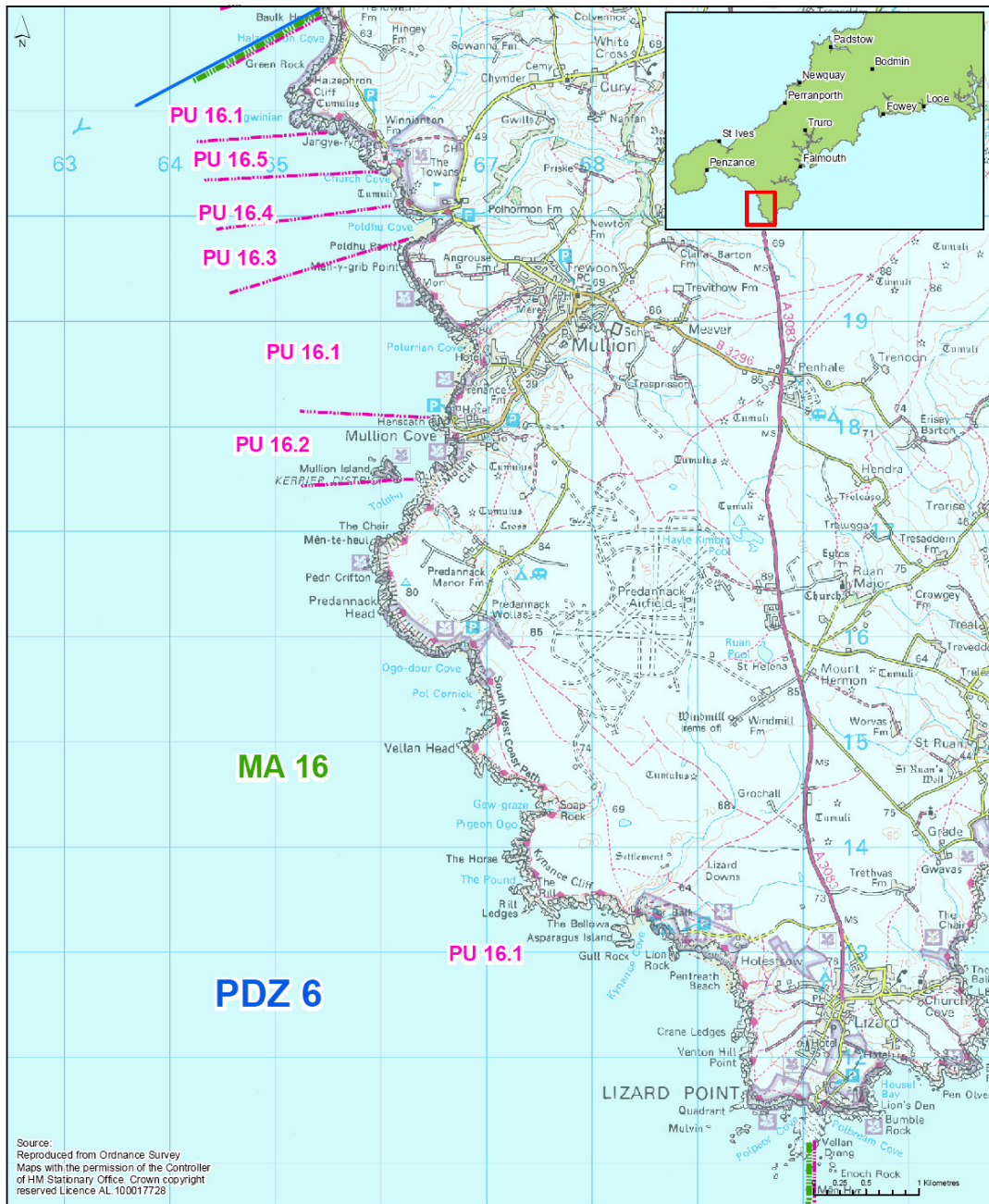


Location reference: Lizard West (Lizard Point to Baulk Head)
Management Area reference: MA16
Policy Development Zone: PDZ6

Policy Development Zone 6 - Lizard (Nare Point to Baulk Head) — Policy Development Zone — Policy Units
 Management Area 16 - Lizard West (Lizard Point to Baulk Head) — Management Areas



