



# Severn Estuary Shoreline Management Plan Review

The Shoreline Management Plan:  
Part C (Main Report) –  
Action Plan



**ATKINS**





# Severn Estuary Shoreline Management Plan Review (SMP2)

## Part C (Main Report): Action Plan

October 2010

### Notice

This report was produced by Atkins Ltd for the Severn Estuary Coastal Group (SECG) for the specific purpose of Severn Estuary Shoreline Management Plan Review.

This report may not be used by any person other than the SECG without the SECGs express permission. In any event, Atkins accepts no liability for any costs, liabilities or losses arising as a result of the use of or reliance upon the contents of this report by any person other than the SECG.

## Document History

JOB NUMBER: 5078599			DOCUMENT REF: 5078599/62/DG/16			
01	Draft for PMG Review	CW	KW	JMcC	RS	2 Sept 2009
02	Draft for LA Review	CW	KW	JMcC	RS	14 Jan 2010
03	Draft for QRG Review	SB	KW	JMcC	RS	8 June 2010
04	Final Draft for QRG Review	KW	JMcC	JMcC	RS	Sept 2010
05	Final	KW	PC	PC	RS	Dec 2010
Revision	Purpose Description	Originated	Checked	Reviewed	Authorised	Date

# Compliance to the SMP2 Quality Review Group (QRG) Terms of Reference

This part of the SMP 2 aims to meet the following objectives as set out by the Quality Review Group:

- The 4 Action Plan (AP) criteria (Technical, Social, Environmental, Administrative) will have been translated and clearly set out in the Action Plan.
- Funding requirements over the 1st epoch are translated into the Action Plan. *(It is suggested that the 20 year MTP(Medium Term Planning) for each Operating Authority (OA) is combined and is appended to the Action Plan)*
- The lead OA for co-ordinating the AP is clear and how they intend to monitor the delivery of actions addressed.
- What, why and at what cost in each case, covering a sufficient geographical area and has an owner and timetable for each action linked to the MTP process
- Connectivity to adjacent action plans is clear, together where there are likely cost savings in working with others
- Timetable for AP review is set out
- Linkages with the Coastal Groups, Coastal Forum, and other National Forum set out with reasons for these.
- Recommendations to others, e.g. Defra, CLG, etc are clearly set out, with actions and review dates.
- Details on links with the connectivity of national data sets are identified, e.g. NFCDD. voluntary

# Contents

Section	Page
<b>Compliance to the SMP2 Quality Review Group (QRG) Terms of Reference</b>	<b>v</b>
<b>PART C – Action Plan</b>	<b>vii</b>
<b>1. Introduction</b>	<b>1</b>
1.1 Structure of the Action Plan	1
1.2 Development of the Action Plan	1
1.3 Links with the SEFRMS and other relevant plans	3
<b>2. Outstanding Actions from SMP1</b>	<b>6</b>
<b>3. SMP2 Actions</b>	<b>11</b>

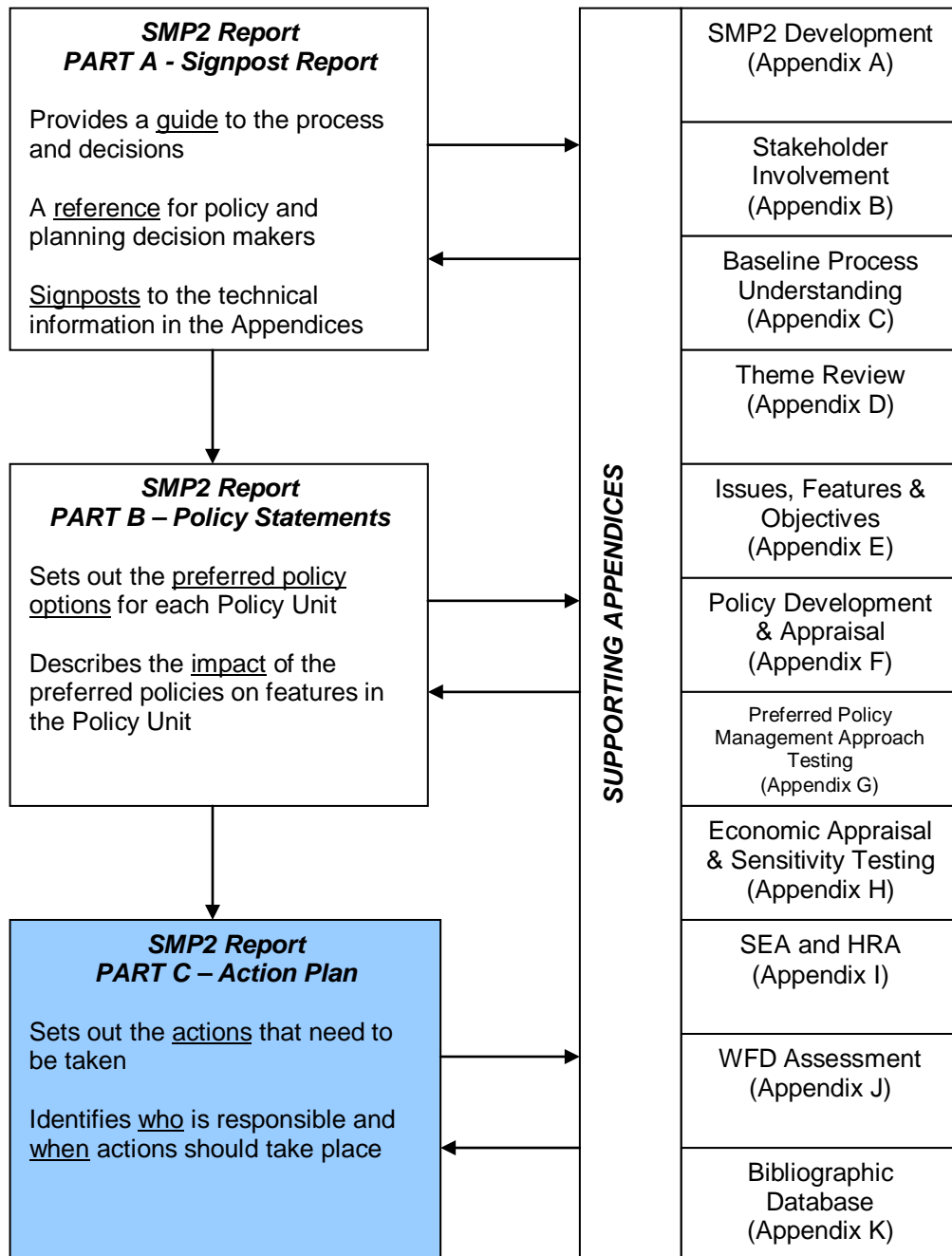
## Tables

Table 2.1 - Outstanding actions from the SMP1	7
Table 3.1 - Overarching actions	14
Table 3.2 – Penarth (PEN)	17
Table 3.3 – Cardiff (CAR)	20
Table 3.4 – Wentlooge (WEN)	23
Table 3.5 - Newport & Usk (NEW)	29
Table 3.6 - Caldicot Levels (CALD)	36
Table 3.7 - Chepstow & Wye (WYE)	40
Table 3.8 - Tidenham & Surrounding Villages (TID)	43
Table 3.9 – Lydney (LYD)	45
Table 3.10 - Lydney to Gloucester (GLO)	46
Table 3.11 - Gloucester to Haw Bridge (MAI)	56
Table 3.12 - Gloucester to Sharpness (SHAR)	68
Table 3.13 - Sharpness to Severn Crossings (SEV)	79
Table 3.14 - Severnside, Bristol & Avon (BRIS)	86
Table 3.15 - Portishead & Clevedon (PORT)	96
Table 3.16 - Kingston Seymour to Sand Bay (KIN)	98
Table 3.17 - The Holms (HOL)	102

## Figures

Figure 1.1 - SMP2 and SEFRMS study areas	4
--	---

# PART C – Action Plan



# 1. Introduction

This **Action Plan (AP)** has been developed by the **Severn Estuary Coastal Group (SECG)**. It forms **PART C** of the **Severn Estuary Shoreline Management Plan Review (SMP2)**. It has the following aims:

- To set out the steps needed to put into practice the policies set out in the SMP2 (see **SMP2 Report PART B – Policy Statements**)
- To encourage the use of the SMP2 by planners and planning authorities – when they develop their land use plans and when they make planning decisions
- To set out the monitoring and data collection needs to fill current gaps in knowledge
- To prioritise where actions are required, but it does not guarantee that funding is available
- To help the SECG in reviewing the progress of the SMP2 policies

**Including an action in this Action Plan does not guarantee that funding is available for that action.**

Funding for flood and erosion risk management measures comes from a range of organisations, including central government, local authorities, the Environment Agency and landowners; and from a range of funding ‘pots’. Funding is limited and flood risk management projects compete for these limited funds. Sources of funding over and above existing sources are unlikely to be available for the actions contained in this Action Plan. This may mean it is not possible to fund all the actions and that prioritisation decisions will need to be made either jointly by the PMG or by individual partners.

The SECG feel that a strategic assessment of all the Action Plans for SMP2s in the Bristol Channel area should be undertaken to determine if it is possible for the different coastal groups to work together on common actions to ensure best value for money. A specific action has been developed for the matter to be raised at the **Bristol Channel Strategic Coastal Group** to see how the partners can work together to secure funding, prioritise aims and achieve best value for money for all SMP2 Action Plans within the Bristol Channel (see **Table 3.1**).

## 1.1 Structure of the Action Plan

The Action Plan is set out in three parts:

- **Section 1** – a brief description of the Action Plan, its aims, development and links to other important flood and erosion risk management plans
- **Section 2** – Outstanding Actions from SMP1
- **Section 3** – SMP2 Actions

## 1.2 Development of the Action Plan

The Action Plan has been developed by the whole SECG (all the local authorities, conservation authorities, Internal Drainage Boards, and Environment Agency regions around the Severn Estuary).



In order to make sure that the SMP2 and the Action Plan fit together with the planning system, planners and flood defence engineers from all the local authorities input directly to the development of the Action Plan.

