

Shifting Shores Coastal change and the need to link land and sea







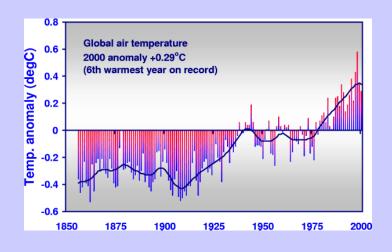
CHANGE ON THE COAST: FACING UP TO REALITIES

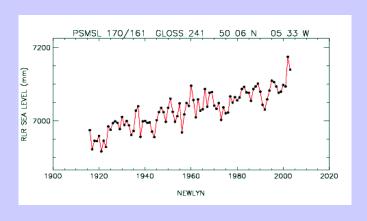
Is coastal change the norm – and if so do we (protected area managers) have the right tools?

But first some background to the Trust and coastal change



The Evidence



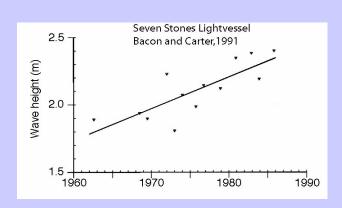






Rhone Glacier 1850

2002



NT Coast Risk Assessment (CRA1)

- CRA1 2004 Commissioned Halcrow to use data from the Defra Futurecoast project for sea level rise and erosion and EA flood data (England and Wales)
- Properties were assessed at 500m 'node' points and given an erosion/flood banding based on 1metre SLR over the next 100yrs
- The Phase 1 Report originally identified approx 255 properties at risk from flooding or erosion
- 2007 Queens University Strangford, Giants Causeway & Murlough

CRA1 told us:

- 50% of coastal properties will become subject to moderate/extreme erosion
- 245 properties are at risk from tidal flooding (6,757 ha)
- Coastal change is relevant to the whole coast not just the east of England



Shifting Shores - Opening a discussion

2005



2008



2007



Key lessons

- Long-term planning essential
- Think & act in wider context
- Work with not against nature
- Solutions need partnership
- Public involvement is critical

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Introduce CRA2

 In 2006 we began CRA2 looking in detail at the implications of CRA1 findings at a local and property specific scale



Phase Two - method

Then identify 'assets' at risk

Car park

 Access road to car park and farm

Café ?



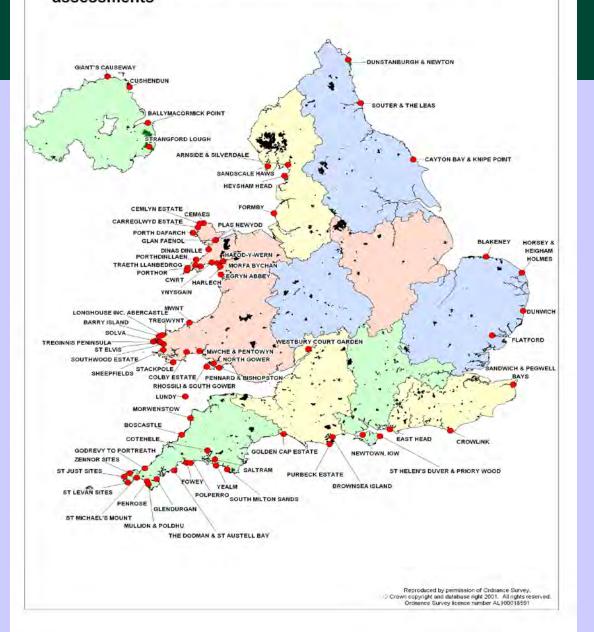
CRA2 - Detail available

- Environmental designations
 +backshore/intertidal habitat+species
- Listed buildings & historic features
- Social & economic- activity & jobs,
 visitors & residents; insurance & income
- Access- key infrastructure, car parks, roads, paths

CRA2 is being used

- To provide information for the development of Shoreline Management Plans- sharing with coastal groups
- Advocacy work with various government departments in England, Wales and NI
- Identifying what is important for the development of NT management planning

Proposed CRA 3 Coast Adaptation Strategy properties in England, Wales and Northern Ireland following CRA 2 assessments





