

## 5 POLICY STATEMENTS AND POLICY MAPPING



## CONTENTS

	Page
5 POLICY STATEMENTS AND POLICY MAPPING	1
5.1 Introduction	1
5.2 Main issues highlighted with the PDZs	2
5.3 Community adaptation locations emerging from SMP2	12
5.4 Policy Option changes from SMP1 to SMP2	14
Annex I Summary of the preferred plan	
Annex II Policy option mapping	



## 5 POLICY STATEMENTS AND POLICY MAPPING

### 5.1 Introduction

This chapter of the SMP provides an overview and summary of the preferred plan and preferred policy choices to implement that plan.

The chapter is split into three parts with two annexes.

Part 1 considers the main issues highlighted within the PDZs which are relevant across the SMP area. These are:

- Priority locations
- Community adaptation locations
- Wave action and dominance
- Monitoring (& wave buoy network)
- Sand Dunes
- UK BAP Habitat Assessments
- South West Coast Path
- Coastal and tidal flood warning service
- CFMP policy in relation to SMP2 policy

Part 2 presents a list of locations where some form of community adaptation is likely to be required within the time horizon of the SMP2. These are locations where the preferred plan and policies require an adaptation of the frontage to occur (at some level) in order to adapt to the impacts of on-going coastal erosion, sea level rise and climate change in relation to communities and built assets.

Part 3 sets out where changes in policy from SMP1 to SMP2 have occurred in at least one epoch. There are, as may be expected, a significant number of locations where the overall management intent and general policy approach has changed following the review process and the public consultation.

Annex I presents an overview and summary of the preferred plan and preferred policy choices to implement that plan. This is set out in tabular form for each Management Area, together with a summary of anticipated implications of the preferred plan for each of the five key themes - again set out in tabular form.

Annex II shows the policy option at each policy unit in the form of mapping at a Management Area scale. The policy choice is shown by a coloured band alongside the stretch of coast or estuary to which it refers. **This is for display purposes only and does not indicate the position of the shoreline under the preferred plan.**

On the open coast the most landward coloured band represents the chosen policy up to the first epoch (2025), the middle coloured band represented the chosen policy at the

second epoch (2055). The third most seaward coloured band represents the chosen policy at the third epoch (2105).

On estuarine locations such as the Fowey and Helford Estuaries this banding is reversed in order to give a clear display of the proposed policies. The coloured band that sits on the edge of the estuary represents the chosen policy up to the first epoch (2025), the middle coloured band represents the chosen policy at the second epoch (2055). The third coloured line furthest landward from the estuary represents the chosen policy at the third epoch (2105). The coloured policy bands are for display purposes and are positioned in this way to give the clearest representation as possible at Management Area level.

## 5.2 Main issues highlighted with the PDZs

### Priority locations

There are a number of key locations which the SMP Review regards as priority areas over the next 5-10 years. These locations are:

Hugh Town, St Mary's; Mount's Bay (Marazion to Newlyn frontage, incl. Marazion Marsh); Fal Estuary; Praa Sands; Hayle; Perranporth; Donderry to Seaton; Mevagissey; Looe; Pentewan; Coverack; Portreath; Loe Bar; Bude.

### Community adaptation locations

In addition to the priority locations, Table 5.1 below identifies locations where the preferred plan and policies require an adaptation of the frontage to occur (at some level) in order to adapt to the impacts of on-going coastal erosion, sea level rise and climate change in relation to communities and built assets.

This may therefore involve some impacts upon, or potential loss of, private and commercial properties, community assets or infrastructure, either in the short, medium or long term due to a possible transition away from hold the line policies at some point in the next 100 years. Please see Chapter 6 (Action Plan) for the action relating to these locations.

Each of these locations has been identified as either a Coastal Change Management Area (CCMA) or a location where a 'community adaptation strategy to climate change' would be appropriate. These could therefore be considered as potential candidates for the current 'Pathfinder' approach promoted by Defra. There is by necessity some overlap of this list with the priority locations identified above.