The Action Plan also takes account of the feedback and comments raised during the consultation events that were held during the development of the SMP2 (see **Appendix B** for information on the stakeholder events, issues raised and how they have been taken into account).

It has been developed to help ensure that actions are taken to put into practice the SMP2 policies in the first epoch (0-20 years). Actions address planning and engineering issues.

The actions also aim to help lay the groundwork needed to put into practice the policies beyond the first epoch (20-50 years and 50-100 years). These actions include collecting data and information, research and engaging with stakeholder and communicating the complicated issues connected with coastal erosion and flood risk management.

### 1.2.1 Role of the Quality Review Group (QRG)

The Environment Agency and the Welsh Assembly Government (WAG) have established a Quality Review Group (QRG) to look at all the SMP2s and Action Plans produced around England and Wales to make sure they have been produced in a consistent way. The QRG is made up of technical experts from:

- Government – Department for Environment, Food and Rural Affairs (Defra), Department of Communities and Local Government (DCLG), WAG
- Environment Agency (EA) and Environment Agency Wales (EAW)
- Local Authorities
- Countryside Council for Wales (CCW) or Natural England (NE)
- Royal Society for the Protection of Birds (RSPB)
- The private environmental consultancy industry

The QRG has identified a number of success criteria against which SMP2s will be assessed. These success criteria are grouped under five headings:

- **Technical** – relating to the use of data and information, analytical techniques and the presentation of such information;
- **Social** – the consideration of issues relating to stakeholder involvement, views and wishes, political guidance, adaptation and community resilience. This also considers short-term versus long-term issues;
- **Environmental** – issues relating to environmental assessments, Strategic Environmental Assessment (SEA), EU Habitats Directives, habitat creation, Biodiversity Action Plans (BAPs) and environmental sites and features (e.g. SSSIs, historic environment, landscape designations);
- **Economic** – relating to the use of economic data and its analysis;
- **Administrative** – issues connected to the management of the plan preparation process, communication and engagement with partners and operating authorities.

The Action Plan has been developed with these five success criteria groups in mind. Each action has been labelled to show how it relates to these criteria.

## 1.3 Links with the SEFRMS and other relevant plans

### 1.3.1 The Severn Estuary Flood Risk Management Scheme (SEFRMS)

An important parallel and more detailed study taking place is the Flood Risk Management Strategy (SEFRMS). This started in February 2008. The SEFRMS was designed so that it could run in parallel and be linked to the development of the SMP2.

#### **It is important to recognise the difference between the two projects:**

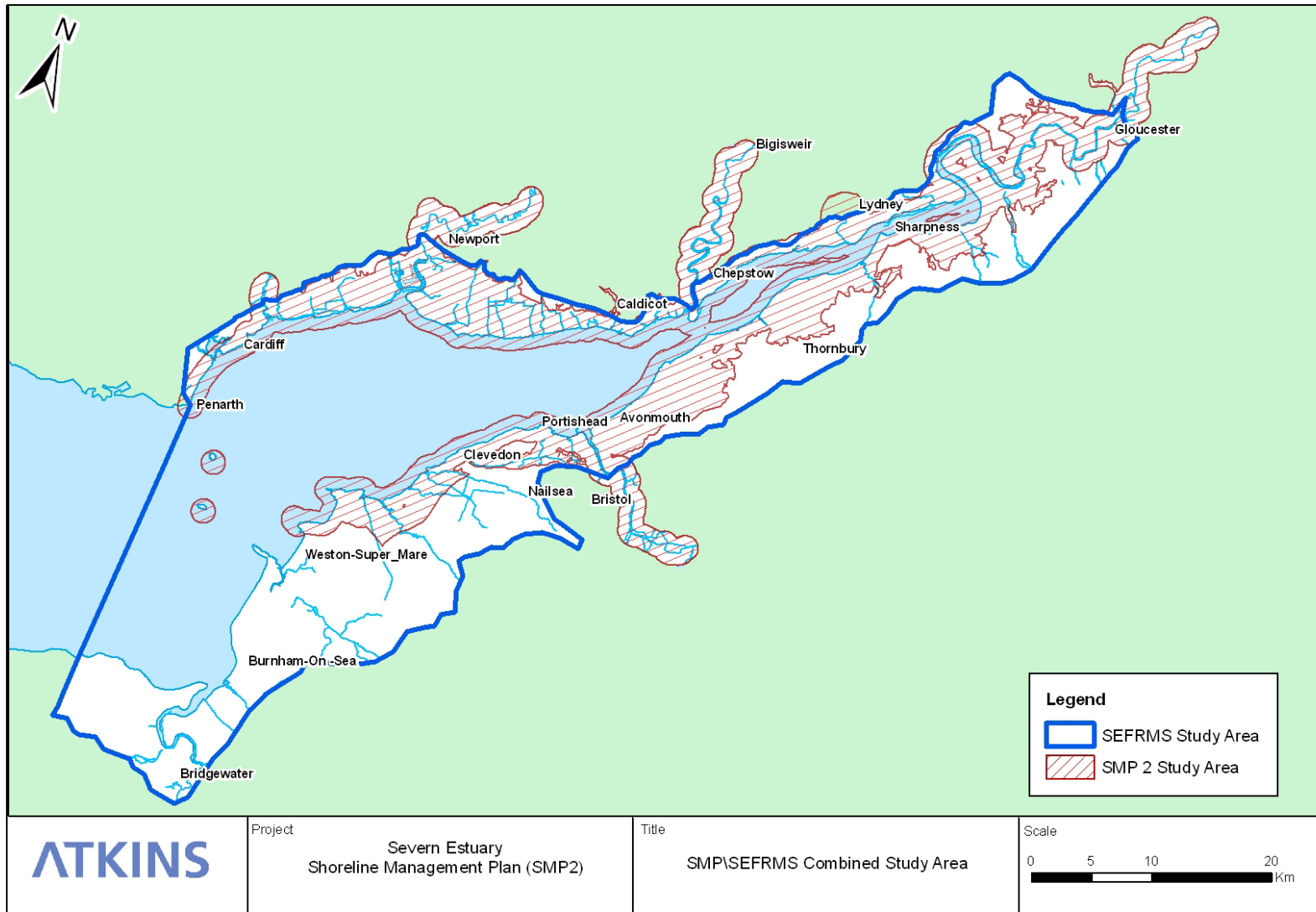
1. The **SMP2** has been developed by the SECG. The SMP2 is mainly for a planning audience – people that develop land use plans, make planning decisions, policy makers and strategic flood risk managers. It provides a policy approach over specific timescales (the three epochs of 0-20, 20-50 and 50-100 years). It does not set out how policies should be implemented e.g. what shoreline defences should be built of.
2. The **SEFRMS** is an EA/EAW project. It has three main objectives:
  - To set out a 100-year investment plan for flood defences for the Environment Agency and local authorities – it sets out the economic case for investment, where the line of the defence should be and the standard of protection of the defences
  - To prioritise other flood risk management measures – e.g. providing advice to utility companies to protect critical infrastructure, providing advice to planners, providing flood warning
  - To decide where new wildlife habitats around the shoreline should be created – to compensate for the loss of similar habitats due to sea level rise

The SMP2 area and the SEFRMS area overlap, but are not exactly the same. **Figure 1.1** shows the area covered by the SMP2 and the SEFRMS. Part of the SEFRMS area is covered by the **North Devon and Somerset SMP2 (NS&S SMP2)**.

The Action Plan clearly highlights which actions will be delivered through the SEFRMS (see actions table).

In SMP2 areas that are not covered by SEFRMS, the Action Plan clearly highlights how these actions should be delivered. This could be through other strategic plans (e.g. Catchment Flood Management Plans (CFMPs)), or specific actions by the SECG, members of the SECG or others.

Figure 1.1 - SMP2 and SEFRMS study areas



### 1.3.2 Other SMP2s

There are two SMP2s adjacent to the Severn Estuary SMP2:

- **Swansea and Carmarthen Bays SMP2** – to be completed in 2011 – <http://www.southwalescoast.org>
- **North Devon and Somerset SMP2 (ND&S SMP2)** – to be completed later in 2010 - <http://www.ndascag.org/SMP2.html>

Both of these SMP2s are being undertaken on behalf of the relevant coastal groups by Halcrow Ltd.

The SECG will communicate actions to the adjacent Coastal Groups so that joint initiatives and cost saving actions can be identified. The Severn Estuary SMP2, ND&S SMP2 and Swansea and Carmarthen Bays SMP2 are all members of the **Bristol Channel Strategic Coastal Group**. This would be an appropriate group to co-ordinate joint initiatives between the three coastal groups.

The SECG will also continue to communicate with other Coastal Groups through the Coastal Groups Chairs' Meetings and other coastal fora to share best practice and lessons learned.

### 1.3.3 Catchment Flood Management Plans (CFMPs)

The Severn Estuary SMP2 area meets or slightly overlaps with all the **Catchment Flood Management Plans (CFMPs)** around the Severn Estuary. Each CFMP has an Action Plan. These have been reviewed as part of the development of this SMP2.

Some of the issues raised during the development of the SMP2 overlap with CFMP Action Plans. Some actions in this SMP2 Action Plan should be undertaken along with actions in CFMP Action Plans. The Action Plan clearly highlights which actions will be delivered through / in partnership with CFMP actions.

## 2. Outstanding Actions from SMP1

**Table 2.1** sets out the outstanding actions from the Severn Estuary SMP1 (published in 2000).

These actions have been reviewed as part of the development of this Action Plan. Those actions that have been identified as still being important are highlighted in **bold**. They are considered to be important because they are similar to actions / issues that have been raised by the SECG, planners and through the consultation processes in developing the SMP2 and this Action Plan.

