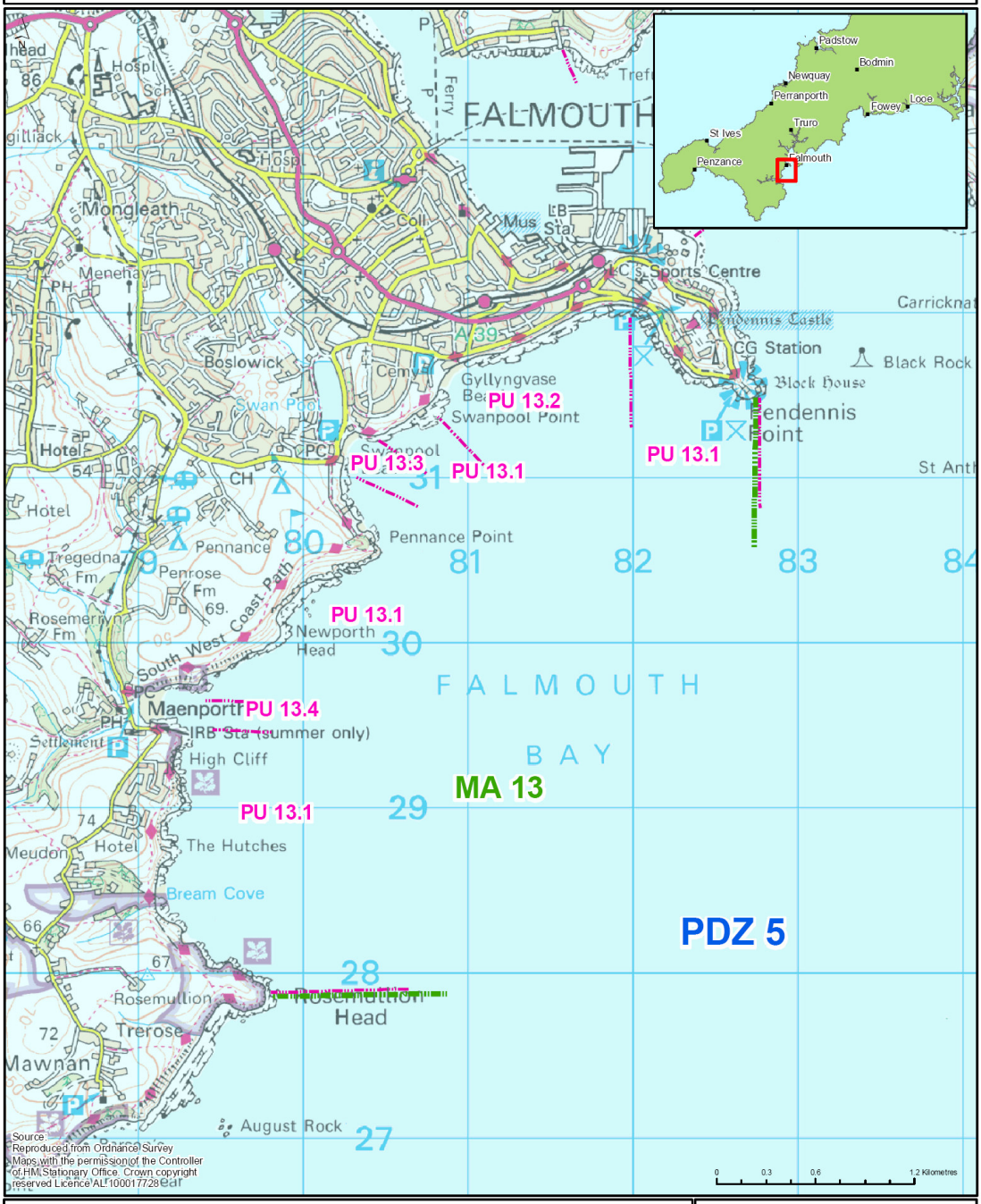
Location reference:	**Pendennis Point to Rosemullion Head**
Management Area reference:	**MA13**
Policy Development Zone:	PDZ5

