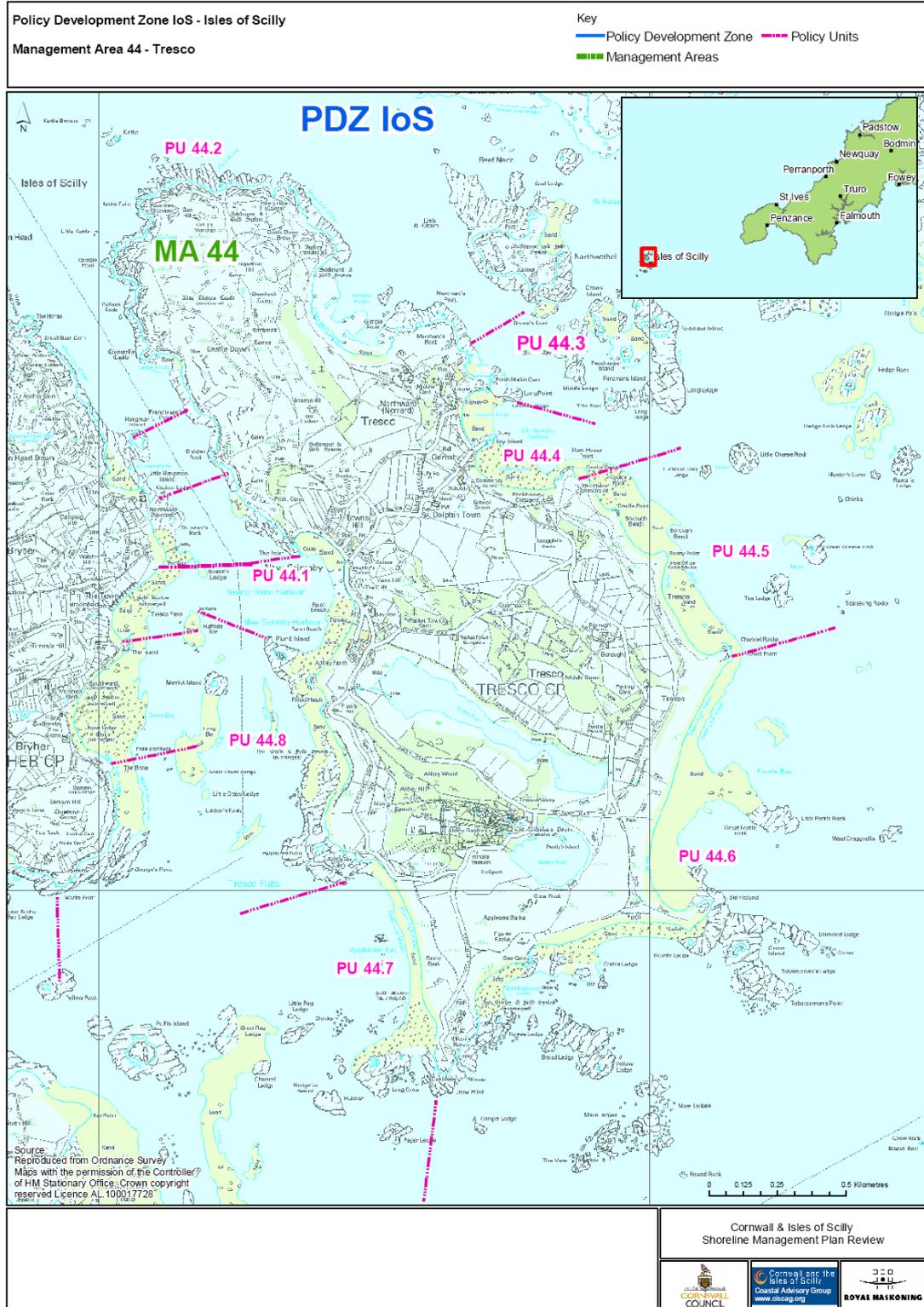


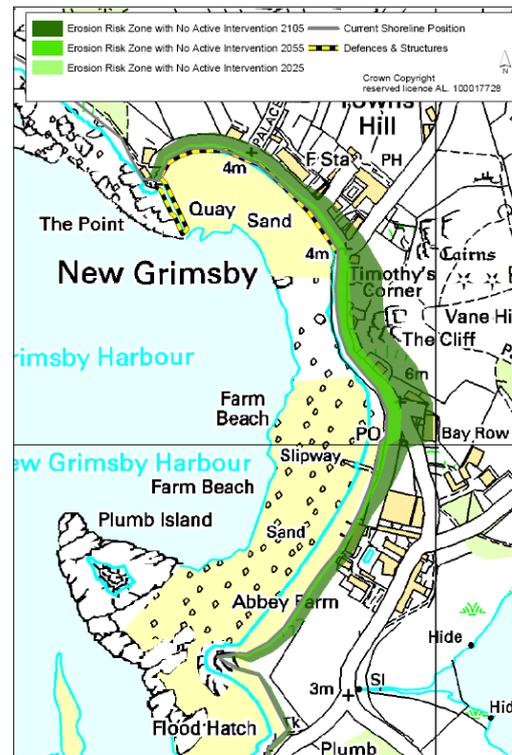
**Location reference:** Tresco  
**Management Area reference:** MA44  
**Policy Development Zone:** PDZ18



## DISCUSSION AND DETAILED POLICY DEVELOPMENT

Tresco has a few developed areas where sea defences and coast protection structures have been established. It is still on the whole an island dominated by natural coastal processes and the preferred plan would be to support this as much as possible and reduce future reliance on defences and discourage the building of new engineered sea defences. It is a little more sheltered from some of the prevailing westerly Atlantic conditions than the other islands, although exposure to south-easterly storms along its easterly facing Pentle Bay coast means higher erosion is anticipated here. There is a general trend on Tresco of risk to a number of roads which run immediately parallel or close to the shoreline (which can be seen demonstrated by all the inset maps within this discussion section). A number of road sections could be lost by 2105. The impact of this on the local population and economy needs to be considered though it is worth noting that motorised vehicles are not used on Tresco and the roads provide transport links for only non-motorised traffic.

The current shoreline position at **New Grimsby**, in the northern part of Grimsby Harbour, is likely to be generally technically sustainable, although some coastal squeeze pressures may develop into the longer term. The frontage is sheltered which should aid longevity of current shoreline position. The significant impact of adopting a no active intervention approach dictates that (in order to maintain the value of New Grimsby to Tresco), the preferred plan would be to hold the line.