Table 2.1 - Outstanding actions from the SMP1

Process Unit (PU)	Recommended Activities (taken from the SMP1, 2000)
<p>PU 1: Penarth</p>	<p>Monitoring of beach material levels mid process unit.</p> <p><b>Periodic recording of rates of cliff retreat and coastal change.</b></p> <p>Coastal survey review – the Environment Agency has recently prepared a new asset survey which can provide input into Scheme Strategy Plans, Foreshore Management Plans and SMP review.</p> <p><b>Post-project evaluation of the effects, if any, of the Cardiff Bay Barrage on sediment transport in adjacent units</b></p>
<p>PU2: Cardiff Bay</p>	<p>Research on the historical interactions between Cardiff Bay and the coastal regime.</p> <p><b>Post-project evaluation of the effects of the Barrage on coastal processes in adjacent units.</b></p> <p>Research on the effect of the new coastline configuration on sediment transport.</p> <p><b>Research and monitoring of the intertidal and shorelines in the adjacent units to assess the extent of the influence of the barrage on adjacent areas.</b></p>
<p>PU3: Wentlooge</p>	<p>Monitoring and research into the causes and mechanisms of foreshore change.</p> <p>Historically, the construction of the Cardiff Docks has implemented Advance the Line, as has the recent construction of the Cardiff Bay Barrage. The consequences of this, both within the process unit and more broadly within the estuary, require monitoring and research. This should be linked to a similar assessment of Cardiff Bay, which although now isolated from the coastal regime, was previously linked: it is therefore important to understand its interaction with the coastal regime both historically and now.</p> <p>Research the roles of Cardiff Bay and of dredging the Cardiff Channel in the supply of sediment to the Wentlooge foreshore.</p> <p>Research into techniques for maintaining of the defensive capacity of the marsh on the foreshore.</p> <p>Monitoring of attempts to recreate marsh colonisation along the Rhymney frontage and trials of other potential mechanisms for habitat creation.</p> <p>Assessment of the impacts of hard defences (revetments and return walls) on the fronting marsh.</p> <p>Coastal survey review – the Environment Agency has recently prepared a new asset survey which can provide input into Scheme Strategy Plans, Foreshore Management Plans and SMP review.</p>
<p>PU4: River Usk</p>	<p><b>Field survey and modelling of the channel and sediment dynamics to determine more accurately whether internal process unit boundaries may be distinguished within the estuary.</b></p> <p>The Environment Agency are currently undertaking a survey of tidal defence assets. It is recommended that a formal survey of all the banks and related defence assets (whether or not formally regarded as tidal defences) is carried out with the co-operation of the local authorities, rail track operators and riparian owners, so as to establish a comprehensive record of the defences, ownership, condition and responsibilities on the Usk.</p>

Process Unit (PU)	Recommended Activities (taken from the SMP1, 2000)
PU5: Uskmouth	<p><b>Seasonal and annual monitoring of the foreshore levels as part of the data gathering for foreshore management.</b></p> <p>Tracing of sediment movement to assess natural sediment pathways and the exchanges with the wider estuary would be desirable. However, the feasibility of achieving valid results for cohesive sediments using existing techniques is unlikely. Therefore the Coastal Group should not promote this type of research at present.</p> <p>Coastal survey review – the Environment Agency has recently prepared a new asset survey which can provide input into Scheme Strategy Plans, Foreshore Management Plans and SMP review.</p>
PU6: Caldicot Levels	<p>Remote sensing (LIDAR) surveys of the channel margins and low water channel to assess changes to the intertidal slope, marsh and the backshore zone.</p> <p><b>Detailed mapping and investigation of the varied rates of erosion within the Northwick and the middle and lower Wentlooge Formations.</b></p> <p>Coastal survey review – the Environment Agency has recently prepared a new asset survey which can provide input into Scheme Strategy Plans, Foreshore Management Plans and SMP review.</p>
PU7: The Severn Crossing	<p>Establishment of a baseline and monitoring of the rates of change of the shoreline.</p> <p>Coastal survey review – the Environment Agency has recently prepared a new asset survey which can provide input into Scheme Strategy Plans, Foreshore Management Plans and SMP review.</p>
PU8: The River Wye	<p>The general stability of the process unit suggests that any monitoring should be over a long time scale. <b>Modelling of the estuary and tidal river section would be needed to increase the confidence in setting process unit boundaries or zones.</b> Research into morphological, hydrodynamic and sediment dynamics would support understanding of the potential direction of change under conditions of sea level rise.</p>
PU9: Beachley to Sharpness	<p>Monitoring of the position of the offshore banks and main channels to relate to the rates for channel margin change where the shoreline is undefended. Cross-sectional surveys or repeat aerial or LIDAR data sources provide a suitable basis for the broad scale assessment required.</p> <p>Examination of bank substructure should be considered, to establish the total sediment volumes and the constraints on channel evolution.</p>
PU10: Sharpness to Purton	<p><b>Monitoring of the position and extent of the intertidal sand bars through periodic survey of the channel profiles would help to understand the nature and rates of the changes in the channel morphology and the possible interaction with the foreshore.</b></p>
PU11: Tites Point to Hock Cliff	<p>Investigation of the rates of change of the foreshore levels and cross sectional changes within the channel.</p>
PU12: Hock	<p>Periodic linear topographic survey of the edge of the banks. This would enable potential risks to assets to be forecast and would assist the understanding of estuarine</p>

Process Unit (PU)	Recommended Activities (taken from the SMP1, 2000)
Cliff to Longney Pool	<p>evolution in the longer term.</p> <p>Periodic survey of river cross-sections (HR model cross-sections may be applicable). For example, seasonal monitoring (e.g. Spring and Autumn) every five years.</p> <p>Periodic hydrographic survey of shoals and low-water channels near to areas where assets are at risk from erosion. This would enable the influence of channel movement on bank erosion to be anticipated. It could assist in the design of river management measures (e.g. training works, dredging) as alternatives to “hard” defences.</p>
PU13: Longney Pools to The Weirs	<p>Periodic linear topographic survey of the edge of the banks. This would enable potential risks to assets to be forecast and would assist the understanding of estuarine evolution in the longer term.</p> <p>Periodic survey of river cross-sections (HR model cross-sections may be applicable). For example, seasonal monitoring (e.g. Spring and Autumn) every five years to assess the rates and nature of changes to the channel.</p> <p>Periodic hydrographic survey of shoals and low-water channels near to areas where assets are at risk from erosion. This would enable the influence of channel movement on bank erosion to be anticipated. It could assist in the design of river management measures (e.g. training works, dredging) as alternatives to “hard” defences.</p>
PU14: The Weirs to Haw Bridge	<p>For this process unit research and monitoring would relate mainly to the management of the fluvial catchment and the control of fluvial flooding. This is likely to involve ongoing assessment of the influence of tidal levels on the discharge of extreme fluvial flows, and the need, if any, for adaptation of river management measures in response to predicted changes in weather patterns and relative sea level rise.</p>
PU15: New Passage to Portishead	<p>Remote sensing (LIDAR) surveys or other surveys of the channel margins and low water channel to assess changes to the intertidal slope, marsh and the backshore zone.</p> <p>Monitoring and interpretation of the shoreline evolution, in particular changes in the saltmarsh frontage.</p>
PU16: River Avon	<p>The EA Tidal Defence Survey (MRM, 1992) also includes a brief appraisal of those river bank and structures which are not formally categorised as tidal defences. It is recommended that a formal survey of these defences and related assets is carried out with the co-operation of the local authorities, rail track operators and riparian owners, so as to establish a comprehensive record of the defences, ownership, condition and responsibilities on the Avon.</p> <p>Monitor the foreshore and bathymetry within the mouth of the River Avon, and assess the relationship between sedimentation and dredging activities in this unit and the adjacent process unit 15, to contribute to the assessment of management regimes and to the record of shoreline evolution.</p>
PU17: Portishead to Clevedon	<p>Monitoring of foreshore levels, to contribute to the recording and assessment of shoreline evolution.</p>
PU18: Kingston	<p>Remote sensing (LIDAR) surveys of the channel margins and low water channel to assess changes to the intertidal slope, marsh and the backshore zone.</p>



Process Unit (PU)	Recommended Activities (taken from the SMP1, 2000)
Seymour	Monitoring and interpretation of shoreline evolution, in particular the changes in the saltmarsh frontage.
PU19: Middle Hope	<b><i>Monitoring of cliff erosion rates.</i></b>
PU20: Sand Bay	Seasonal and annual monitoring of the foreshore levels as part of the data gathering for foreshore management within Sand Bay. <b><i>Develop understanding of non-cohesive sediment movement within Sand Bay to assess natural sediment pathways. This would assist the development of a foreshore management strategy and assessment of the need for intervention in the transport process to maintain the beach and the dunes.</i></b>
PU21: Weston Bay	<b><i>Seasonal and annual monitoring of the foreshore levels as part of the data gathering for foreshore management within Weston Bay.</i></b> Develop understanding of non-cohesive sediment movement within Weston Bay to assess natural sediment pathways. This would assist the development of a foreshore management strategy and assessment of the need for intervention in the transport process to maintain the beach and the dunes.
PU22: The Holms	Monitoring the rates of erosion of the shoreline.

### 3. SMP2 Actions

The following tables set out the identified actions for the SMP2. Actions have been divided into those that are relevant across the whole SMP2 area (overarching actions – **Table 3.1**) and those for each stretch of shoreline (**Policy Unit**) – **Tables 3.2 – 3.17**.

Many of the actions identified for a particular Policy Unit are the same as or similar to actions in other Policy Units. In order to make sure that all the actions that are relevant are included in the Policy Unit, every time an action is needed it has been recorded. This has led to repetition in **Tables 3.2 – 3.17**.

