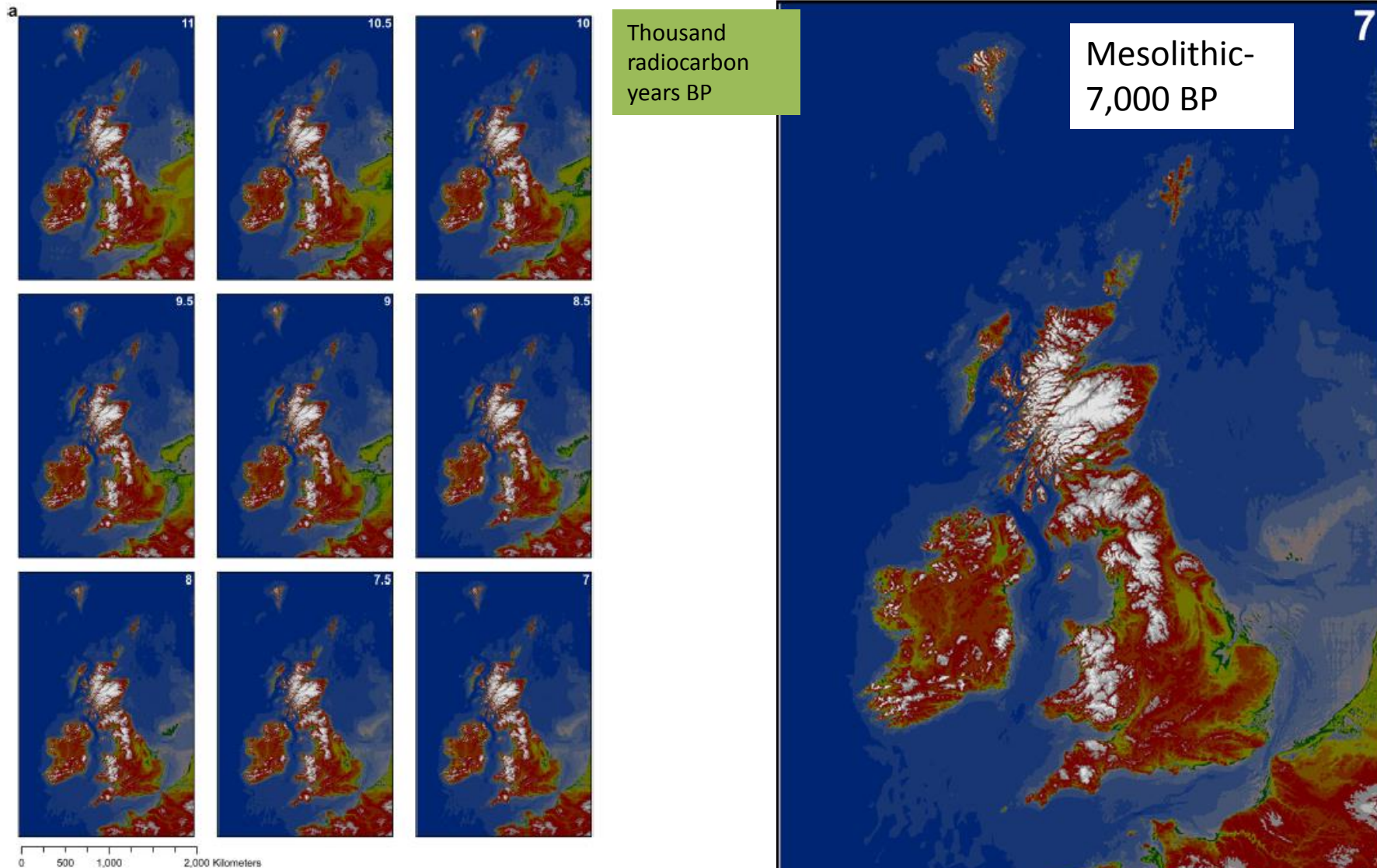
Dynamic coasts



Historic England

New models of North West European Holocene palaeogeography and inundation

Fraser Sturt, Duncan Garrow & Sarah Bradley 2013 *Journal of Archaeological Science* 40 pp 3963-3976 OPEN ACCESS http://ac.els-cdn.com/S0305440313001982/1-s2.0-S0305440313001982-main.pdf?_tid=7d605032-8164-11e5-8498-00000aabb0f01&acdnat=1446470610_4c4b64628ae8ed9507b9906b77e62bf6