Location	PDZ/ Management Area/ PU no.	Potential number of properties affected	Other built assets affected	Principal type of risk
Portwrinkle	1.2	5-10	Roads, harbour, slipway, public toilets, car parking	Erosion
Downderry & Seaton	2.1 & 2.2	>60	Roads, slipway	Erosion & flooding
Millendreath	3.2	1	Road, slipway	Erosion
Plaidy	3.3	0	Roads	Erosion
Looe	3.4 & 3.5	In excess of 330	Roads, quayside commerce, slipways, car parking, public toilets	Flooding
Lerryn	5.2	5-10	Roads	Flooding
Golant	5.3	<5	Roads	Flooding
Polkerris	6.2	5-10	Slipway, car parking	Erosion
Pentewan	8.2 & 8.3	>10	Roads, harbour, holiday park	Flooding & erosion
Mevagissey	8.4	70-80	Quayside commerce, aquarium, slipways, car parking, public toilets	Flooding
Portmellon	8.5	5-10	Roads, car parking, slipway	Flooding & erosion
Devoran & Perranarworthal	11.5	20-25	Roads, car parking, quayside, slipway	Flooding
Mylor Quay	11.6	5-10	Slipways, quaysides, pontoons, car parking	Flooding
Flushing	11.8	>60	Roads, slipways, quaysides, car parking	Flooding
Penryn	11.9	>100	Roads, slipways, quaysides, car parking	Flooding
Coverack	15.4	25-30	Road, slipway, harbour, car parking	Erosion
Praa Sands	18.2 & 18.3	>40	Roads, car parking, public toilets	Erosion
Mounts Bay	PDZ8	In excess of 200	Roads, rail link, slipways, public toilets, car parking, promenade	Flooding & erosion
Hayle	MA27	>150	Roads, quaysides, slipways, public toilets, car parking	Flooding
Portreath	29.2 & 29.3	>20	Roads, quaysides, public toilets, promenade, car parking	Flooding & erosion
Perranporth	30.3	>80	Roads, public toilets, promenade, car parking	Flooding
Newquay Bay	MA32	20-30	Roads, beach access roads, holiday park, car parking, public toilets	Erosion
Mawgan Porth	33.3 & 33.4	5-10	Roads, holiday park, car parking, public toilets	Flooding & erosion
Harlyn Bay	34.2	5-10	Road, car parking, public toilets, lifeguard station	Flooding & erosion
Polzeath	36.2	5-10	Road, holiday park, car parking, public toilets, lifeguard station	Flooding & erosion
Widemouth	39.2 & 39.3	5-10	Road, car parking, lifeguard stations (2)	Erosion

Location	PDZ/ Management Area/ PU no.	Potential number of properties affected	Other built assets affected	Principal type of risk
Bude	40.2, 40.3 & 40.4	>70	Road, beach huts, car parking, public toilets, lifeguard station, canal structures	Flooding & erosion
St Mary's, Isles of Scilly	MA42	>100	Roads, pumping stations, hospital, fire station, incinerator, industrial park, reservoirs (water supply)	Flooding & erosion

**Table 5.1 Community adaptation locations**

## Wave action and dominance

The influence of wave action at many locations around the SMP coastline has been identified within Chapter 4 at a policy unit level. This wave dominance is relatively unique in comparison with many other SMPs around England and Wales. The impact of waves around the Cornish coastline manifests itself in a number of different risks as far as shoreline management planning is concerned. Direct wave driven flooding on the open coast at exposed locations and erosion caused by wave action are the most obvious examples, but in addition to this is risk to life, structural damage, wave set-up occurring in sheltered locations, wave impacts on coastal habitats and disruption to transport routes and networks.

Wave action is a material consideration within the land use planning system and development within a certain distance from the mean high water position (or shown to be within the coastal flood risk zone) requires a Flood Risk Assessment to determine the risk of wave action and overtopping. The Strategic Flood Risk Assessment 2 at Perranporth and any individual Flood Risk Assessments there or in other vulnerable locations, have a requirement to consider and where possible to quantify the wave action, wind set-up, wave run-up threats.

The widespread nature of this issue dictates that it is a key point for the SMP to pick up at a strategic level, as well as on a discrete, location by location basis. An important aspect of this is for the SMP Review to identify the knowledge requirement to allow these risks to be fully assessed and accounted for by the land use planning system. This includes consideration of current monitoring strategies and how they may need to be improved in the future. Of particular relevance is the wave buoy network and requirements beyond the current arrangements.

Table 5.2 below provides an overview of the primary locations affected by wave action and the type of influence experienced at each location. Obviously all open coast locations and most locations around the lower estuary mouths are affected to some degree by waves. Table 5.2 identifies the higher priority locations; that is, those that have significant numbers of properties affected, high risks to life and structural assets, important transport routes affected etc.

Location	Policy unit[s]	Type of wave influence / risk						
		Direct flooding <sup>1</sup>	Erosion	Indirect loading <sup>2</sup>	Risk to life	Structural damage	Transport disruption	Habitat
Downderry	2.1.;2.2		X					
Seaton	2.3	X	X	X		X	X	
East & West Looe	3.4	X		X	X	X		
Fowey	4.3			X				
Mevagissey	8.4			X	X			
St Mawes	11.2	X		X				
Flushing	11.8			X				
Penryn	11.9			X				
Swanpool	13.3						X	X
Mullion	16.2				X			
Loe Bar	17.3							X
Porthleven	17.4				X	X		
Praa Sands	18.2;18.3		X					
Marazion	19.1-19.5	X	X					
Marazion Marsh	19.6	X						X
Longrock	20.1;20.2	X					X	
Penzance	21.1;21.2	X			X	X	X	
Newlyn	21.3	X						
Sennen Cove	24.2	X						
St Ives	25.4	X			X			
Hayle	27.5;27.6			X				
Portreath	29.3	X			X	X		
Trevaunance Cove	30.2	X			X	X		
Perranporth	30.3	X			X	X		
Newquay Bay	32.2;32.3	X				X		
Porth	32.7	X					X	
Mawgan Porth	33.3;33.4	X					X	
Padstow	35.2			X				
Polzeath	36.2	X			X	X	X	
Port Issac	37.3	X			X			
Widemouth	39.2;39.3		X					
Bude	40.2;40.3	X	X		X			
Hugh Town (harbour)	41.3;41.4	X			X	X	X	
Porth Hellick	42.10	X						X
Old Town Bay	42.14; 42.15	X						
Porthcressa	42.17; 42.18	X	X		X	X	X	