This recognises the importance of the settlement to tourism and the wider economy of the Islands. There is likely to be some erosion threat to the position of the lane which runs between New Grimsby and the slipway at the Flying Boat Club frontage. This could occur as early as epoch 1 (inset map, above). Any realignment of this route should take into account the likely position of the shoreline in 2105.

**Castle Down** in the north of the island forms a large part of Tresco. From New Grimsby around to the Island Hotel, erosion rates along the hard rocky coastline of Castle Down are expected to be low (generally <3m) and subsequently little risk develops though to 2105. Therefore no active intervention is the preferred continuing policy, as established by SMP1. This would satisfy objectives relating to the AONB and SAC designations.

Erosion rates adjacent to the **Island Hotel**, on the east side of the island, are predicted to be up to 25m over 100 years (see inset map, above) which may present a risk to the Hotel and associated facilities. Some width in the shoreline exists in front of the hotel itself and risks may not be significant until epoch 3 but to the south, residential properties adjacent to the Old Grimsby Quay may be at risk by epoch 2. This more exposed frontage may require some realignment in the longer term. The preferred plan is to hold the line in epochs 1 and 2, moving to some form of realignment in epoch 3, in order to absorb some of the impacts of climate change and sea level rise.

Despite anticipated erosion of up to 25m over 100 years at **Old Grimsby**, (south of the Island Hotel) and its more exposed nature, there appears to be enough width within the upper beach and dunes to provide a buffer to the impacts of sea level rise and increased storminess and allow a natural responding beach to prevail. Therefore a continuation of the 'do nothing' policy from SMP1 as no active intervention is preferred. The no active intervention approach would satisfy the objectives relating to the AONB and Isles of Scilly SAC designations.