Table number	SMP2 Theme Area	SMP2 Management Unit	Council	Country
3.2	Penarth	PEN1	Vale of Glamorgan	Wales
		PEN2		
3.3	Cardiff	CAR1	Cardiff	
		CAR2		
		CAR3		
3.4	Wentlooge	WEN1	Newport	
		WEN2		
3.5	Newport & Usk	NEW1	Newport / Monmouthshire	
		NEW2		
		NEW3	Newport	
		NEW4 NEW5		
3.6	Caldicot	CALD1	Newport / Monmouthshire	
		CALD2	Monmouthshire	
		CALD3		
3.7	Chepstow & Wye	WYE1	Monmouthshire / Forest of Dean	Wales / England
		WYE2		
		WYE3	Forest of Dean	
		WYE4		
3.8	Tidenham & Villages	TID1	Forest of Dean	
		TID2		
3.9	Lydney	LYD1	Forest of Dean	
3.10	Lydney to Gloucester	GLO1		
		GLO2		
		GLO3		
		GLO4		
		GLO5		
		GLO6		
		GLO7		
		GLO8		
3.11	Gloucester to Haw Bridge	MAI1	Tewkesbury	
		MAI2		
		MAI3		
		MAI4	Gloucester City	
		MAI5		
		MAI6		
3.12	Gloucester to	SHAR1	Stroud	

Table number	SMP2 Theme Area	SMP2 Management Unit	Council	Country
	Sharpness	SHAR2		
		SHAR3		
		SHAR4		
		SHAR5		
		SHAR6		
		SHAR7		
		SHAR8		
		3.13		
SEV2				
SEV3	South Gloucestershire			
SEV4				
SEV5				
SEV6				
3.14	Severnside, Bristol & Avon	BRIS1	South Gloucestershire / Bristol City	
		BRIS2		
		BRIS3	Bristol City	
		BRIS4		
		BRIS5	Bristol City / North Somerset	
		BRIS6		
3.15	Portishead & Clevedon	PORT1	North Somerset	
		PORT2		
		PORT3		
		PORT4		
3.16	Kingston Seymour to Sand Bay	KIN1		
		KIN2		
		KIN3		
		KIN4		
3.17	The Holms	HOL1	Cardiff	Wales
		HOL2	North Somerset	England

The actions included in this Action Plan are considered to be both important and achievable. The inclusion of actions in this Action Plan does not guarantee that they will be undertaken or that funding will be available.

Funding for flood and erosion risk management measures comes from a range of organisations, including central government, local authorities, the Environment Agency and landowners; and from a range of funding 'pots'. Managing flood and erosion risk can be very expensive and actions may need to be funded for a long time – flood warnings need to be made whenever there is a risk of flooding; flood defences need to be built and maintained; and natural defences such as dunes and salt marshes need to be managed and monitored. Funding for managing flood and erosion risk is limited and individual flood defence schemes, management actions and awareness raising programmes compete for these limited funds. It is not possible to fund everything and prioritisation of management measures is necessary.

Sources of funding over and above existing sources are unlikely to be available for the actions contained in this Action Plan.

**Key**

BAP	Biodiversity Action Plan
CCW	Countryside Council for Wales
CFMP	Catchment Flood Management Plan
DCWW	Dŵr Cymru Welsh Water
EA	Environment Agency
EAW	Environment Agency Wales
EH	English Heritage
EIA	Environmental Impact Assessment
GGAT	Glamorgan Gwent Archaeological Trust
IDB	Internal Drainage Board
NE	Natural England
NFCDD	National Flood Coastal Defence Database
PU	Policy Unit
SAC	Special Area of Conservation
SECG	Severn Estuary Coastal Group
SEFRMS	Severn Estuary Flood Risk Management Strategy
SMP	Shoreline Management Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
VoG	Vale of Glamorgan
WAG	Welsh Assembly Government

**Table 3.1 - Overarching actions**

Action no.	Action	Objective	Indicator	Lead partner	Other partners
1	Undertake a 'Future Estuary' study - wave monitoring data should be used	To determine the most appropriate boundary for the upstream extent of future SMPs. To consider how the changing upstream tidal extent may be affected by climate change	Study is complete. Report is produced	EA	SECG
2	Undertake a study of the impacts of storm surges on flood risk, including how climate change may alter storm surges	To better understand the risks posed by storm surges and where the risks are	Study is complete. Report is produced	EA/EAW	SECG members, WAG, Defra
3	Undertake a study of sediment transport mechanisms	To better understand the sediment budget in the Estuary	Study is complete. Report is produced	EA/EAW	SECG members
4	SECG members to create internal stakeholder groups / distribution lists for flood risk management	To improve the dissemination of flood risk information within SECG member organisations. To improve understanding of flood risk management issues within SECG member organisations	Internal stakeholder group / distribution list created in each SECG member organisation	SECG	SECG members
5	Continue stakeholder engagement post-SMP2	To improve stakeholder understanding of flood risk management. To improve stakeholder engagement in future flood and erosion plans.	Flood risk management issues included in SECG updates.	SECG	SECG members
6	SMP2 disseminated to all Local Authority planners	To improve planning officers / planning departments' awareness and understanding of the SMP2	All Local Authority planning departments have received a copy of the SMP2. All Local Authority planning departments have met with an SECG member to discuss the SMP2. All local authority development plans make reference to the SMP2	SECG	SECG members

Action no.	Action	Objective	Indicator	Lead partner	Other partners
7	Regular engagement with town / parish councils	To improve stakeholder understanding of flood risk management. To improve stakeholder engagement in future flood and erosion plans.	SECG meets regularly every town / parish council in SECG area	SECG	SECG members
8	Ensure all stakeholder engagement material is produced in easy to understand format e.g. by using Plain English	To improve stakeholder understanding of flood risk management. To improve stakeholder engagement in future flood and erosion plans.	Published material, websites, etc. is in Plain English	SECG	SECG members
9	Make NFCDD data and Local Authority registers of defence information compatible and accessible to all relevant partners	To improve information flow on defences	SECG members are aware of the condition of all defences (their own and others')	SECG	EA, EAW, WAG, Wales Coastal Monitoring Centre
10	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	EA/EAW	Local Authorities, IDBs, Defra, WAG
11	Ensure a habitat creation plan is developed and implemented to replace EU protected habitats lost through coastal erosion. This should take account of losses to supporting habitat or terrestrial and freshwater habitats lost as a result of creating new intertidal habitat.	To ensure the integrity, structure and function of EU protected sites and the species they support. To achieve the conservation objectives for the site.	Habitat creation plan is produced. Compensatory habitat is secured and created through management actions.	EA/EAW CCW/NE	WAG, Defra, IDBs, Local Authorities, land owners
12	Review new legislation, policies, etc. of relevance to flood and erosion risk management as and when they are published.	To determine if there is a need to update / amend the SMP2.	Plans are reviewed / SMP2 is updated as appropriate. SECG should consider making a statement regarding each new policy / piece of legislation and its effect (or otherwise) on the SMP2	SECG	WAG, Defra, IDBs, Local Authorities, CCW, NE

Action no.	Action	Objective	Indicator	Lead partner	Other partners
13	Review updates to climate change and / or sea level rise predictions as and when they are published	To determine if there is a need to update / amend the SMP2	Plans are reviewed / SMP2 is updated as appropriate. SECG should consider making a statement regarding new predictions and their effect (or otherwise) on the SMP2	SECG	WAG, Defra, IDBs, Local Authorities, CCW, NE
14	Bristol Channel Strategic Coastal Group to consider strategic priorities and funding for actions within this Action Plan and others within the Severn Estuary / Bristol Channel	To prioritise and work co-operatively to achieve the actions in this and other Bristol Channel SMP2 Action Plans. This may include the development of a delivery plan for actions	Actions are prioritised. Funding sources are identified. Ultimately, actions are achieved.	BCSCG	SECG, ND&SCG, South Wales Coastal Group
15	Review SMP and Action Plan based on feedback and comments gathered during the sign off process	To determine if there is a need to update / amend the SMP2 or the Action Plan	SMP2 and Action Plan is updated as appropriate.	SECG	WAG, Defra, IDBs, Local Authorities, CCW, NE
16	Undertake research to better understand the role that habitat outside the SPA / Ramsar plays in supporting the bird species and populations for which the site has been designated.	Better understanding of the importance and role of supporting habitat outside the designated sites	Study is complete. Report is produced	EAWAG	NE, CCW, EAW
17	Undertake an analysis of the ecological context of the proposed habitat creation sites in relation to the areas where habitat will be lost - supports Actions 11 and 15	Better understanding of the suitability of the proposed habitat creation sites in ensuring the integrity, structure and function of the EU protected sites.	Study is complete. Report is produced	EAWAG	NE, CCW, EAW
18	Monitor the amount and type of habitats lost and created - links to Action 11	To ensure the integrity, structure and function of EU protected sites and the species they support. To achieve the conservation objectives for the site.	Monitoring system is created and maintained. Reports are regularly produced on 'habitat balance'	EAWAG	NE, CCW, EAW
19	Monitor habitat creation sites - links to Actions 11, 17 and 18	To ensure that habitat is created as predicted and / or that management is appropriate to create habitat similar to that lost.	Monitoring system is created and maintained. Reports are regularly produced on the progress of each habitat creation site	EA	WAG, NE, CCW, EAW

Table 3.2 – Penarth (PEN)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
1.1	PEN1	Vale of Glamorgan	Wales	Put in place monitoring programme of erosion rates and beach levels	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre	Monitoring data is collected	VoG	EAW, WAG	Swansea & Carms SMP2
1.2	PEN1	Vale of Glamorgan	Wales	Identify how the Wales Coastal path will be re-routed (links to a1)	Wales Coastal Path remains operational as shoreline evolves	Coastal path is operational	VoG	EAW, WAG, CCW	Swansea & Carms SMP2
1.3	PEN1	Vale of Glamorgan	Wales	Engage with GGAT / Cadw on integrating historic environment into beach monitoring	Historic environment finds are notified to GGAT / Cadw	Historic environment data is collected	VoG	GGAT, Cadw	Swansea & Carms SMP2
1.4	PEN1	Vale of Glamorgan	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmores-Tawe CFMP - PU12
1.5	PEN1	Vale of Glamorgan	Wales	Carry out a study to determine the historic environment features at risk of flooding and erosion. Develop a risk based action plan	To manage the risk of flooding and erosion to historic environment assets	Survey undertaken. Report produced. Action plan developed	GGAT	Cadw	
1.6	PEN2	Vale of Glamorgan	Wales	Put in place monitoring programme of erosion rates and beach levels	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre	Monitoring data is collected	VoG	EAW, WAG	Swansea & Carms SMP2



Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
1.7	PEN2	Vale of Glamorgan	Wales	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	Defence owner	EAW, CCW, VoG	SEFRMS, Swansea & Carmarthen SMP2
1.8	PEN2	Vale of Glamorgan	Wales	Undertake economic assessment of the cost/benefit of replacing defences	To provide more scheme specific cost data	Report is produced	Defence owner	EAW, CCW, VoG	
1.9	PEN2	Vale of Glamorgan	Wales	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	Defence owner	EAW, CCW, VoG, GGAT	SAC Regulation 33 advice, SSSI management plans, BAP management plans
1.10	PEN2	Vale of Glamorgan	Wales	Identify flood risk management actions to help businesses / residents cope with the results of increasing wave overtopping	Businesses / residents are aware of the risks from overtopping. Businesses / residents are aware of warning systems. Businesses / residents are aware of actions they can take to reduce the consequences of overtopping	Damage from overtopping events is limited.	VoG	EAW, WAG	SEFRMS, Ogmores-Tawe CFMP - PU12
1.11	PEN2	Vale of Glamorgan	Wales	Undertake a study of the risks of climate change, flooding and erosion to the Pier	To better understand the risks to the Pier and develop an appropriate action plan	Study is undertaken. Action plan is produced	VoG	GGAT, Cadw	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
1.12	PEN2	Vale of Glamorgan	Wales	Identify how the Wales Coastal path will be re-routed (links to knowing rate of erosion)	Wales Coastal Path remains operational as shoreline evolves	Coastal path is operational	VoG	EAW, WAG	
1.13	PEN2	Vale of Glamorgan	Wales	Engage with GGAT / Cadw on integrating historic environment into beach monitoring	Historic environment finds are notified to GGAT / Cadw	Historic environment data is collected	VoG	GGAT, Cadw	
1.14	PEN2	Vale of Glamorgan	Wales	Engage with GGAT / Cadw on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	Defence owner	GGAT, Cadw	
1.15	PEN2	Vale of Glamorgan	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmores-Tawe CFMP - PU12
1.16	PEN2	Vale of Glamorgan	Wales	Carry out a study to determine the historic environment features at risk of flooding and erosion. Develop a risk based action plan	To manage the risk of flooding and erosion to historic environment assets.	Survey undertaken. Report produced. Action plan developed	GGAT	Cadw	

Table 3.3 – Cardiff (CAR)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
2.1	CAR1	Cardiff City	Wales	Encourage Cardiff Harbour Authority to undertake an assessment of climate change impacts on the operation and performance of Cardiff Barrage taking account of the impacts on flood risk management. The costs of maintaining the Barrage should be included in any investigation.	To better understand the impact of climate change on the Cardiff Barrage and operation	Report is produced	EAW - CFMP	Cardiff Harbour Authority	Taff-Ely CFMP - PU8, action 17
2.2	CAR1	Cardiff City	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Cardiff Council	EAW	SEFRMS, Taff-Ely CFMP - PU8, action 2
2.3	CAR1	Cardiff City	Wales	Carry out a study to determine the effects (if any) of the Cardiff Barrage on sediment transport in adjacent units (SMP1 recommendation).	To better understand the impact of the Cardiff Barrage on sediment dynamics in the area	Report is produced	Cardiff Harbour Authority	EAW, Cardiff Council	SEFRMS, Taff-Ely CFMP - PU8, action 9
2.4	CAR1	Cardiff City	Wales	Ensure environmental issues are taken into account in the management of the Cardiff Barrage. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	Cardiff Harbour Authority	EAW, CCW, GGAT	SAC Regulation 33 advice, SSSI management plans, BAP management plans
2.5	CAR1	Cardiff City	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmores-Tawe CFMP - PU12

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
2.6	CAR2	Cardiff City	Wales	Encourage Network Rail to undertake an assessment of the current and future risks and resilience to flooding of the railway line. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the rail network and how they can be managed	Report is produced. Plans / actions developed	EAW	Network Rail	
2.7	CAR2	Cardiff City	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Cardiff Council	EAW	SEFRMS, Taff-Ely CFMP - PU8, action 2
2.8	CAR2	Cardiff City	Wales	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EA - SEFRMS	CCW, Cardiff Council, IDBs	SEFRMS
2.9	CAR2	Cardiff City	Wales	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	Defence owner	EAW, CCW, Cardiff Council	SAC Regulation 33 advice, SSSI management plans, BAP management plans
2.10	CAR2	Cardiff City	Wales	Engage with GGAT / Cadw on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	Defence owner	GGAT, Cadw	
2.11	CAR2	Cardiff City	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Cardiff Council	EAW	SEFRMS, Taff-Ely CFMP - PU8, action 2

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
2.12	CAR2	Cardiff City	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmores-Tawe CFMP - PU12
2.13	CAR3	Cardiff City	Wales	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EA - SEFRMS	EAW, CCW, Cardiff Council, IDBs	SEFRMS
2.14	CAR3	Cardiff City	Wales	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	Defence owner	EAW, CCW, Cardiff Council	SAC Regulation 33 advice, SSSI management plans, BAP management plans
2.15	CAR3	Cardiff City	Wales	Engage with GGAT / Cadw on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	Defence owner	GGAT, Cadw	
2.16	CAR3	Cardiff City	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Cardiff Council	EAW	SEFRMS, Taff-Ely CFMP - PU8, action 2
2.17	CAR3	Cardiff City	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmores-Tawe CFMP - PU12

Table 3.4 – Wentlooge (WEN)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
3.1	WEN1	Cardiff City	Wales	Undertake research involving stakeholders to identify where (and when) MR could take place within the Policy Unit in the medium and longer terms. Study should look at minor, staged and larger, long term MR options	To identify areas of MR that can be practically implemented. To involve stakeholders and landowners in the management process	Stakeholders / landowners are aware of the need and reasons for MR. Stakeholders / landowners are involved in the process to identify areas for MR. Areas for MR that can be implemented are identified.	EAW - SEFRMS	CCW, Cardiff Council, IDB, GGAT, stakeholders	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans
3.2	WEN1	Cardiff City	Wales	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed. This should consider if there are opportunities for MR	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EAW - SEFRMS	EAW, CCW, Cardiff Council, IDBs	SEFRMS
3.3	WEN1	Cardiff City	Wales	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EAW	EAW, CCW, Cardiff Council	SAC Regulation 33 advice, SSSI management plans, BAP management plans
3.4	WEN1	Cardiff City	Wales	Engage with GGAT / Cadw on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EAW	GGAT, Cadw	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
3.5	WEN1	Cardiff City	Wales	Put in place monitoring programme of erosion rates and salt marsh levels/extent	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre, habitat creation needs, SAC management	Monitoring data is collected	EAW	CCW, WAG	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans
3.6	WEN1	Cardiff City	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Cardiff Council	EAW	
3.7	WEN1	Cardiff City	Wales	Work with private defence owners to integrate private defences into the flood management strategy for the area	To integrate private defences into the overall flood and erosion strategy and ensure all defences are appropriately monitored and maintained	Private defence owners are aware of the flood and erosion risk management actions. EAW is aware of the state and standard of private defences. All defences work together in an integrated manner	EAW	Private defence owners, IDBs	SEFRMS

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
3.8	WEN1	Cardiff City	Wales	Encourage Network Rail to undertake an assessment of the current and future risks and resilience to flooding of the railway line. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the rail network and how they can be managed	Report is produced. Plans / actions developed	EAW	Network Rail	
3.9	WEN1	Cardiff City	Wales	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EAW	Western Power Distribution, DCWW	
3.10	WEN1	Cardiff City	Wales	Identify how the Wales Coastal path could be re-routed under MR options	Wales Coastal Path remains operational as shoreline evolves	Coastal path is operational	Cardiff Council	EAW, WAG, CCW	
3.11	WEN1	Cardiff City	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmores-Tawe CFMP - PU12
3.12	WEN1	Cardiff City	Wales	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed. This should consider opportunities for MR	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created. Areas for MR identified (if appropriate)	EAW - SEFRMS	EAW, CCW, Newport Council, IDBs, GGAT	SEFRMS



Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
3.13	WEN1	Cardiff City	Wales	Undertake research involving stakeholders to identify where (and when) MR could take place within the Policy Unit in the medium and longer terms. Study should look at minor, staged and larger, long term MR options	To identify areas of MR that can be practically implemented. To involve stakeholders and landowners in the management process	Stakeholders / landowners are aware of the need and reasons for MR. Stakeholders / landowners are involved in the process to identify areas for MR. Areas for MR that can be implemented are identified.	EAW - SEFRMS	CCW, Newport Council, IDB, GGAT, stakeholders	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans
3.14	WEN2	Newport	Wales	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EAW	CCW, Newport Council	SAC Regulation 33 advice, SSSI management plans, BAP management plans
3.15	WEN2	Newport	Wales	Engage with GGAT / Cadw on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EAW	GGAT, Cadw	
3.16	WEN2	Newport	Wales	Put in place monitoring programme of erosion rates and salt marsh levels/extent	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre, habitat creation needs, SAC management	monitoring data is collected	EAW	CCW, WAG	FRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
3.17	WEN2	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Cardiff Council	EAW	
3.18	WEN2	Newport	Wales	Encourage Network Rail to undertake an assessment of the current and future risks and resilience to flooding of the railway line. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the rail network and how they can be managed	Report is produced. Plans / actions developed	EAW	Network Rail	
3.19	WEN2	Newport	Wales	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EAW	Western Power Distribution, DCWW	
3.20	WEN2	Newport	Wales	Assess the impacts of hard defences (revetments and return walls) on the fronting saltmarsh (SMP1 recommendation).	To better understand the risks to saltmarsh of hard engineered defences	Report is produced	EAW	CCW, Cardiff Council, IDB	FRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
3.21	WEN2	Newport	Wales	Monitor attempts to recreate saltmarsh colonisation along the Rhymney frontage and trials of other potential mechanisms for habitat creation (SMP1 recommendation).	To better understand effectiveness of saltmarsh creation/colonisation programmes.	Monitoring data is collected / Report is produced	EAW	CCW, Cardiff Council, IDB	FRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans
3.22	WEN2	Newport	Wales	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	WAG	EAW, IDB	
3.23	WEN2	Newport	Wales	Identify how the Wales Coastal path could be re-routed under MR options	Wales Coastal Path remains operational as shoreline evolves	Coastal path is operational	LA	EAW, WAG, CCW	
3.24	WEN2	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmores-Tawe CFMP - PU12

