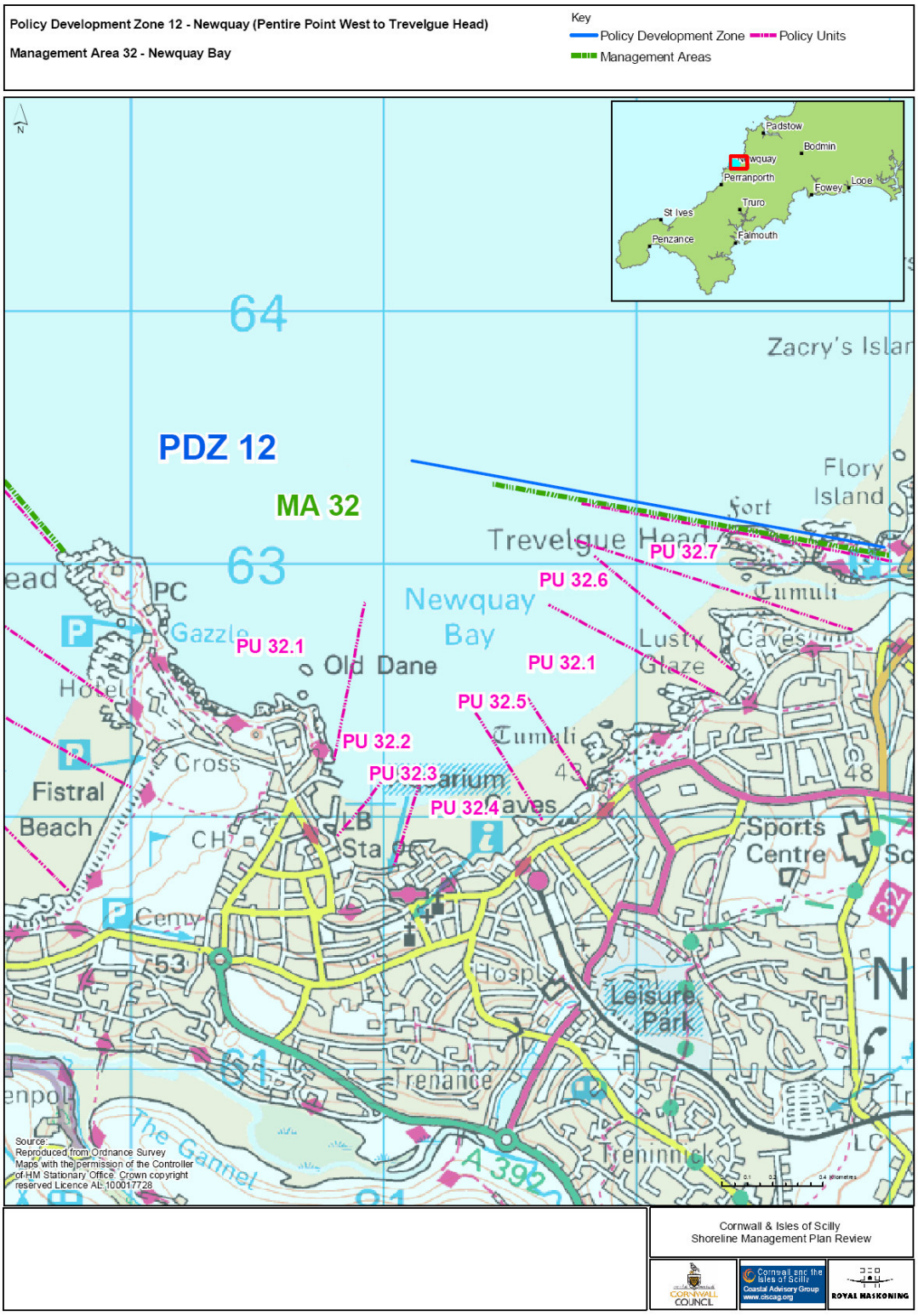
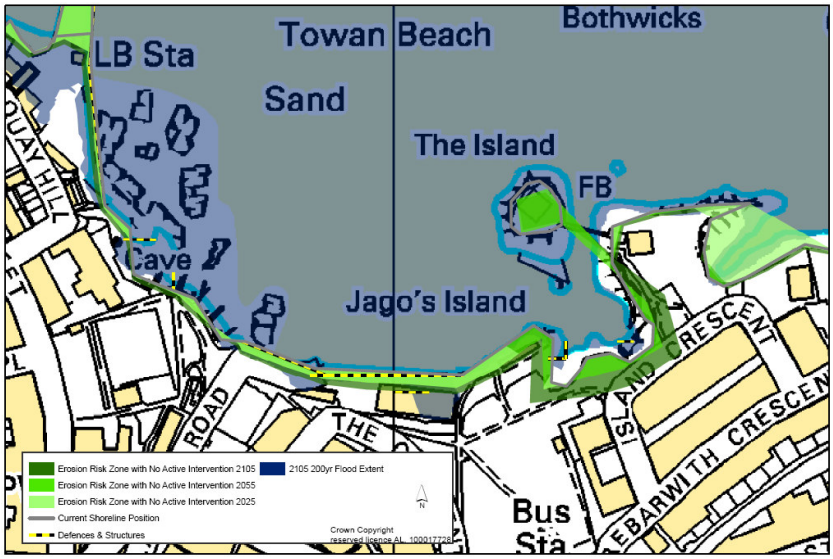
Location reference:	**Newquay Bay**
Management Area reference:	**MA32**
Policy Development Zone:	PDZ12



