



Department for Environment
Food and Rural Affairs



Getting England to Adapt at the Coast

Notes from a small island

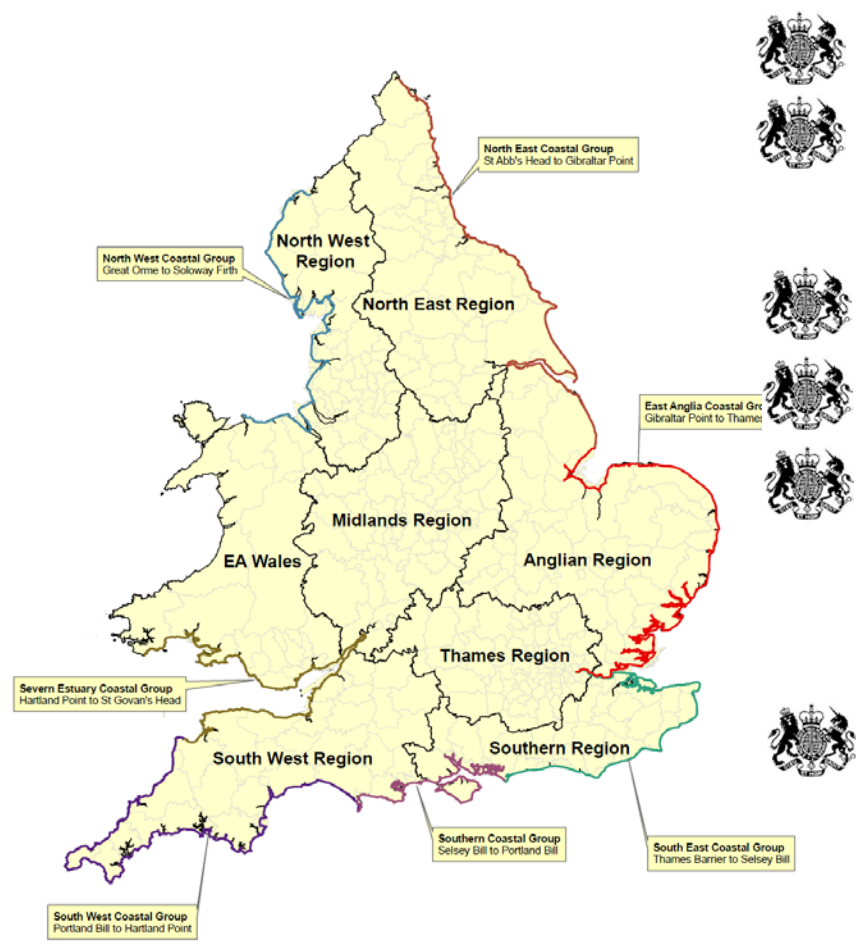
Nick Hardiman

Senior Coastal Adviser, National Strategic Overview,
Environment Agency (England)

Outline

- ➔ Brief overview of coastal risk in UK - paper
- ➔ Coastal management and adaptation in the UK
 - ➔ Communicating risk: keep it simple
 - ➔ EDD not DAD
 - ➔ Engagement doesn't go in a straight line
 - ➔ Localism not parochialism

Coastal Groups are the essential link from strategic to local, and technical to political



Local authority officers



Environment Agency

Elected Member forum



Natural England



English Heritage



Crown Estate

Network Rail

Water companies



Highways Agency

National Trust

Royal Society for Protection of Birds

Country Landowners Association

etc

Shoreline Management Plans (SMPs) set out coastal management options for the next 20, 50 and 100 years