Issues identified

- Environmental Designation
- Community Engagement
- Legal constraints
- Access
- Health & Safety
- Sea defences failing

All this information distilled into some key actions and issues at a property



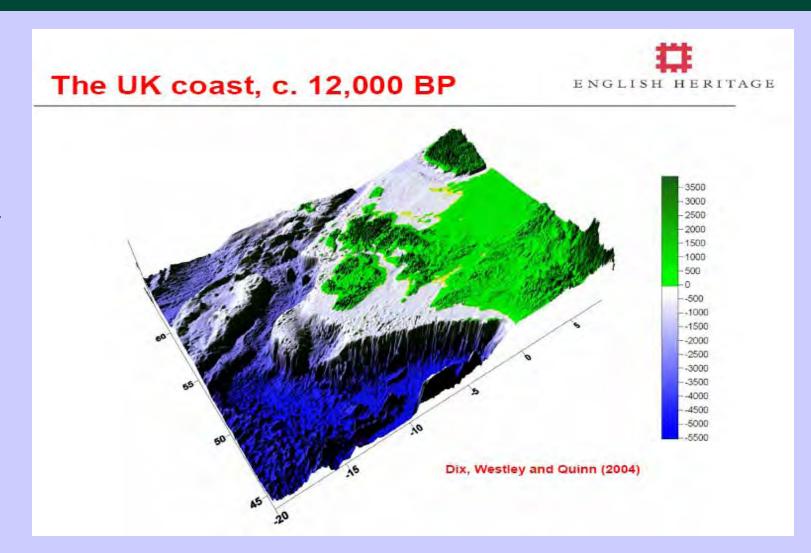
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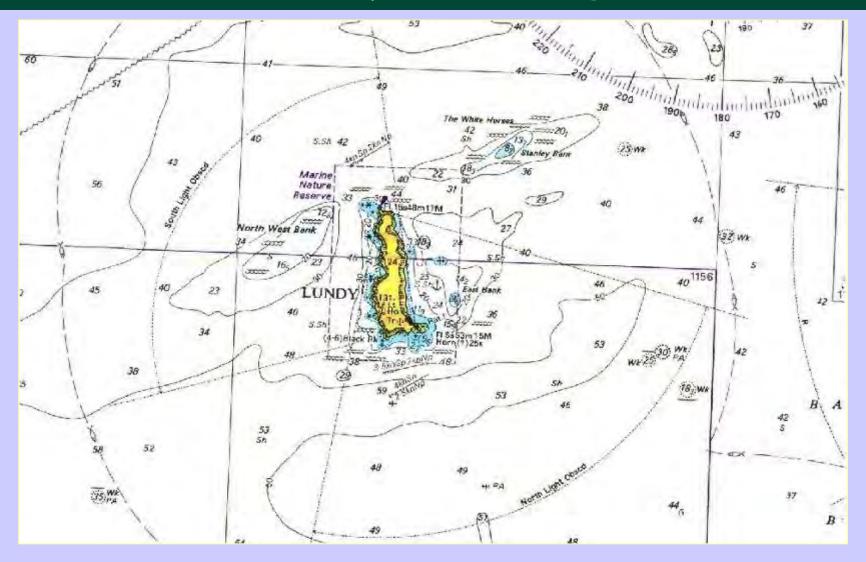