DISCUSSION AND DETAILED POLICY DEVELOPMENT

A no active intervention approach for the **undefended cliff** sections will meet high level SMP objectives and satisfy AONB and Heritage Coast criteria. No assets are deemed to be at risk.

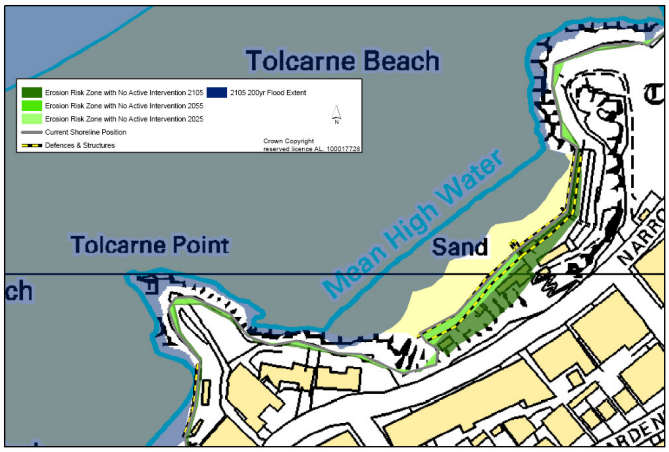
Maintaining **Newquay Harbour** area is central to protecting the core values of Newquay. As well as its role as a harbour, the harbour wall structures provide a coastal protection function by preventing further erosion of the cliffs in the Beacon Road, Fore Street and South Quay Hill areas above the harbour (see inset map below). Therefore a hold the line policy is preferred across the three epochs at this location. Realignment is not possible and no active intervention is rejected as it would generally fail to meet most of the high level objectives relating to the harbour area. The quay itself is a grade II listed structure so the preferred policy would assist in preventing damage to, or loss of the site. The economic assessment for this Management Area provides a low benefit / cost ratio of 0.30, which reflects the high maintenance costs associated with the harbour structures, in relation to actual assets protected. However this does not take into account how important the harbour is in achieving the SMP high level objectives and so for the reasons outlined above, hold the line is preferred.