Table 3.5 - Newport & Usk (NEW)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
4.1	NEW1	Newport	Wales	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EAW - SEFRMS	EAW, CCW, Newport Council, IDBs	SEFRMS, Wye and Usk CFMP - PU7, actions 5, 9, Newport Flood Risk Strategy
4.2	NEW1	Newport	Wales	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EAW	EAW, CCW, Newport Council	SAC Regulation 33 advice, SSSI management plans, BAP management plans
4.3	NEW1	Newport	Wales	Engage with GGAT / Cadw on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EAW	GGAT, Cadw	SEFRMS, Newport Flood Risk Strategy
4.4	NEW1	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Newport Council	EAW	SEFRMS, Newport Flood Risk Strategy, Wye and Usk CFMP - PU7, action 6, planning documents
4.5	NEW1	Newport	Wales	Undertake survey and modelling of the channel and sediment dynamics	To determine more accurately whether Policy Unit boundaries in the estuary are correct	Report produced / recommendations made	EAW	Newport Council	SEFRMS, future SMPs

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
4.6	NEW1	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmore-Tawe CFMP - PU12
4.7	NEW2	Newport	Wales	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EAW - SEFRMS	EAW, CCW, Newport Council	SEFRMS, Wye and Usk CFMP - PU7, actions 5, 9, Newport Flood Risk Strategy
4.8	NEW2	Newport	Wales	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EAW	EAW, CCW, Newport Council	SAC Regulation 33 advice, SSSI management plans, BAP management plans
4.9	NEW2	Newport	Wales	Engage with GGAT / Cadw on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EAW	GGAT, Cadw	SAC Regulation 33 advice, SSSI management plans, BAP management plans
4.10	NEW2	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Newport Council	EAW	SEFRMS, Newport Flood Risk Strategy, Wye and Usk CFMP - PU7, action 6, planning documents

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
4.11	NEW2	Newport	Wales	Undertake survey and modelling of the channel and sediment dynamics	To determine more accurately whether Policy Unit boundaries in the estuary are correct	Report produced / recommendations made	EAW	Newport Council	SEFRMS, future SMPs
4.12	NEW2	Newport	Wales	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EAW	Western Power Distribution, DCWW	
4.13	NEW2	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmore-Tawe CFMP - PU12
4.14	NEW3	Newport	Wales	Make landowners, residents, etc. aware of the likely flood risks in the future.	Businesses / residents are aware of the risks from flooding		EAW	Newport Council, IDBs	SEFRMS, Wye and Usk CFMP - PU7, actions 7, 8
4.15	NEW3	Newport	Wales	Identify flood risk management actions to help landowners / residents cope with the results of increased flooding	Businesses / residents are aware of warning systems. Businesses / residents are aware of actions they can take to reduce the consequences of flooding	Impacts of flooding events is limited.	EAW	Newport Council, EAW, WAG, IDBs	SEFRMS, Wye and Usk CFMP - PU7, actions 7, 8, 13, 14

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
4.16	NEW3	Newport	Wales	Assess historic environment assets at risk and develop a plan to respond appropriately to the risks	To better understand the historic environment assets at risk. To better plan for the management of historic environment assets at risk.	Historic assets at risk register (or similar) and action plan is produced	GGAT	Cadw, Newport Council, EAW	SEFRMS, Newport Flood Risk Strategy
4.17	NEW3	Newport	Wales	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EAW	Western Power Distribution, DCWW	
4.18	NEW3	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Newport Council	EAW	SEFRMS, Newport Flood Risk Strategy, Wye and Usk CFMP - PU7, action 6, planning documents
4.19	NEW3	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmore-Tawe CFMP - PU12
4.20	NEW4	Newport	Wales	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EAW - SEFRMS	EAW, CCW, LA	SEFRMS, Wye and Usk CFMP - PU7, actions 5, 9, Newport Flood Risk

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
									Strategy
4.21	NEW4	Newport	Wales	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EAW	EAW, CCW, LA	SAC Regulation 33 advice, SSSI management plans, BAP management plans
4.22	NEW4	Newport	Wales	Engage with GGAT / Cadw on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EAW	GGAT, Cadw	
4.23	NEW4	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	LA	EAW	SEFRMS, Newport Flood Risk Strategy, Wye and Usk CFMP - PU7, action 6, planning documents
4.24	NEW4	Newport	Wales	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EAW	Western Power Distribution, DCWW	



Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				appropriate.					
4.25	NEW4	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmore-Tawe CFMP - PU12
4.26	NEW5	Newport	Wales	Seasonal and annual monitoring of the foreshore levels at Uskmouth (SMP1 recommendation)	Better understanding of erosion / accretion levels	Monitoring data is collected	EAW	Newport Council, IDBs	SEFRMS, future SMPs
4.27	NEW5	Newport	Wales	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EAW - SEFRMS	EAW, CCW, LA	SEFRMS, Wye and Usk CFMP - PU7, actions 5, 9, Newport Flood Risk Strategy
4.28	NEW5	Newport	Wales	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EAW	EAW, CCW, LA	SAC Regulation 33 advice, SSSI management plans, BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
4.29	NEW5	Newport	Wales	Engage with GGAT / Cadw on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EAW	GGAT, Cadw	
4.30	NEW5	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	LA	EAW	SEFRMS, Newport Flood Risk Strategy, Wye and Usk CFMP - PU7, action 6, planning documents
4.31	NEW5	Newport	Wales	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EAW	Western Power Distribution, DCWW	
4.32	NEW5	Newport	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmore-Tawe CFMP - PU12

Table 3.6 - Caldicot Levels (CALD)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
5.1	CALD1	Newport / Monmouthshire	Wales	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed. This should consider if there are opportunities for MR	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EAW - SEFRMS	EAW, CCW, Newport Council, Monmouthshire Council, IDB	SEFRMS, Wye and Usk CFMP - PU2, action 3, 4
5.2	CALD1	Newport / Monmouthshire	Wales	Undertake research involving stakeholders to identify where (and when) MR could take place within the Policy Unit in the medium and longer terms. Study should look at minor, staged and larger, long term MR options	To identify areas of MR that can be practically implemented. To involve stakeholders and landowners in the management process	Stakeholders / landowners are aware of the need and reasons for MR. Stakeholders / landowners are involved in the process to identify areas for MR. Areas for MR that can be implemented are identified.	EAW	CCW, Newport Council, Monmouthshire Council, IDB, GGAT, stakeholders	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans
5.3	CALD1	Newport / Monmouthshire	Wales	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EAW	EAW, CCW, LA	SAC Regulation 33 advice, SSSI management plans, BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
5.4	CALD1	Newport / Monmouthshire	Wales	Engage with GGAT / Cadw on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EAW	GGAT, Cadw	
5.5	CALD1	Newport / Monmouthshire	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Newport Council / Monmouthshire Council	EAW	SEFRMS, Local Flood Risk Strategy, Wye and Usk CFMP - PU2, action 1, planning documents
5.6	CALD1	Newport / Monmouthshire	Wales	Identify how the Wales Coastal path may be re-routed under MR	Wales Coastal Path remains operational as shoreline evolves	coastal path is operational	Newport Council / Monmouthshire Council	EAW, WAG, CCW	
5.7	CALD1	Newport / Monmouthshire	Wales	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EAW	Western Power Distribution, DCWW	
5.8	CALD1	Newport / Monmouthshire	Wales	Put in place monitoring programme of erosion rates and salt marsh levels/extent	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre, habitat creation needs, SAC	Monitoring data is collected	EAW	EAW, CCW, WAG	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
					management				plans, Regional Habitat plans
5.9	CALD1	Newport / Monmouthshire	Wales	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	WAG	EAW, IDB	
5.10	CALD1	Monmouthshire	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmore-Tawe CFMP - PU12
5.11	CALD2	Monmouthshire	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Monmouthshire Council	EAW	SEFRMS, Local Flood Risk Strategy, Wye and Usk CFMP - PU2, action 1, planning documents
5.12	CALD3	Monmouthshire	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Monmouthshire Council	EAW	SEFRMS, Local Flood Risk Strategy, Wye and Usk CFMP - PU2, action 1, planning documents

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
5.13	CALD3	Monmouthshire	Wales	Put in place monitoring programme of erosion rates and salt marsh levels/extent	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre, habitat creation needs, SAC management	monitoring data is collected	EAW	EAW, CCW, WAG	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans
5.14	CALD3	Monmouthshire	Wales	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	WAG	EAW, IDB	
5.15	CALD3	Monmouthshire	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	VoG	EAW	SEFRMS, Ogmores-Tawe CFMP - PU12

Table 3.7 - Chepstow & Wye (WYE)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
6.1	WYE1	Monmouthshire	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Monmouthshire Council	EAW	SEFRMS, Local Flood Risk Strategy, Wye and Usk CFMP - PU1, action 1, planning documents
6.2	WYE1	Monmouthshire	Wales	Undertake economic assessment of the cost/benefit of replacing defences	To provide more scheme specific cost data	Report is produced	Defence owner	EAW, Monmouths hire Council	
6.3	WYE1	Monmouthshire	Wales	Make landowners, residents, etc. aware of the likely flood risks in the future.	Businesses / residents are aware of the risks from flooding		EAW	Monmouths hire Council, IDBs	SEFRMS, Wye and Usk CFMP - PU7, actions 7, 8
6.4	WYE1	Monmouthshire	Wales	Identify flood risk management actions to help landowners / residents cope with the results of increased flooding	Businesses / residents are aware of warning systems. Businesses / residents are aware of actions they can take to reduce the consequences of flooding	Impacts of flooding events are limited.	EAW	Monmouths hire Council, EAW, WAG, IDBs	SEFRMS, Wye and Usk CFMP - PU7, actions 7, 8, 13, 14
6.5	WYE1	Monmouthshire	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Monmouthshire Council	EAW	SEFRMS, Ogmores-Tawe CFMP - PU12

