Severn Estuary Shoreline Management Plan Review

The Shoreline Management Plan: Part B (Main Report) – Policy Statements

ATKINS

PART B – POLICY STATEMENTS

The shoreline around the Severn Estuary has been divided into ***Theme Areas*** (see ***Figure 1*** and ***Appendix D*** for more detail) based on regions, towns and cities that people can relate to. This follows the approach taken in the development of the SMP2 and set out in ***Appendices D – I***.

Part B now has further sub-divided these Theme Areas into manageable lengths of coast which provide information on shoreline management policies for each length (referred to as a ***Policy Unit*** hereon in). It helps the reader to understand how policies have changed since the SMP1 and what would happen to the shoreline around the Severn Estuary if the policies in this SMP2 were followed. It sets out the preferred policy options for each Policy Unit and describes the impact of the preferred policies on features in the Policy Unit.

The policy statements set out the general way that the shoreline in the Policy Unit should be managed during that epoch (0-20, 20-50 or 50-100 years). It does not say exactly how policies should be implemented, particularly in relation to built defences i.e.: what defences should be built of, their precise location and line, or the standard of protection to which they should be built. These things need to be considered in greater detail, taking account of local issues. The ***Severn Estuary Flood Risk Management Strategy (SEFRMS),*** which is currently being developed by the Environment Agency considers many of these more detailed issues and shall be consulted upon to the public later into 2010. The policy statements suggest where other actions should be considered and the Action Plan (**Part C**) provides more detail on some of these actions.

The estimated costs of the proposed policy options are given for each Policy Unit. These only include the cost of engineering activities, such as building or maintaining defence structures. It does not include the financial resources needed for other actions (see paragraph below). More information on how costs and benefits of each policy option have been calculated can be found in ***Part A, Section 3.6*** and ***Appendix H***.

The Policy Statements (this Part B) do not include information on other actions that should be undertaken to help towards adaptation to coastal erosion and flood risk management, such as community resilience building, flood-resistant building and planning for climate change. These and other actions will be needed in most areas, no matter what the preferred policy option is. ***PART C - SMP2 Action Plan*** highlights where these other actions are needed and how they can be put into practice. Some of these actions will be considered in more detail in the SEFRMS. Other policies and plans, such as local resilience fora and the New Approaches policy in Wales, will also consider other possible interventions to managing coastal erosion and flood risk.

The Policy Statements do not provide information on alternatives that were considered, only the preferred policy option. Information on the appraisal of alternatives can be found in ***Appendices E – I***.

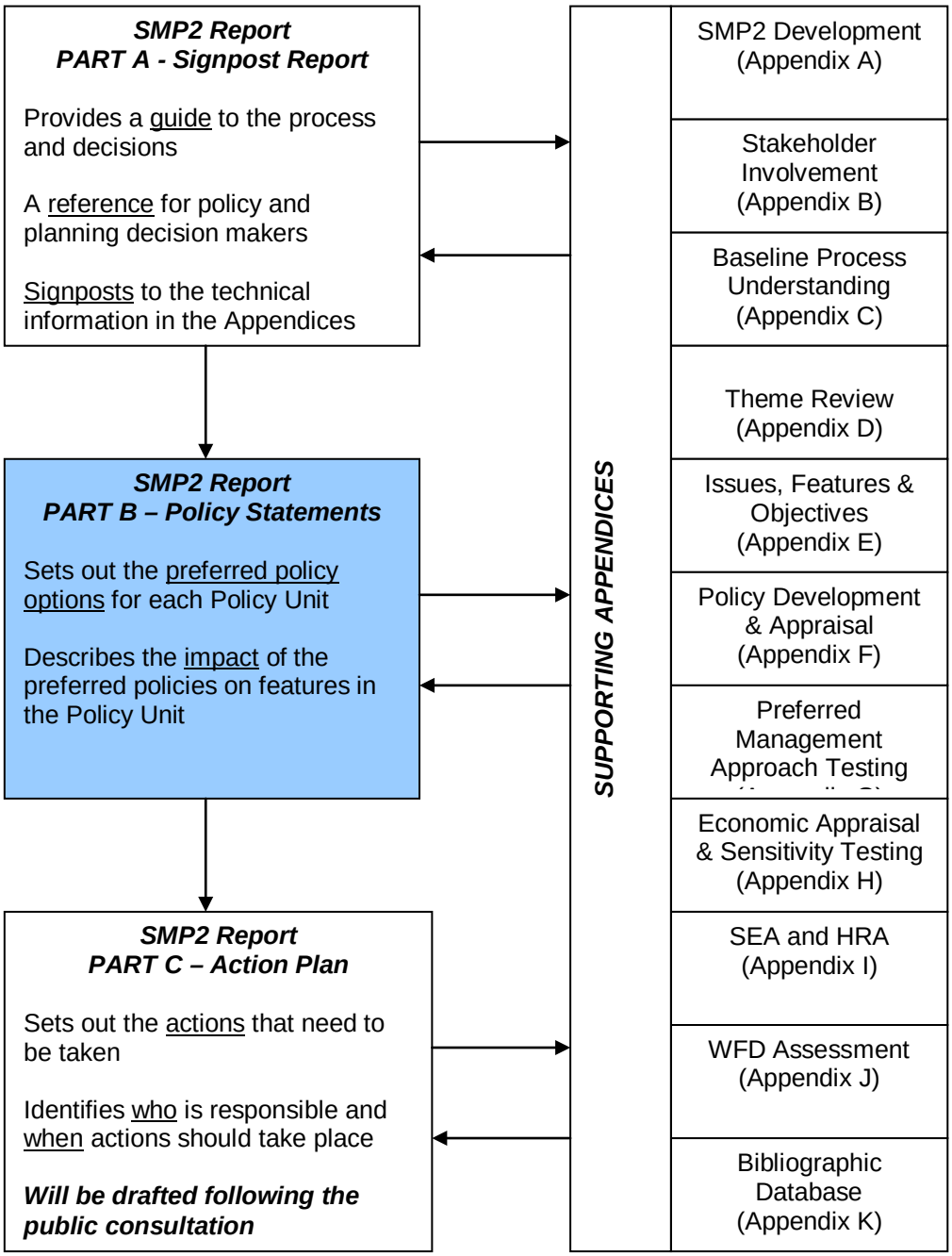
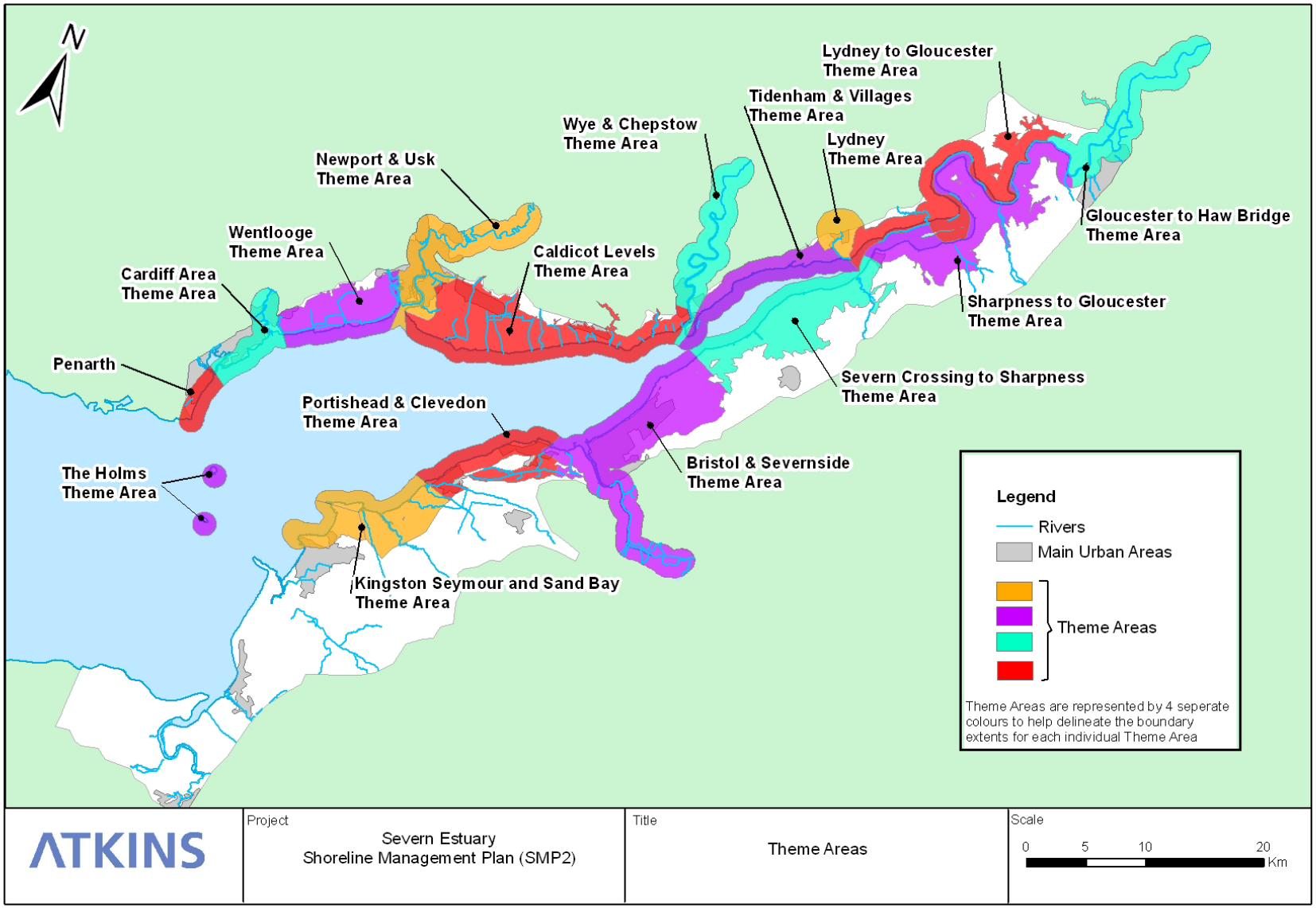

