

# Appendix 1: River Hamble to Portchester Coastal Flood and Erosion Risk Management Strategy

**Preferred Options by Development Unit** 

Draft Preferred Strategy Options



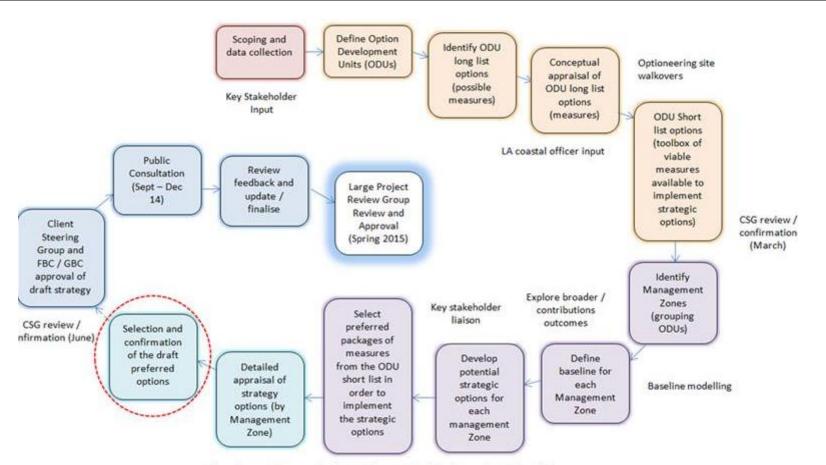
#### Background and progress

The identification of short list options (viable solutions) for each Option Development Unit provided the toolbox of potential measures available to implement preferred strategic approaches to managing flood and erosion risks along the frontage.

The Option Development Units have been grouped into five Management Zones required to facilitate strategic flood and erosion risk management. Options have then been developed for each zone and appraised following Environment Agency Flood and Coastal Erosion Risk Management Appraisal Guidance and draft preferred options identified. An overview of the Strategy development process is given in Box 1 below.

This note provides a summary the draft preferred strategic options for public consultation.





Scenario modelling, multivariate option analysis, SEA, Economics, HRAa, WFDa

*Box 1. Overview of the Strategy Development process. Development of Management Zones* 

By creating Management Zones derived by consistent themes or characteristics, it allows strategic decisions to be made to address the future risks. This approach prevents disjointed thinking and inconsistent decision making, thereby ensuring future actions provide holistic, sustainable and cost effective solutions.

Five Strategy Management Zones (SMZs) have been defined and are shown in Figure 1 and summarised in Table 1 below.

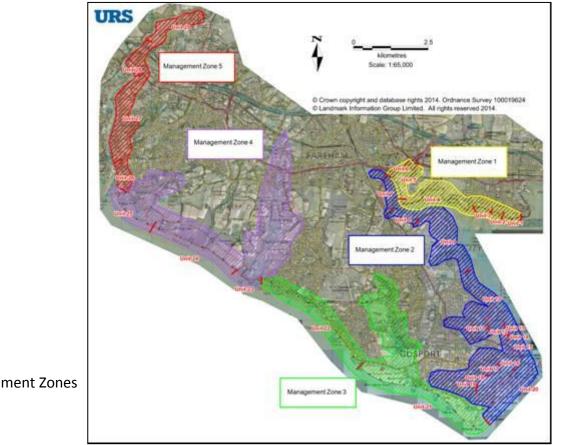


Figure 1: Strategy Management Zones (SMZ's)