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
6.6	WYE2	Monmouthshire / Forest of Dean	Wales / England	SMP2 is taken into account in Strategic Flood Consequence Assessments / Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Monmouthshire Council / Forest of Dean District Council	EAW, EA	SEFRMS, Local Flood Risk Strategy, Wye and Usk CFMP - PU4, action 2, planning documents
6.7	WYE2	Monmouthshire / Forest of Dean	Wales / England	Undertake economic assessment of the cost/benefit of replacing defences	To provide more scheme specific cost data	Report is produced	Defence owner	EAW, CCW, Monmouthshire Council, Forest of Dean District Council	Wye and Usk CFMP - PU4, action 5
6.8	WYE2	Monmouthshire / Forest of Dean	Wales / England	Make landowners, residents, etc. aware of the likely flood risks in the future.	Businesses / residents are aware of the risks from flooding		EAW / EA	Monmouth Council, Forest of Dean District Council	SEFRMS, Wye and Usk CFMP - PU4, actions 8, 9, 10
6.9	WYE2	Monmouthshire / Forest of Dean	Wales / England	Identify flood risk management actions to help landowners / residents cope with the results of increased flooding	Businesses / residents are aware of warning systems. Businesses / residents are aware of actions they can take to reduce the consequences of flooding	Impacts of flooding events are limited.	EAW / EA	Monmouthshire Council, Forest of Dean District Council, WAG, IDBs	SEFRMS, Wye and Usk CFMP - PU7, actions 8, 9, 10, 11, 12
6.10	WYE2	Monmouthshire / Forest of Dean	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments / Strategic Flood Risk Assessments for	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Monmouthshire Council	EAW	SEFRMS, Ogmores-Tawe CFMP - PU12



Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				Council development / land use plans					
6.11	WYE3	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy, Wye and Usk CFMP - PU1, action 1, planning documents
6.12	WYE4	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy, Wye and Usk CFMP - PU2, action 1, planning documents

**Table 3.8 - Tidenham & Surrounding Villages (TID)**

<b>Action no.</b>	<b>Policy Unit</b>	<b>Local Authority area</b>	<b>Country</b>	<b>Action</b>	<b>Objective</b>	<b>Indicator</b>	<b>Lead partner</b>	<b>Other partners</b>	<b>Links to other plans</b>
7.1	TID1	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy
7.2	TID1	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Western Power Distribution / Central Networks, DCWW / Severn Trent	
7.3	TID1	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2
7.4	TID2	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
7.5	TID2	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Western Power Distribution / Central Networks, DCWW / Severn Trent	
7.6	TID2	Forest of Dean	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	EA, NE, Forest of Dean District Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
7.7	TID2	Forest of Dean	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, IDB	
7.8	TID2	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2

Table 3.9 – Lydney (LYD)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
8.1	LYD1	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy
8.2	LYD1	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Western Power Distribution / Central Networks, DCWW / Severn Trent	
8.3	LYD1	Forest of Dean	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	EA, NE, Forest of Dean District Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
8.4	LYD1	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2

Table 3.10 - Lydney to Gloucester (GLO)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
9.1	GLO1	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy
9.2	GLO1	Forest of Dean	England	Encourage Network Rail to undertake an assessment of the current and future risks and resilience to flooding of the railway line. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the rail network and how they can be managed	Report is produced. Plans / actions developed	EA	Network Rail	
9.3	GLO1	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
9.4	GLO1	Forest of Dean	England	Put in place monitoring programme of erosion rates	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre	Monitoring data is collected	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy
9.5	GLO1	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
9.6	GLO2	Forest of Dean	England	Identify where new MR defences will be, when they will be built and how they should be constructed	Reduce the risk of flood impacts to businesses / properties over the long term. Create new habitat. Improve flood plain / flood storage	New set back defences are created	EA - SEFRMS	NE, Forest of Dean District Council, IDB, stakeholders	SEFRMS, Local Flood Risk Strategy
9.7	GLO2	Forest of Dean	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	EA, NE, Forest of Dean District Council	SAC Regulation 33 advice, SSSI management plans, BAP management plans
9.8	GLO2	Forest of Dean	England	Ensure environmental issues are taken into account in the design / construction of new defences	Environment is not damaged by flood defence construction	EIA is carried out	EA	NE, Forest of Dean District Council, IDB, stakeholders	SAC Regulation 33 advice, SSSI management plans, BAP management plans
9.9	GLO2	Forest of Dean	England	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EA	NE, Forest of Dean District Council, EH	
9.10	GLO2	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
9.11	GLO2	Forest of Dean	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, IDB, Forest of Dean District Council	
9.12	GLO2	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2
9.13	GLO2	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
9.14	GLO3	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy
9.15	GLO3	Forest of Dean	England	Encourage Network Rail to undertake an assessment of the current and future risks and resilience to flooding of the railway line. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the rail network and how they can be managed	Report is produced. Plans / actions developed	EA	Network Rail	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
9.16	GLO3	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2
9.17	GLO3	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
9.18	GLO4	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy
9.19	GLO4	Forest of Dean	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	Defence owner	EA, NE, Forest of Dean District Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans



Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
9.20	GLO4	Forest of Dean	England	Encourage Network Rail to undertake an assessment of the current and future risks and resilience to flooding of the railway line. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the rail network and how they can be managed	Report is produced. Plans / actions developed	EA	Network Rail	
9.21	GLO4	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2
9.22	GLO4	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
9.23	GLO5	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy
9.24	GLO5	Forest of Dean	England	Ensure environmental issues are taken into account in the management and maintenance of defences	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Forest of Dean District Council, EH	SSSI management plans, BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
9.25	GLO5	Forest of Dean	England	Study of the flood risks to Westbury Court Gardens from Westbury Brook	To better understand the risks of flooding to Westbury Court Gardens and take appropriate action	Report is produced. Plans / actions developed	National Trust	EA, NE, Forest of Dean District Council	
9.26	GLO5	Forest of Dean	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, IDB, Forest of Dean District Council	
9.27	GLO5	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2
9.28	GLO5	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
9.29	GLO6	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
9.30	GLO6	Forest of Dean	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, IDB, Forest of Dean District Council	
9.31	GLO6	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2
9.32	GLO6	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
9.33	GLO7	Forest of Dean	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Forest of Dean District Council, EH	Ramsar Site management, SSSI management plans, BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
9.34	GLO7	Forest of Dean	England	Investigate the feasibility of improving the condition of Walmore Common SSSI and increasing its size by reconnecting the river to the floodplain.	Improve the condition and connectivity of Walmore Common. Improve flood conveyance	Produce and implement a water level management plan	Natural England	EA, IDB, Forest of Dean District Council	SEFRMS, SSSI management plan, Ramsar site management, BAP management plans, Severn Tidal Tributaries CFMP - PU2
9.35	GLO7	Forest of Dean	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE	SEFRMS, SSSI management plan, Ramsar site management, BAP management plans, Severn Tidal Tributaries CFMP - PU2
9.36	GLO7	Forest of Dean	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, IDB, Forest of Dean District Council	
9.37	GLO7	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
9.38	GLO7	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
9.39	GLO8	Forest of Dean	England	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EA - SEFRMS	EAW, CCW, LA	SEFRMS, Local Flood Risk Strategy
9.40	GLO8	Forest of Dean	England	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EA	EA, NE, Forest of Dean District Council	BAP management plans
9.41	GLO8	Forest of Dean	England	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EA	NE, Forest of Dean District Council, EH	
9.42	GLO8	Forest of Dean	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Forest of Dean District Council	EA	SEFRMS, Local Flood Risk Strategy

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
9.43	GLO8	Forest of Dean	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, IDB, Forest of Dean District Council	
9.44	GLO8	Forest of Dean	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Forest of Dean District Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU2
9.45	GLO8	Forest of Dean	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	

Table 3.11 - Gloucester to Haw Bridge (MAI)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
10.1	MAI1	Tewkesbury	England	Identify where new MR defences will be, when they will be built and how they should be constructed	Reduce the risk of flood impacts to businesses / properties over the long term. Create new habitat. Improve flood plain / flood storage	New set back defences are created	EA - SEFRMS	NE, Tewkesbury Borough Council, IDB, stakeholders	SEFRMS, Local Flood Risk Strategy
10.2	MAI1	Tewkesbury	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Tewkesbury Borough Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
10.3	MAI1	Tewkesbury	England	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EA	NE, Tewkesbury Borough Council, IDB, stakeholders	SAC Regulation 33 advice, SSSI management plans, BAP management plans
10.4	MAI1	Tewkesbury	England	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EA	NE, Tewkesbury Borough Council, EH	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
10.5	MAI1	Tewkesbury	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Tewkesbury Borough Council	EA	SEFRMS, Local Flood Risk Strategy
10.6	MAI1	Tewkesbury	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE	SEFRMS, SSSI management plan, Ramsar site management, BAP management plans, Severn Tidal Tributaries CFMP - PU3
10.7	MAI1	Tewkesbury	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Tewkesbury Borough Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU3
10.8	MAI1	Tewkesbury	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, IDB, Tewkesbury Borough Council	
10.9	MAI1	Tewkesbury	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE	SEFRMS, SSSI management plan, Ramsar site management, BAP management plans, Severn



Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
									Tidal Tributaries CFMP - PU3
10.10	MAI1	Tewkesbury	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
10.11	MAI2	Tewkesbury	England	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood impacts to businesses / properties over the long term. Create new habitat. Improve flood plain / flood storage	New set back defences are created	EA - SEFRMS	NE, Tewkesbury Borough Council, IDB, stakeholders	SEFRMS, Local Flood Risk Strategy
10.12	MAI2	Tewkesbury	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Tewkesbury Borough Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				birds					
10.13	MAI2	Tewkesbury	England	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EA	NE, Tewkesbury Borough Council, IDB, stakeholders	SAC Regulation 33 advice, SSSI management plans, BAP management plans
10.14	MAI2	Tewkesbury	England	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EA	NE, Tewkesbury Borough Council, EH	
10.15	MAI2	Tewkesbury	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Tewkesbury Borough Council	EA	SEFRMS, Local Flood Risk Strategy
10.16	MAI2	Tewkesbury	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE	SEFRMS, SSSI management plan, Ramsar site management, BAP management plans, Severn Tidal