SMP2 Report
PART A - Signpost Report
Provides a guide to the process and decisions
A reference for policy and planning decision makers
Signposts to the technical information in the Appendices
SMP2 Report
PART B – Policy Statements
Sets out the preferred policy options for each Policy Unit
Describes the impact of the preferred policies on features in the Policy Unit
SMP2 Report
PART C – Action Plan
Sets out the actions that need to be taken
Identifies who is responsible and when actions should take place
Will be drafted following the public consultation
SUPPORTING APPENDICES
SMP2 Development (Appendix A)
Stakeholder Involvement (Appendix B)
Baseline Process Understanding (Appendix C)
Theme Review (Appendix D)
Issues, Features & Objectives (Appendix E)
Policy Development & Appraisal (Appendix F)
Preferred Management Approach Testing
Economic Appraisal & Sensitivity Testing (Appendix H)
SEA and HRA (Appendix I)
WFD Assessment (Appendix J)
Bibliographic Database (Appendix K)

Figure 1 Location of SMP2 Theme Areas (each containing separate Policy Unit sub divisions – not shown on this map)



1. Introduction

This Part of the SMP2 provides information on the shoreline management policies for each stretch of shoreline (***Policy Unit***) and helps the reader to understand how policies have changed since the SMP1 and what would happen to the shoreline around the Severn Estuary if the policies in this SMP2 were followed.

The shoreline has been divided into 16 ***Theme Areas*** based on human settlement areas, regions, towns and cities around the Severn Estuary that are easily recognisable. This is to help people more easily identify different areas without having to know the shoreline in great detail. The Theme areas are described in more detail in ***Appendix D***.

It is set out in five sections:

- ***Section 1 – Introduction*** – this section.
- ***Section 2*** – ***Interactions between Policy Units -*** an overview showing how ***Policy Units*** around the shoreline are linked (by flooding or by coastal geomorphological processes i.e. the shape of the land and the processes that affect and act on it) and highlights those which are not linked. Where Policy Units are linked to others, the impact of policy options on all linked Policy Units has been taken into account when choosing the preferred policies. More information on the assessment of shoreline interactions and combinations of policy options in linked Policy Units can be found in ***Appendix G***.
- ***Section 3*** - ***Change in Policy and Potential Outcomes –*** a summary of how the preferred policies in this SMP2 compare with the policies in the SMP1. It highlights where proposed changes in the shoreline management approach are proposed. This section also gives an indication of how the SMP2 shoreline would look between 50 and 100 years from now if the SMP2 preferred policies were followed.
- ***Section 4 – Understanding the Maps -*** provides information to help the reader understand the policy statements and their accompanying maps
- ***Section 5 – Policy Statements –*** the largest section of Part B, setting out the preferred Policy Statement for each stretch of shoreline (***Policy Unit***). It also provides a summary of the impact of the preferred policy on features in the Policy Unit i.e. “Property, land use and human health”; “Nature conservation”; “Landscape”; “Historic environment”; and “Amenity and recreation”.

The Policy Statements should <u>not</u> be read in isolation. All sections in this Part B report and in Part A (Signpost Report) and Part C (Action Plan) are important for the reader to understand before looking at the policy options.

In order to understand the terminology, how preferred policies were chosen and what assumptions and information was used, readers should read ***PART A – Signpost Report***.

In order to understand how the policy options will be implemented and other actions that are needed to help support communities affected by the policies, readers should also read ***PART C – Action Plan***.

2. Interactions between Policy Units

Some stretches of shoreline (***Policy Units***) are linked to adjacent Policy Units by geomorphological processes – i.e. because they have a similar shape (landform), geology, pattern of erosion or coastal processes. Other Policy Units are linked because coastal flooding in one Policy Unit would have an impact on another. Policy Units can therefore be linked by either geomorphological appearance or a coastal response (flooding, erosion or both). ***Appendix G*** describes these inter-linkages in more detail.

When deciding on the draft policy options for linked Policy Units, the way in which they are linked needs to be taken into account. This is because the choice of policy option in one may or may not have a negative impact on the other Policy Units to which it is linked. ***Table 2.1*** and ***Figure 2.2*** show the linkages between Policy Units in the SMP2 area.

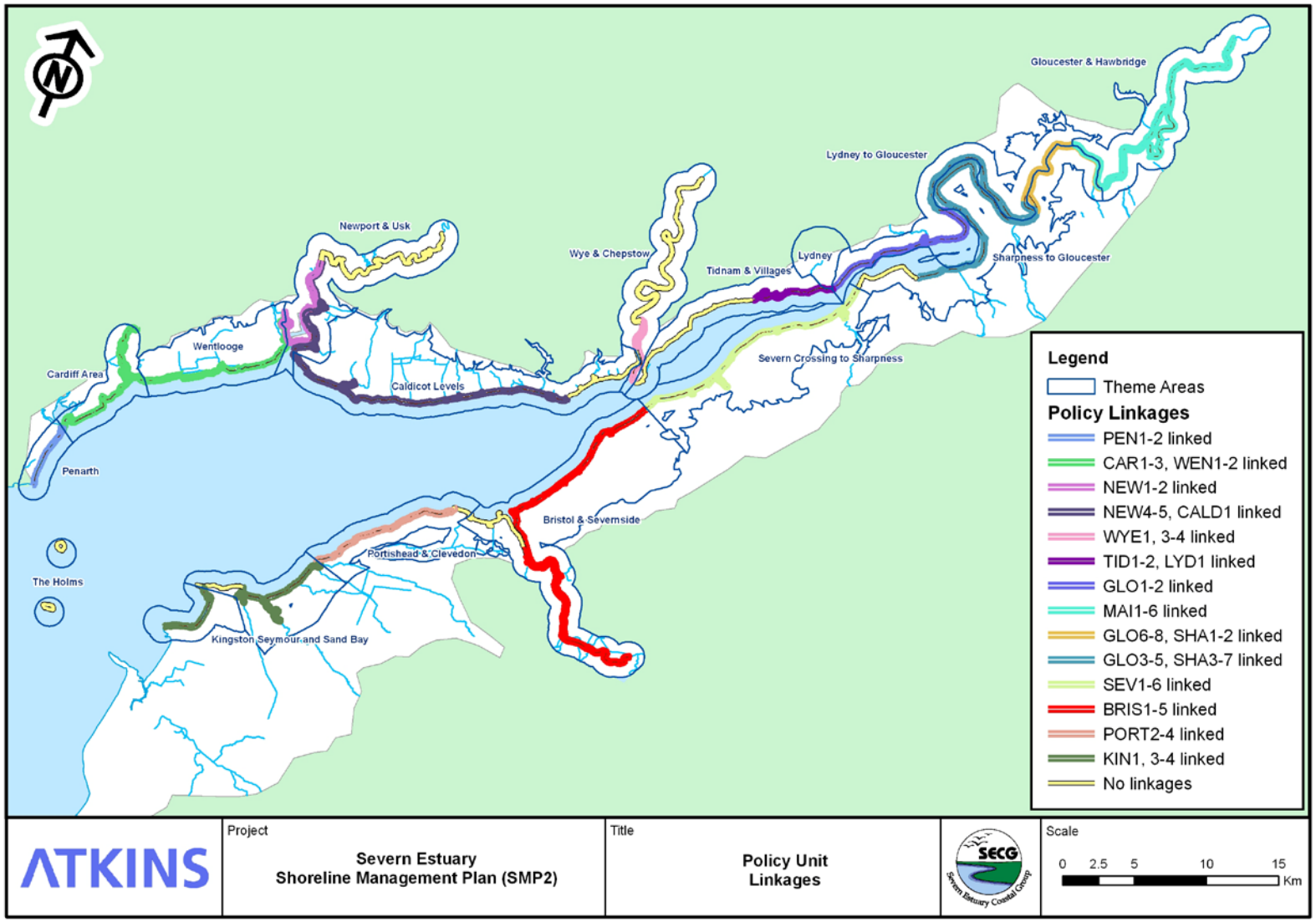
Table 2.1 Shoreline interactions between Policy Units

