

Minsmere Levels

Formation of a Stakeholders group



Outline

- Stakeholder concept.
- Outline History: Dunwich, Minsmere.
- Recent major problems :
 - 1. Fresh water.
 - 2. Sea water.
- Current responsibilities:
 - DEFRA
 - Environment Agency
 - Internal Drainage board
- RSPB view.
- SCAR :
- Future strategy:
 - Minsmere Levels Stakeholder group

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Ordnance Survey Map 1999



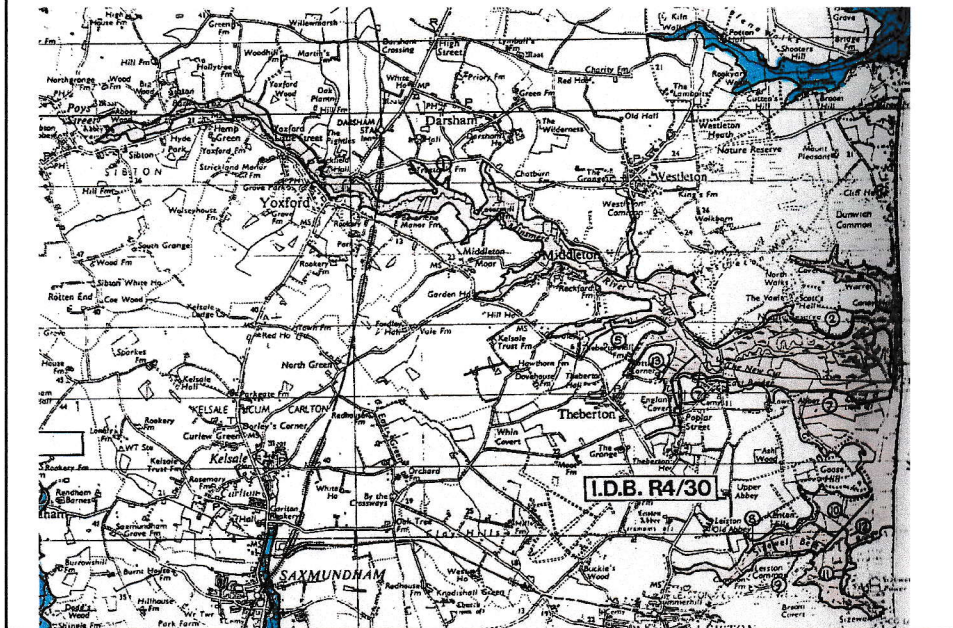
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Summary History > Dunwich

- Roman fort
- 630 Dommoc
- 1154-1189 King **Henry II** period : good prosperous town based round a large port. 6- 8 churches.
- 1286 Major storm damaged port.
- 1328 14th January storm fills port with shingle, closed to shipping.
- 1347 Major storm and flooding, quarter of town lost.
- 1560 Major flooding Dunwich, Walberswick and Blythborough
- 1677 Sea enters centre of Dunwich.
- 1740 'Storm of storms' from North East for several days.
- 1746 , 1749 more erosion.
- 1938 Major flooding
- 1953 Major flooding.
- 2006, Dingle marshes flooding.
- 2007 Dingle marshes flooding



Minsmere Internal Drainage Board No 30



Minsmere History

1. **Minsmere Haven** estuary open to sea. Blocked by shingle about 1750, river water forms a 'broad' inside shingle bar.
2. **Minsmere Levels:** 'Wet common' of about 1600 acres (wild fowling, eel fishing, summer grazing, heather, peat and reed cutting.) Potential grazing land.
3. **1800:** William Smith plan to drain marshes (Napoleonic wars blockage increases need for farmland). Act of Parliament 1810 for embanking and draining, this follows enclosures act for Theberton & Leiston.
4. 1812-1813 > 5 kilometre **New Cut** dug (1818 add cast iron sluice pipe.) £1835.
5. **World War 2**, sluice opened to sea in 1940 to flood coastal area against invasion until 1946.
6. 1947 Avocet on Minsmere, **RSPB** acquire land.