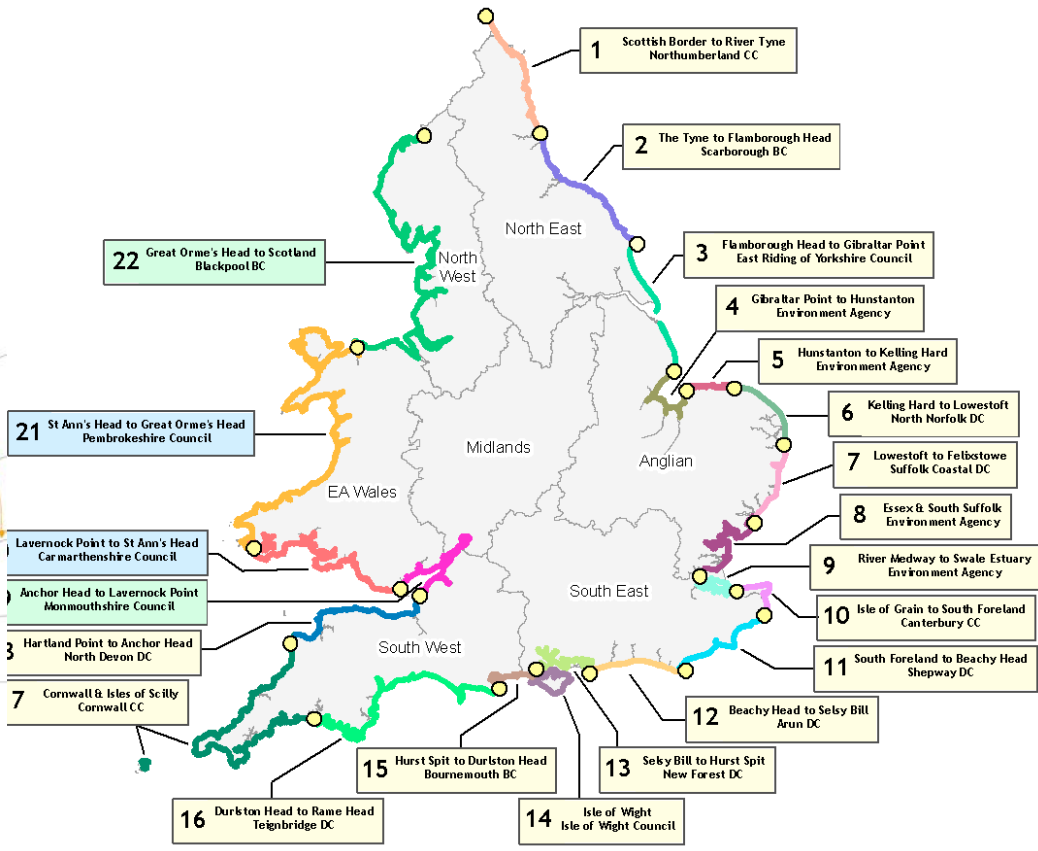


Hold the Line

No Active Intervention

Managed Retreat

Advance the Line
(rare...)



SMPs in the UK...

- ➔ Coastal flood and erosion risk management plans – not development plans
- ➔ Intensive public engagement and consultation
- ➔ National Defra guidance but non-statutory
- ➔ Long-term - set the 'direction of travel' but can be challenged, changed and are subject to funding availability
- ➔ Use consistent data sets informed by local expertise

www.defra.gov.uk

Shoreline management plan guidance
Volume 1: Aims and requirements

March 2006



Adaptation v.1: Clavell Tower, Landmark Trust

- ➔ Single owner
- ➔ £898,000 – of which about half from Heritage Lottery Fund
- ➔ Moved back 25 metres (82ft), giving approximately 200 years at current erosion rates
- ➔ 18 months work



Adaptation v 2: Birling Gap, National Trust



- ➔ National Trust management plus other property owners
- ➔ Working with natural processes vs 'responsibility to safeguard' tenants
- ➔ Local authority planning officers vs democratically elected members
- ➔ Staircase access to beach moves with the cliffs
- ➔ House relocation funded privately in 2009

Coastal Change Management Areas and Flood Risk Assessments zone development

106. Local planning authorities should reduce risk from coastal change by avoiding inappropriate development in vulnerable areas or adding to the impacts of physical changes to the coast. They should identify as a Coastal Change Management Area any area likely to be affected by physical changes to the coast, and:

- be clear as to **what development** will be appropriate in such areas and **in what circumstances;** and

•• make provision for development and infrastructure that needs to be **relocated** away from Coastal Change Management Areas.