**Table 5.2 Priority locations dominated by wave action**

<sup>1</sup> Direct flooding refers to flooding directly caused by waves overtopping defences and structures

<sup>2</sup> Indirect flooding refers to increase in water levels at more sheltered locations due to wave set-up

However, the dominance of waves is important beyond just identification of the risks and vulnerabilities. It also dictates that where economic benefits are derived based on a still-water projection of coastal flooding, the true benefits gained from investment in maintenance of existing defences or a new scheme are not fully represented. This is because the flood extents under wave driven flooding tend to be significantly in excess of what is experienced under still water conditions (and in many open coast locations we can say that 'still water flooding' simply does not occur based on extreme tide height alone – there is always a wave driven element to the flooding). Therefore, where at first it may appear that benefit / cost ratios would not support going ahead with a feasibility study or similar, a more detailed investigation may provide a much more robust economic argument for maintenance or capital investment.

The risks due to waves also dictate a need for better understanding of the nature of the wave climate, both offshore and nearshore. Three wave buoys are already deployed at discrete locations around the Cornish coastline (Looe, Penzance and Perranporth) as part of the South West Coastal Monitoring Programme. These are representative primarily for their immediate localities (although they provide a useful reference for the wider coastline). A future combination of additional wave buoys and a programme of wave modelling would provide a much more comprehensive database of wave climate characteristics for use by a large number of engineers, managers and decision makers around the SMP coast. A better understanding of the wave climate characteristics would also be hugely beneficial to the on-going improvements to the Environment Agency's Flood Warning Service.

## Monitoring

The South West Regional Coastal Monitoring Programme (SWRCMP) was put in place during 2006 and already provides a very useful resource for all coastal practitioners working in Cornwall. The programme covers the entire South West peninsula, including Cornwall and the Isles of Scilly, covering the open coast and the estuaries up to their normal tidal limit. The initiative is based on a rolling 5-year programme which utilises both remote sensing and ground based survey techniques to capture a wide range of physical characteristics along the coastline. Table 5.3 sets out the primary activities of the SWRCMP.

Characteristic /feature	Monitoring type	Frequency	Availability/source
Coastal zone topography	Airborne LiDAR	Whole coast – years 1 & 5. Some areas receive more frequent survey dependent upon perceived sensitivity	Plymouth Coastal Observatory / Channel Coastal Observatory website
Coastal landscape, morphology and vegetation	Vertical aerial photography	Whole coast - Years 1, 3 & 5	Plymouth Coastal Observatory / Channel Coastal Observatory website
Beach & dune survey	GPS based land survey	6-monthly, plus post storm surveys as required.	Plymouth Coastal Observatory / Channel Coastal Observatory website

Characteristic /feature	Monitoring type	Frequency	Availability/source
Nearshore bathymetry	Single beam & multi-beam sonar	Yearly	Plymouth Coastal Observatory / Channel Coastal Observatory website
Waves	Waverider buoys	Permanent buoys moored at Looe, Mounts Bay and Perranporth	Plymouth Coastal Observatory / Channel Coastal Observatory website
Tides / water level	Tide gauge network	Permanent gauging stations, also roving max level marker installations	Plymouth Coastal Observatory / Channel Coastal Observatory website

**Table 5.3 Primary activities of the SW Regional Coastal Monitoring Programme**

Further refinement of the programme and recommendations for priority areas where sensitivity to climate change and sea level rise is expected to be most apparent is an important aspect of future coastal management within the SMP area. In many instances, the results of monitoring during the remainder of epoch one will provide the technical justification and basis for policies which will be set in future iterations of the SMP Review. Therefore prioritisation of monitoring is an essential aspect relating to future policy setting. The Action Plan (Chapter 6) sets out comprehensive recommendations and proposed actions relating to this. A number of priority locations are shown in Table 5.4 below. This list is not exhaustive but provides an overview.

Management Area	Location[s]	Monitoring Driver	Type of monitoring outputs
MA1	Downderry	Cliff erosion, risks to infrastructure & property	<ul style="list-style-type: none"> <li>Cliff retreat rates</li> <li>Beach levels</li> <li>Wave climate</li> </ul>
MA1	Looe	High spring tide and storm surge flooding	<ul style="list-style-type: none"> <li>Tide levels</li> <li>Wave climate</li> <li>Beach levels</li> <li></li> </ul>
MA3	Mevagissey	High spring tide and storm surge flooding	<ul style="list-style-type: none"> <li>Tide levels</li> <li>Wave climate</li> <li>Wind set-up effects</li> <li></li> </ul>
MA11	Flushing Penryn Falmouth	Storm surge flooding	<ul style="list-style-type: none"> <li>Tide levels</li> <li>Wave climate</li> <li>Wind set-up effects</li> </ul>
MA12	Upper Fal Truro	Loss / gain of intertidal mudflat; SAC condition; flood risks	<ul style="list-style-type: none"> <li>Water levels</li> <li>Mudflat elevation &amp; extent</li> </ul>