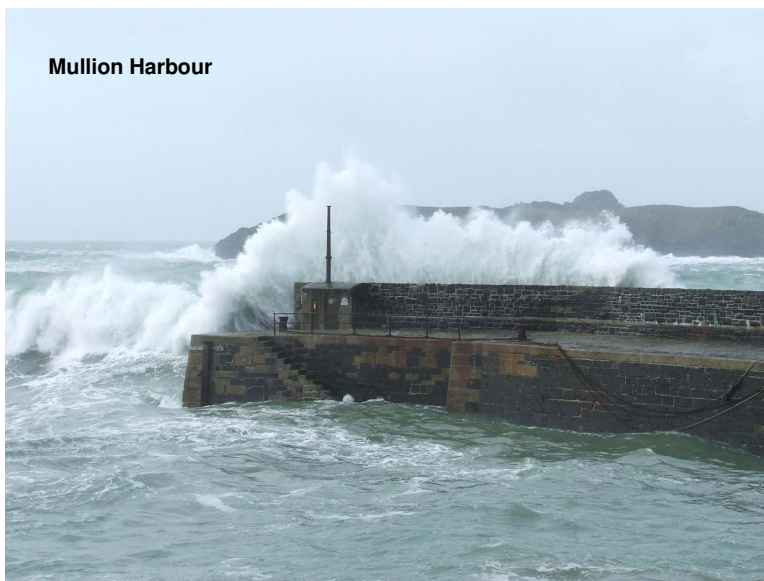
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Cornwall & Isles of Scilly
Shoreline Management Plan Review

DISCUSSION AND DETAILED POLICY DEVELOPMENT

The dominating feature of this coastline is the hard resistant cliffs with discreet coves and beaches. The Lizard coast has been shaped through millennia by the natural coastal processes and the intention for all of the undefended areas of cliff cove and beach would be to continue with a policy of non-intervention on an ongoing basis for the whole of PU 16.1. With very minimal erosion expected along most of the frontage in MA16, no active intervention satisfies the objectives associated with the Lizard SAC, the Lizard National Nature Reserve, the range of SSSIs and BAP Priority habitat present, as well as AONB and Heritage coast landscape designations. The policy should not present a risk to the SW Coast Path (although there is risk to the path in the vicinity of Church Cove).

There are a number of coastal barrows (scheduled monuments) which could be vulnerable to cliff top erosion. The preferred plan for these cliff areas would still be non-interventional, but the monitoring of cliff recession through use of aerial photography and Lidar would assist in reviewing the amount of cliff recession and relative position of barrows in the short term to medium term.

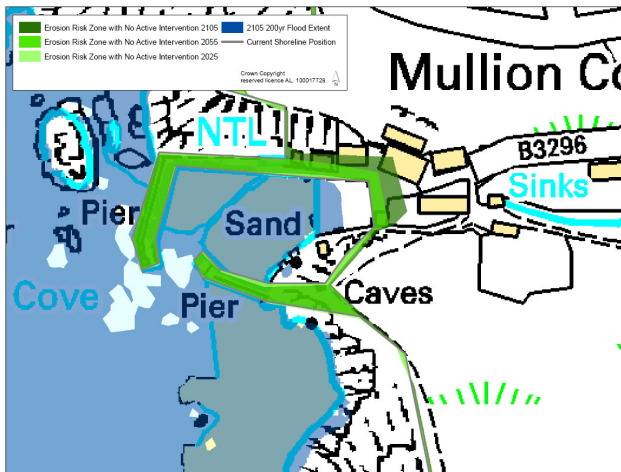


Mullion Harbour

(inset photo, left) will come under increasing pressure from both increasing sea levels and increasing storminess, due to its exposed location. The policy of the National Trust is to allow the harbour structures to deteriorate over time and to return the location to a naturally functioning cove. This may take some time but without maintenance it is not likely the structure will