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Old Maps of Suffolk



Saxton 1575



Kirby 1737



Hodskinson 1783 Slide 7 of 28

1. River water (fresh)

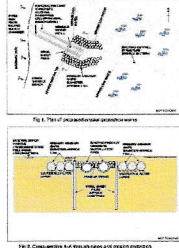
- Minsmere levels are a flood plain.
- High rainfall: river overflows into marshes and discharges later through the Sluice.
- **Sluice** is Key to the system: **'Cork in the bottle.'** Environment Agency responsible for New Cut and sluice as main river.
- After storm surge last November one sluice pipe was blocked by shingle.
- Also need to keep main drains clear IDB for Routine maintenance

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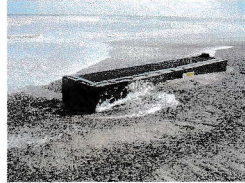
Environment Agency work



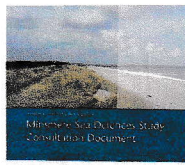
ICE
BLACK & VEATCH
Environment Agency



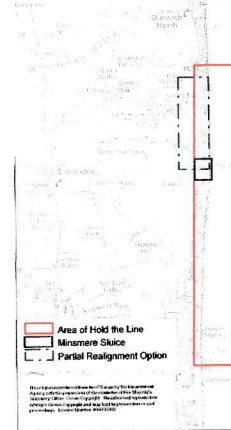
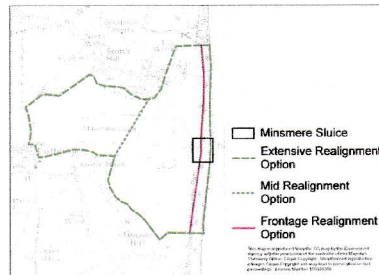
Reinforcing sluice pipes 2003



Strategic consultation 2004



Environment Agency



2. Coastal Erosion.

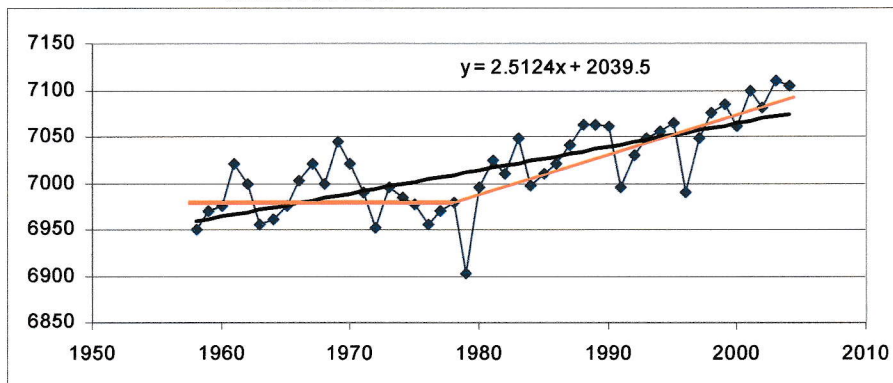
Sources on Long term Strategy

- Shoreline Management Plans for whole English Coast for next 10 year. >
 - Halcrow Report 2001: Lowestoft to Thorpeness
- Environment Agency Consultation 2004.
- Prof Pethwick presentation to Sizewell SSG
- Prof Ken Pye reports 2006 .

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Rising Sea Level ? Tide gauge at Lowestoft

Mean sea level



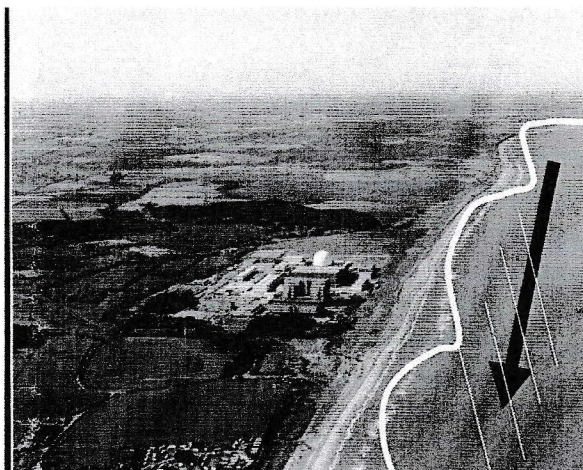
i.e. mean level rises from 1980 to 2006 by about 10 cm.
Latest IPCC predictions 35-40 cm by 2100.

Storm surges: 1817, 1883, 1912, 1928, 1938, 1949, 1953, 1976, 1978, 2007.....