Management Area	Location[s]	Monitoring Driver	Type of monitoring outputs
MA15	Coverack	Erosion risk, coastal squeeze, defence condition	<ul style="list-style-type: none"> <li>• Geotechnical investigation</li> <li>• Cliff retreat rates</li> <li>• Beach levels</li> <li>• Wave climate</li> <li>•</li> </ul>
MA17	Loe Bar & Pool Porthleven	Flood risk, SSSI condition, risk to life	<ul style="list-style-type: none"> <li>• Beach/Bar levels</li> <li>• Sea level rise</li> <li>• Wave climate</li> </ul>
MA18	Praa Sands	Erosion risk, BAP habitat opportunity	<ul style="list-style-type: none"> <li>• Beach levels</li> <li>• Wave climate</li> <li>• Cliff retreat rates</li> </ul>
MA19,20,21	Mount's Bay	Erosion risk, flood risk, SPA habitat condition, major coastal change area	<ul style="list-style-type: none"> <li>• Beach levels</li> <li>• Wave climate</li> <li>• Cliff retreat rates</li> </ul>
MA27	Hayle Estuary	Flood risk, MR opportunities, SSSI condition	<ul style="list-style-type: none"> <li>• Water levels</li> <li>• Mudflat elevation &amp; extent</li> </ul>
MA29	Portreath	Erosion risk, flood risk, risk to life	<ul style="list-style-type: none"> <li>• Tide levels</li> <li>• Wave climate</li> <li>• Wind set-up effects</li> <li>• Beach levels</li> </ul>
MA30	Perranporth	Flood risk, risk to life	<ul style="list-style-type: none"> <li>• Tide levels</li> <li>• Wave climate</li> <li>• Wind set-up effects</li> <li>• Beach levels</li> </ul>
MA35	Camel Estuary	Flood risk, UK BAP habitat opportunities, SSSI condition (SAC condition for River Camel)	<ul style="list-style-type: none"> <li>• Water levels</li> <li>• Intertidal extents</li> <li>• Wind set-up effects</li> </ul>
MA40	Bude	Flood Risk, UK BAP habitat opportunities	<ul style="list-style-type: none"> <li>• Tide levels</li> <li>• Wave climate</li> <li>• Wind set-up effects</li> <li>• Beach/dune levels</li> </ul>
MA42	Hugh Town	Flood risk, erosion risk, risk to life, major coastal change area	<ul style="list-style-type: none"> <li>• Tide levels</li> <li>• Wave climate</li> <li>• Wind set-up effects</li> <li>• Beach/dune levels</li> </ul>

**Table 5.4 Priority monitoring locations**

## Wave buoy network

Improvements to the wave buoy network could be achieved through additional buoy deployments. The most obvious location which would benefit from such data is probably Hugh Town (St Mary's) on the Isles of Scilly. There may well be an argument for two buoys to be positioned, which record both the westerly and easterly wave climates as the two are quite distinct. Deployments in the nearshore zone to the north-west and south / south-east of Hugh Town would therefore be very useful. The nearshore bathymetry, deeper channels, small offshore islands and rock outcrops which surround St Mary's play a hugely significant role in dictating the amount of wave energy received at the shoreline. Therefore any actual positioning of buoys would need to be given very careful consideration. Other key locations around Cornwall which would benefit from nearshore wave buoy deployments would be St Austell Bay on the south coast, (particularly Mevagissey) and St Ives Bay and Bude on the north coast. Secondary locations which might benefit would be Falmouth Bay (south of Pendennis Point), Porthleven (south-west of Loe Bar), Newquay Bay and Polzeath.

## Sand Dunes

The presence of sand dunes at a large number of locations is a unique quality of this SMP coastline. This links quite strongly to many of the more exposed and wave dominated open coast locations. High exposure to wind provides the conditions for saltation (the drying out and mobilisation of sand particles) and aeolian transport (wind-driven movement of the sand) inland. Those frontages which are exposed to the dominant south-westerly, westerly and north-westerly winds are where significant dune accumulations are most frequently found, particularly those which have wide or very wide intertidal areas. Primary examples of these can be found at Gwithian, Penhale, Holywell and Crantock. There are also a large number of less significant dune areas along the open coast some of which face to the south or south-east (away from the dominant winds) and most of the sites along the south coast would be classed as such.

Within the context of this shoreline management plan, sand dunes have three particularly important attributes:

- Provision of sediment storage and natural dynamic coastal defence
- Importance as a UK priority BAP habitat
- Significant land form asset within the coastal landscape (value to recreation and tourism)

The general intent of management for the majority of dune sites is to allow natural coastal processes to shape the frontages with minimal management intervention. However many of the dune sites have been allocated a preferred policy of managed realignment over the three epochs. This reflects intent to (where possible) seek grant aid for the funding of low key, low impact management measures. These would generally take the form of using fencing, netting and planting to aid dune growth and stabilisation or use of boardwalks and fencing to control access points and actively reduce erosion due to recreational access. There is no intent to introduce significant engineered works to any of these dune frontages.