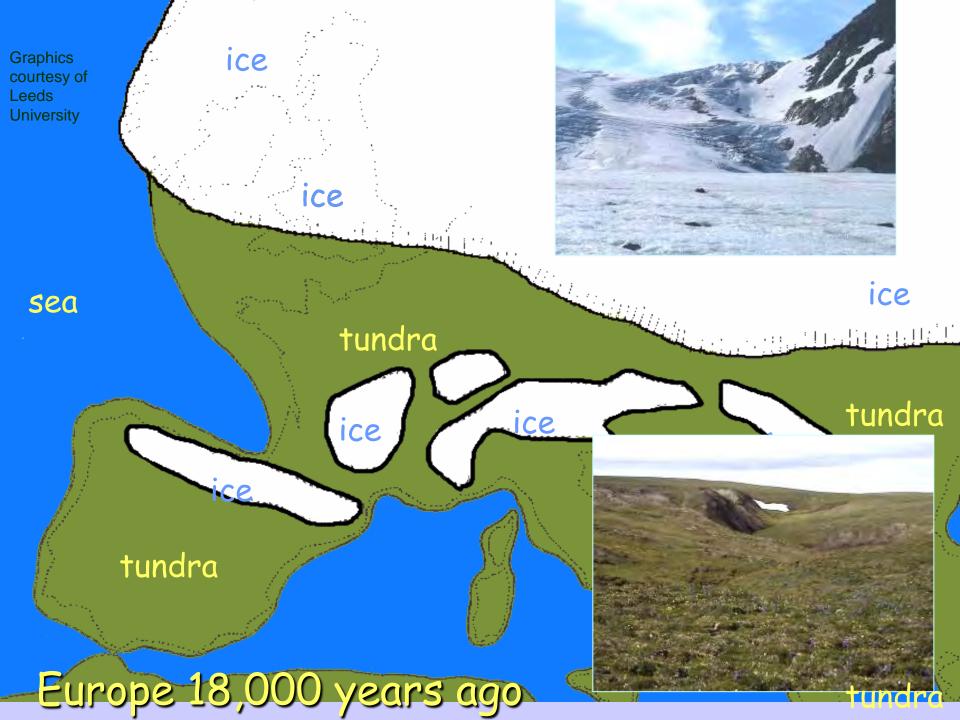
Coastal Change is nothing new

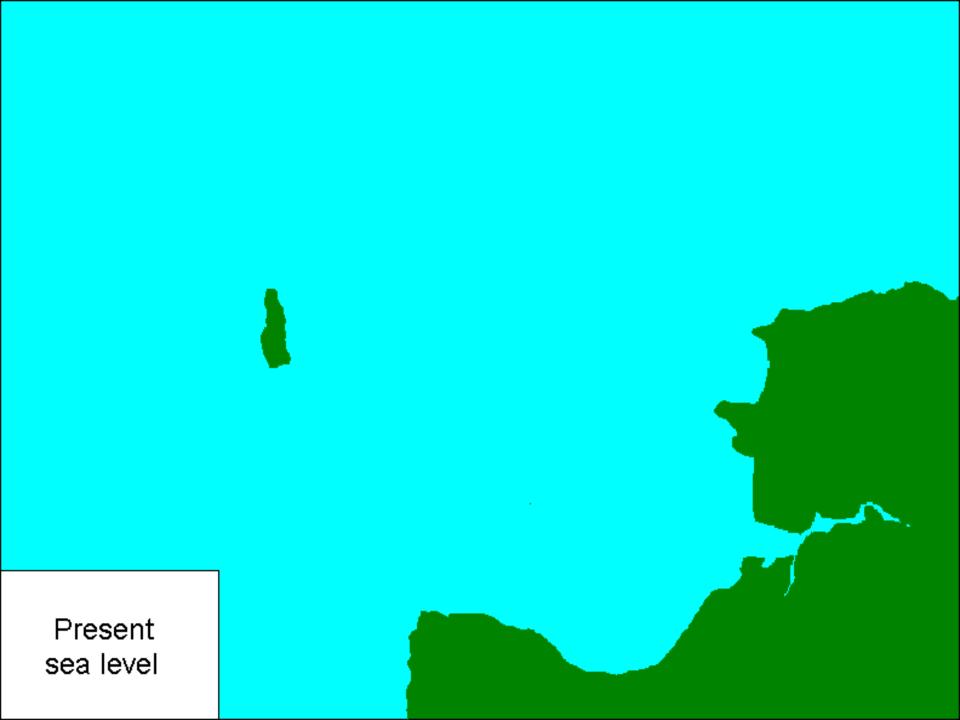
- Global sea levels have varied repeatedly throughout geological time in response to climatic changes (+/-130m)
- During the last 140,000 years, sea level has only remained steady for three periods of 5000 years or more:



how might Isle of Man cabbage have arrived on Lundy, and changed there?