7

Mesolithic-

7,000 BP

Thousand

radiocarbon

years BP

0

500

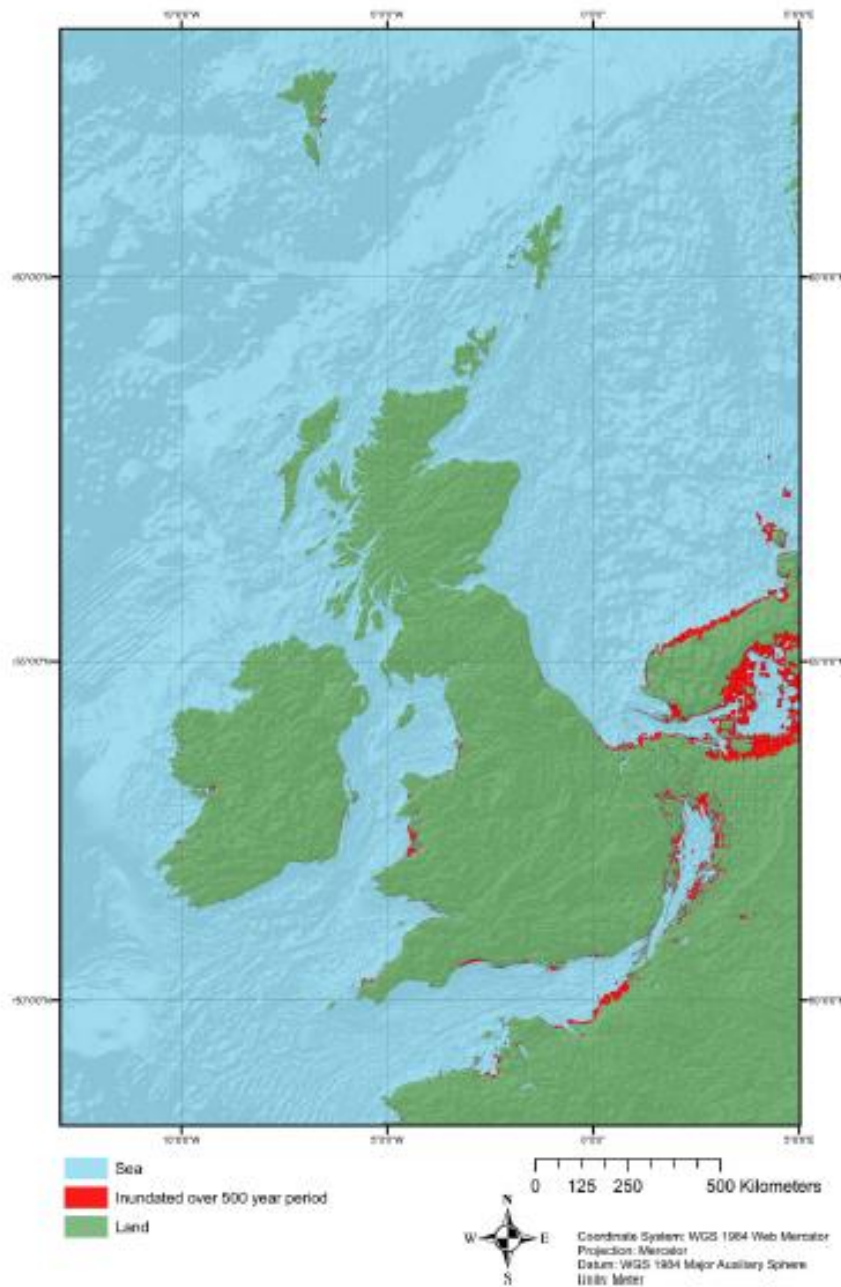
1,000

2,000 Kilometers

Fig. 6. (Parts a, b and c) Palaeogeographic models from 11,000 BP to present (km versions available online). Map produced in part from Ordnance Survey Digimap, SeaZone

solutions and CERCO 08 (www.gebco.net) data. © Crown Copyright/EDINA supplied service. © Crown Copyright/SeaZone Solutions. All

Rights Reserved. Licence No. 1052006/001. Not to be used for Navigation. Additional data courtesy of the Channel Coastal Observatory.



North West coast: very high tidal range

RED areas inundated by marine transgression (rise in relative sea level) between 10,000 and 9,500 BP

Low level areas of North West coastline – Sefton, Fylde, Morecambe Bay, Solway Firth... several fluctuations in prehistory- interdigitating sediments, marine, estuarine, terrestrial – inland, foreshore, sea-bed

Fig. 4. Map showing the area inundated between 10,000 and 9500 BP. Map produced in part from Ordnance Survey Digimap, SeaZone solutions and GEDCO US (www.gedco.net) data. ©Crown Copyright/database right 2012. An Ordnance Survey/EDINA supplied service. ©Crown Copyright/SeaZone Solutions. All Rights Reserved. licence No. 052006.001 31st July 2011. Not to be Used for Navigation. Additional data courtesy of the Channel Coastal Observatory.

West Coast Palaeolandscapes

Remember to geo-reference your data!