The Cornwall Sand Dune and Beach Management Strategy (Halcrow 2009) provides guidance for a number of the key dune / beach sites (identified in Table 5.5 below)

Location	Orientation	Characteristics
Par Sands*	S-SW	Large extent
Carlyon Bay	S	Limited in extent (Shorthorn & Polgaver)
Pentewan	E-SE	Limited dunes present, narrow steep intertidal.
Caerhays	S-SW	Low dunes. Wide, shallow intertidal.
Pendower	S-SE	Fairly wide, shallow intertidal
Kennack Sands	SE	Perched dunes limited in extent. Wide intertidal.
Polurrian Cove	W-SW	Wide intertidal extent
Poldhu Cove*	W-SW	Wide intertidal extent
Church Cove	W-SW	Wide intertidal extent
Praa Sands*	SW	Perched dunes, narrow intertidal beach profile
Marazion*	SW	Constrained by road, wide shallow intertidal
Porth Kidney	N-NE	Narrow dunes, wide, shallow intertidal
Lelant	E-SE	In Hayle Estuary
Harvey's Towans*	NW	Wide intertidal extent
Mexico to Gwithian Towans	NW	Steep high dunes, wide intertidal
Godrevy Towans	NW	High climbing dunes, wide shallow intertidal
Porthtowan	NW	Limited extent, valley site, wide shallow intertidal
Perranporth / Penhale*	NW	Very extensive, wide shallow intertidal
Holywell	NW	Wide intertidal extent
Crantock	NW	Wide intertidal extent
Fistral Beach*	NW	Fixed by golf course
Mawgan Porth	W	Wide intertidal extent
Porthcothan	NW	Very wide, narrow intertidal extent
Treyarnon	NW	Wide intertidal extent
Constantine Bay*	W	Wide intertidal extent
Harlyn Bay	N	limited extent, generally degraded
Hawker Cove	N-NE	Estuarine site, very wide intertidal extent
Rock Beach	W	Estuarine site
Daymer Beach	W	Estuarine site
Widemouth	W	Wide intertidal extent
Bude (Summerleaze)*	W	Wide intertidal extent

**Table 5.5 Key sites studied as part of the Cornwall Sand Dune and Management Strategy**

## UK BAP Habitat Assessments

The importance of these dune sites as UK BAP habitats is a key consideration. The opportunity for sand dune management which either enhances existing sites or helps to establish new sites (or re-establish former sites that have been lost) represents a very significant potential benefit to the SMP area. These also add Outcome Measure scores for

possible future funding. It is likely that Cornwall can provide a significant contribution to the national target of 1,000ha of coastal dunes to be reinstated by 2019, with initially potential sites at Par Sands, Pentewan, Gwithian, Widemouth and Bude.

An assessment of losses (or gains) of all UK BAP habitat types around the SMP coastline is a key recommendation from the SMP review. Such work should look to tie in with and inform the South West Habitat Creation Programme (regional Environment Agency). The mapping and GIS layers produced for the baseline scenarios assessment can provide the basis for both qualitative and quantitative assessments. Aside from the sand dune sites discussed above, of particular importance would be consideration of changes in intertidal mudflat area, particularly within the Upper Fal, Upper Fowey and Camel estuaries due to sea level rise. Also requiring consideration are the Maritime Cliff and Slopes BAP habitats, particularly around The Lizard and Penwith peninsulas and the north coast above the Camel estuary.



### The South West Coast Path

A particular feature of the Cornish coast that requires mention and consideration at both the strategic and local level is the South West Coast Path. This follows the coastline for the entire length of mainland Cornwall. It is a very important feature of the coast, which provides access to many designated historic and natural sites along the shoreline, as well as giving spectacular views and access to many of the more remote coves and beaches

away from the main residential centres. In several areas the route of the coast path is threatened by erosion and in a few locations recent closures of the path have occurred due to significant cliff slips and land slides.

### Coastal and tidal flood warning service

Historically, coastal flood warnings for mainland Cornwall relating to either wave driven or tidally driven flooding have been blanket warnings provided for either the north or south coast, dependent on conditions. Since 2006, the Environment Agency's Flood Incident Management (FIM) team have been developing improvement of the flood warning system, with the primary objective being the provision of community based warnings.

This would provide a more tailored warning service for anticipated flood risk at a given location, using a pre-determined set of condition criteria which are based on previous flooding events and known vulnerability to specific conditions. At a number of locations (policy units) throughout the SMP (specifically in Chapters 4 and 5) there are references to the use of the flood warning system to assist in managing flood risk to communities, properties or community assets etc. These references are made on the basis that a community based warning service is under development and expected to come into service

over the next five years to assist with the management of flood risk as part of an integrated approach to flood and erosion risk management.