Management Zone	1	2	3	4	5
Name	North Portsmouth Harbour	Fareham and Gosport (Portsmouth Harbour west)	Stokes Bay and Lee on the Solent	Titchfield Haven to Hook Lake	River Hamble East Bank
Geographic Extent	Hospital Lane to Upper Quay)	(Upper Quay to Fort Monckton)	Fort Monckton to Hill Head Sailing Club	Hill Head Sailing Club to Warsash Maritime College	Warsash Maritime Colleg to Eyersdown Copse)
otion Development Units	ODU 1 to ODU6	ODU 7 – ODU 20	ODU 21 & 22	ODU 23 to ODU 25	ODU 26 to ODU 29
SMP Policy	Hold the Line	Hold the Line	Hold the Line	Mixed Hold the Line, No Active Intervention and Managed Realignment	Mixed Hold the Line and No Active Intervention
Zones Characterised by Common themes / issues)	<ul> <li>Consistent coastal processes (estuarine, low wave energy (typically)</li> <li>Coastal Access</li> <li>Mainly residential and recreational land use</li> <li>flood and erosion risk – localised becoming more significant over time</li> <li>potentially contaminated land</li> <li>environmentally designated foreshore</li> </ul>	<ul> <li>Consistent coastal processes (estuarine, very sheltered)</li> <li>Very low erosion risk</li> <li>Significant flood risk pockets from present day</li> <li>Mixed mainly urban frontages (MOD interspersed)</li> <li>Regeneration opportunities</li> <li>environmentally designated foreshore</li> </ul>	<ul> <li>Open Coast / beaches</li> <li>Coherent littoral processes unit</li> <li>Moderate wave energy</li> <li>Erosion risk and limited flood risk to assets</li> <li>Recreational / tourism usage</li> <li>environmentally designated habitats</li> </ul>	<ul> <li>Environmentally designated habitats with Enhancement Opportunities</li> <li>Open Coast / beaches</li> <li>Rural</li> <li>Few defences</li> <li>Low / Moderate wave energy</li> <li>Few properties at risk of flooding or erosion</li> <li>Coastal Access requirements</li> <li>Leisure / recreation use</li> </ul>	<ul> <li>Open Coast / beaches</li> <li>Eroding cliffs</li> <li>Low / Moderate wave energy</li> <li>Estuarine / Sheltered</li> <li>Low / wave energy</li> <li>Localised flood risk issue</li> <li>Low erosion</li> <li>Coastal access / recreation usage</li> <li>Environmentally designated habitats</li> </ul>

# **ODU detail for Strategic Options**

#### Strategy Management Zone 1 – North Portsmouth Harbour (ODUs 1-6)

**Delay sustain** – Maximise the life of the existing defences to prevent erosion but accepting SoP will fall over time due to SLR until 2030 then sustain a minimum 1:100 year flood SOP thereafter. Allow natural processes to continue elsewhere.

	ODU 1	ODU 2	ODU 3	ODU 4	ODU 5	ODU 6
2015	Maintain	Maintain	Maintain	Do Nothing	Do Nothing	Maintain
2030	Maintain	Setback flood wall / crest raising / seawall (flood risk only)	Setback flood wall / crest raising / seawall (flood risk only)	Do Nothing	Do Nothing	Maintain
2060	Setback flood wall / crest raising / seawall (flood risk only)	Maintain	Maintain	Do Nothing	Do Nothing	Setback flood wall / crest raising / seawall (flood risk only)

ODU 1 – Hospital Lane to Beachway

ODU2 – Beachway to Alton Grove

ODU3 – Alton Grove to Cador Drive

ODU4 – Cador Drive to A27 Cams Pumping Station

ODU5 –Cams Pumping Station to A27 Cams Hill

ODU6 – A27 Cams Hill to Upper Quay

#### Strategy Management Zone 2 – Fareham and Gosport including creeks (ODUs 7-20)

**Sustain minimum 1:100 year flood SoP (phased)** – Maintain existing defences, but implement new defences as required to maintain a minimum 1:100 year standard of protection against flooding. Implement new defences to prevent key assets / properties from eroding.

	ODU 7	ODU 8	ODU 9 (MOD)	ODU 10	ODU 11	ODU 12 (MOD)	ODU 13
2015	Earth embankme nt (setback) + maintain existing seawall + PLP	Maintain natural defence	Floodwall	Maintain	Flood wall (setback)	Maintain	Maintain
2030	Maintain	Maintain natural defence	Maintain	Maintain	Maintain	Maintain	Maintain
2060	Upgrade / improve	Maintain natural defence	Upgrade / improve	Flood wall upgrade (crest raising)	Upgrade / improve	Maintain	Flood wall (crest raising)