Policy Unit	Geomorphological Processes	Flooding	Combined Processes	Comments
PEN1	PEN1-2 linked	No linkages	PEN1-2 linked	Erosion of the cliff supplies some sediment to Penarth beach.
PEN2		No linkages		
CAR1	No linkages	CAR1-2 linked	CAR1-3, WEN1-2 linked	The Cardiff Flats and right bank of the River Rhymney are linked floodplains. The two banks of the River Rhymney are linked geomorphologically. The left bank of River Rhymney connects to the Wentlooge floodplain.
CAR2	CAR2-3, WEN1-2 linked			
CAR3		CAR3, WEN1-2 linked		
WEN1				
WEN2				
NEW1	NEW1-2 linked	NEW1-2 linked	NEW1-2 linked	The tidally dominated part of the River Usk links to the Wentlooge floodplain. The left bank of the River Usk in this section is linked due to river/tidal sediment transport processes.
NEW2				
NEW3	No linkages	No linkages	No linkages	Fluvial River Usk region.
NEW4	NEW4-5 linked	NEW4-5, CALD1 linked	NEW4-5, CALD1 linked	The tidally dominated part of the River Usk links to the Caldicot floodplain. The left bank of the River Usk in this section is linked due to river/tidal sediment transport processes.
NEW5				
CALD1	No linkages			
CALD2	No linkages	No linkages	No linkages	High ground and rocky headlands.
CALD3	No linkages	No linkages	No linkages	This section is a self-contained floodplain bordered by headlands.
WYE1	No linkages	WYE1, 3-4 linked	WYE1, 3-4 linked	A tidally controlled section of the River Wye, connected to floodplains with hard geology
WYE3	No linkages			

Policy Unit	Geomorphological Processes	Flooding	Combined Processes	Comments
WYE4	No linkages			banks.
WYE2	No linkages	No linkages	No linkages	Fluvial section of the River Wye with hard geology banks and no floodplain.
TID1	No linkages	No linkages	No linkages	Self contained floodplains, with headlands at Beachley Point and Guscar Rocks.
TID2	No linkages	TID2, LYD1 linked	TID2, LYD1 linked	Lydney Harbour is connected to the floodplain extent around Lydney.
LYD1	No linkages			
GLO1	GLO1-2 linked	No linkages	GLO1-2 linked	River/tidal region of the Severn Estuary. The left and right banks are linked and interact geomorphologically. There are significant meanders in the river in this section. Due to the increasing dominance of river flows and the decreasing influence of the sea / tides, management of flood risk has the potential to have impacts across a wide area.
GLO2		No linkages		
GLO3	GLO3-5, SHA3-5 linked	No linkages	GLO3-5, SHA3-7 linked	
GLO4		No linkages		
GLO5		No linkages		
SHAR3		SHAR3-7 linked		
SHAR4				
SHAR5				
SHAR6	SHAR6-7 linked			
SHAR7				
GLO6	No linkages	GLO6-8, SHA1-2 linked	GLO6-8, SHA1-2 linked	
GLO7	No linkages			
GLO8	No linkages			
SHA1	No linkages			
SHA2	No linkages			
MAI1	MAI1-6 linked	MAI1-6 linked	MAI1-6 linked	
MAI2				
MAI3				
MAI4				
MAI5				
MAI6				
SHAR8	No linkages	No linkages	No linkages	Hard coastline and high ground.
SEV1	SEV1-3 linked	SEV1-6 linked	SEV1-6 linked	The Upper Avon Levels floodplain is all linked. Sediment transport is partly limited by rocky outcrops and man-made features (Sharpness Docks, Oldbury Power Station tidal reservoir and Severn Road Bridge).
SEV2				
SEV3				
SEV4	No linkages			
SEV5	SEV5-6 linked			
SEV6				
BRIS1	No linkages	BRIS1-5 linked	BRIS1-5 linked	The Lower Avon Levels floodplain links these areas together. Sediment transport is partly limited by rocky outcrops and man-made features (Severn Road Bridge, Second Severn Crossing and Avonmouth Docks jetties).
BRIS2	BRIS2-3 linked			
BRIS3				
BRIS4	BRIS4-5 linked			
BRIS5				
BRIS6	No linkages	No linkages	No linkages	This section is a self-contained floodplain bordered by headlands.

Policy Unit	Geomorphological Processes	Flooding	Combined Processes	Comments
PORT1	No linkages	No linkages	No linkages	Hard coastline and high ground.
PORT2	PORT2-4 linked	No linkages	PORT2-4 linked	Hard coastline and high ground. Sediment is transported between these sections.
PORT3		No linkages		
PORT4		No linkages		
KIN2	No linkages	No linkages	No linkages	Hard coastline and high ground.
KIN1	No linkages	KIN1, 3 linked	KIN1, 3-4 linked	Somerset Levels floodplain is all linked. Sediment transport within bays is interrupted by hard headland areas.
KIN3	KIN3-4 linked			
KIN4		No linkages		
HOL1	No linkages	No linkages	No linkages	Hard coastline and high ground.
HOL2	No linkages	No linkages	No linkages	Hard coastline and high ground.

Figure 2.1 – Interactions between Policy Units



3. Change in Policy and Potential Outcomes

This section is an overview of how Policies have changed since SMP1 around the Severn Estuary and what the potential outcomes of this change are over time.

3.1 Change in Policy since SMP1

Figures 3.1, 3.2 and 3.3 show where a change in policy from the SMP1 is being proposed in the SMP2. The figures show general areas where changes in policy may take place in the first SMP2 epoch (0 – 25 years). The SMP1 Management Units do not directly correspond with SMP2 Policy Units. In several cases the SMP1 proposed a range of policy options for a particular stretch of coast, making it difficult to compare the SMP1 directly with the SMP2. The main changes in policy are where:

- A ***Key Policy Driver*** influences the change (see ***Part A*** for definition of a Key Policy Driver);
- The economics have altered;
- Knowledge on coastal processes or flooding have improved; and
- Where the influence of the sea and tidal flooding is not the most significant influence or where Catchment Flood Management Plan (CFMP) policies are more appropriate / greater significance in managing the flood risk.

Figure 3.1 shows the lower estuary section of the SMP2. Changes in policy are likely upstream of the River Usk and in the area around Congresbury Yeo. This change is due to a better understanding of the tidal flood risks over time in these areas and opportunities to create new intertidal habitat.

Figure 3.2 shows the mid section of the SMP2. Changes in policy are likely in the Avon and the areas around Alvington (Lydney Sands) and Sharpness. These changes are due to a better understanding of the tidal flood risks over time in these areas.

Figure 3.3 shows the upper section of the SMP2. Changes in policy are likely in the upper Severn and the areas around the Noose and Elmore. These changes are due to a better understanding of the tidal flood risks over time in these areas and opportunities to create new intertidal habitat.

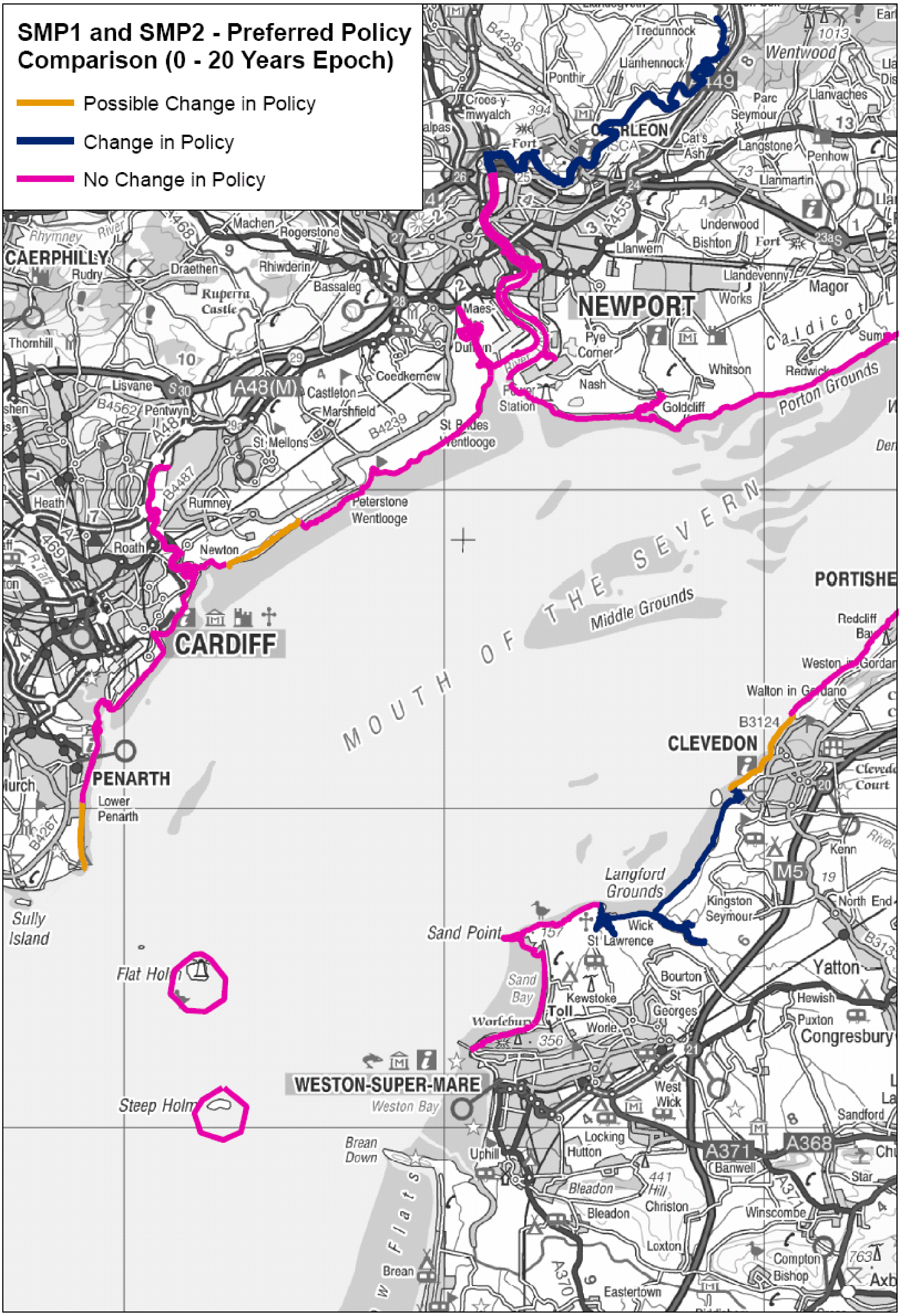


Figure 3.1 - SMP Policy Change from Penarth to Newport and Anchor Head to Portishead