107. When assessing applications, authorities should consider development in a Coastal Change Management Area appropriate where it is demonstrated that:

- it will be **safe over its planned lifetime** and will not have an **unacceptable impact** on coastal change;

•• the **character** of the coast including designations is not compromised;

•• the development provides **wider sustainability benefits;** and

•• the development does not hinder the creation and maintenance of a continuous signed and managed **route around the coast.**

108. Local planning authorities should also ensure appropriate development in a Coastal Change Management

Area is not impacted by coastal change by **limiting the**

planned life-time of the proposed development through temporary permission and restoration conditions where necessary to reduce the risk to people and the development.

➔ Well-established flood risk assessment process

➔ Respected EA development control

➔ 'Setbacks' and development zoning for coastal change is untested

Adaptation v.3: California 'Coastal Change Management Area'

- ➔ Consistent evidence base
- ➔ Meaningful boundaries?
- ➔ Opportunity as well as sacrifice
- ➔ Flexibility on restrictions applied
- ➔ Community input



Proposed **Coastal Change Management Area** based on the Indicative areas in the Shoreline Management Plan shown as being at risk in the short, medium and long term



Enhancement to the beach and cliff top with improved access and seating at appropriate points (not necessarily as shown) to be provided following the demolition of buildings



Prime **roll-back area** for households displaced by coastal change with new housing in keeping with the character of the village and additional hedge and tree planting along the outer boundaries



Second **roll-back area** along California Road with potential extension westwards as required, built in keeping with the character of the village



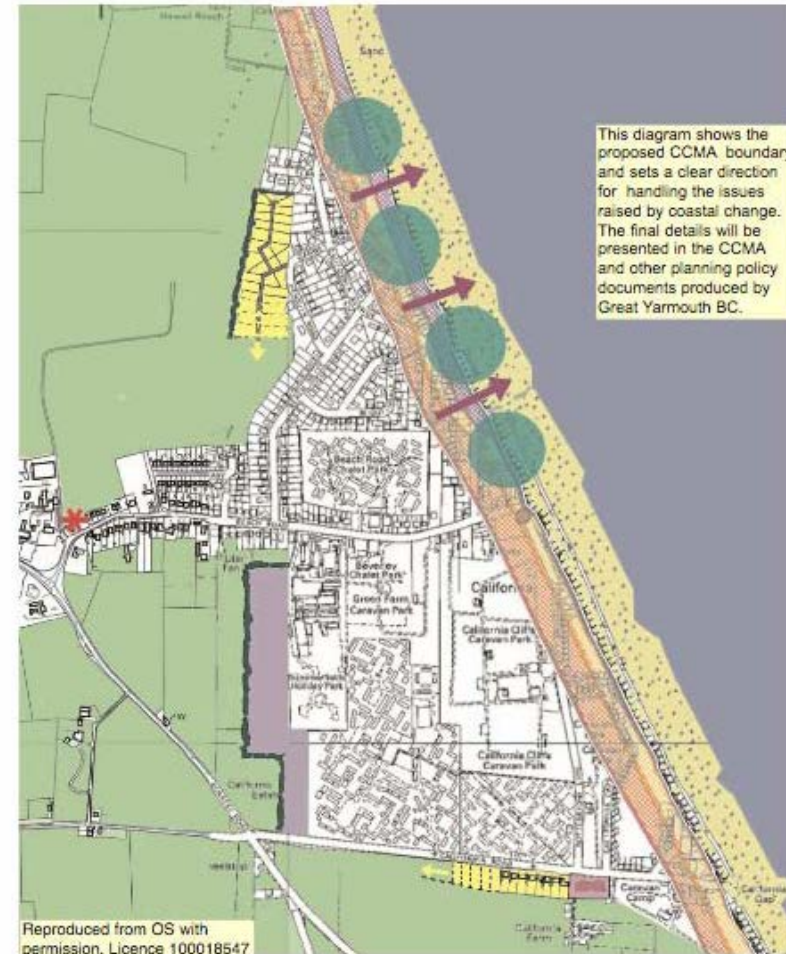
Area for displaced businesses - the California Tavern, shops and arcades - with new car park and improved access to the beach and cliff walk