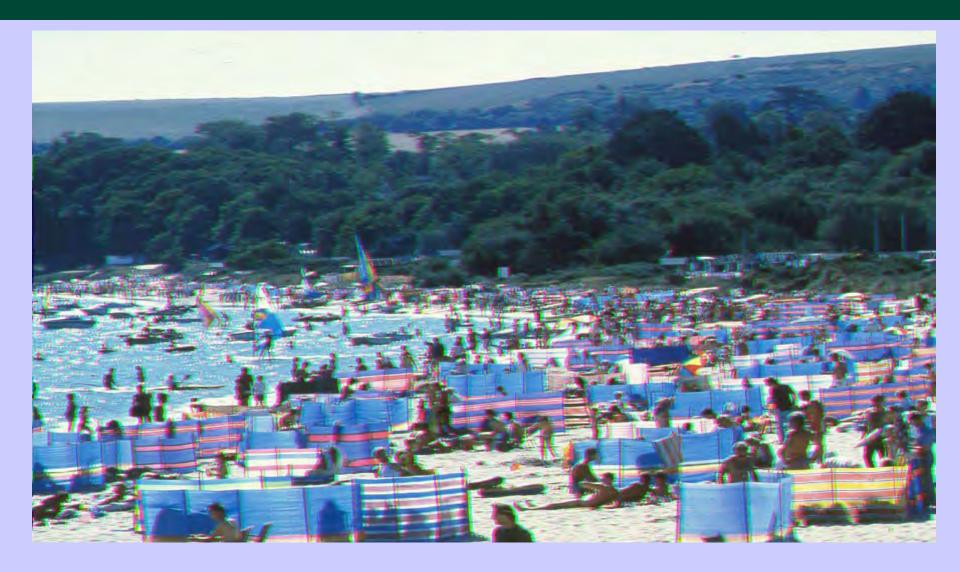


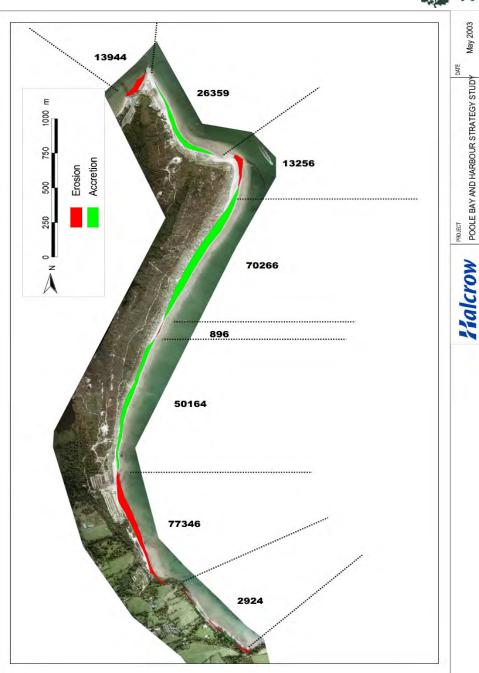
So are we missing the point?

- Human experience and recorded history have created a perception of sea level as something which remains constant, when in fact the evidence tells us steady sea levels are more of an infrequent occurrence than the norm over timescales of millennia or longer.
- Is our current approach to conservation based on lines on maps/charts, short term thinking, and designation based on a division between land and sea - helpful in the context of a changing coast.
- Our coastal habitats/landscapes will increasingly become characterised and redefined by rising sea levels, increased storminess, coastal flooding and erosion.



COASTAL SQUEEZE a quiet day on Studland Beach, Dorset







Equipping ourselves for change

Is our current approach to designation and management sufficient to manage an increasingly complex relationship between terrestrial and marine habitats?







And then there's the people

If <u>we</u> are not properly equipped, how can we expect wider society to deal with coastal change?



Enhancing public awareness



Conclusion

- Our current tools to manage protected landscapes on a changing coast need help in adapting to deal with change.
- Key to this will be linking land and sea, to deliver protected area management.

As is enhancing public awareness and support initially perhaps by the consultation linked to PL management plans?