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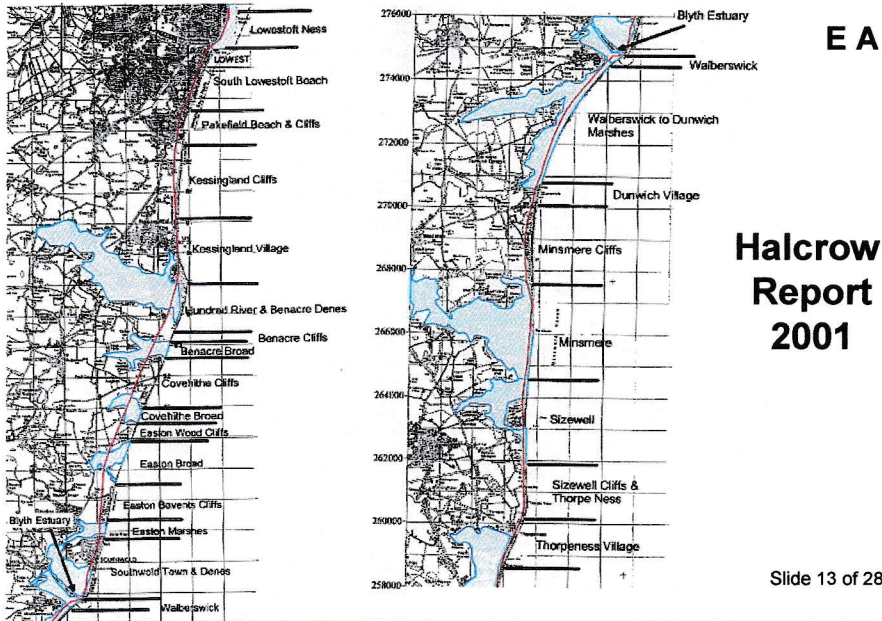
Prof John Pethick (Cambridge U) for Sizewell SSG 2006

1. Rising sea levels.
2. Storm surges.
3. NorthEast wind moves shingle south down beach
4. Sluice discharge is important



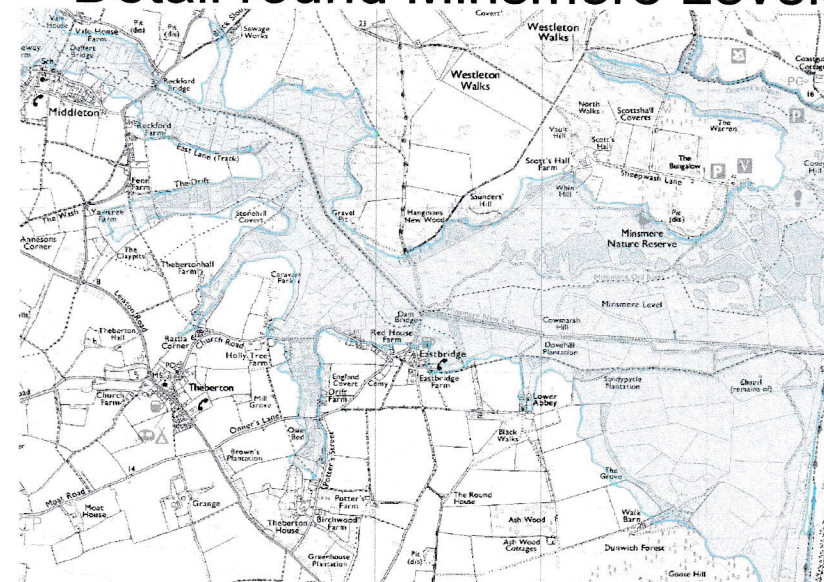
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1 in 200 year Flood event



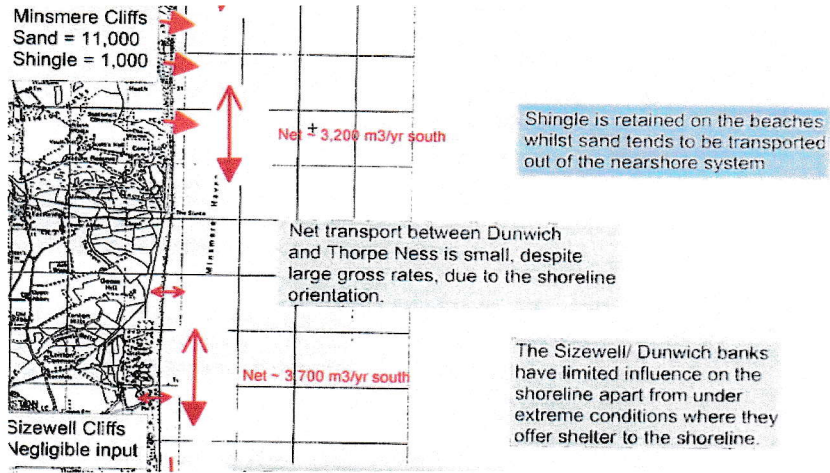
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Detail round Minsmere Levels