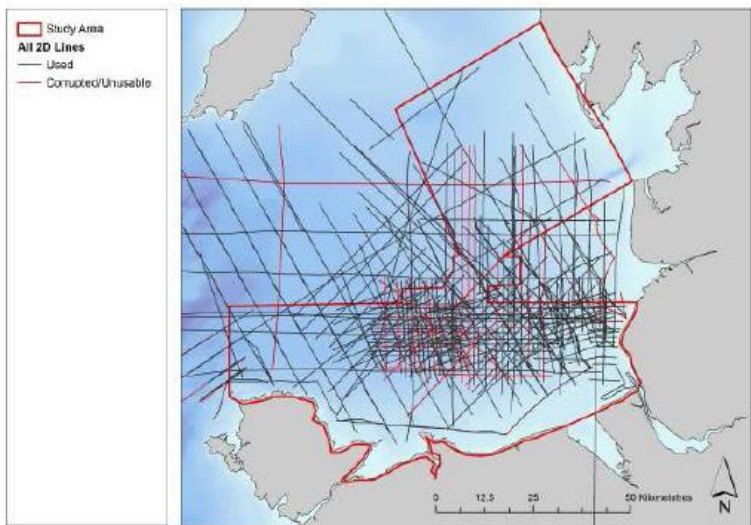


Figure 8: 2D lines used in the Liverpool Bay study area

An assessment of the BGS 2D geophysical survey data for use within the project

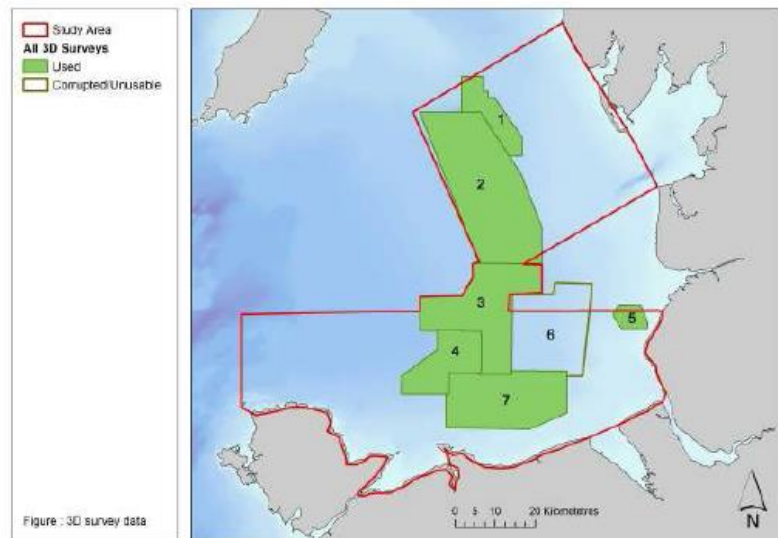


Figure : 3D survey data

Figure 6: All 3D seismic surveys used in the project (Liverpool Bay study area)

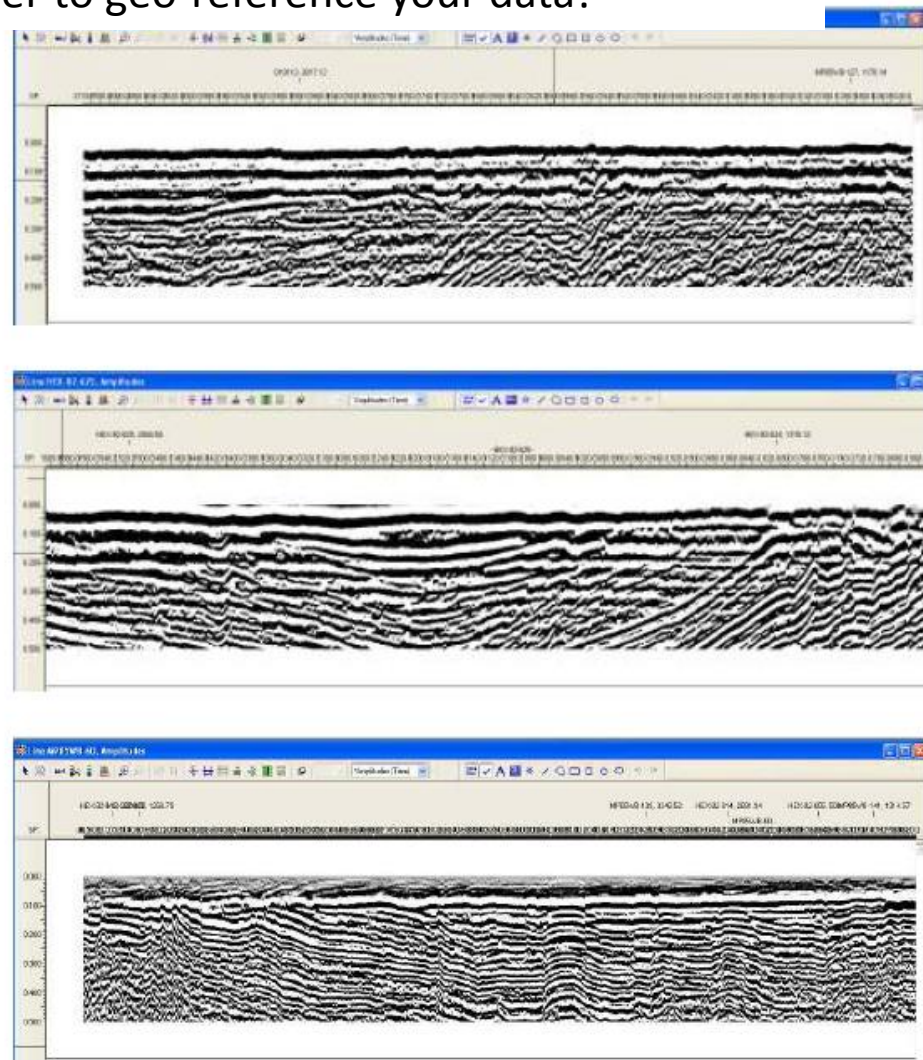


Figure 9: A Selection of 2D Lines from the Bristol Channel, Illustrating the differing sedimentological conditions across the study area.