### **CFMP policy in relation to SMP2 policy**

Within the study area there is an overlap with SMP2 and CFMP coverage at key communities, because tidal flood risks have been given some consideration within the CFMP. As such there could be conflicts in the intent of management and preferred plan between the two documents. Within the SMP2, while CFMP policy is acknowledged and considered, the general approach has been to use the analysis and assessment undertaken in the SMP2 to inform the Preferred Plan. This is because the CFMPs primary consideration was fluvial and pluvial flood risk, with only a limited consideration of the impacts of tidal flooding at certain locations. It was not within the scope of the CFMPs to cover the range of estuary and coastal assessments required of the SMP2.

Conflict between the two plans could exist where the SMP preferred plan is for a No Active Intervention approach (NAI) and the CFMP policy for that location (where tidal flooding has been considered) is for a Policy 4, 5, or 6 approaches. This is because CFMP Policy options 4, 5 and 6 all require some kind of management intervention. Conflict could also be found where the CFMP Policy Option advocates a 'monitor and advise' only approach (Policy Options 1,2,3) and the SMP preferred plan recommends active management (MR, HTL, ATL).

Chapter 6 (the Action Plan) provides a comparison table which identifies relevant CFMP actions in a number of SMP policy units (pp82-87).

### **5.3 Community adaptation locations emerging from SMP2**

In addition to the priority locations Table 5.6 below identifies locations where the preferred plan and policies require an adaptation of the frontage to occur (at some level) in order to adapt to the impacts of on-going coastal erosion, sea level rise and climate change in relation to communities and built assets.

This may therefore involve some impacts upon, or potential loss of, private and commercial properties, community assets or infrastructure, either in the short, medium or long term due to a possible transition away from hold the line policies at some point in the next 100 years. Please see Chapter 6 (Action Plan) for the action relating to these locations.

Each of these locations has been identified as either a Coastal Change Management Area (CCMA) or a location where a 'community adaptation strategy to climate change' would be appropriate. These could therefore be considered as potential candidates for the current 'Pathfinder' approach promoted by Defra. There is by necessity some overlap of this list with the priority locations identified above.

Location	PDZ/ Management Area/ PU no.	Potential number of properties affected	Other built assets affected	Principal type of risk
Portwrinkle	1.2	5-10	Roads, harbour, slipway, public toilets, car parking	Erosion
Downderry & Seaton	2.1 & 2.2	>60	Roads, slipway	Erosion & flooding
Millendreath	3.2	1	Road, slipway	Erosion
Plaidy	3.3	0	Roads	Erosion
Looe	3.4 & 3.5	In excess of 330	Roads, quayside commerce, slipways, car parking, public toilets	Flooding
Lerryn	5.2	5-10	Roads	Flooding
Golant	5.3	<5	Roads	Flooding
Polkerris	6.2	5-10	Slipway, car parking	Erosion
Pentewan	8.2 & 8.3	>10	Roads, harbour, holiday park	Flooding & erosion
Mevagissey	8.4	70-80	Quayside commerce, aquarium, slipways, car parking, public toilets	Flooding
Portmellon	8.5	5-10	Roads, car parking, slipway	Flooding & erosion
Devoran & Perranarworthal	11.5	20-25	Roads, car parking, quayside, slipway	Flooding
Mylor Quay	11.6	5-10	Slipways, quaysides, pontoons, car parking	Flooding
Flushing	11.8	>60	Roads, slipways, quaysides, car parking	Flooding
Penryn	11.9	>100	Roads, slipways, quaysides, car parking	Flooding
Coverack	15.4	25-30	Road, slipway, harbour, car parking	Erosion
Praa Sands	18.2 & 18.3	>40	Roads, car parking, public toilets	Erosion
Mounts Bay	PDZ8	In excess of 200	Roads, rail link, slipways, public toilets, car parking, promenade	Flooding & erosion
Hayle	MA27	>150	Roads, quaysides, slipways, public toilets, car parking	Flooding
Portreath	29.2 & 29.3	>20	Roads, quaysides, public toilets, promenade, car parking	Flooding & erosion
Perranporth	30.3	>80	Roads, public toilets, promenade, car parking	Flooding
Newquay Bay	MA32	20-30	Roads, beach access roads, holiday park, car parking, public toilets	Erosion
Mawgan Porth	33.3 & 33.4	5-10	Roads, holiday park, car parking, public toilets	Flooding & erosion
Harlyn Bay	34.2	5-10	Road, car parking, public toilets, lifeguard station	Flooding & erosion
Polzeath	36.2	5-10	Road, holiday park, car parking, public toilets, lifeguard station	Flooding & erosion
Widemouth	39.2 & 39.3	5-10	Road, car parking, lifeguard stations (2)	Erosion

Location	PDZ/ Management Area/ PU no.	Potential number of properties affected	Other built assets affected	Principal type of risk
Bude	40.2, 40.3 & 40.4	>70	Road, beach huts, car parking, public toilets, lifeguard station, canal structures	Flooding & erosion
St Mary's, Isles of Scilly	MA42	>100	Roads, pumping stations, hospital, fire station, incinerator, industrial park, reservoirs (water supply)	Flooding & erosion

**Table 5.6 Community adaptation locations**

#### **5.4 Policy Option changes from SMP1 to SMP2**

There are, as may be expected, a significant number of locations where the overall management intent and general policy approach has changed following the review process and the public consultation. Table 5.7 sets out where changes in policy from SMP1 to SMP2 have occurred in at least one epoch.