Little risk is identified at **Rushy Point**, although potential erosion of the low ram cliffs along the shoreline by up to 30m may require the re-routing of a number of the coastal footpaths and access points. No active intervention is the preferred ongoing policy across the three epochs. The no active intervention approach would satisfy the objectives relating to the AONB and Isles of Scilly SAC designations.

Erosion of the shoreline may exceed 30m over 100 years along the coastline of **South Beach / Pentle Bay** (see inset map, right)



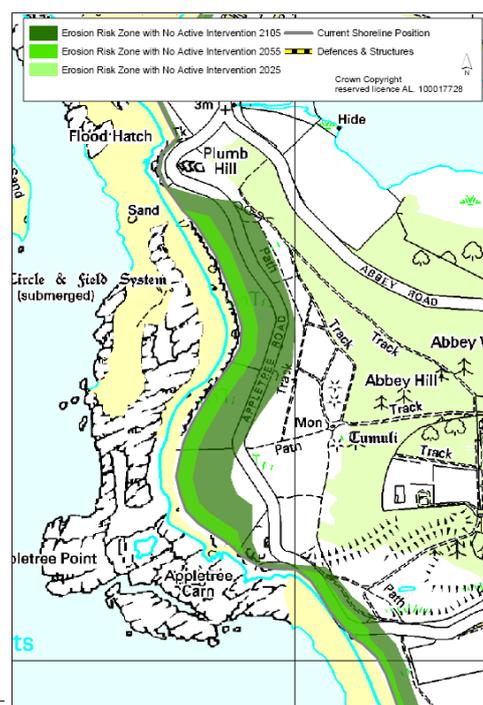
which runs for some 1.7km to the south of Rushy Point. Re-routing of coastal footpaths will be necessary but there is seen to be no active justification for continuing with the advance the line policy advocated in SMP1. A no active intervention approach is preferred, as it allows natural evolution of the coast and will continue to provide new sediment inputs to the beaches and dunes, helping to maintain their stability and healthy response to sea level rise. The no active intervention approach would satisfy the objectives relating to the AONB and Isles of Scilly SAC designations.



approach would satisfy the objectives relating to the AONB and Isles of Scilly SAC designations.

Potential erosion by 2105 of up to 75m may threaten the route of Appletree Road (see inset map, right) along the west facing **Tresco Flats** frontage. There is seen to be no justification to any intervention along this frontage however and any benefits gained from retaining the road route and preventing some cliff line recession would be outweighed by impacts on the landscape value and the reduction in sediment inputs into the nearshore system. No active intervention is therefore the preferred ongoing policy throughout the three epochs. The policy advocated in SMP1 was 'retreat

Erosion of the shoreline may exceed 30m over 100 years along the low ram coastline of **Appletree Bay** (see inset map, left). Re-routing of coastal footpaths will be necessary but there is seen to be no active justification for continuing with the advance the line policy advocated in SMP1. A no active intervention approach is preferred, as it allows natural evolution of the coast and will continue to provide new sediment inputs to the beaches and dunes, helping to maintain beach stability and width and encouraging the dunes to provide robust natural response to sea level rise. The preferred plan will inevitably involve some retreat of the shoreline but given that few infrastructure assets are at risk, hold the line is not seen as suitable or justifiable. The no active intervention



the line'. In effect, no active intervention will anticipate and accept a general retreat of the shoreline due to natural coastal processes.

The no active intervention approach would satisfy the objectives relating to the AONB and Isles of Scilly SAC designations. Any realignment of Appletree Road and coastal footpaths should consider the possible position of the shoreline in 2105 to ensure the realignments are as sustainable as possible.

The economic assessment for Tresco (Management Area 44) provides a benefit / cost ratio of 0.91. This relates primarily to high costs of maintaining Grimsby Harbour and does not take account of road losses. The Economics Summary Table below, and Appendix H, provides more detail.