remote sensing eg West Coast Palaeolandscapes Survey 2011

<http://www.dyfedarchaeology.org.uk/lostlandscapes/WCPStechical.pdf>

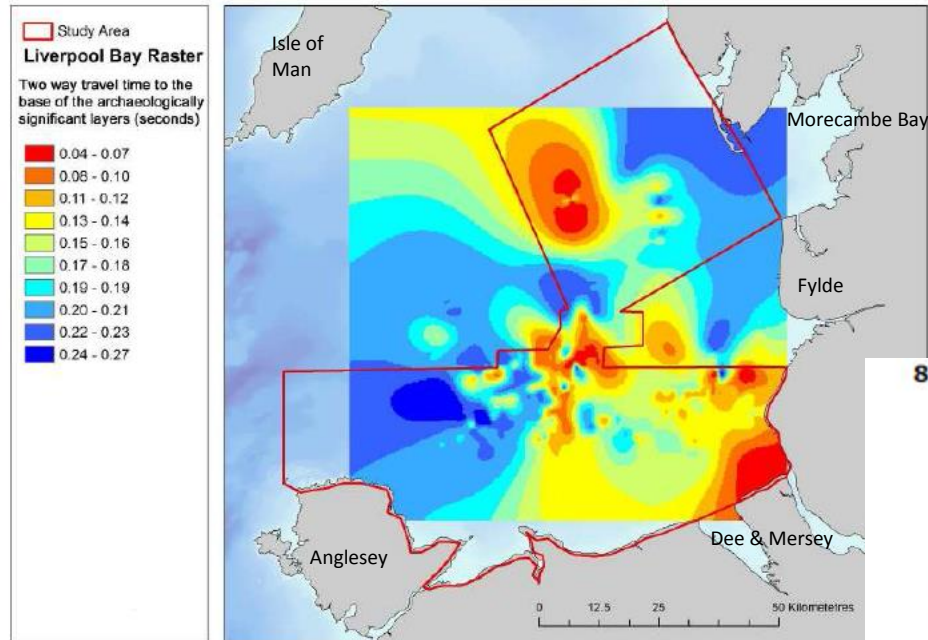


Figure 36: Raster interpolation derived from the Z values of the 2D features identified within the Liverpool Bay s