#### **Draft preferred Strategy options** *June 2014*

	ODU 14	ODU 15	ODU 16	ODU 17	ODU 18	ODU 19	ODU 20
2015	Flood wall (setback)	Local measures	Maintain	Flood wall (crest raising) and local measures	Maintain natural defence	Flood wall (setback or crest raising)	Flood wall (crest raising)
2030	Maintain	Flood wall (crest raising or setback)	Maintain	Maintain	Maintain natural defence	Maintain	Maintain
2060	Upgrade / improve	Maintain	Earth embankment (setback)	Upgrade / improve	Maintain natural defence	Upgrade / improve	Upgrade / improve

- ODU7 Upper Quay to Hoeford Lake
- ODU8 Hoeford Lake to Crabtree Lake
- ODU9 Crabtree Lake to Monks Walk
- ODU10 Monks Walk to Lichfield Drive
- ODU11 Lichfield Drive to Parnham Road
- ODU12 Parnham Road to Rolling Bridge
- ODU13 Rolling Bridge to Jamaica Drive
- ODU14 Jamaica Drive to Rope Quays
- ODU 15 Rope Quays to Haslar Bridge
- ODU 16 Haslar Bridge to Willis Road
- ODU 17 Willis Road to Dolphin Crescent
- ODU 18 Dolphin Crescent to Park Road
- ODU 19 Park Road to Haslar Royal Naval Cemetery
- ODU 20 Haslar Royal Naval Cemetery to Fort Monckton

### Strategy Management Zone 3 – Open Coast Hold the Line (ODUs 21 and 22)

1. **Maintain protection** – Undertake scheduled maintenance of the beaches and defences and ensure current protection is maintained. The SoP against flooding will fall in the longer term due to Sea Level Rise.

	ODU 21	ODU 22		
2015	Beach management	Beach management		
	(scheduled recycling) +	(scheduled recycling) +		
	sustain	sustain		
2030	Beach management	Beach management		
	(scheduled recycling) +	(scheduled recycling) +		
	sustain	sustain		
2060	Beach management	Beach management		
	(scheduled recycling) +	(scheduled recycling) +		
	sustain sustain			

ODU 21 – Fort Monckton to Elmore Angling Club. ODU 22 –Elmore Angling Club to Hill Head Sailing Club

## Strategy Management Zone 4 – Open Coast HTL / NAI / MR (ODU 23 to 25)

Allow natural processes to continue, but sustain protection to the environmentally important sites of Hook Lake and Titchfield Haven and seek to create habitat through regulated tidal exchange at Hook Lake (phased) to offset habitat losses due to holding the line elsewhere.

	ODU 23	ODU 24	ODU 25
2015	Maintain	Do Nothing (private	Maintain
		maintenance permitted)	
2030	Seawall and crest raising	Do Nothing (private	Flood wall and sluice –
		maintenance permitted)	regulate tidal exchange
2060	Maintain	Do Nothing (private	Maintain
		maintenance permitted)	

ODU 23 – Hill Head Sailing Club to Meon Shore Chalets

ODU 24 – Meon Shore Chalets to Hook with Warsash Nature Reserve.

ODU 25 – Hook with Warsash Nature Reserve to Warsash Maritime College.

#### Strategy Management Zone 5– Hamble Estuary (ODUs 26 to 29)

**Do Minimum until 2060, but with Solent Way footpath adaptation from 2030, then sustain a minimum 1:100 flood SoP at key flood risk locations**. Maximise life of existing defences managing flood risk with local measures and footpath adaptation from 2030, then provide minimum 1:100 year SoP.

	ODU 26	ODU 27	ODU 28	ODU 29
2015	Local measures (PLP)	Maintain	Local measures (PLP)	Do nothing
2030	Maintain	Footpath adaptation /	Maintain	Do nothing
		raising		
2060	Flood wall (crest	Maintain	Flood wall (crest	Do nothing
	raising)		raising)	

ODU 26 – Warsash Maritime College to Crofton Way ODU 27 – Crofton Way to Swanick Shore Road ODU 28 – Swanick Shore Road to Eastlands Boat Yard ODU 29 – Eastlands Boat Yard to Eyersdown Copse