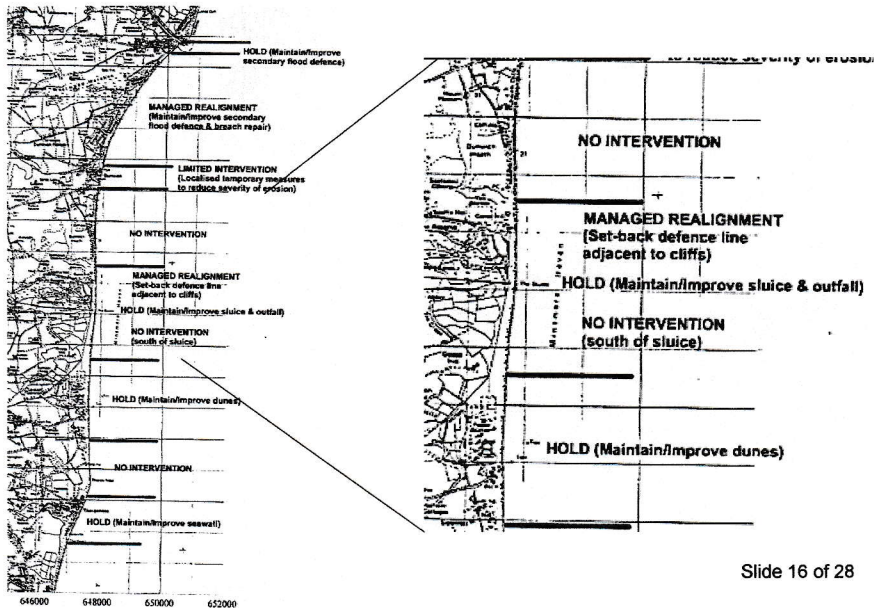
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Estimated Coastal Processes sediment transport /year net: detail



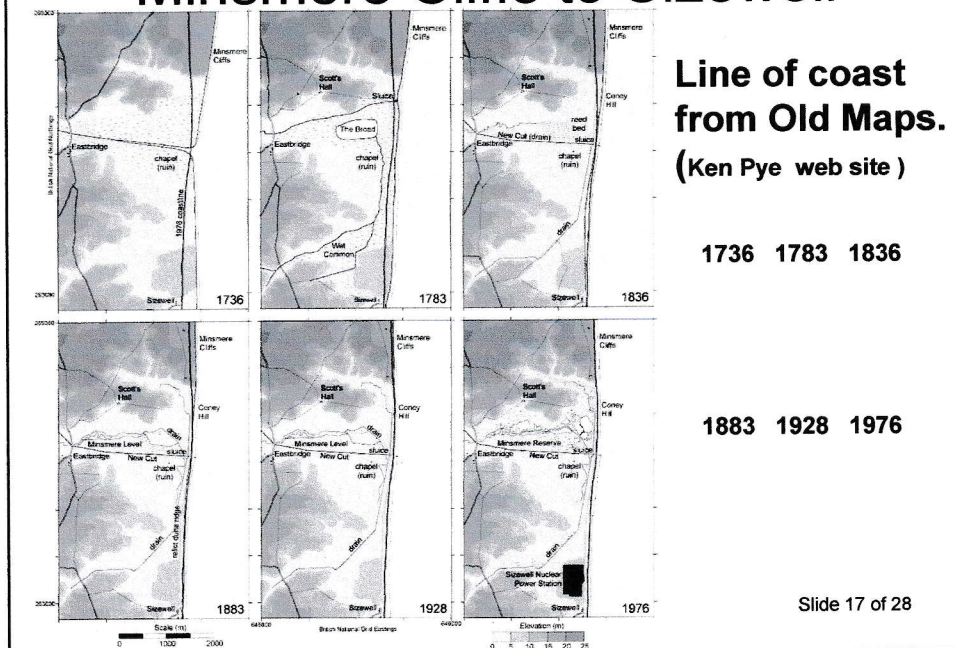
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Strategy proposal:



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Minsmere Cliffs to Sizewell



Consultant Ken Pye Report

- '2006 Coastal Processes and Morphological Change in the Dunwich-Sizewell Area Suffolk UK.
- **Map evidence concludes that 1836 – 1903 Minsmere cliffs retreat about 2.3m/year (156m) south of sluice moves out 83 m in same time. [old coastline is shown by secondary dunes] SLUICE acts as pivot point.**
- **Predicted weakest point is between Dunwich cliffs (coastguard cottages and Coney Hill).**
- **Suggests pumped drainage system at Sluice within 20 years to avoid prolonged freshwater flooding.**
- Also comments that artificially maintained shingle banks north of Dunwich are very vulnerable to overtopping and breaching with high risk of flooding of Dingle Marshes.