Digital terrain models based on remote sensing

2D data – surface topography

3D data – time slices

8.4 Liverpool Bay – Mesolithic (Figure 59)

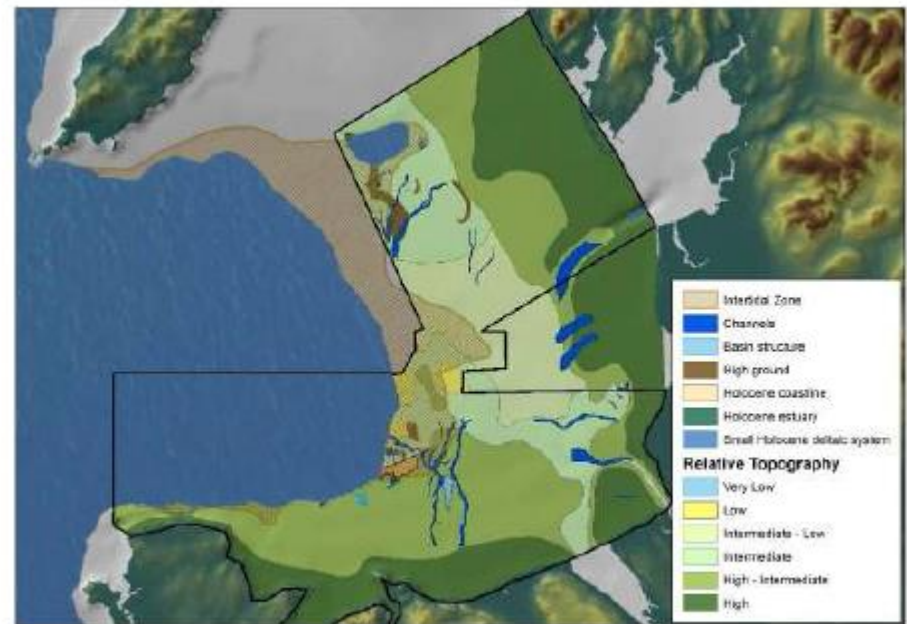


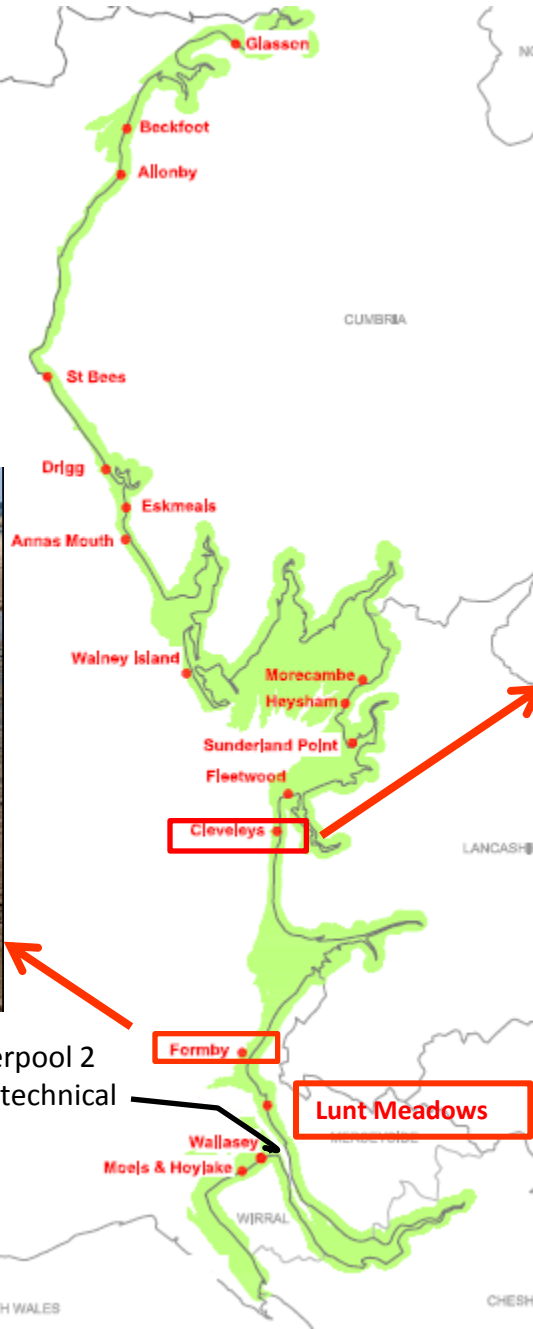
Figure 59: Liverpool Bay in the Mesolithic (ASTER DEM is a product of METI and NASA)

– North West Rapid Coastal Zone Assessment, Stage 2 chapter 6 Palaeoenvironments



Formby

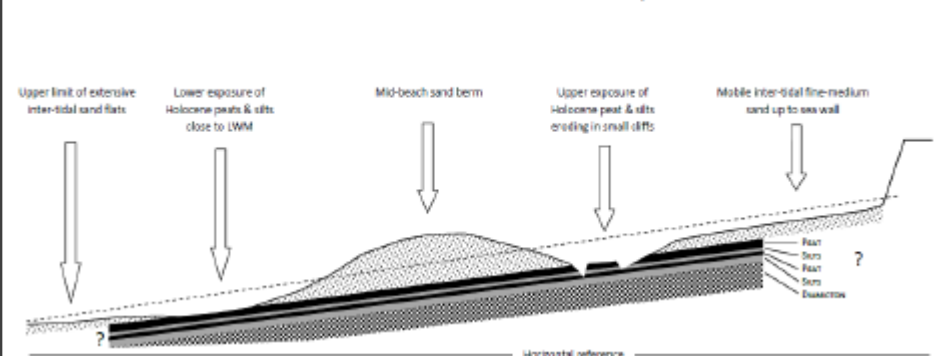
Liverpool 2 geotechnical



Radiocarbon dating of peat
13,110 – 12,150 cal BC
(Windermere Interstadial)
coast inundated by
7040 – 6680 cal BC