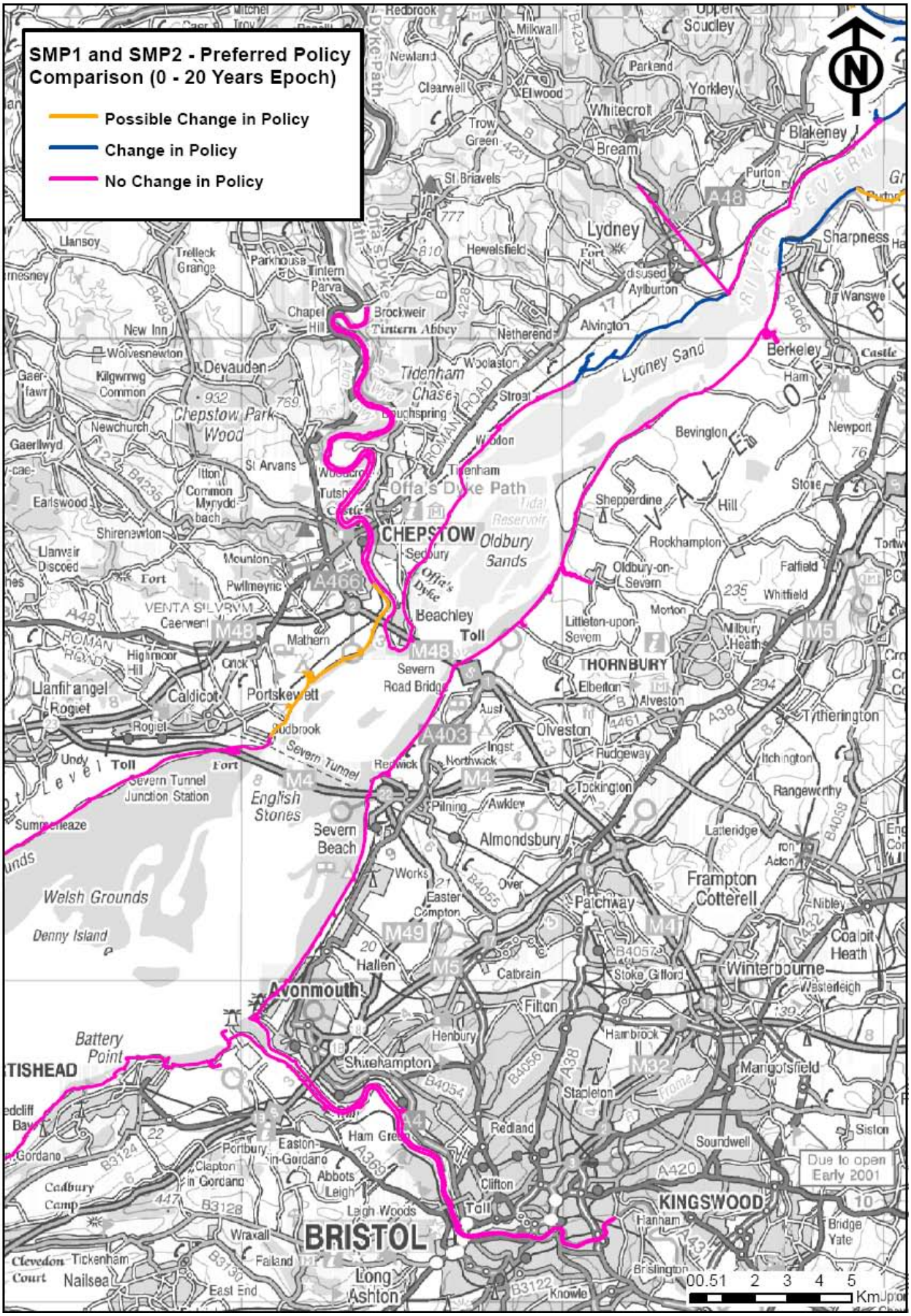


Figure 3.2 - SMP Policy Change from Newport to Blakeney and Portishead to Sharpness

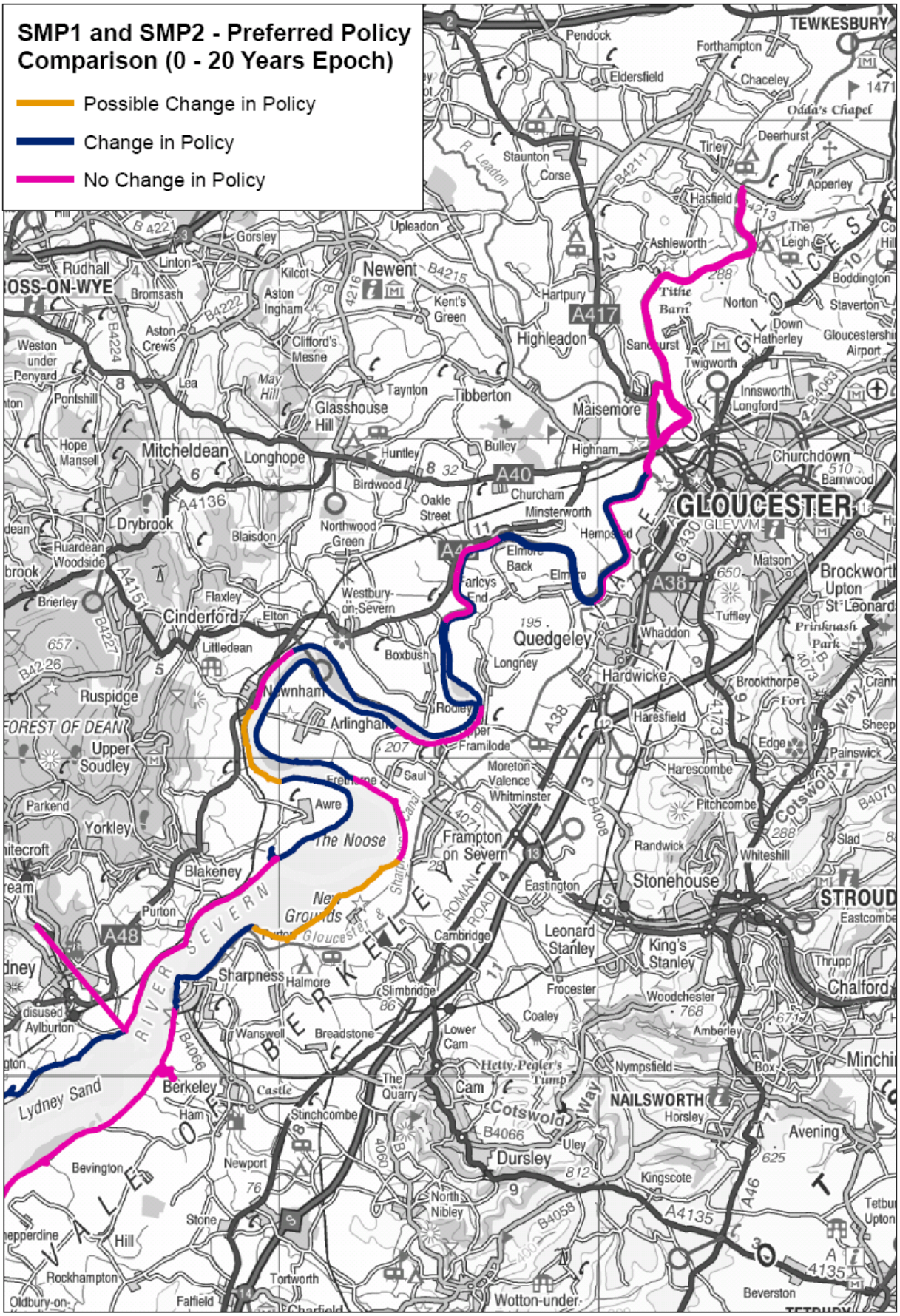


Figure 3.3 - SMP Policy Change from Blakeney and Sharpness to Haw Bridge

3.2 Combined Policy Outcomes

The following six figures give an indication of how the SMP2 shoreline would look between 50 and 100 years from now based on the policies being proposed and the likely strategic implications of tidal flood risk. The figures show which stretches of the shoreline would be actively managed (by either Hold the Line, Advance the Line or Managed realignment) and which ones would not (No Active Intervention).

The flood plains are shaded grey with a blue outline to show the inland limit).

Where no flood plain is shown behind a red No Active Intervention policy line, this suggests one of the following:

- Erosion is on a scale too small to be seen on the map;
- Land behind the shoreline is higher than MHWS and so at minimal flood risk;
- The passage of flood water from coastal / tidal sources depends on the policy option chosen in an adjacent policy unit (i.e. managing the shoreline immediately in front of an area doesn't mean the area behind will be safe from tidal flood risk due to flood water flowing from adjacent areas of land).

Areas shown as undefended flood plain (in pale blue) indicate likely areas of inundation or 'ponding' that will be affected as a result of a NAI policy option. These most likely represent known ponding / tidal inundation areas that are currently (not developed) because they are known to flood or topographic 'hollows' that may or may not already be affected by tidal inundation.

