Mini Case Study Exercise

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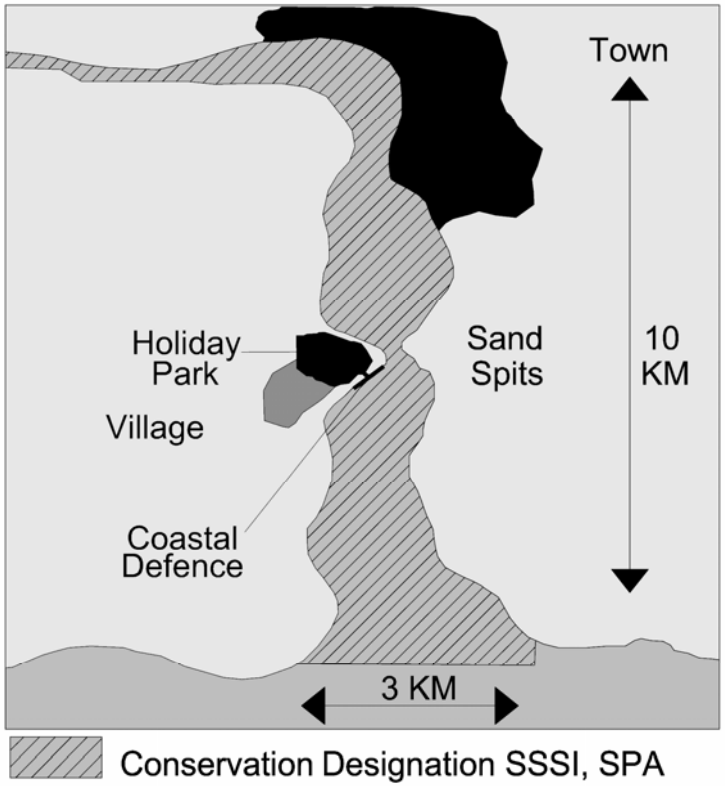
Roles

- Developer (self)
- Consultant
- Responsible Authority
- Regulator

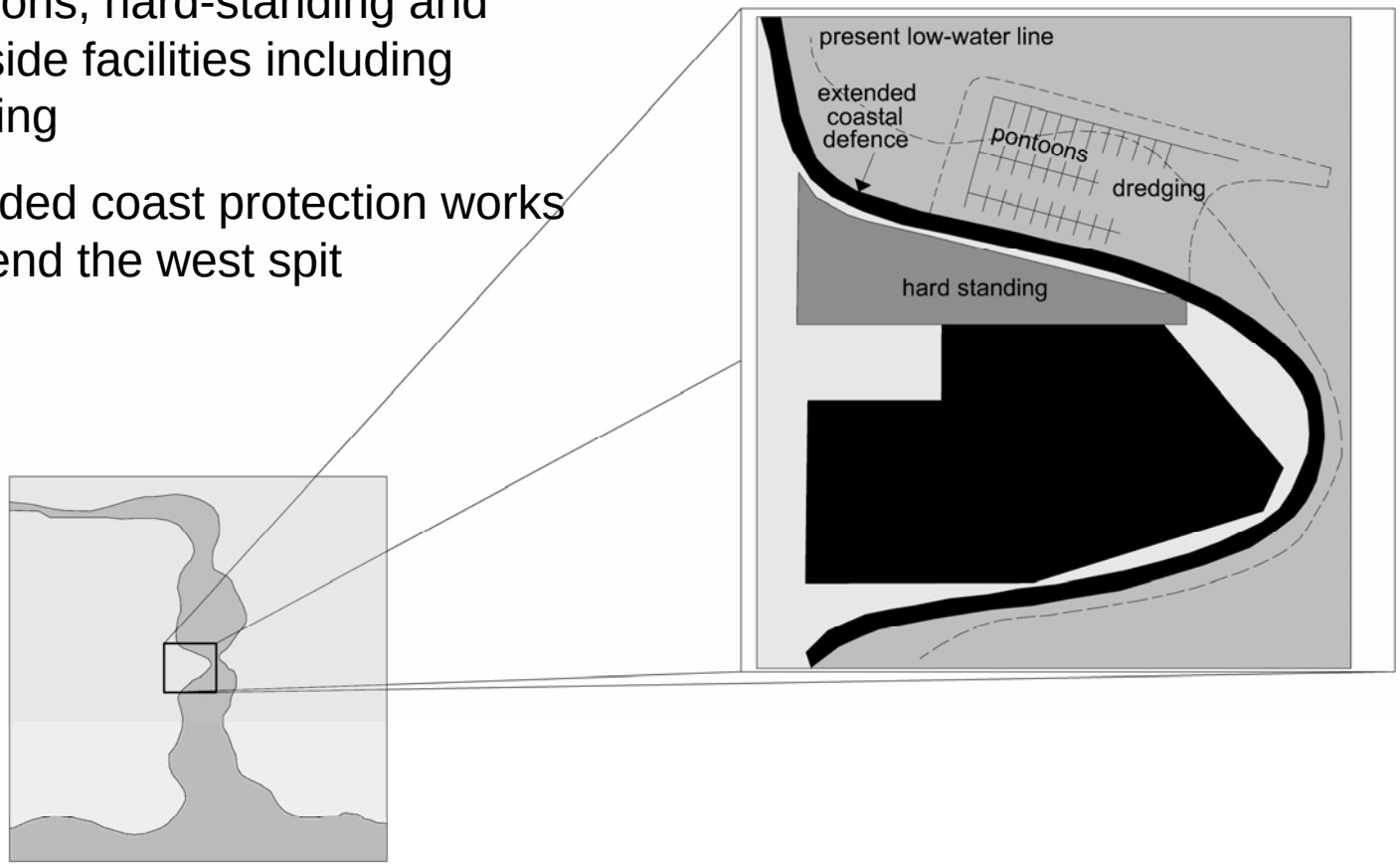
Fictitious estuary!