Area to accommodate **holiday chalets and caravans** relocated from the affected areas of the holiday parks if needed, with new planting along the outer boundaries



Location for the planned **Community Centre**, close to the existing post office and shops, car park and play area



Adaptation 'pathfinders' scope options at the sharp end

www.defra.gov.uk
 Shoreline management
 Volume 1: Aims and r
 March 2006



National Planning Policy Fram



www.communities.gov.uk
 community, opportunity, prosperity



Flood and

Understanding the risks,
 empowering communities,
 building resilience
I could go on

- FLOOD AND
- 1 "Flood" and "coastal"
 - 2 "Risk"
 - 3 "Risk management"
 - 4 "Flood risk management"
 - 5 "Coastal erosion risk"
 - 6 Other definitions
- 2.5
- 7 National flood and coastal erosion risk management strategy for England
 - 8 National flood and coastal erosion risk management strategy for England
 - 9 Local flood risk management strategy
 - 10 Local flood risk management strategy
 - 11 Effect of national and local flood risk management strategies
 - 12 Effect of national and local flood risk management strategies
 - 13 Co-operation and arrangements
 - 14 Power to request information
 - 15 Civil sanctions
 - 16 Funding
 - 17 Levies
- 3.
- 18 Environment Agency

The national flood and coastal erosion risk management strategy for England

➔ The bottom line with coastal erosion: there's no insurance, no 'right' to a defence, and no compensation available, so...



Adaptation v 4: Happisburgh



- ➔ £3m grant to North Norfolk council from Defra's £11m 'adaptation pathfinder' scheme 2010-11
- ➔ Demolition of frontline homes and derelict infrastructure
- ➔ Relocation within village
- ➔ Buy-to-let for those at risk in 50 year SMP horizon
- ➔ Re-location of car park, footpaths, beach access

Adaptation v.5: Slapton

- ➔ £38k grant to South Hams council
- ➔ 'Lifeline' link road for local community
- ➔ Scoping and long term planning with businesses and environmental bodies
- ➔ Education and awareness, and alternative route planning