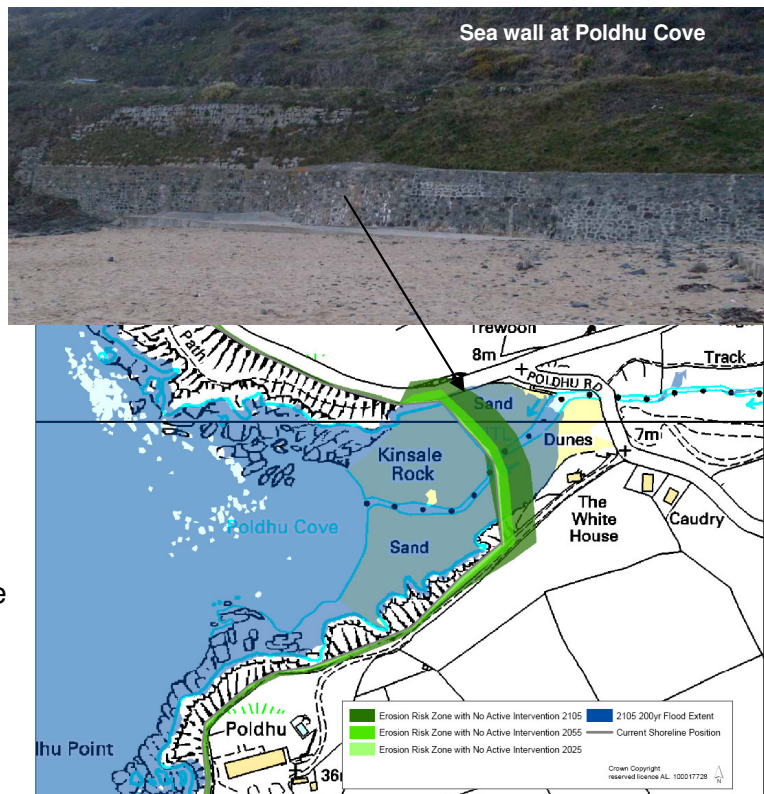
still be present beyond epoch 2. Once major damage occurs, the entire structure could quite rapidly fail. This decision has been reached through an effective round of consultation with the local community and statutory bodies and therefore the SMP review upholds this decision and recommends a policy of no active intervention on an ongoing basis. This represents a change from the hold the line policy adopted for SMP1. This would not preclude the requirement for the Trust to undertake minimum intervention to keep the structure and cove safe during the period in which the cove returns to a natural state.

Without the coastal protection which the harbour currently provides, there is likely to be some limited retreat of the shoreline position (see inset map below). By 2055 this may affect one or two of the foreshore properties which are clustered around the slipway. By 2105 this may affect 4 or 5 properties, two of which are listed buildings.



The risk mapping indicates no problems due to flooding however this is based upon a still water projection and it is inevitable that there will be an increase in the extent of wave run-up in the absence of the harbour arms. The impacts of this should be limited by the steeply rising topography beyond the slipway, but it should be acknowledged that risk to life due to wave run-up will need to be considered under the changed management regime.

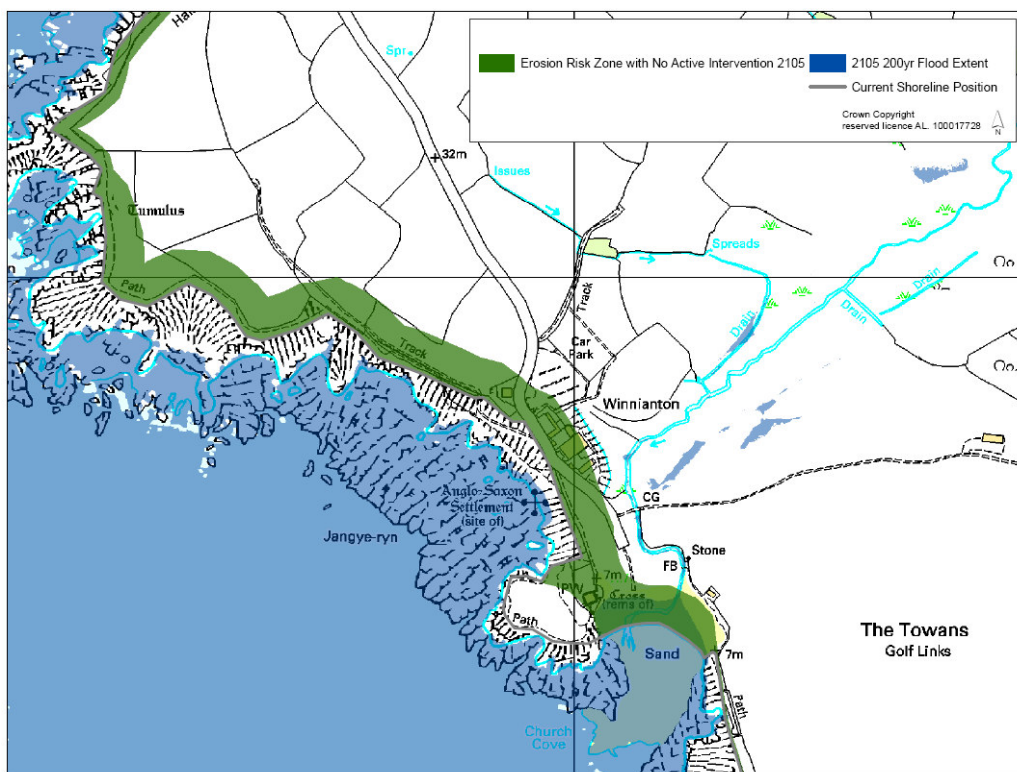
Poldhu Cove and its small dune system are likely to experience increasing pressure, particularly if anthropogenic removal of sand from the foreshore continues. With its south westerly orientation it is exposed to the full effects of increasing storminess and sea level rise. The Cornwall Sand Dune and Beach Management Study states it is uncertain whether new sediment sources may be sufficient to replace sediment lost offshore, but that cessation of the sand removal practices would help to minimise impacts upon the beach and dunes. Poldhu has been managed historically under a hold the line policy and low masonry walls at the rear of the northerly part of the beach protect the position of the Poldhu Road. These walls are currently maintained by the National Trust. The assessment of erosion risks indicates that there is no difference to the retreat and evolution of the beach under either the NAI or WPM scenario, as the walls are beyond the limit of wave incursion (see inset map). Equally, flood risk is unchanged under either scenario. It is possible that there could be some erosion impact on the road to the north of the beach but this is a non-strategic access road and would not warrant a hold the line policy. Therefore the preferred plan would be to manage Poldhu under a no active intervention policy. This would not preclude maintenance