Policy Development Zone 5 - Zone Point to Nare Point

Management Area 13 - Pendennis Point to Rosemullion Head

Key
Policy Development Zone
Policy Units
Management Areas



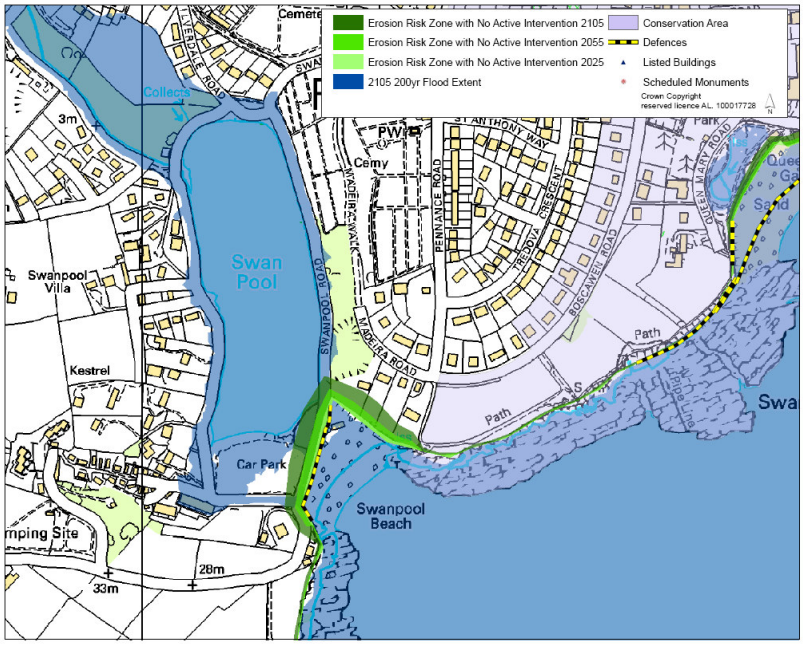
Cornwall & Isles of Scilly
Shoreline Management Plan Review

DISCUSSION AND DETAILED POLICY DEVELOPMENT

Along the **undefended cliffs** (which cover around 60% of this management area coastline) in order to meet the wider objectives of Fal and Helford SAC, a no active intervention approach is preferred. No significant impacts are anticipated under this management approach. Hold the line and managed realignment options are not considered suitable along any of this coastline as it is all undeveloped and resistant cliff, with no features or assets at risk.

Castle Beach to Gyllyngvase - Defences along the rear of Castle Beach and running through to Gyllyngvase Beach front a heavily developed frontage that is an important aspect of Falmouth's tourism and amenity attraction to both residents and visitors. Coastal process pressures on the frontage are relatively light, given its sheltered nature, although some coastal squeeze is likely to occur due to sea level rise and this should continue to be monitored. A continued hold the line policy is preferred along this frontage, which although likely to lead to some coastal squeeze as previously stated, should not compromise the Fal & Helford SAC as the boundary of the designation is dictated by the position of mean low water. The benefits of holding the line are significant – there is considered to be little or no scope for realignment and the benefits would be minimal. No active intervention is considered to be an unsuitable option along this frontage.