3.3 Flood Risk Arising From a Preferred Policy

A policy that actively defends a Policy Unit from tidal flooding may have an adverse impact on land drainage, land drains or other outfalls.

Sea level rise due to climate change may lead to an increase in the occurrence of 'tide locking' of these outfalls (water cannot drain out of the drains / outfalls from the land because the water level in the estuary is too high when the tide is in). This may increase the risk of impacts from flooding on the landward side of the defences. The likelihood of tide locking and the associated risks have not been investigated in detail in the SMP2. Tide locking and land drainage shall be considered in greater detail within the SEFRMS which shall look at the location, type and construction of defences required to implement the policy.

3.4 SMP2 – CFMP – SEFRMS Interactions

In some Policy Units, the SMP2 suggests a preferred policy option of ***No Active Intervention (NAI)***, while the ***Catchment Flood Management Plan (CFMP)*** suggests that more should be done to reduce risk.

The SMP2 only considers risks from tidal sources (i.e.: coastal erosion and coastal flooding). CFMP's only consider risks from fluvial (river) sources.

The ***SEFRMS*** is looking at the combined risks from both tidal and fluvial sources and will help to decide on the most appropriate implementation strategy and associated action plan.

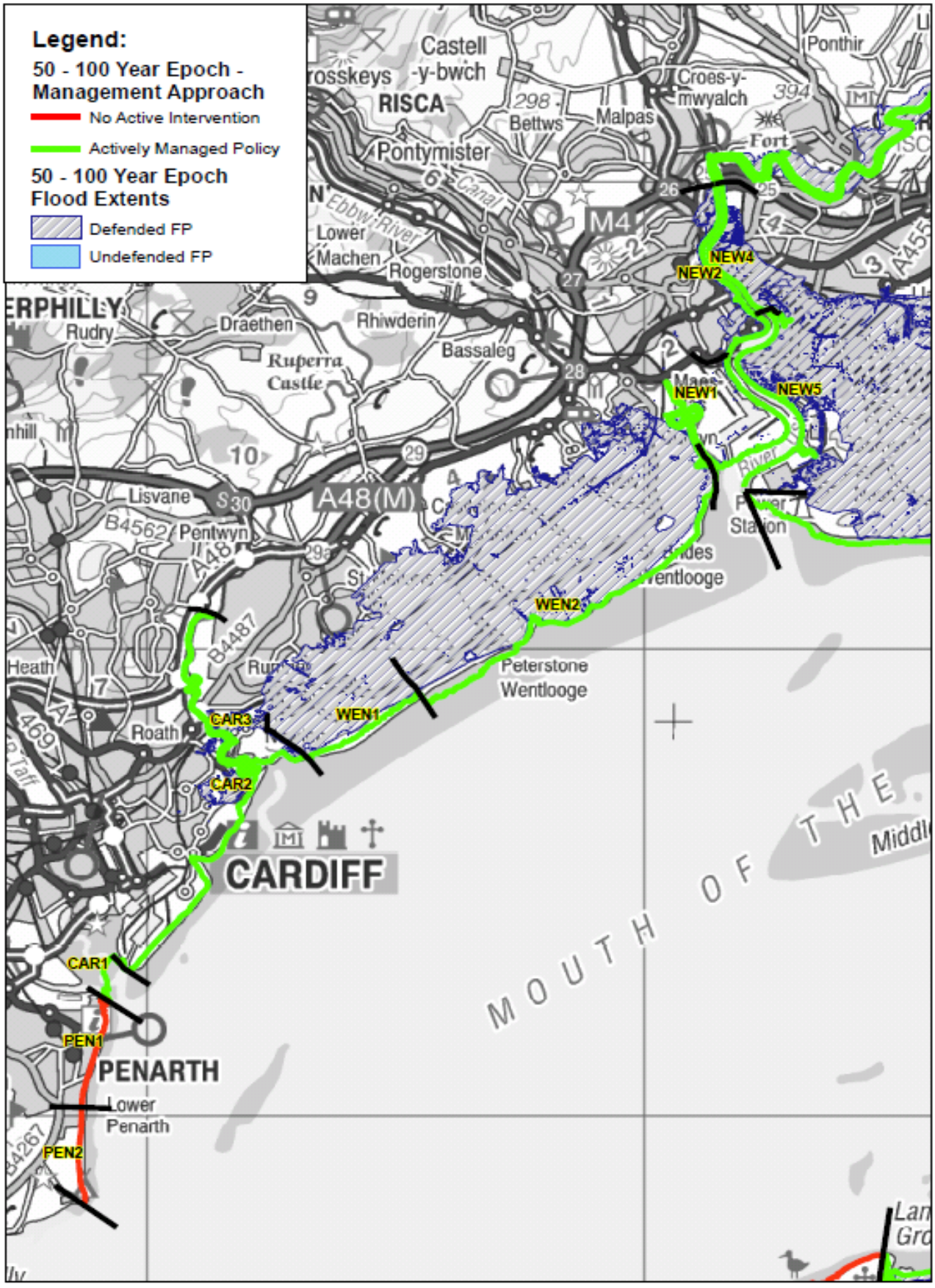


Figure 3.4 - WPM implications –
Penarth to Newport (NB: Actively Managed Policy may include HTL, MR or ATL)

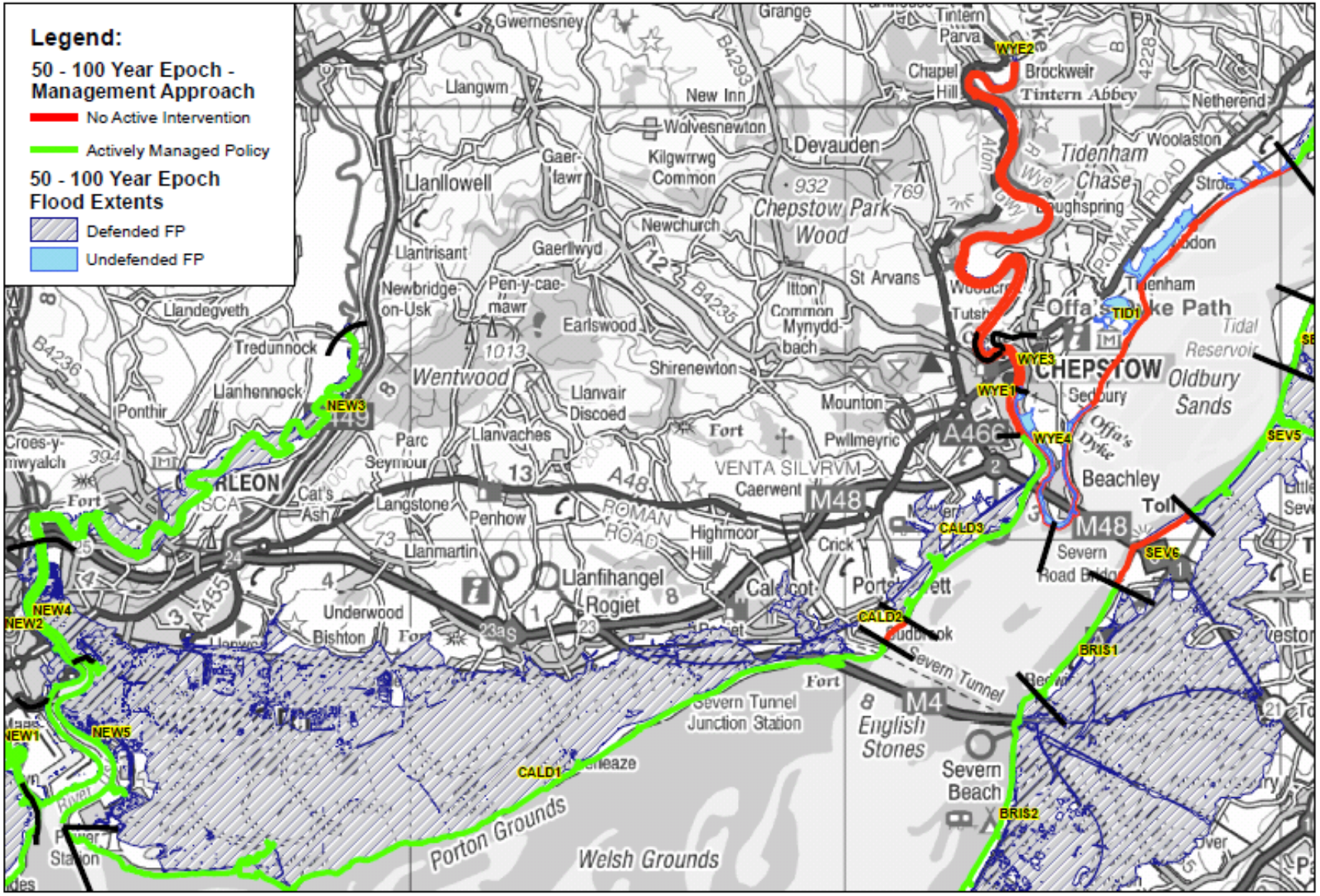


Figure 3.5 - WPM implications –Newport to Tidenham and Oldbury to Severn Beach (NB: Actively Managed Policy may include HTL, MR or ATL)

