





Ayrshire Shoreline

Introduction to Shoreline Management Plan

A Shoreline Management Plan (SMP) is a large scale assessment of coastal risks and opportunities, which outlines a strategy to manage flooding and erosion. The SMP provides guidance for operating authorities, regulatory bodies and planners. The SMP considers the shoreline over the next 100 years, broken into 3 periods - Short-term (0-20 years), Medium-term (20-50 years) and Long-term (50-100 years).



The need for the Ayrshire SMP was identified by SEPA through the development of the Ayrshire Local Flood Risk Management Strategy.

Extent of Shoreline Management Plan

The Ayrshire SMP covers almost 250km of shoreline within North and South Ayrshire Councils. The shoreline covered by the SMP lies between the village of Skelmorlie to the north and the mouth of the Galloway Burn to the south. The SMP also includes the islands of Arran and Great Cumbrae. Islands such as Little Cumbrae and Ailsa Craig are not included due to an absence of significant permanent population

Risk along Ayrshire Shoreline

Many assets are predicted to be at risk of coastal flooding in the Ayrshire SMP study area during a 1 in 200 year flood event with an allowance for Sea Level Rise due to Climate Change.

Several sections of coastal road are also predicted to be at risk of coastal erosion in the Ayrshire SMP study area by 2050. No residential or non-residential properties are predicted to be directly at risk of coastal erosion in the next 100 years.

Receptors at Risk	200yr flood event	200yr flood event with Climate
Residential Properties (no.)	945	Change 2,891
Non-Residential Properties (no.)	544	1,040
A Roads (km)	5.5	10.8
R Roade (km)	5.0	107
B ROAUS (KIII)	5.9	
Minor Roads (km)	4.4	11.2
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Management Plan

Sediment Sub-Cells

The study area was divided into 15 sediment sub-cells. The extents of each sub-cell were derived from computational modelling. There is little or no movement of sediment between adjacent sub-cells. The boundaries between sub-cells typically occur at a shoreline feature such as a headland. These sub-cells define the area which may be affected by shoreline management measures

Shoreline Management Policies

Four potential shoreline management policies are available, depending on the issues identified during the risk assessment for each location along the shoreline.

Potential Shoreline Management Actions

Shoreline Management Policies have been applied based on the risk of coastal flooding and erosion. The sediment sub-cells have been further divided into 'policy units' based on the extent of risk, asset ownership and administrative boundaries. Shoreline Management Polices have been determined for short, medium and long-term timeframes.

To meet the shoreline management policies there

POLICY	DESCRIPTION
Advance the Line	The shoreline is proposed to be advanced to reclaim land for development. This policy will require active management and construction.
Hold the Line	The shoreline is proposed to be held as the current day. This policy is likely to require active management and construction.
Managed Realignment	This represents a policy of allowing the shoreline to move backwards or forwards, with management to control or limit movement such as building new defences on the landward side of the original defences.
No Active Intervention	No action is taken and the natural coastal processes of erosion and accretion are allowed to continue with no intervention.

ENGINEERING TYPE	POTENTIAL ACTIONS
Hard Engineering	Seawalls
	Revetments
	Embankments
Mixed Hard and Soft Engineering	Groynes
	Detached breakwaters
	Headlands
	Perched beaches
	Cove
	Maintenance
Soft Engineering	Dune stabilisation

are various Actions that could be undertaken, which could involve hard or soft engineering, or both.

Managed realignment Nourishment Breach drain





Revetments

Groynes

cc-by-sa/2.0 - Dovercourt groynes.. by Bob Jones - geograph.org.uk/p/7488



Sea Walls

Dune Stabilisation

Sub-cell 6b1: Cloch Point -Hunterston Ore Terminal

Hold the Line

Sub-cell 6b2: Hunterston Ore Terminal - Farland Head

Advance the Line & Hold the Line

Sub-cell: Great Cumbrae
Hold the Line & Managed Realignment



Action Plan detailing for each policy the location, action, description, responsibility, priority and the target timescale.

The proposed policies and potential actions were also assessed for their impacts on the wider environment in a Strategic Environmental Assessment (SEA) Environmental Report and a Habitats Regulation Appraisal (HRA) Record. The findings and recommendations of these environmental reports fed back into the SMP to produce a more sustainable Plan.

The Ayrshire Shoreline Management Plan, SEA Environmental Report and HRA Record are being consulted on with the public and statutory consultees, prior to being finalised.

Sub-cell 6c6: Turnberry -Bennane Head

No Active Intervention & Hold the Line & Managed Realignment

Sub-cell 6d1: Bennane Head -Currarie Port

No Active Intervention & Hold the Line & Managed Realignment

Sub-cell 6d2: Currarie Port -Milleur Point

No Active Intervention