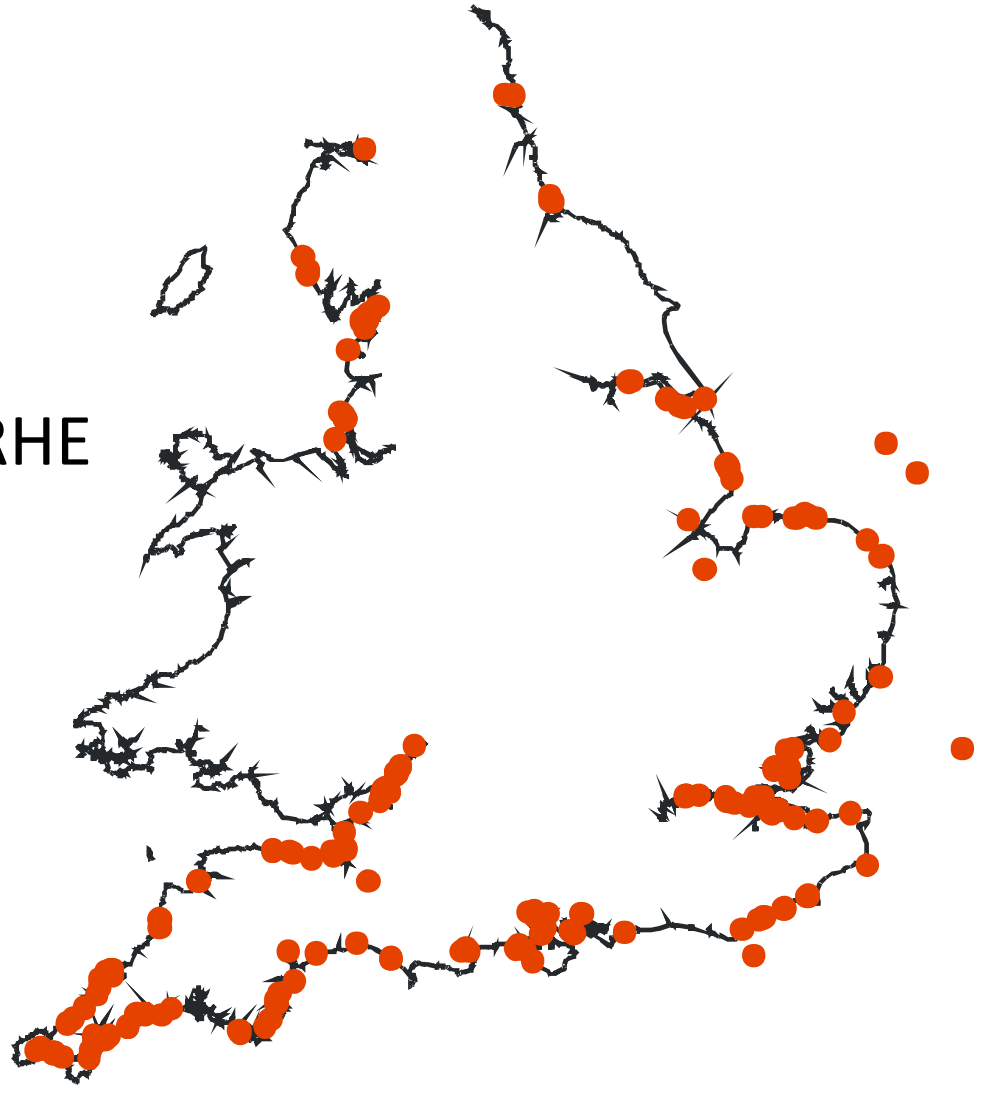
Schematic section across foreshore at Cleveleys, Fleetwood



The coastal and inter-tidal peat database

<https://historicengland.org.uk/research/current-research/heritage-science/intertidal-peat-database>

- Coastal and off-shore peat exposures
- Historic Environment Records (HER) and NRHE



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North West Rapid Coastal Zone Assessment (RCZA) Stage 1: National Mapping Programme

critical resource for Shoreline
Management Plans (SMP),
Marine Management
Organisation (MMO)
applications, coastal erosion,
Heritage at Risk (HAR) &
Coastal Partnerships



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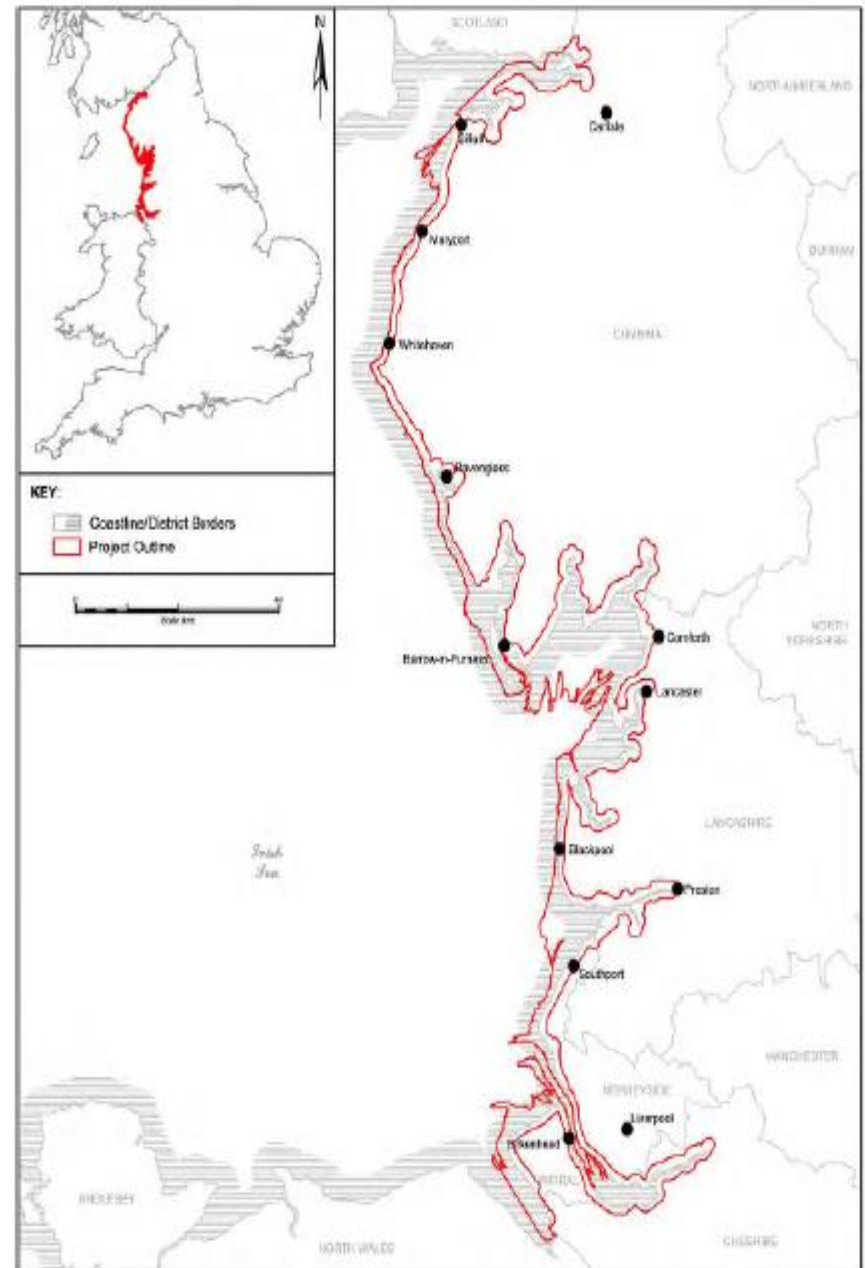