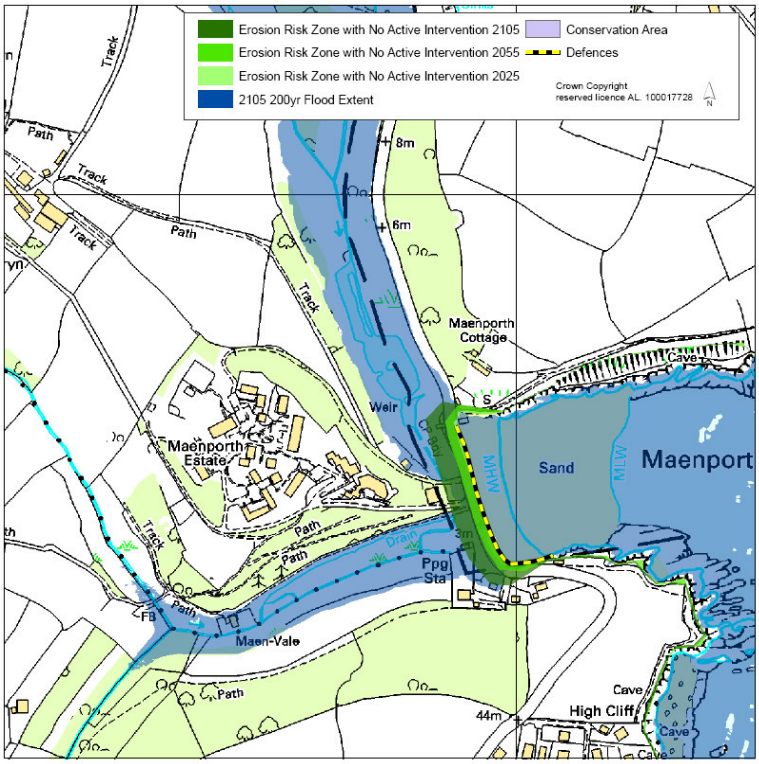
At **Swanpool** there is a partially natural defence provided by the beach and sandy/earth bund along the rear of the beach. This bund is reported to currently provide a 1:5 year level of protection from tidal flooding, which under a 1:200 yr event would be generally overwhelmed (see inset map below). The preferred plan in the short term should provide scope to assess in more detail the implications of a managed realignment approach (particularly with respect to the Swanpool habitat features). Therefore hold the line is proposed in the first epoch, moving to managed realignment for epochs 2 and 3. Recreational use and access to Swanpool Beach would be supported by the preferred plan. Some impacts would relate to land use and in particular the Falmouth to Maenporth road. Realignment would aim to minimise beach loss due to coastal squeeze. It is possible that a scheduled monument (pillbox on the north-east side of the foreshore) could be impacted by the plan. The main implications of a MR approach would be the transition of the SSSI designated Swanpool from a freshwater to a brackish / saline



habitat. This approach would be supported by Natural England in order to meet high level SMP objectives to allow natural coastal processes to be unconstrained by defences and structures.

As at Swanpool, **Maenporth** relies on a partially natural defence provided by beach and sandy/earth bund along rear of beach to give a low level of protection from coastal flooding events. In fact the flooding and erosion characteristics overall are very similar at these two east facing coves (see inset map below). The principal assets at risk at Maenporth are the coast road and the beach car parking directly alongside the road. There are some recreational facilities (café, toilets) at risk at the rear of the beach.

The preferred plan at Maenporth would be to move to managed realignment following a hold the line policy during epoch 1. A longer term realignment approach would have some impacts on property boundaries and the current road route may be affected. Allowing a more natural response to sea level rise would allow the foreshore to adapt more naturally than if it were constrained. This should assist minimizing coastal squeeze and maintaining overall beach width and area. There are a number of historical features (including a pillbox, a boundary stone, a mine, a submarine forest and a boat house) all in the vicinity of the foreshore which could potentially be affected by realignment. Recreational use and access to Maenporth Beach would be supported by the plan. The current route of the south west coast path may be at risk and future re-routing may be constrained by the presence of the Maenporth Estate.



The economic assessment for Management Area 13 provides a narrowly positive benefit / cost ratio of 1.1. There is therefore sensitivity to increasing or decreasing costs (see the Economic Summary Table below and Appendix H). This rather weak ratio is largely a function of the long length of defences (approximately 2km of mostly vertical seawalls) which defend the Castle Beach to Gyllyngvase frontage in relation to the modest value of assets at risk. However it is felt overall there is economic support for the preferred plan and protecting this frontage is integral to preserving the core values of Falmouth. Modest costs for the implementation of managed realignment at Swanpool and Maenporth are also included within the benefit / costs analysis for Management Area 13 and supported through the analysis.