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of the walls in their present position in order to maintain the through road, as the mapping indicates this will not interfere with natural beach processes. The most beneficial change in present management practices would be cessation of the removal of sand from the foreshore as this is likely to be increasingly problematic in combination with sea level rise.

Just to the north of Poldhu Cove, **Church Cove and Jangye-ryn** are locations of the two most northerly policy units within this management area. The assessment of flood and erosion risks has indicated an elevated risk of erosion in this area (see inset map below) although much of this is predicted to occur beyond 2055 and of course there remains uncertainty attached to the actual amount of erosion that will ultimately be experienced.



At risk within Church Cove is **the Church of St Winwalloe**, which is the parish church of Gunwalloe. It is located on the northern shoreline of the cove, defended along its flank by a vertical masonry wall though this is not a formal defence (see inset photo, right). Even with the presence of this wall, loss of part of the church and its grounds is possible by 2105. At Jangye-ryn, it is possible that up to 55m of erosion could occur by 2105, which would cause loss of the National Trust owned and run Winnianton Farm and of a large section of the access road to Church Cove. There are existing defences at Jangye-ryn in the form of rock revetments, but these are in very poor condition. Ongoing erosion of the cliffs adjacent to the rock is very evident (see inset photo, below).



The heritage interest at this site is significant, besides the church there are a number of scheduled monuments relating to early mediaeval settlement situated along the cliffs at Jangye-ryn.



The National Trust policy, as set out in its 'Shifting Shores'

publication, is to allow natural coastal processes to function normally without being unduly unconstrained, even where this means eventual damage to, or loss of, National Trust property. Winnianton Farm could be wholly lost by 2105, but is owned by the Trust. Public funding is very unlikely to be made available to protect a single property in this location and an active attempt to hold the line here would not be acceptable. Certainly the preferred plan does not see the current shoreline position as either technically or economically sustainable. The Jangye-ryn frontage would therefore be more appropriately managed therefore through an initial policy of realignment, moving to a non-interventional approach by epoch 3.

The access road providing a route for vehicles through to the church may be affected by erosion within epoch 1. Given the nature and ownership of the immediate hinterland, it may be relatively straightforward to re-align the road through the existing National Trust car park and behind the site of Winnianton Farm. Or it may not be deemed necessary to provide continued vehicular access through to Church Cove beyond the current car park area and that pedestrian access through to Church Cove would be sufficient. Either option would be best managed under a realignment policy at Jangye-ryn, which would move away from the present policy of hold the line. The economic analysis provided a benefit / cost ratio of 2.32 for initial managed realignment costs at Jangye-ryn which suggest this approach could be economically supported (see the Economic Summary Table below and Appendix H).