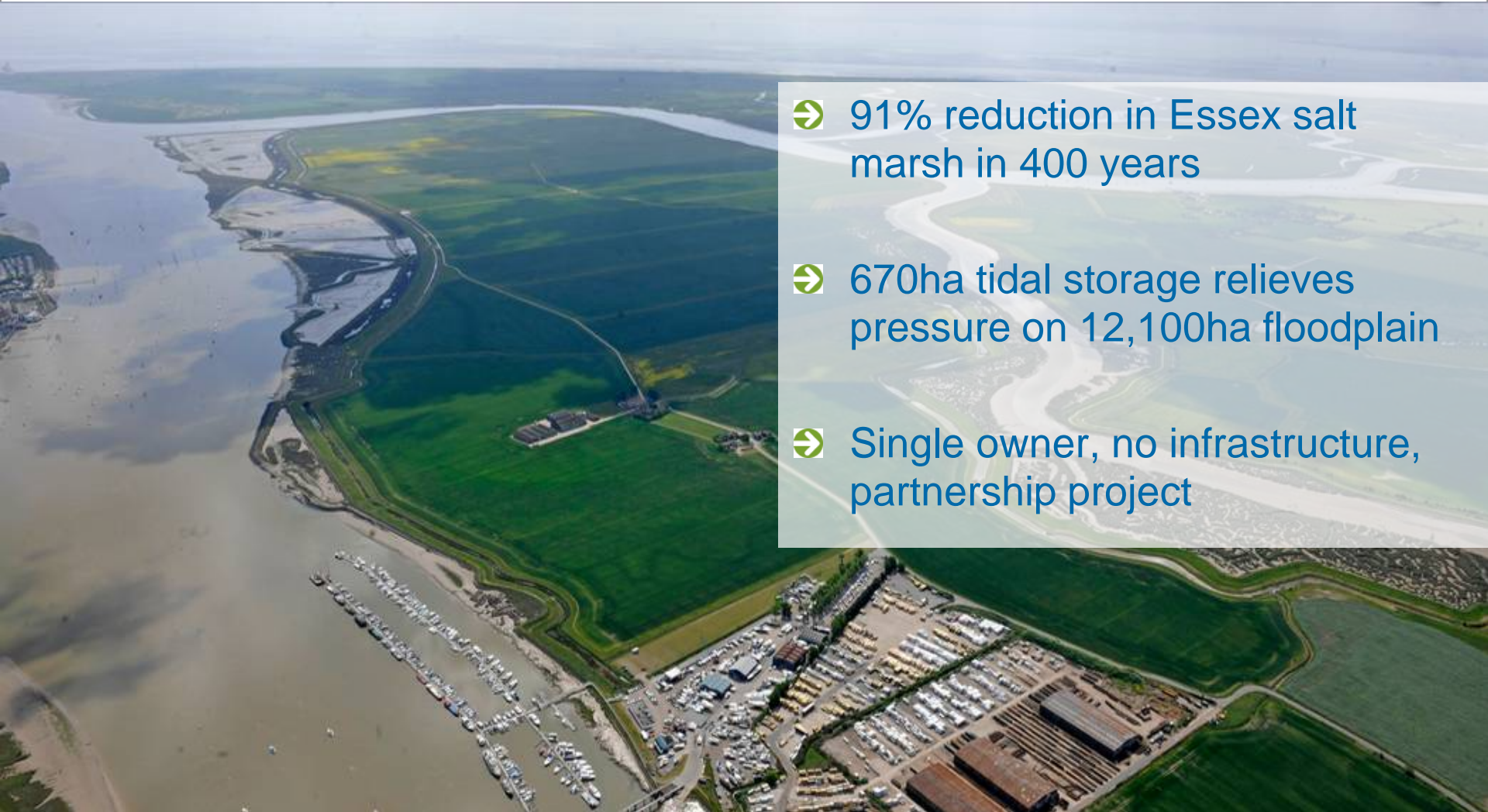


Managed re-alignment aims to maintain the integrity of the coastal wetland network



- ➔ Legal requirement – non net loss and favourable status by 2015, plus restoration of historic losses
- ➔ Environment Agency liabilities
- ➔ Area created so far covers 0.0087% of England's agricultural land
- ➔ Managed realignment in the UK is often heavily managed
- ➔ Consistent monitoring base

Adaptation v.6: Wallasea



- ➔ 91% reduction in Essex salt marsh in 400 years
- ➔ 670ha tidal storage relieves pressure on 12,100ha floodplain
- ➔ Single owner, no infrastructure, partnership project

Adaptation challenges

Roll-back:

- ➔ Is land available, is it cost-effective, is it technically feasible?

Relocation:

- ➔ Homeowners were not always happy with new plots
- ➔ ...and didn't always want to move as a 'community'
- ➔ Replacement plots sometimes contested by residents

Buy-and-lease:

- ➔ Large initial outlay for local authority, slow unpredictable returns
- ➔ Setting fair payments without 'compensating' is difficult

Managed re-alignment:

- ➔ Working with natural processes vs biodiversity/ecosystem function
- ➔ Often seen as a threat by communities – engagement intensive
- ➔ Controversy surrounding 'food security', budget use, landscape etc

Human adjustments: emerging principles

- ➔ Adaptation is increasingly planned and implemented on a 'level playing field', but allows innovation;
- ➔ Adaptation needs to be framed in our engagement as an opportunity as well as sacrifice;
- ➔ A sound, consistent and 'living' evidence base is used to provide predictions that underpin adaptation;
- ➔ Future adaptation needs are being factored in now, from spatial planning to defence design;
- ➔ Public awareness is growing – of risk and of their options – as communities begin to have more say

An aerial photograph of a layered rock cliff face. The cliff shows distinct horizontal strata in shades of tan, brown, and reddish-orange. At the top of the cliff, a person is sitting on the grassy edge, looking out over the landscape. The surrounding area is a mix of green grass and brown soil.

We need to talk...