- generally sandy
- constrained by sand spits
- coastal defence at west spit
- holiday park and village
- Town is upstream
- conservation designations in respect of intertidal features
- scheme life = 50 years

Fictitious scheme!

- dredging for all tidal access
- pontoons, hard-standing and waterside facilities including refuelling
- extended coast protection works to defend the west spit



The objective of the exercise is to..

…identify essential steps to assess the proposed development

Issues, relating to estuary morphology, to consider at the outset

- What are the principal physical issues to consider in respect of estuary impact? – *Consultants*
- List (some) important statutory obligations to be responded to. - *Responsible Authority*
- What important demands are likely to arise in respect of impacts on ecology? *Regulators*

Before we consider impacts we need to…

- develop a conceptual model of the estuary without the scheme in place

- consider timescales

Timescales

Period	Indicative time (or range)	Need to consider – yes/no
geological		
Holocene		
historical		
decadal		
annual / seasonal		
tidal / storm / waves		

- Put indicative times to the different periods. -*Responsible Authority*
- Identify the most important periods for our case/study purposes. - *Regulators*
- At the outset, which types of approach do you envisage being needed, and why? (i.e. Top Down, Hybrid, Bottom Up). - *Consultants*

Before we engage detailed studies we need to…

- assess scope and availability of existing studies and data
- desk study to facilitate detailed plan of modelling and analysis

Model types and data needs

Available data and studies	data	study
bathymetry	Old Admiralty Chart and 20 year old survey	historic review of historic charts in SMP
currents	direct current metering at the Town Quay (20 years old)	-
waves	UK Met Office, offshore data	SMP broad consideration
tides	POL records for nearby port	SMP plus various
geology and sediments	borehole data (20 years old) from Town Quay	-
benthic	relating to designations	see designations

- Suggest new data needs - *Responsible Authority*
- Suggest bottom up model types (or purpose). - *Consultants*
- Suggest top down /hybrid model types (or purpose). - *Regulators*

Certainty - Uncertainty

- What level of certainty might you be seeking. – *Regulators*
- What level of certainty might you expect to get – *Responsible Authority*
- What steps can you take to reduce uncertainty - *Consultants*