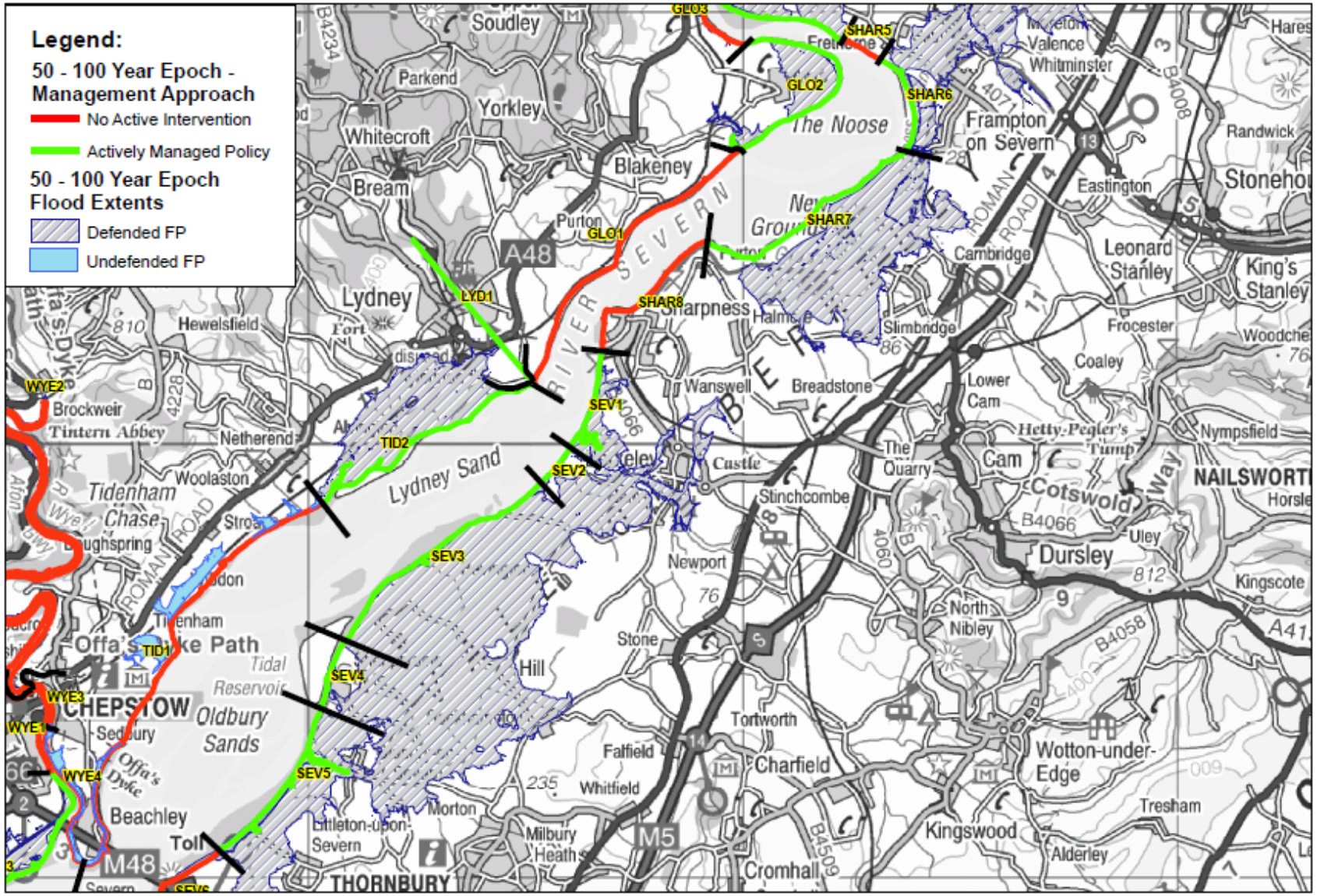


Figure 3.6 - WPM implications – Tidenham to the Noose, and Frampton on Severn to Oldbury (NB: Actively Managed Policy may include HTL, MR or ATL).

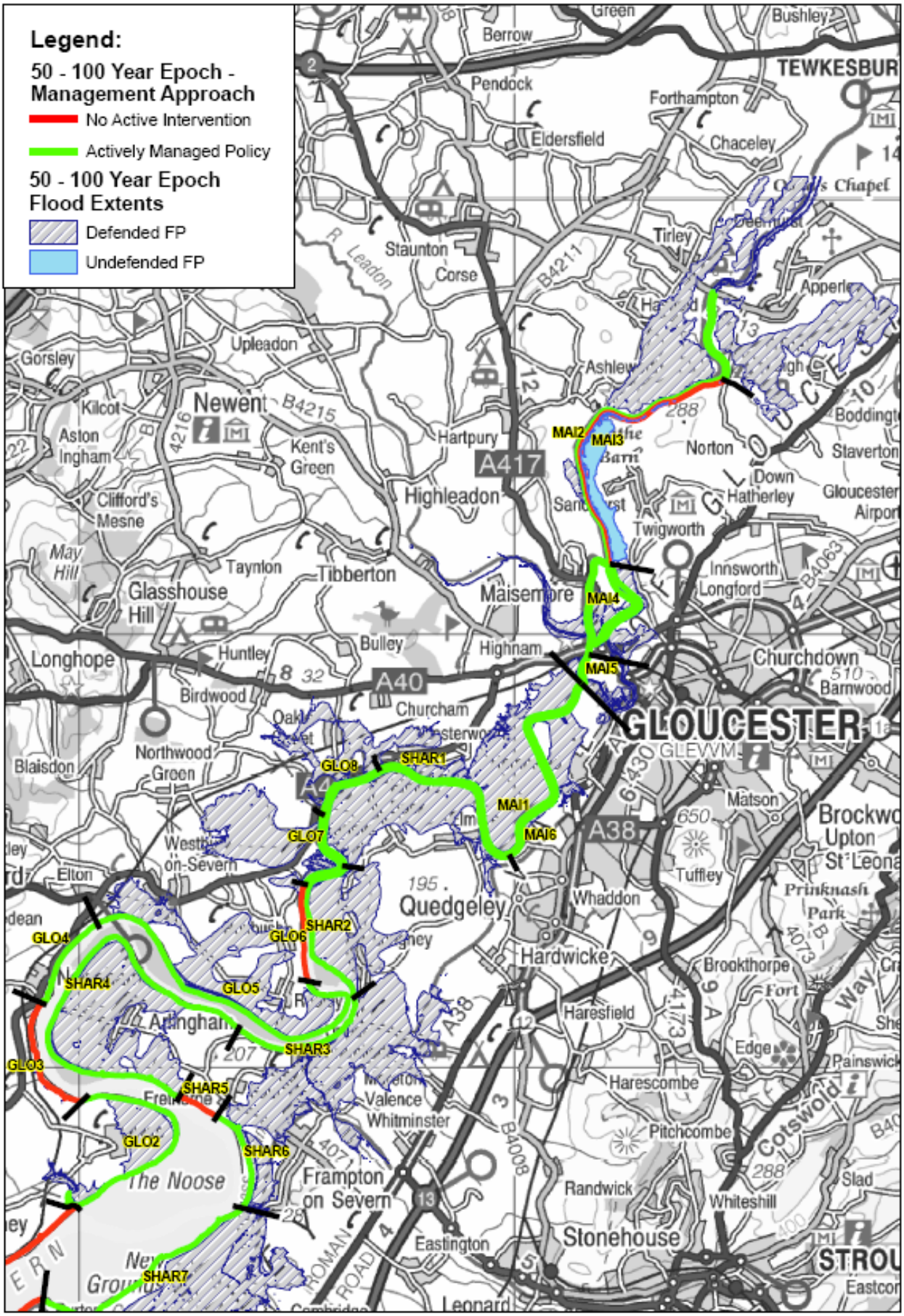


Figure 3.7 - WPM implications –Wentlooge Levels and Clevedon to Severn Beach (NB: Actively Managed Policy may include HTL, MR or ATL)