## SUMMARY OF PREFERRED PLAN RECOMMENDATIONS AND JUSTIFICATION PLAN:

<b>Location reference:</b>	<b>Tresco</b>
<b>Management Area reference:</b>	<b>MA44</b>
<b>Policy Development Zone:</b>	<b>PDZ18</b>

PREFERRED POLICY TO IMPLEMENT PLAN:	
<b>From present day (0-20 years)</b>	HTL at New Grimsby. HTL at Island Hotel. NAI along the remainder of the Tresco frontage.
<b>Medium term (20-50 years)</b>	HTL at New Grimsby. HTL at Island Hotel. NAI along the remainder of the Tresco frontage.
<b>Long term (50 -100 years)</b>	HTL at New Grimsby. MR at Island Hotel. NAI along the remainder of the Tresco frontage.

### SUMMARY OF SPECIFIC POLICIES

Policy Unit		SMP1 Policy	SMP2 Policy Plan			Comment
		50 yrs	2025	2055	2105	
44.1	New Grimsby	Hold the line	HTL	HTL	HTL	Current shoreline position is likely to be technically sustainable into the longer term, although some coastal squeeze pressures may develop.
44.2	Castle Down	Do nothing	NAI	NAI	NAI	Would satisfy objectives relating to the AONB and SPA / SAC designations.
44.3	Island Hotel	Hold the line	HTL	HTL	MR	. This more exposed frontage may require some realignment in the longer term.
44.4	Old Grimsby	Do nothing	NAI	NAI	NAI	Would satisfy objectives relating to the AONB.
44.5	Rushy Point	Do nothing	NAI	NAI	NAI	Would satisfy objectives relating to the AONB
44.6	South Beach / Pentle Bay	Advance the line	NAI	NAI	NAI	Would satisfy objectives relating to the AONB and SPA / SAC designations.
44.7	Appletree Bay	Advance the line	NAI	NAI	NAI	Would satisfy objectives relating to the AONB
44.8	Tresco Flats	Retreat the line	NAI	NAI	NAI	No active intervention is the preferred ongoing policy. Would satisfy objectives relating to the AONB

Key: HTL - Hold the Line, A - Advance the Line, NAI – No Active Intervention  
MR – Managed Realignment

### ENVIRONMENTAL ASSESSMENT

#### Strategic Environmental Assessment (SEA):

For the islands of Tresco and Bryher, the overall policies to be implemented include NAI along all undefended cliff and cove shoreline and HTL and MR used selectively to maintain current standards of defence for key assets including commercial / residential properties, beaches and tourist and recreational facilities and other infrastructure on the islands.

The policy of NAI will benefit the following designated sites: Isles of Scilly SPA; Isles of Scilly Ramsar; Isles of Scilly Complex SAC; Shipman Head & Shipman Down SSSI; Norrard Rocks SSSI; Pool of Bryher & Popplestone Bank SSSI; Rushy Bay & Heathy Hill SSSI; Samson SSSI; Pentle Bay, Merrick & Round Islands SSSI; Great Pool SSSI; St Helen's SSSI; and Isles of Scilly Heritage Coast.

However, the policy of NAI through erosion may cause disturbance or deterioration to historic sites and their settings including the following: Prehistoric Cairn Group On Abbey Hill, Tresco (SM); St Nicholas' Priory, Tresco (SM); Cromwell'S Castle Mid-17Th Century Blockhouse (SM); King Charles' Castle (SM); and Tresco Historic Parks and Gardens. Monitoring should be undertaken.

**Habitat Regulations Assessment (HRA):**

HTL is proposed for all Epochs at Tresco (New Grimsby) and HTL for Epochs 1 and 2 followed by MR at Tresco's Island Hotel, These policies occur close to or some distance (up to 300m) from the Site boundary, however, no direct loss or disturbance is expected on the Sites' features, and due to the localised nature of hydrodynamic effects coupled with the MR policies moving away from the Site boundary, no indirect effects on Site features are expected.

**IMPLICATION WITH RESPECT TO BUILT ENVIRONMENT**

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
<b>Property</b>	Potential NAI Damages (£k PV)	0.0	702.2	227.3	929.5
	Preferred Plan Damages (£k PV)	0.0	175.5	56.8	232.4
	Benefits of preferred plan (£k PV)	0.0	526.6	170.5	697.1
	Costs of Implementing plan (£k PV)	459	81	230	770
Benefit/Cost ratio of preferred plan					0.91

**Notes**

Marginal B/C ratio is influenced by high harbour maintenance costs.