At Church Cove, a continuation of the no active intervention approach is preferred. Importantly however, this does not preclude local management to maintain the south-east facing wall and boundary of the church, as the importance of this asset to the local community is acknowledged. The risk assessment indicates that the threat to the church exists mainly beyond epoch 2 and that maintaining its position and role over the next 30 – 60 years is quite feasible. It will be necessary to acknowledge however, that at some stage in the future, the church will be effectively outflanked on both sides due to the low-lying and erodible nature of the shoreline. Ultimately the geomorphological change will dictate that the small headland which currently separates the two beaches (and provides shelter to the church) will become disconnected from its frontage, effectively becoming an island, as can be seen in many other examples around the Lizard coast.

SUMMARY OF PREFERRED PLAN RECOMMENDATIONS AND JUSTIFICATION PLAN:

Location reference:	Lizard West (Lizard Point to Baulk Head)
Management Area reference:	MA16
Policy Development Zone:	PDZ6

PREFERRED POLICY TO IMPLEMENT PLAN:	
From present day (0-20 years)	NAI along entire frontage, with the exception of MR policy at Jangye-ryn.
Medium term (20-50 years)	NAI along entire frontage, with the exception of MR policy at Jangye-ryn.
Long term (50 -100 years)	NAI along entire frontage. Manage as entirely naturally evolving coastline. Maintain monitoring programme

SUMMARY OF SPECIFIC POLICIES

Policy Unit		Policy Plan			Comment
		2025	2055	2105	
16.1	Undefended cliffs and coves	NAI	NAI	NAI	Satisfy high level objectives and those relating to the Cornwall AONB, Heritage Coast and Lizard SAC designations.
16.2	Mullion Cove	NAI	NAI	NAI	Policy reflects intention of NT and objectives agreed with local community.
16.3	Poldhu Cove	NAI	NAI	NAI	Low risk to infrastructure and roads at rear of beach
16.4	Church Cove	NAI	NAI	NAI	Significant erosion may occur at the rear of Church Cove. This may impact on the Church within epoch 3.
16.5	Jangye-ryn	MR	MR	NAI	Up to 50m of erosion may occur by 2105, resulting in loss of the National Trust owned Winnianton Farm.
Key: HTL - Hold the Line, A - Advance the Line, NAI – No Active Intervention MR – Managed Realignment					

ENVIRONMENTAL ASSESSMENT
Strategic Environmental Assessment (SEA):
Between Lizard Point to Baulk Head, the long-term policy is for NAI along the undefended sections of the coastline which will benefit both the geological and biodiversity interests including Caerthillian to Kennack SSSI, West Lizard SSSI, Mullion Cliff to Predannack Cliff SSSI, Baulk Head to Mullion SSSI and Cornwall AONB. Potential impacts upon protected wrecked sites could be anticipated such as

St Anthony in response to increased deposition of sediments. Potential loss of residential and commercial properties and assets may also occur between Predannack Head to Pedngwinian under the policy of NAI and thus detailed monitoring should be undertaken for this management area.

Appropriate Assessment (AA):

HTL for all Epochs is proposed at Cadgwith, whilst HTL in the first Epoch followed by MR is proposed at Porthallow and Coverack, and MR is proposed at Kennack and Jangye-ryn. These policy locations are an extensive distance (at least 3.5km) from all Sites with the exception of the Lizard SAC. HTL policy occurs either outside the Site boundary, with the exception of Cadgwith, however, this policy location does not support any primary qualifying habitat features nor are any direct or indirect effects on Site features expected. MR policy at Kennack and Jangye-Ryn has the potential to adversely effect heathland habitat (a Site feature), however, clarification of preventative and mitigation measures has resulted in a finding of no adverse effect on integrity of the Site's qualifying features. These preventative and mitigation measures must be included in the SMP plan.

IMPLICATION WITH RESPECT TO BUILT ENVIRONMENT

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	0.0	0.0	49.3	49.3
	Preferred Plan Damages (£k PV)	0.0	0.0	16.4	16.4
	Benefits of preferred plan (£k PV)	0.0	0.0	32.9	32.9
	Costs of Implementing plan £k PV	14	0	0	14
				Benefit/Cost ratio of preferred plan	2.32

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