



## Coastal Management at Selsey in West Sussex

*“With the exception of certain parts of the Norfolk Coast, it may probably be said without fear of contradiction, that at no point in the British Isles are the effects of Coast Erosion more clearly observable than upon the Selsey Peninsula.”*

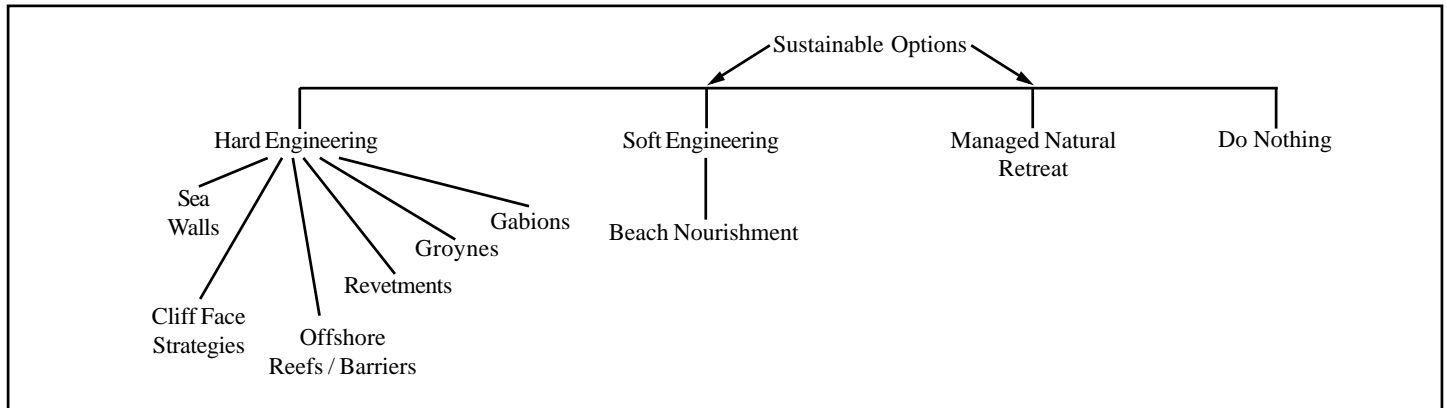
Selsey Town Council - A proposed plan for the co-ordination of Green Energy, Coastal defence and Reclamation. May 1999

Like it or not the coastline at Selsey is receding, and has been doing so for hundreds of years. The question is, what, if anything should be done about it. How should the coastline be managed or should it be left to its own devices? Fig 1. shows the spectrum of coastal management options.

### What is at risk at Selsey?

Area of risk (Ha)	1200	Population at risk	200
Property at risk	80	Cost	£3.1m
Benefit/cost ratio	>1		

Fig 1. The Spectrum of Coastal Management Options



### What is coastal defence?

- **Coastal defence** is an attempt to reduce the risk to land from sea water encroachment / inundation caused by erosion and/or flooding.
- **Coast protection** is defined as defences whose primary function is to prevent or mitigate erosion.
- **Sea defences** are coastal defences whose main function is the prevention or mitigation of sea flooding.
- **Flood defences** reduce the risk of river and tidal flooding.

### Historical Perspective at Selsey Bill

Selsey Bill is made up of alternating bands of loosely consolidated sands and clays which belong to the Bracklesham Beds, above which lies 3-5 metres of stony loam giving place at one or two sites, to a mass of flint shingle belonging to a raised beach.

The rocks offer little resistance to erosion and because of the shape of the coastline there is little accumulation of shingle. Therefore under natural conditions this could result in the coastline being relatively unprotected.

In the early 1900's it was calculated that the coastline was receding at 2 - 3 metres per year. If this rate is assumed constant, then at the time of the Domesday survey the Selsey coastline would have been between 1.5 and 2 kilometres further out to sea than it is at present.

Another factor that influences change is rainfall, which at Selsey is high especially in Autumn and Winter. The subsequent ground water, with or without the assistance of frost in winter loosens considerable amounts of coastal rock, which is washed away by the tide, therefore helping to accelerate the rate of erosion. As a consequence, erosion tends to be more rapid in winter than the summer.

### Who is responsible?

Human occupancy of the coastline makes coastal erosion a threat to both property and life. It is a hazard that tends to be disregarded or misunderstood by those who live away from the coast and are not, therefore, directly affected. The current situation at Selsey is complicated by the fact that three different groups have responsibility for coastal management.

Nationally the Ministry of Agriculture, Fisheries and Food (MAFF) has overall responsibility for coastal defences, while the planning, maintenance and operation of sea defence schemes are the responsibility of the Environment Agency and local authorities. Local councils were given powers of responsibility for coastal protection under the 1949 Coast Protection Act.

Responsibility for coastal protection in this area rests with Arun District Council, the Environment Agency in association with West Sussex County Council, Chichester District Council and the National Trust. Each of these organisations is responsible for a separate stretch of coastline, (Fig 2. overleaf). In addition Selsey Town Council has considerable concerns about coastal erosion in the Selsey area.