Policy Location	Unit &	SMP1 Policy	SMP2 Policy		
			2025	2055	2105
		<b>50 yrs</b>			
1.2	Portwrinkle	<i>Short term do nothing in Hoodney Cove and long term hold elsewhere to protect assets at risk</i>	HTL	MR	MR
2.2	Downderry West & Seaton	<i>Hold currently defended frontages</i>	HTL	MR	MR
2.3	Seaton Beach	<i>Hold currently defended frontages</i>	MR	NAI	NAI
3.2	Millendreath	<i>Hold existing defences (do nothing along undefended sections)</i>	NAI	NAI	NAI
3.3	Plaiddy	<i>Hold existing defences (do nothing along undefended sections)</i>	HTL	NAI	NAI
3.6	Hannafore	<i>Hold existing defences</i>	HTL	MR	NAI
3.7	Talland	<i>Hold the line strategy to maintain built assets</i>	NAI	NAI	NAI
6.2	Polkerris	<i>Long term hold the line</i>	MR (with localised HTL)	MR (with localised HTL)	MR (with localised HTL)
6.4	Par Docks	<i>Hold the line</i>	MR	NAI	NAI
7.5	Porthpean	<i>Hold the line along developed beach frontage. Do nothing elsewhere.</i>	MR	MR	NAI
8.2	Pentewan Harbour & village	<i>Do nothing at harbour (possible reconstruction of harbour arm and walls if reopened in the future).</i>	MR	MR	HTL
8.3	Pentewan Beach	<i>Hold the line along the Winnick frontage through maintenance of existing embankment.</i>	NAI	MR	NAI/HTL
8.4	Mevagissey	<i>Hold the line along defended sections. Do nothing along undefended sections.</i>	HTL/MR	HTL/MR	HTL
8.5	Portmellon	<i>Hold the line along defended sections. Do nothing along undefended sections.</i>	HTL	MR	MR
8.6	Gorran Haven	<i>Hold the line</i>	HTL	HTL	MR
9.2	Hemmick Beach	<i>Possible strategic hold the line at Hemmick Beach.</i>	MR	NAI	NAI
9.3	Caerhays Beach	<i>Do nothing</i>	MR	MR	MR

9.4	East Portholland	<i>Hold existing defence line in the short term.</i>	NAI	NAI	NAI
9.5	West Portholland	<i>Hold existing defence line in the short term.</i>	NAI	NAI	NAI
11.6	Mylor Quay	<i>Hold the line</i>	HTL	HTL(with localised MR)	MR
13.3	Swanpool	<i>Hold the line</i>	HTL	MR	MR
13.4	Maenporth	<i>Hold the line</i>	HTL	MR	MR
15.2	Porthallow	<i>Hold the line</i>	HTL	MR	MR
15.4	Coverack	<i>Hold the line</i>	HTL	HTL/MR	HTL/MR
16.2	Mullion Cove	<i>Hold the line</i>	NAI	NAI	NAI
16.3	Poldhu Cove	<i>Hold the line</i>	NAI	NAI	NAI
16.4	Church Cove	<i>Hold the line</i>	NAI	NAI	NAI
16.5	Jangye-ryn	<i>Do nothing</i>	MR	MR	NAI
17.2	Gunwalloe Fishing Cove	<i>Hold the line</i>	NAI	NAI	NAI
17.3	Loe Bar & Pool	<i>Hold the line</i>	MR	MR	MR
18.2	Praa Sands east	<i>Do nothing</i>	MR	MR	NAI
18.3	Praa Sands west (Sydney Cove)	<i>Hold the line</i>	MR	MR	MR
19.2	Marazion east (Venton Cove)	<i>Hold the line / do nothing</i>	NAI	NAI	NAI
19.4 (a)	St Michael's Mount - Causeway	<i>Hold the line</i>	HTL	NAI	NAI
20.1	Longrock	<i>Hold the line</i>	HTL	MR	MR
20.2	Eastern Green	<i>Hold the line</i>	HTL	MR	MR
21.4	Sandy Cove	<i>Hold the line</i>	NAI	NAI	NAI
26.2	Carbis Bay	<i>Hold the existing defence line</i>	NAI	NAI	NAI
27.2	Lelant Towans	<i>Hold the existing defence line</i>	MR	MR	MR
27.5	Griggs Quay / Causeway	<i>Hold the existing defence line</i>	HTL	MR	HTL/MR
27.8	Harvey's Towans	<i>Hold the line</i>	MR	MR	MR