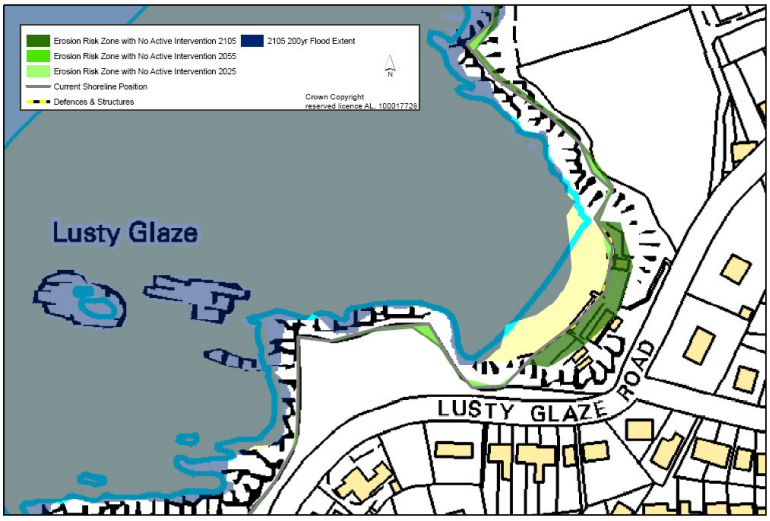
If proposals to regenerate the Blue Reef aquarium area at rear of **Towan Beach** (inset map, right) are taken forward this would require an initial hold the line policy. Although HTL will carry an acknowledged risk of coastal squeeze and loss of intertidal area, realignment would not provide much additional room for realignment due to the geology and rapidly rising topography, which imposes natural constraint on beach movement. In terms of meeting high level objectives and allowing coastal processes to occur more naturally, a move to no active intervention would be required here in the medium to longer term. The amount of additional room gained for the beach would be small though still a useful addition to the beach width. It may be appropriate to investigate and consult in more detail on the benefits of some regeneration and re-development going ahead versus a return to a more naturally functioning cove. Ultimately, the more sustainable solution is to move toward a no active intervention approach and this would also greatly reduce the economic burden on the public purse of permanently maintaining defences in the future. It may be felt however that socio-economic benefits of re-development still need to be considered however. There is however an important direction from the SMP review that land use planners should consider the site of the Blue Reef Aquarium to be at a high risk of flooding from wave action.

Hard geology and rapidly rising topography at **Great Western Beach** imposes natural constraint on beach movement. Some coastal squeeze and beach narrowing may be anticipated because of sea level rise. Allowing some natural erosion of the cliffs will offset this to an extent. Therefore the preferred plan would be to undertake no active intervention, across all epochs. This would mark a change from the existing SMP1 policy of hold the line.

The significant importance to the local economy of the development at the rear of **Tolcarne Beach** is recognised through a proposed hold the line policy during epoch 1. During epoch 2 and into epoch 3 coastal squeeze and rising sea level are likely to put increasing pressure on this frontage. Monitoring of beach levels should assist in indicating how rapidly the risk and pressure is increasing but it is probable that by mid-century technical and economic sustainability of maintaining defences will be reduced to extent that NAI will need to be adopted.



It is obviously desirable for the local economy to continue to benefit from the presence of good quality beachside accommodation. However the net result of maintaining development and defences in place may be a reduction in beach width and area and deterioration in overall beach quality and attractiveness to tourists and residents. This in the longer-term would therefore be very counter-productive for the local community and economy. Given the uncertainties over future response of the beaches to sea level rise, ongoing monitoring is seen to be a vital aspect of developing future management strategies. The land use planning system should acknowledge and support the need to roll back development at this location in the longer term, to avoid detrimental impacts to the beach. It should also acknowledge that future flood risk due to wave action will increase from present day levels in line with sea level rise and increasing storminess.