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November 2006



Shingle bank breached into Dingle Marshes



November 2007



2 hours after high water, from Dunwich cliffs by CoastGuard cottages. Slide 20 of 28

Organisation/Responsibilities

- **DEFRA**
- **Environment Agency** now for All flood protection in England.
- **Internal Drainage Board** responsible for local drainage. Levy on major landowners
- NEW Change in IDBs, several have merged into: **East Suffolk Internal Drainage Board.** (2008)

- **NATURAL ENGLAND** : was English Nature + Countryside Agency (2006)

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Funding Problems

- DEFRA 2006 loses £200 to pay for mis-management of farm subsidies.
- June 2007 Environment Agency oversee management of All flood and erosion risk on English coast.
- November 2007 DEFRA loses £300 by cuts in budget.
- Feb 2008 DEFRA has £1b overspend in next 3 years. But EA gets extra £49m for flood protection next year.



Tewkesbury 2007



Hull 2007

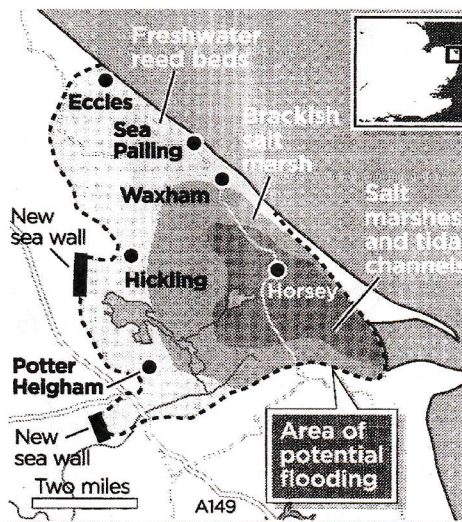
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Major Landowners

- RSPB
- British Energy / Suffolk Wildlife (managed)
- National Trust (northern coastal strip.)
- Justin Dowley
- Brian Hart , now XXXXXXXXX
- John Keeble

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Recent News



Times 29th March 2008

Natural England proposes surrendering this area to the sea in about 20 to 50 years as the defence of the current coastline is 'unsustainable'.

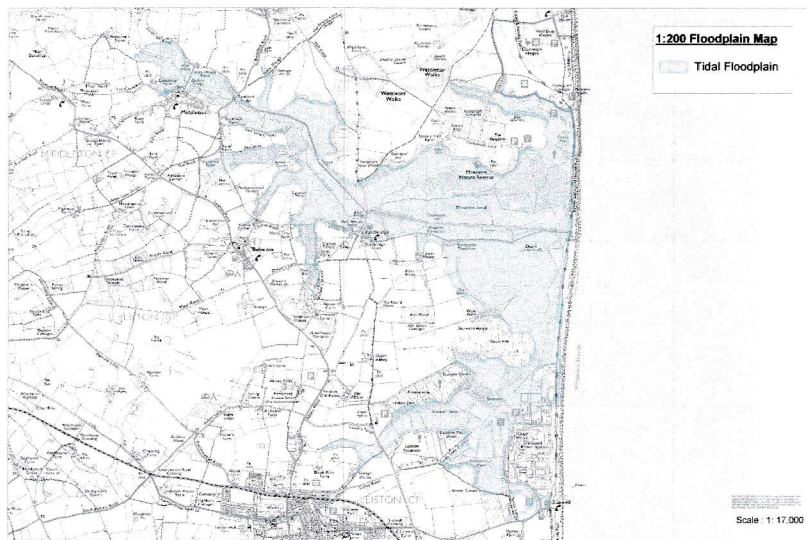
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3 Levels of Action.

1. Dealing with IDB to ensure routine maintenance of ditches and land drains. Involve major landowners in co-operative discussions.
2. Dealing with EA to ensure that the New Cut and Sluice are maintained in the medium term, and that action taken if e.g. blocked by shingle.
3. Encourage long term strategy for managed re-alignment if necessary along the shingle bar from Minsmere Cliffs to Sizewell. Negotiate with national bodies re 'sensible action'

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2 m contour line.



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Other groups

- Suffolk Estuarine Strategies.
 - EA required to develop Flood Management Strategy for **each estuary** (in an 'integrated and sustainable way')
 - Blythe
 - Alde and Ore
 - Deben
- SCAR (Suffolk Coast Against Retreat.)

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Possible Motto: Essayons : Let us try

From an article by Libbie Purves
Times, 13.11.2007
(Motto of Mississippi River Engineers
Vicksburg.)

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