28.3	Gwithian Beach & Red River	<i>Hold the line</i>	MR	MR	MR
29.2	Portreath Beach	<i>Hold the line</i>	HTL	MR	MR
29.3	Portreath Harbour	<i>Hold the line</i>	HTL	HTL(with localised MR)	HTL(with localised MR)
29.4	Porthtowan	<i>Hold the line</i>	MR	MR	MR
30.2	Trevaunance Cove	<i>Hold the line</i>	NAI (with localised HTL)	NAI (with localised HTL)	NAI/MR
30.3	Perranporth	<i>Hold the line</i>	HTL	MR	MR
30.4	Perran Beach	<i>Hold the line</i>	MR	MR	MR
30.5	Penhale and Holywell Bay	<i>Do Nothing</i>	MR	MR	MR
31.4	Pentire / south Fistral	<i>Hold the line</i>	HTL	NAI	NAI
31.5	Central Fistral & Dunes	<i>Do nothing</i>	MR	MR	MR
31.6	North Fistral	<i>Hold the line</i>	HTL	HTL/MR	MR
32.3	Towan Beach	<i>Hold the line</i>	HTL	HTL/NAI	NAI
32.4	Great Western Beach	<i>Hold the line</i>	NAI	NAI	NAI
32.5	Tolcarne Beach	<i>Hold the line</i>	HTL	HTL/NAI	NAI
32.6	Lusty Glaze	<i>Hold the line</i>	NAI	NAI	NAI
33.3	Mawgan Porth – road section	<i>Hold the line</i>	MR	MR	NAI
33.4	Mawgan Porth - dunes	<i>Hold the line</i>	NAI	NAI	NAI
33.6	Porthcothan beach	<i>Hold the line</i>	NAI/(with localised HTL)	NAI/(with localised HTL)	NAI/(with localised HTL)
33.8	Constantine Bay	<i>Hold the line</i>	NAI	NAI	NAI
34.2	Harlyn beach	<i>Hold the line</i>	HTL	MR	MR
34.3	Trevone cliffs	<i>Hold the line</i>	NAI	NAI	NAI
34.4	Trevone beach	<i>Hold the line</i>	MR	MR	NAI
35.3	Padstow south (Dinas)	<i>Hold the existing defence line</i>	NAI	NAI	NAI

35.10	Porthilly Cove	<i>Hold the existing defence line</i>	NAI	NAI	NAI
35.11	Rock	<i>Hold the existing defence line</i>	HTL	MR	MR
36.2	Polzeath	<i>Hold the existing defence line along defended length to ensure continued beach access for car parking and maintenance of other economic assets.</i>	HTL	MR	MR
37.2	Portquin	<i>Hold the line</i>	MR	MR	NAI
37.4	Port Gaverne	<i>Hold the line</i>	MR	MR	NAI
38.2	Crackington Haven	<i>Hold the existing defence line (no intervention for cliffs)</i>	HTL	MR	MR
39.2	Black Rock / south Widemouth	<i>Hold existing defence line along defended frontage. Do nothing for remaining lengths.</i>	MR	MR	NAI
39.3	North Widemouth	<i>Hold existing defence line along defended frontage. Do nothing for remaining lengths. Do nothing but monitor at Salthouse.</i>	MR	MR	NAI
40.3	Summerleaze beach	<i>Hold existing line along natural and built defences. Do nothing along undeveloped stretch with relocation of coastal footpath.</i>	MR	MR	NAI
40.4	Crooklets beach	<i>Hold existing defence line for developments backing Crooklets beach.</i>	MR	MR	NAI
42.3	The Quay to Custom House	<i>Hold the line</i>	HTL	HTL	MR
42.4	Custom house to Carn Thomas	<i>Hold the line</i>	HTL	HTL	MR
42.5	Porth Mellon	<i>Hold the line</i>	HTL	MR	MR
42.10	Porth Hellick	<i>Hold the line</i>	HTL	MR	NAI
42.12	Porth Minnick	<i>Hold the line</i>	HTL	MR	MR
42.15	Old Town Slip to Old Church	<i>Hold the line</i>	HTL	MR	MR
42.18	Playground to Slipway (Porthcressa)	<i>Hold the line</i>	HTL	NAI	NAI
42.19	Slipway to Little Carn	<i>Hold the line</i>	HTL	HTL (with localised MR)	MR

42.20	Little Carn to Sally Port	<i>Hold the line</i>	HTL	HTL (with localised MR)	MR
44.3	Island Hotel	<i>Hold the line</i>	HTL	HTL	MR
44.6	South Beach / Pentle Bay	<i>Advance the line</i>	NAI	NAI	NAI
44.7	Appletree Bay	<i>Advance the line</i>	NAI	NAI	NAI
44.8	Tresco Flats	<i>Retreat the line</i>	NAI	NAI	NAI
45.1	Great Porth North	<i>Hold the line</i>	HTL	NAI (with localised HTL)	NAI (with localised HTL)
45.4	Great Popplestones	<i>Hold the line</i>	HTL	NAI	NAI
45.5	Little Popplestones	<i>Hold the line</i>	NAI	NAI	NAI
45.13	Works Point to Great Carn	<i>Retreat the line</i>	NAI	NAI	NAI
46.7	The Jetty to the Bar	<i>Hold the line</i>	NAI	NAI	NAI
46.14	Browarth Point to Kallimay Point	<i>Hold the line</i>	NAI	NAI (with localised HTL)	NAI (with localised HTL)

**Table 5.7 SMP2 changes to policy across Cornwall and the Isles of Scilly**