

Cuckmere Options workshop Strategy options

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Appraisal process

Appraisal is undertaken on a nationally consistent basis using guidance provided by Defra and Environment Agency.

It considers the

- ➔ Technical;
- ➔ Environmental; and
- ➔ Economic aspects of the options

Strategy Approaches

Strategy considered three approaches.

1. No Active Intervention (Do Nothing) (1a and 1b)
2. Hold the existing defence line (2a and 2b)
3. Realignment of defence lines (3a and 3b)

No Active Intervention

Two options:

- ➔ 1a) All flood risk activities stopped immediately.
- ➔ 1b) Withdrawal of maintenance

Do Nothing - Works

1a) no future works other than to address H&S issues

1b) Notice served that defences will no longer be maintained

Channel mouth dredged to keep clear whilst this is required

Advise public of any changes as defences deteriorate

Address any H&S issues

e.g. removal of training walls after failure

Do Nothing - Issues

Uncertainty as to when the defences will fail
(anticipated to be within 15 years)

Loss of access and existing footpaths as sea levels rise

Uncertainty over where breach(es) will occur

Risk to A259 causeway if breach is close to the structure – may require local defence

Uncertainty over how site will develop

Hold the existing defence line

Two options:

➔ 2a) Maintain.

Defences maintained at current heights

➔ 2b) Sustain

Defences raised to account for sea level rise over time

Hold the line - Works

2a – Maintain

Repairs and strengthening to channel where subject to erosion

Armour of banks where significantly exposed,
Protection to crest due to increased frequency of overtopping

New sheet pile toe to where risk of undermining

Replacement of training wall and groynes

Beach renourishment and rock armour to protect western beach

Clear shingle from inlet - ongoing

Hold the line - Works

2b – Sustain

Same as 2a but additionally

Raising embankment over time to allow for sea level rise (may need to widen some where current banks are particularly narrow)

Hold the line - Issues

Short term perception is good

The impact of climate change will lead to further erosion of the banks and bed.

Future need for significant hard engineering solutions on banks, channel and mouth

Defence standards will fall over time (1a)

Increased risk of catastrophic failure water levels increasing compared to land elevation

Beach will require significant works

Ongoing requirement to manage – high costs

Realignment of the defence line

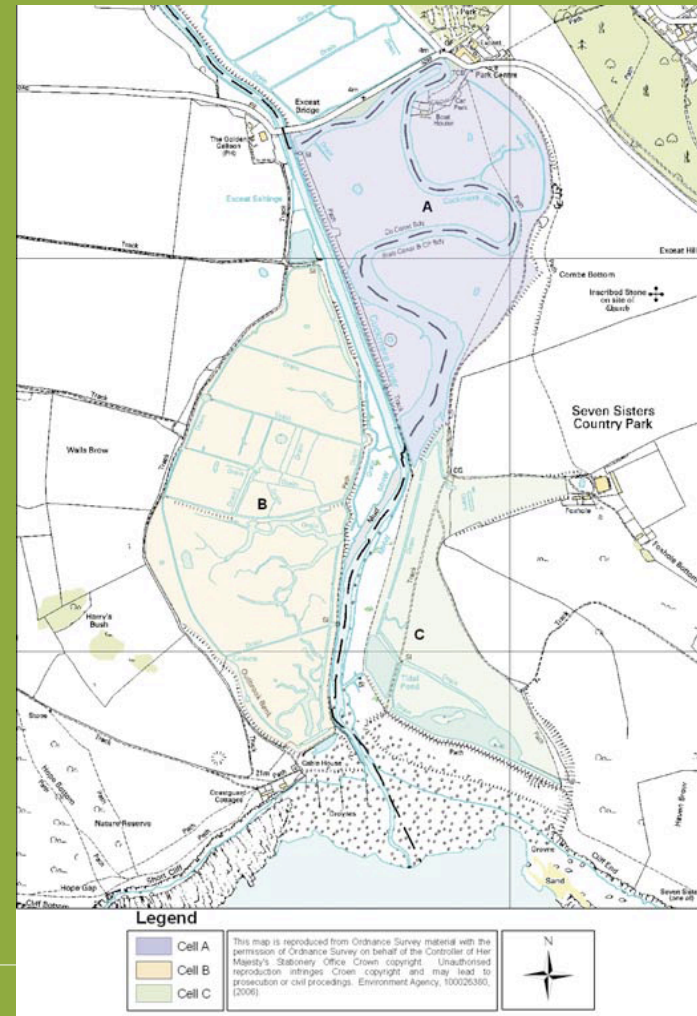
Two options:

➔ 3a) smaller realignment.

Cells B & C

➔ 3b) larger realignment

Cells A, B & C



Managed Realignment - Works

3a – Partial realignment

Construction of new flood banks across site

Breaching of existing banks

Raising embankments upstream of realignment area

Removal of training wall and beach structures (H&S)

Modifications and diversions to footpaths

Clear shingle from inlet - ongoing

Managed Realignment - Works

3b – larger realignment

Construction of new flood banks around A259 and car park

Breaching of existing banks

Removal of training wall and beach structures (H&S)

Modifications (raising) and diversions to footpaths

Managed Realignment - Issues

Change to character of estuary, visual, amenity ecology

Only limited engineering construction

Footpaths and access ways would require diversion

Allows for climate change over next century

Defence standards can be maintained

Ongoing requirement to manage – lower costs

Strategy Options costs

Option	Whole Life Cost PV (£k)	Whole Life Cost Cash (£k)
Exit Strategy	1,485	1,820
HTL 2a Maintain	6,290	17,045
HTL 2b Sustain*	6,950	17,925
MR 3a	2,785	5,065
MR 3b	2,565	2,875

Prices LQ 2005, *Sustain option based on 600mm raise not new guidance