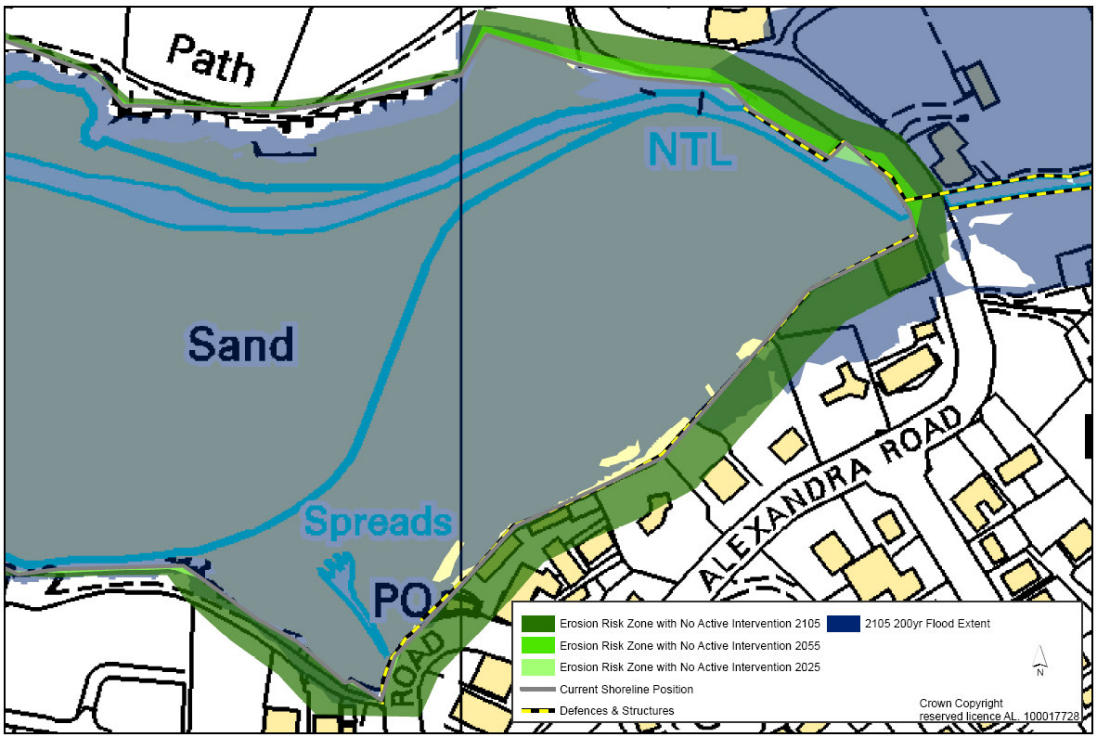


The geology and rapidly rising topography at **Lusty Glaze Beach**, which imposes natural constraint on beach movement, means it is probable that coastal squeeze and beach narrowing may occur. The erosion mapping indicates that shoreline recession of up to 15m could occur under an unconstrained scenario (inset map, left). This indicates the future pressure this frontage

may experience. No active intervention is the preferred approach across all three epochs but this does not preclude local management of the private defences whilst it remains sustainable and recognizes the importance of the development and tourism based commercial activity at Lusty Glaze to the local economy. However the land use planning system should acknowledge and support the need to roll back development at this location in the longer term, to avoid detrimental impacts to the beach. It should also acknowledge that future flood risk due to wave action will increase from present day levels in line with sea level rise and increasing storminess.

Holding of the existing defensive line at **Porth** during epoch 1 will protect cliff top properties and the route of the Watergate to Newquay Rd which runs along the south-eastern flank of the beach. This road has local importance in connecting communities and as secondary route to Newquay airport however resilience and adaptation of the road to more frequent flooding along lower section at rear of beach should be considered (see inset map below) and possibly realignment. Local transport plans will consider this issue and will ensure the transport needs of the local community continue to be met. The preferred plan would be to continue with the HTL policy through epoch 1, but moving to a managed realignment approach in epoch 2 and no active intervention in epoch 3.. This dictates that there should be minimal coastal squeeze impacts due to sea level rise. The beach at Porth is very elongated with a large area of drying sand at the top of the beach – further suggesting impacts will be minimal.

It will be useful for the land use planning system to acknowledge the future flood risk to the Porth Beach Holiday Park site and to consider the sustainability of such land use in the flood risk zone beyond epoch 1.