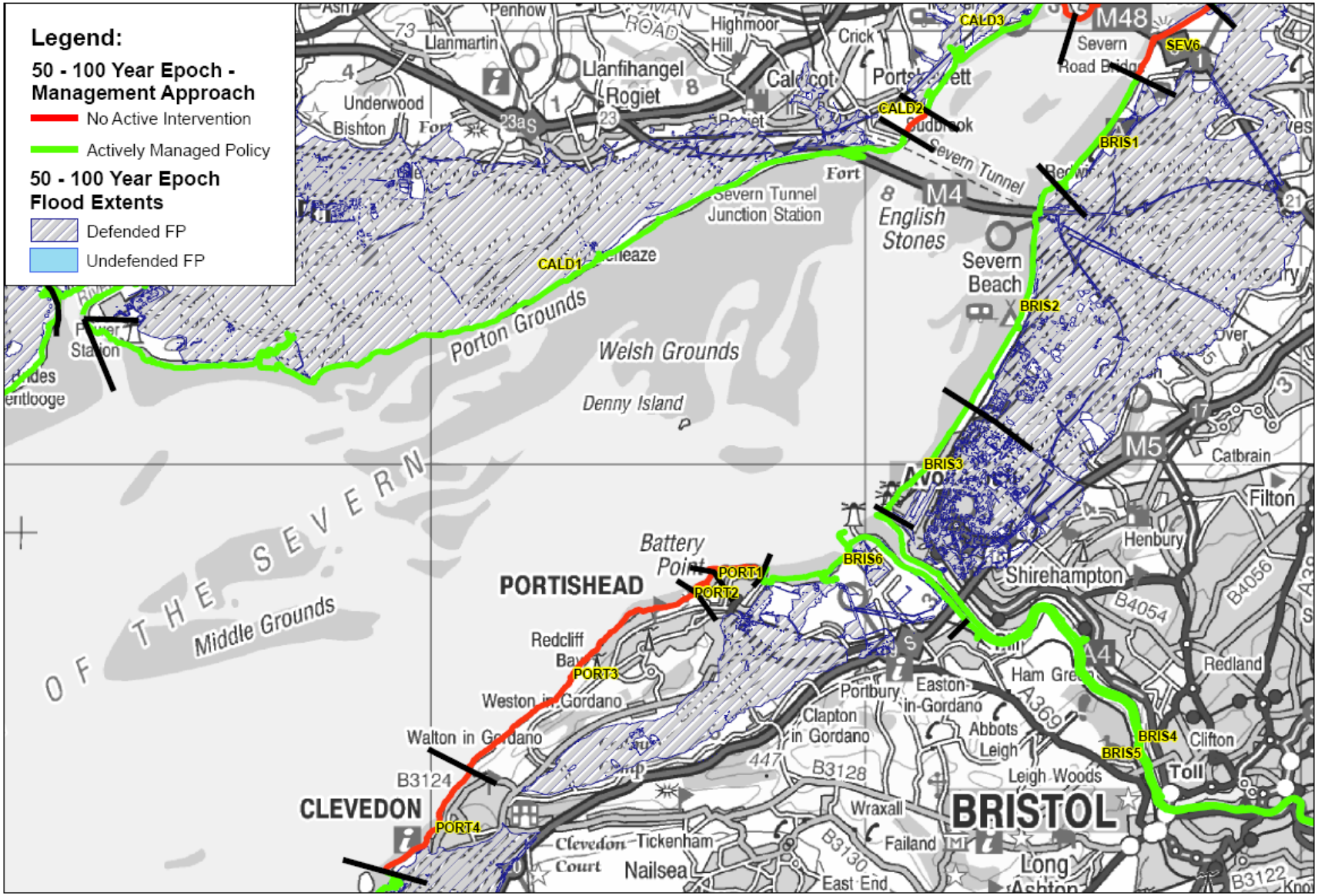


Figure 3.8 - WPM implications –Upper Severn (NB: Actively Managed Policy may include HTL, MR or ATL).

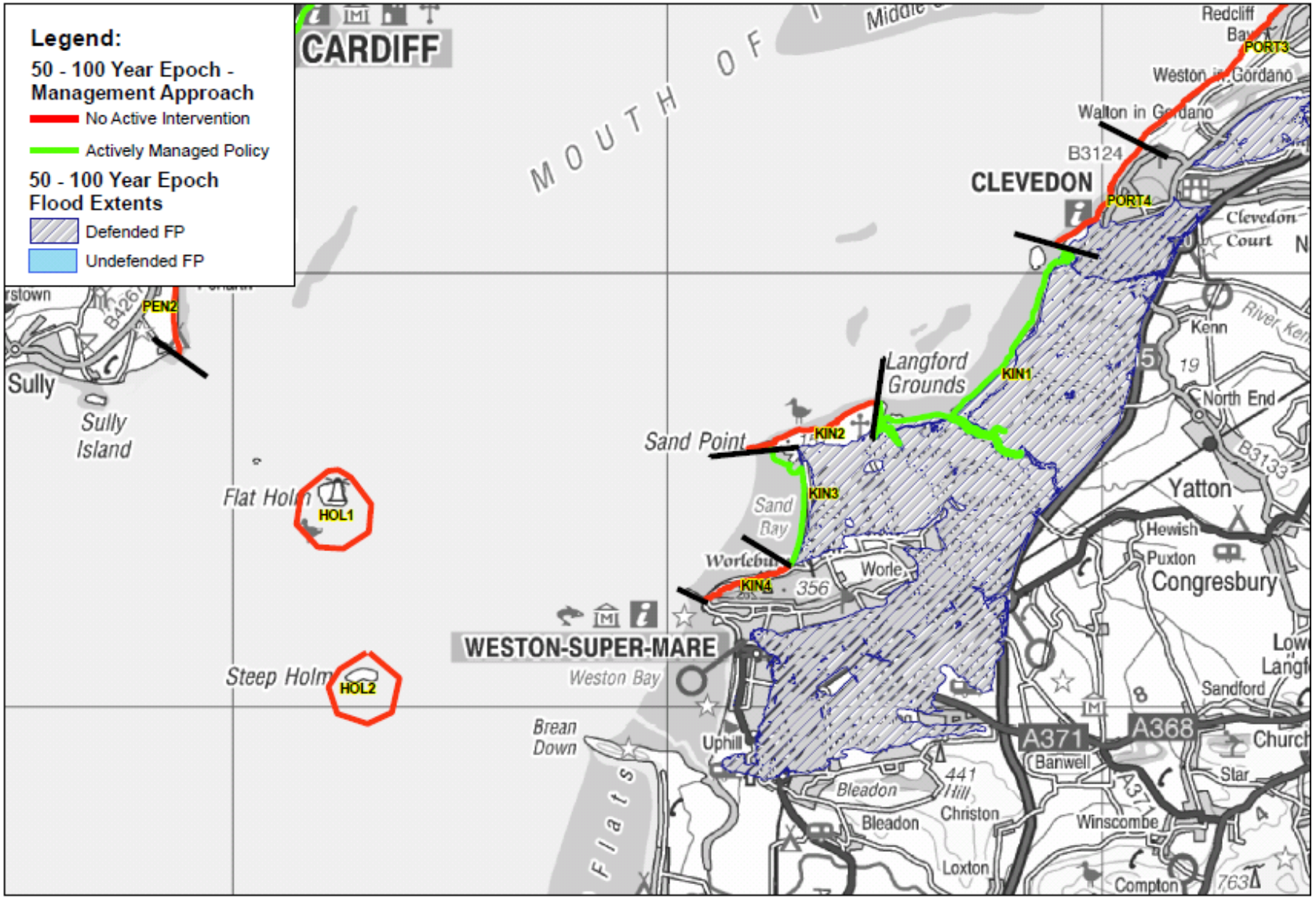


Figure 3.9 - WPM implications – Sand Bay to Redcliffe Bay
(NB: Actively Managed Policy may include hold the line, managed realignment or advance the line)

4. Understanding the Maps

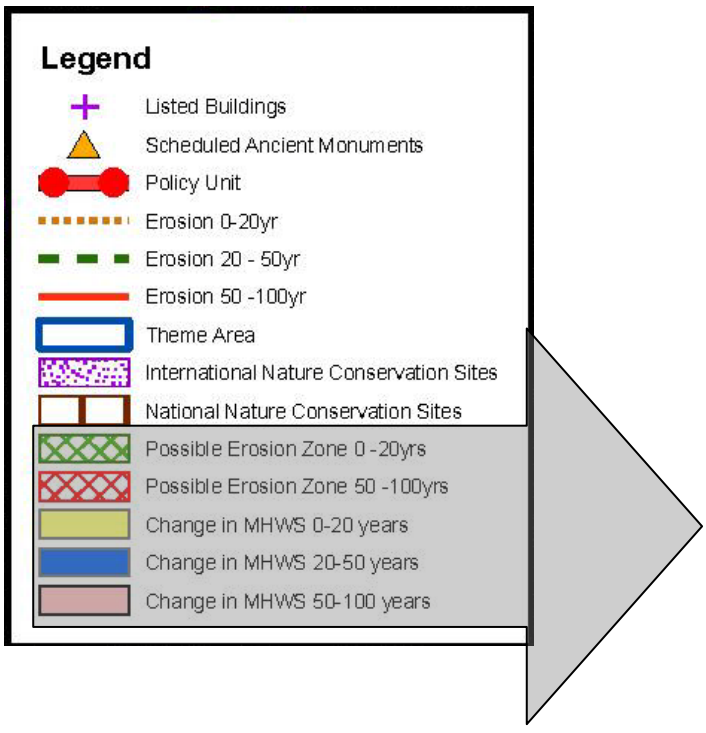
The section is a guide to help guide readers on how to interpret and understand the maps for each Policy Unit. Each one consists of a large main map showing the detail of the Policy Unit and a small inset map.

All figures have used electronic Ordnance Survey (OS) maps from 2007-2009 supplied by the Environment Agency, under licence.

4.1 Main Map

The main map shows the stretch of shoreline (***Policy Unit***) to which the Policy Statement applies and the boundaries of the Policy Unit. It also shows:

- The erosion that could happen in each epoch (based on available information) under ***No Active Intervention (NAI)***.
  a) Where erosion is shown as a line (e.g. Erosion 0-20yr), there is a relatively high degree of certainty about the rate of erosion.
  b) Where erosion is shown as a cross-hatched area (e.g. Possible Erosion Zone 0-20yr), there is less certainty about the rate of erosion. The shoreline could erode to any point in the zone and improved shoreline monitoring is recommended.
- Where ***Mean High Water Spring (MHWS)*** would be under ***NAI*** in each ***epoch*** (see ***Section 5.2.2 of the Main Report*** for an explanation of MHWS).
- The international nature conservation sites in the area (***SACs, SPAs, Ramsar*** sites).
- The national nature conservation sites in the area (***SSSIs*** and ***NNRs***).
- The ***Listed Buildings*** in the area.
- The ***Scheduled Ancient Monuments*** in the area.