Fig 1.1 Location of the North West Rapid Coastal Zone Assessment study area

Shoreline Management Plans: Rapid Coastal Zone Assessment



Archaeological
Research
Services Ltd

Phase 1: 2009
Mapping from
Aerial photographs +
info from
Local Authorities'
*Historic Environment
Records* (HER)

Thousands of sites,
from early prehistory
to World War II & later

North West Rapid Coastal Zone Assessment (NWRCA)



Rock-cut graves at St. Patrick's Chapel, Heysham Head

ARS Ltd Report 2009/53
September 2009

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www.archaeologicalresearchservices.com

Phase 2: 2012
ground-truthing
selected sites:

do they still exist?
Are they eroding
away?

Chapter 6:
palaeoenvironmental
sites and dating

The North West Rapid Coastal Zone
Assessment (NWRCA) Phase 2

Executive Summary Document



Piel Castle, Piel Island, Cumbria

ARS Ltd Report No. 2012/70
September 2012

OASIS: archaeol5-135376

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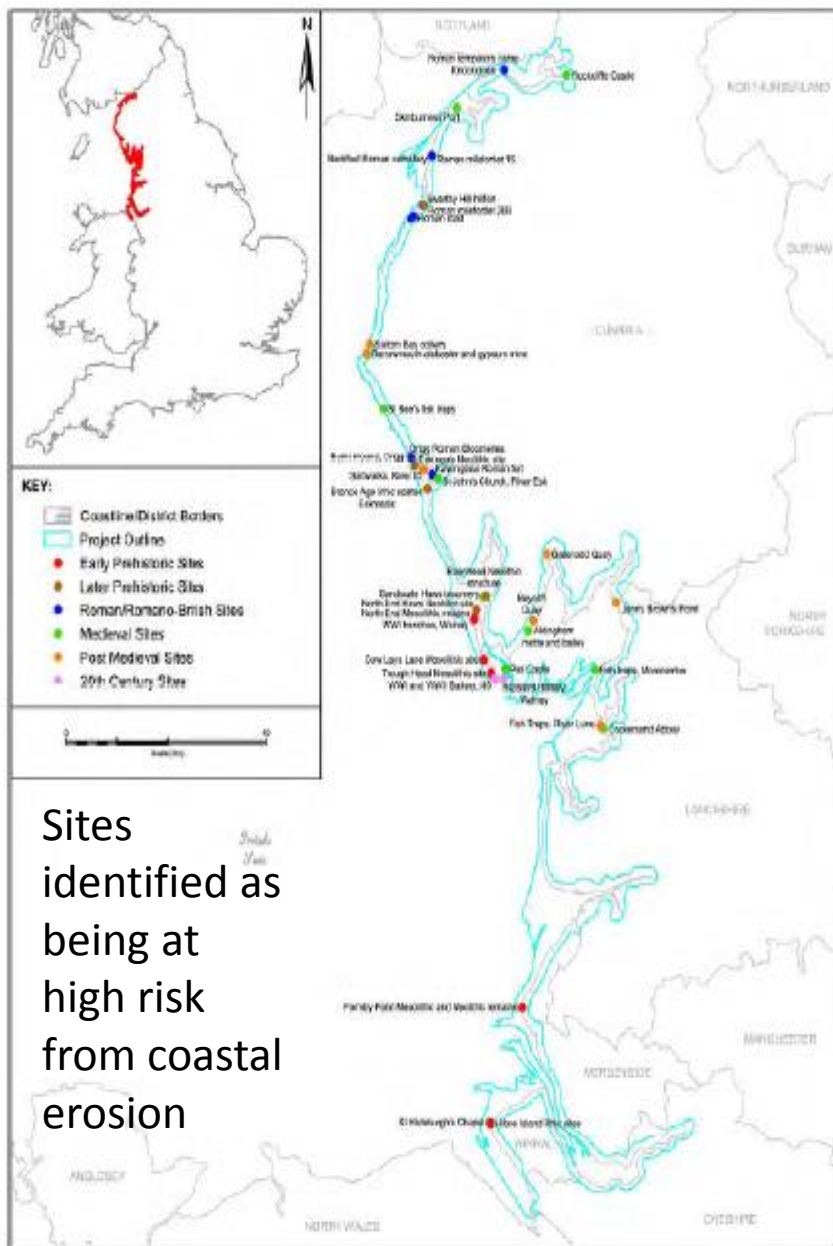
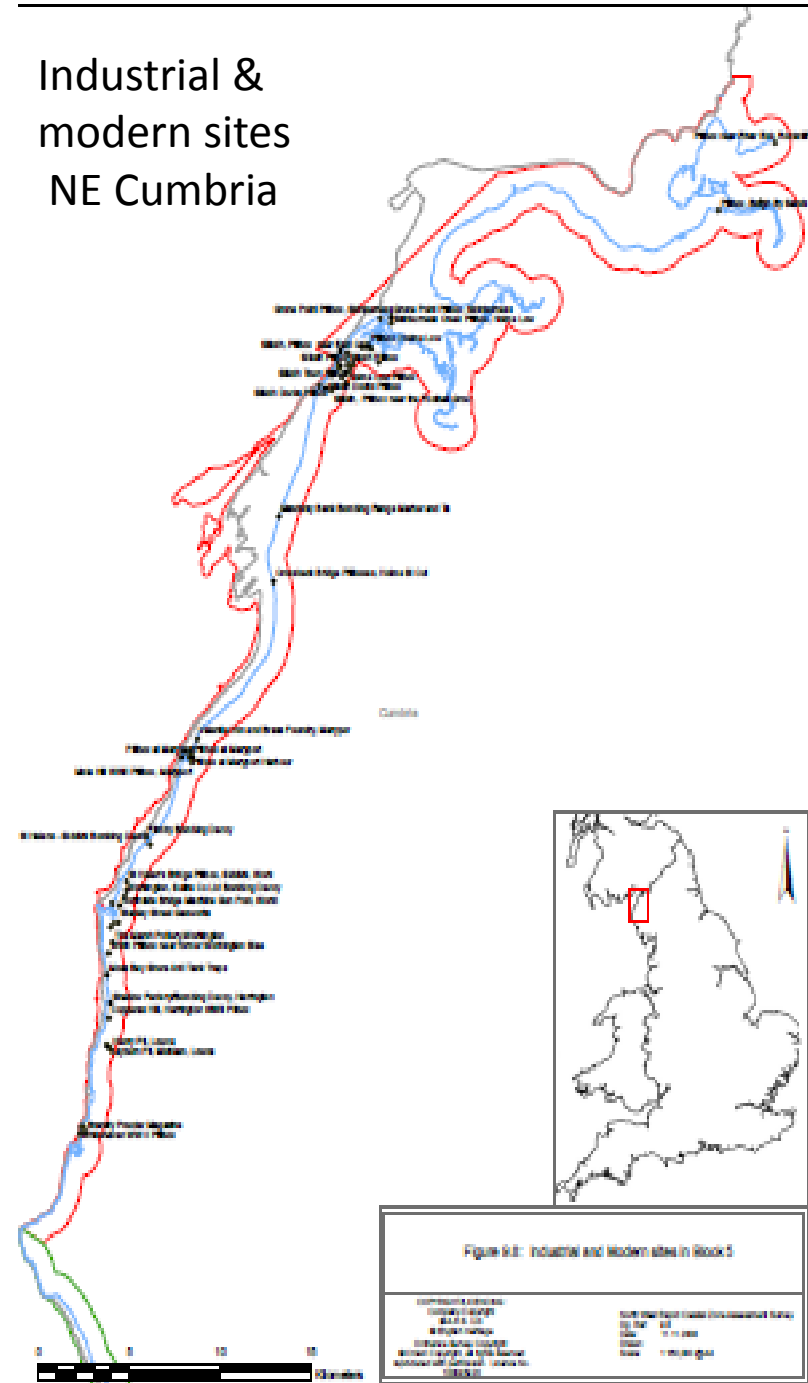


Figure 10.2 Sites identified in the Phase 1 NWRCA as being at high risk of coastal erosion.

Industrial & modern sites NE Cumbria





4000 year old submerged forest, Cleethorpes (CITiZAN)



Jenny Brown's Point, Lancashire (CITiZAN)



Battery observation post, Isle of Sheppey (CITiZAN)

Gordon Roberts at Formby

Cultural Capital (assets & ecosystem services)

- What is it?
**Historic Environment
= our habitat**
- Why does it matter?
- How can we make good use of it?

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Thank you