SUMMARY OF PREFERRED PLAN RECOMMENDATIONS AND JUSTIFICATION

PLAN:

Location reference:	**Newquay Bay**
Management Area reference:	**MA32**
Policy Development Zone:	PDZ12

PREFERRED POLICY TO IMPLEMENT PLAN:	
From present day (0-20 years)	NAI along undefended cliffs. HTL at Newquay Harbour and Towan Beach. NAI at Great Western Beach. HTL at Tolcarne Beach. NAI at Lusty Glaze. HTL at Porth.
Medium term (20-50 years)	NAI along undefended cliffs. HTL at Newquay Harbour and HTL/NAI at Towan Beach. NAI at Great Western Beach. HTL/NAI at Tolcarne Beach. NAI at Lusty Glaze. MR at Porth.
Long term (50 -100 years)	NAI along undefended cliffs. HTL at Newquay Harbour. NAI at Towan Beach. NAI at Great Western Beach. NAI at Tolcarne Beach. NAI at Lusty Glaze. NAI at Porth.

SUMMARY OF SPECIFIC POLICIES

Policy Unit		**SMP1 Policy**	**SMP2 Policy Plan**			
		50 yrs	**2025**	**2055**	**2105**	**Comment**
32.1	Undefended cliffs	Do nothing	NAI	NAI	NAI	Will meet high level objectives and satisfy AONB and heritage coast criteria
32.2	Newquay Harbour	Hold the line	HTL	HTL	HTL	Maintaining harbour area central to core values of Newquay.
32.3	Towan Beach	Hold the line	HTL	**HTL/NAI**	**NAI**	Constrained frontage, coastal squeeze likely to become main issue. Redevelopment of commercial site requires careful consideration. Use of the available area to accommodate sea level rise may be preferable. Blue Reef Aquarium site must be considered at high risk of flooding from wave action.
32.4	Great Western Beach	Hold the line	**NAI**	**NAI**	**NAI**	Some coastal squeeze and beach narrowing may be anticipated because of sea level rise
32.5	Tolcarne Beach	Hold the line	HTL	**HTL/NAI**	**NAI**	Monitoring of beach levels should assist in indicating how rapidly the risk and pressure is increasing.
32.6	Lusty Glaze	Hold the line	**NAI**	**NAI**	**NAI**	NAI is preferred approach but this does not preclude local management of the private defences whilst sustainable and recognises importance to local economy.
32.7	Porth	Hold the line	HTL	MR	NAI	Holding defensive line will protect cliff top properties and route of Watergate to Newquay Rd during epoch 1 but pressure on this frontage means a MR approach is preferred during epoch 2 and resilience and adaptation of the road to flooding along lower section at rear of beach should be considered. Roll back of development out of the risk zone should also be undertaken during this epoch.
Key: HTL - Hold the Line, A - Advance the Line, NAI – No Active Intervention MR – Managed Realignment						

ENVIRONMENTAL ASSESSMENT
Strategic Environmental Assessment (SEA):
The long-term policy for Newquay Bay is **HTL** which will ensure the continued protection of residential and commercial properties and assets along the frontages including the following: Newquay Harbour; RNLI Lifeboat Station; Commercial properties, including Sea Life Centre; Beach huts; and North Pier (LB).
Habitat Regulations Assessment (HRA):
HTL is proposed for Newquay Harbour and Towan Beach, and Porth, whilst HTL is proposed in the first Epoch for Pentire/South Fistral, and HTL is proposed for the first two Epochs at Tolcarne Beach and North Fistral followed by NAI or MR respectively. These policy locations are at least 7km from the nearest Natura 2000 Site and, therefore no direct or indirect effects are expected.

IMPLICATION WITH RESPECT TO BUILT ENVIRONMENT

Economics Summary		by 2025	by 2055	by 2105	Total £k PV
Property	Potential NAI Damages (£k PV)	245.0	152.1	227.4	624.5
	Preferred Plan Damages (£k PV)	0.0	30.4	45.5	75.9
	Benefits of preferred plan (£k PV)	245.0	121.7	181.9	548.6
	Costs of Implementing plan £k PV	1115	490	213	1818
			Benefit/Cost ratio of preferred plan		0.30

Notes

Marginal B/C ratio is significantly influenced by high cost of harbour maintenance.

If harbour excluded B/C ratio approx 2. Therefore additional justification required for the harbour.