Shows what would happen under a No Active Intervention (NAI) policy

4.2 Small Inset Map

This shows the general location of the ***Policy Unit*** within the context of the overall SMP2 area. It highlights the Policy Unit shown in the large map (circled in red) and shows which adjacent Policy Units are linked to it by physical processes (flooding and erosion) (highlighted in yellow). The choice of policy option made will depend on how it affects the linked Policy Units. More detail on different policy options considered and how the inter-linkages between Policy Units affected the choice of policy option can be found in ***Appendix G***.

5. Policy Statements

5.1 Index to Policy Units (Spatial Coverage)

The table below is designed to help the reader navigate to the Policy Unit(s) they are interested in viewing. Policy Units can be found by Theme Area, Local Authority, local area or country.

SMP2 Theme Area	SMP2 Management Unit	Local Area	Council	Country
Penarth	PEN1	Cosmeston	Vale of Glamorgan / Bro Morgannwg	Wales
		Lower Penarth		
	PEN2	Lower Penarth		
		Penarth		
		Morristown		
		Penarth Head		
Cardiff	CAR1	Penarth Flats	Cardiff / Caerdydd	
		Cardiff Bay		
	CAR2	Cardiff Docks		
		East Moors		
	CAR3	Tremorfa		
		Pen - Y - Lan		
		Llanedeyrn		
		Rumney		
		Lamby		
Wentlooge	WEN1	Rumney		
		Newton		
		Trowbridge		
		Llanrumney		
		St. Mellons		
	WEN2	Peterstone	Newport / Casnewydd	
		Marshfield		
		Castleton		
		Coedkernew		
		St. Brides		
		Tredegar		
		Duffryn		
Newport, the River Usk and surrounding area	NEW1	Tredegar		
		Measglas		
		Pillwenlly		
		Stow Hill		
		Allt - yr - yn		
		Barrack Hill		
	NEW2	Brynglas		
		Cearleon		
	NEW3	Llanhennock	Monmouthshire / Sir Fynwy	
		Newbridge - on -		

SMP2 Theme Area	SMP2 Management Unit	Local Area	Council	Country
		Usk		
		Bullmore	Newport / Casnewydd	
		Christchurch		
		St. Julians		
	NEW4	St. Julians		
		Banardtown		
		Maindee		
		Somerton		
	NEW5	Liswerry		
		Pye Corner		
		Nash		
Caldicot Levels	CALD1	Uskmouth		
		Nash		
		Goldcliff		
		Whitson		
		Redwick		
		Llandavenny		
		Magor	Monmouthshire / Sir Fynwy	
		Undy		
		Rogiet		
		Caldicot		
		Sudbrook		
	CALD2	Portskewett		
	CALD3	Wallstone		
		Mathern		
		Bulwark		
Chepstow and the River Wye	WYE1	Chepstow		
	WYE2	Crossway Green		
		St. Arvans		
		Tintern		
		Woodcroft	Forest of Dean	England
		Tutshill		
	WYE3	Sedbury		
	WYE4	Beachley		
Tidenham and surrounding villages	TID1	Beachley		
		Sedbury		
		Tidenham		
	TID2	Alvington		
		Aylburton		
Lydney	LYD1	Lydney		
Lydney to Gloucester	GLO1	Blakeney		
	GLO2	Awre		
	GLO3	Bullo		
	GLO4	Newnham		
		Broadoak		
	GLO5	Westbury - on -		

SMP2 Theme Area	SMP2 Management Unit	Local Area	Council	Country
		Severn		
		Rodley		
	GLO6	Bollow		
	GLO7			
	GLO8			
Gloucester to Haw Bridge	MAI1	Minsterworth	Tewkesbury District	
	MAI2	Maisemore		
		Hartpury		
		Ashleworth		
	MAI3	Sandhurst		
	MAI4	Longford	Gloucester City Council	
		Gloucester		
	MAI5	Alney Island		
	MAI6	Gloucester		
		Hempsted		
Gloucester to Sharpness	SHAR1	Elmore	Stroud District	
	SHAR2	Longney		
	SHAR3	Upper Framilode		
	SHAR4	Arlingham		
	SHAR5			
	SHAR6	Fretherne		
		Frampton - on - Severn		
	SHAR7	Slimbridge		
	SHAR8	Purton		
		Sharpness		
Sharpness to Severn Crossings	SEV1	Newton		
		Berkeley		
	SEV2			
	SEV3	Clapton		
		Shepperdine	South Gloucestershire	
	SEV4			
	SEV5	Oldbury - on - Severn		
		Littleton - upon - Severn		
	SEV6	Aust		
Bristol to Severnside	BRIS1	Northwick		
		Redwick		
	BRIS2	Severnbeach		
		Crooksmarsh	City of Bristol	
	BRIS3	Avonmouth		
	BRIS4	Sea Mills		
		Sneyd Park		
		Bristol City Centre		
	BRIS5	South Bristol		
		Easton - in - Gordano	North Somerset	

SMP2 Theme Area	SMP2 Management Unit	Local Area	Council	Country
		Abbots Leigh		
	BRIS6	Portbury		
Portishead and Clevedon	PORT1	Woodhill Cliffs		
	PORT2	Woodhill Bay		
		Portishead		
	PORT3	Portishead		
		Redcliff Bay		
		Walton - in - Gordano		
	PORT4	Clevedon		
Kingston Seymour to Sand Bay	KIN1	Kingston Seymour		
		Wick St. Lawrence		
	KIN2			
	KIN3	Sand Bay		
		Kewstoke		
	KIN4	Worlebury		
The Holms	HOL1	Flat Holm	Cardiff / Caerdydd	Wales
	HOL2	Steep Holm	North Somerset	England

5.2 Summary of all Policy Options

The table below summarises the policy options for each Policy Unit in each of the three epochs (0-20, 20-50, 50-100 years).

The policy options should not be read in isolation. The policy option for each Policy Unit is explained in this Part B report. Each policy option is supported by a few short paragraphs that set out the focus of the policy option, how the Policy Unit is linked to others, any interactions with other flood management plans and other issues that should be taken into account in implementing the policy option.

It is important that the reader looks at the supporting information to understand the local issues that will need to be taken into account in deciding how the policy option might be taken forward.

	Epoch		
Policy Unit	**0-20 years (2025)**	**20-50 years (2050)**	**50-100 years (2105)**
PEN1	NAI	NAI	NAI
PEN2	HTL	HTL	HTL
CAR1	HTL	HTL	HTL
CAR2	HTL	HTL	HTL
CAR3	HTL	HTL	HTL
WEN1	HTL	HTL	HTL
WEN2	HTL	HTL	HTL
NEW1	HTL	HTL	HTL
NEW2	HTL	HTL	HTL
NEW3	NAI	NAI	MR
NEW4	HTL	HTL	HTL
NEW5	HTL	HTL	HTL
CALD1	HTL	HTL	HTL
CALD2	NAI	NAI	NAI
CALD3	HTL	HTL	HTL
WYE1	NAI	NAI	NAI
WYE2	NAI	NAI	NAI
WYE3	NAI	NAI	NAI
WYE4	NAI	NAI	NAI
TID1	NAI	NAI	NAI
TID2	HTL	HTL	MR
LYD1	HTL	HTL	HTL
GLO1	NAI	NAI	NAI
GLO2	MR	HTL	HTL
GLO3	NAI	NAI	NAI
GLO4	HTL	HTL	HTL
GLO5	HTL	HTL	HTL
GLO6	NAI	NAI	NAI
GLO7	HTL	HTL	HTL
GLO8	HTL	HTL	HTL
MAI1	MR	HTL	HTL
MAI2	HTL	HTL	HTL
MAI3	NAI	NAI	NAI
MAI4	HTL	HTL	HTL
MAI5	HTL	HTL	HTL
MAI6	HTL	HTL	HTL
SHAR1	HTL	MR	MR
SHAR2	HTL	MR	HTL
SHAR3	HTL	HTL	HTL
SHAR4	HTL	MR	MR
SHAR5	NAI	NAI	NAI
SHAR6	HTL	HTL	HTL

	Epoch		
Policy Unit	**0-20 years (2025)**	**20-50 years (2050)**	**50-100 years (2105)**
SHAR7	MR	HTL	HTL
SHAR8	NAI	NAI	NAI
SEV1	HTL	HTL	HTL
SEV2	HTL	HTL	HTL
SEV3	HTL	HTL	HTL
SEV4	HTL	HTL	HTL
SEV5	HTL	HTL	HTL
SEV6	NAI	NAI	NAI
BRIS1	HTL	HTL	HTL
BRIS2	HTL	HTL	HTL
BRIS3	HTL	HTL	HTL
BRIS4	HTL	HTL	HTL
BRIS5	HTL	HTL	HTL
BRIS6	HTL	HTL	HTL
PORT1	NAI	NAI	NAI
PORT2	NAI	NAI	NAI
PORT3	NAI	NAI	NAI
PORT4	HTL	HTL	HTL
KIN1	MR	MR	MR
KIN2	NAI	NAI	NAI
KIN3	HTL	HTL	HTL
KIN4	NAI	NAI	NAI
HOL1	NAI	NAI	NAI
HOL2	NAI	NAI	NAI

Key	**Policy Option**
HTL	Hold The Line
NAI	No Active Intervention
MR	Managed Realignment

See ***Part A, Section 2*** for a full explanation of the definitions of the policy options

Severn Estuary Shoreline Management Plan Review

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