SUMMARY OF PREFERRED PLAN RECOMMENDATIONS AND JUSTIFICATION PLAN:

Location reference:	**Pendennis Point to Rosemullion Head**
Management Area reference:	**MA13**
Policy Development Zone:	PDZ5

PREFERRED POLICY TO IMPLEMENT PLAN:	
From present day (0-20 years)	NAI along undefended cliff sections. HTL along Castle Beach and Gyllyngvase frontages. HTL at Swanpool. HTL at Maenporth.
Medium term (20-50 years)	NAI along undefended cliff sections. HTL along Castle Beach and Gyllyngvase frontages. MR at Swanpool. MR at Maenporth.
Long term (50 -100 years)	NAI along undefended cliff sections. HTL along Castle Beach and Gyllyngvase frontages. MR at Swanpool. MR at Maenporth.

SUMMARY OF SPECIFIC POLICIES

Policy Unit		**SMP1 Policy**	**SMP2 Policy Plan**			
		50 yrs	**2025**	**2055**	**2105**	**Comment**
13.1	Undefended cliff sections	Do nothing	NAI	NAI	NAI	To meet wider objectives of Fal and Helford SAC.
13.2	Castle Beach and Gyllyngvase	Hold the line	HTL	HTL	HTL	Coast processes pressures on the frontage are light, although some coastal squeeze is likely to occur due to sea level rise.
13.3	Swanpool	Hold the line	HTL	MR	MR	HTL in the short term should provide scope to assess in more detail the implications of a managed realignment approach.
13.4	Maenporth	Hold the line	HTL	MR	MR	HTL in the short term should provide scope to assess in more detail the implications of a managed realignment approach.
Key: HTL - Hold the Line, A - Advance the Line, NAI – No Active Intervention MR – Managed Realignment						

ENVIRONMENTAL ASSESSMENT
Strategic Environmental Assessment (SEA):
Between Pendennis Point to Rosemullion Head, the NAI policy along the undefended cliff sections will benefit natural process essential for the integrity of the Cornwall AONB. The other long-term policies of this management area of HTL and MR will continue to provide protection of settlements and beaches including Castle and Gyllyngvase beaches, Swanpool beach and Maenporth beach. However the same policies will also result in minor negative impacts to the Swanpool SSSI and The Hutches RIG site. It is anticipated that the NAI policy along the undefended cliff sections will not impact upon the historic setting of Pendennis Castle (LB) in response minimum erosion of the cliff boundary encompassing the castle.
Habitat Regulations Assessment (HRA):
HTL at Castle Beach (Falmouth) and Gyllyngvase would occur (30m to 80m)

outside the Site boundary and would result in highly localised hydrodynamic effects predominantly evident during storm events, which would not extend into the Site or alter the physical characteristics of the Site features, particularly designated estuary features (intertidal and subtidal communities).

HTL in Epoch 1 at Swanpool would occur (30m to 130m) outside the Site boundary and would result in highly localised hydrodynamic effects predominantly evident during storm events, which would not extend into the Site or alter the physical characteristics of the Site features, particularly designated estuary features (intertidal and subtidal communities). MR in Epochs 2 and 3 would similarly retreat landward away from the Site and also result in no direct or indirect effects on designated intertidal and subtidal communities.

HTL in Epoch 1 at Maenporth would occur (110m to 210m) outside the Site boundary and would result in highly localised hydrodynamic effects predominantly evident during storm events, which would not extend into the Site or alter the physical characteristics of the Site features, particularly designated estuary features (intertidal and subtidal communities). MR in Epochs 2 and 3 would similarly retreat landward away from the Site and also result in no direct or indirect effects on designated intertidal and subtidal communities.

IMPLICATION WITH RESPECT TO BUILT ENVIRONMENT

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	21.9	43.7	19.8	85.4
	Preferred Plan Damages (£k PV)	0.0	8.2	7.4	15.6
	Benefits of preferred plan (£k PV)	21.9	35.4	12.4	69.7
	Costs of Implementing plan £k PV	41	18	6	65
			Benefit/Cost ratio of preferred plan		1.1