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
									Tributaries CFMP - PU3
10.17	MAI2	Tewkesbury	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Tewkesbury Borough Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU3
10.18	MAI2	Tewkesbury	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, IDB, Tewkesbury Borough Council	
10.19	MAI2	Tewkesbury	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
10.20	MAI3	Tewkesbury	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Tewkesbury Borough Council	EA	SEFRMS, Local Flood Risk Strategy

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
10.21	MAI3	Tewkesbury	England	Make landowners, residents, etc. aware of the likely flood risks in the future.	Landowners / residents are aware of the risks from flooding		EA	Tewkesbury Borough Council, IDBs	SEFRMS, Severn Tidal Tributaries CFMP - PU3
10.22	MAI3	Tewkesbury	England	Identify flood risk management actions to help landowners / residents cope with the results of increased flooding	Landowners / residents are aware of warning systems. Landowners / residents are aware of actions they can take to reduce the consequences of flooding	Impacts of flooding events are limited.	EA	Tewkesbury Borough Council, IDBs	SEFRMS, Severn Tidal Tributaries CFMP - PU3
10.23	MAI3	Tewkesbury	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Tewkesbury Borough Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU3
10.24	MAI3	Tewkesbury	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, IDB, Tewkesbury Borough Council	
10.25	MAI3	Tewkesbury	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE	SEFRMS, SSSI management plan, Ramsar site management, BAP management plans, Severn Tidal Tributaries CFMP - PU3

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
10.26	MAI3	Gloucester	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
10.27	MAI4	Gloucester	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	EA, NE, Gloucester City Council	SAC Regulation 33 advice, SSSI management plans, BAP management plans
10.28	MAI4	Gloucester	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Gloucester City Council	EA	SEFRMS, Local Flood Risk Strategy
10.29	MAI4	Gloucester	England	Make landowners, residents, etc. aware of the likely flood risks in the future.	Landowners / residents are aware of the risks from flooding		EA	Gloucester City Council, IDBs	SEFRMS, Severn Tidal Tributaries CFMP - PU3

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
10.30	MAI4	Gloucester	England	Identify flood risk management actions to help landowners / residents cope with the results of increased flooding	Landowners / residents are aware of warning systems. Landowners / residents are aware of actions they can take to reduce the consequences of flooding	Impacts of flooding events are limited.	EA	Gloucester City Council, IDBs	SEFRMS, Severn Tidal Tributaries CFMP - PU3
10.31	MAI4	Gloucester	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Gloucester City Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU3
10.32	MAI4	Gloucester	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Gloucester City Council, IDBs	
10.33	MAI4	Gloucester	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE	SEFRMS, SSSI management plan, Ramsar site management, BAP management plans, Severn Tidal Tributaries CFMP - PU3

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
10.34	MAI4	Gloucester	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
10.35	MAI5	Gloucester	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	EA, NE, Gloucester City Council	SAC Regulation 33 advice, SSSI management plans, BAP management plans
10.36	MAI5	Gloucester	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Gloucester City Council	EA	SEFRMS, Local Flood Risk Strategy
10.37	MAI5	Gloucester	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Gloucester City Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU3

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
10.38	MAI5	Gloucester	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Gloucester City Council, IDBs	
10.39	MAI5	Gloucester	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE	SEFRMS, SSSI management plan, Ramsar site management, BAP management plans, Severn Tidal Tributaries CFMP - PU3
10.40	MAI5	Gloucester	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
10.41	MAI6	Gloucester	England	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood impacts to businesses / properties over the long term. Create new habitat. Improve flood plain / flood storage	New set back defences are created	EA - SEFRMS	NE, Gloucester City Council, IDB, stakeholders	SEFRMS, Local Flood Risk Strategy



Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
10.42	MAI6	Gloucester	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	EA, NE, Gloucester City Council	SAC Regulation 33 advice, SSSI management plans, BAP management plans
10.43	MAI6	Gloucester	England	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EA	NE, Gloucester City Council, IDB, stakeholders	SAC Regulation 33 advice, SSSI management plans, BAP management plans
10.44	MAI6	Gloucester	England	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EA	NE, Gloucester City Council, EH	
10.45	MAI6	Gloucester	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Gloucester City Council	EA	SEFRMS, Local Flood Risk Strategy
10.46	MAI6	Gloucester	England	Investigate the methods to improve the quality and availability of NFCDD data	Improve NFCDD data available for all flood management planning and actions	NFCDD data is up to date and used	EA	Gloucester City Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
									CFMP - PU3
10.47	MAI6	Gloucester	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Gloucester City Council, IDBs	
10.48	MAI6	Gloucester	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	

Table 3.12 - Gloucester to Sharpness (SHAR)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
11.1	SHAR1	Stroud	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Stroud District Council, EH	BAP management plans
11.2	SHAR1	Stroud	England	Undertake research to identify where new MR defences should be (for construction in 20-50 epoch). Stakeholders should be involved in the discussions	To identify areas of MR that can be practically implemented. To involve stakeholders and landowners in the process	Stakeholders / landowners are aware of the need and reasons for MR. Stakeholders / landowners are involved in the process to identify areas for MR. Areas for MR that can be implemented are identified.	EA - SEFRMS	NE, Stroud District Council, IDB, EH, stakeholders	SEFRMS, Local Flood Risk Strategies, BAP management plans, Severn Tidal Tributaries CFMP - PU2
11.3	SHAR1	Stroud	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council	EA	SEFRMS, Local Flood Risk Strategy
11.4	SHAR1	Stroud	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council, IDBs	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
11.5	SHAR1	Stroud	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE, Stroud District Council, IDB, stakeholders	SEFRMS, BAP management plans, Severn Tidal Tributaries CFMP - PU2
11.6	SHAR1	Stroud	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
11.7	SHAR2	Stroud	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Stroud District Council, EH	BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
11.8	SHAR2	Stroud	England	Undertake research to identify where new MR defences should be (for construction in 20-50 epoch). Stakeholders should be involved in the discussions	To identify areas of MR that can be practically implemented. To involve stakeholders and landowners in the process	Stakeholders / landowners are aware of the need and reasons for MR. Stakeholders / landowners are involved in the process to identify areas for MR. Areas for MR that can be implemented are identified.	EA - SEFRMS	NE, Stroud District Council, IDB, English Heritage, stakeholders	SEFRMS, Local Flood Risk Strategies, BAP management plans, Severn Tidal Tributaries CFMP - PU2
11.9	SHAR2	Stroud	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council	EA	SEFRMS, Local Flood Risk Strategy
11.10	SHAR2	Stroud	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council, IDBs	
11.11	SHAR2	Stroud	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE, Stroud District Council, IDB, stakeholders	SEFRMS, BAP management plans, Severn Tidal Tributaries CFMP - PU2

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
11.12	SHAR2	Stroud	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
11.13	SHAR3	Stroud	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Stroud District Council, EH	BAP management plans
11.14	SHAR3	Stroud	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council	EA	SEFRMS, Local Flood Risk Strategy
11.15	SHAR3	Stroud	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council, IDBs	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
11.16	SHAR3	Stroud	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE, Stroud District Council, IDB, stakeholders	SEFRMS, BAP management plans, Severn Tidal Tributaries CFMP - PU2
11.17	SHAR3	Stroud	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
11.18	SHAR4	Stroud	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Stroud District Council, EH	BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
11.19	SHAR4	Stroud	England	Undertake research to identify where new MR defences should be (for construction in 20-50 epoch). Stakeholders should be involved in the discussions	To identify areas of MR that can be practically implemented. To involve stakeholders and landowners in the process	Stakeholders / landowners are aware of the need and reasons for MR. Stakeholders / landowners are involved in the process to identify areas for MR. Areas for MR that can be implemented are identified.	EA - SEFRMS	NE, Stroud District Council, IDB, English Heritage, stakeholders	SEFRMS, Local Flood Risk Strategies, BAP management plans, Severn Tidal Tributaries CFMP - PU2
11.20	SHAR4	Stroud	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council	EA	SEFRMS, Local Flood Risk Strategy
11.21	SHAR4	Stroud	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council, IDBs	
11.22	SHAR4	Stroud	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE, Stroud District Council, IDB, stakeholders	SEFRMS, BAP management plans, Severn Tidal Tributaries CFMP - PU2



Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
11.23	SHAR4	Stroud	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
11.24	SHAR5	Stroud	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council	EA	SEFRMS, Local Flood Risk Strategy
11.25	SHAR5	Stroud	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council, IDBs	
11.26	SHAR5	Stroud	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
11.27	SHAR6	Stroud	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Stroud District Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
11.28	SHAR6	Stroud	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council	EA	SEFRMS, Local Flood Risk Strategy
11.29	SHAR6	Stroud	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council, IDBs	
11.30	SHAR6	Stroud	England	Undertake a study into opportunities to remove flood embankments	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA	NE, Stroud District Council, IDB, stakeholders	SEFRMS, BAP management plans, Severn Tidal Tributaries CFMP - PU2

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
11.31	SHAR6	Stroud	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
11.32	SHAR7	Stroud	England	Identify where new MR defences will be, when they will be built and how they should be constructed	Reduce the risk of flood impacts to businesses / properties over the long term. Create new habitat. Improve flood plain / flood storage	New set back defences are created	EA - SEFRMS	NE, Stroud District Council, IDB, EH, stakeholders	SEFRMS, Local Flood Risk Strategy
11.33	SHAR7	Stroud	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Stroud District Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
11.34	SHAR7	Stroud	England	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working	Environment is not damaged by flood defence construction	EIA is carried out	EA	NE, Stroud District Council, IDB, stakeholders	SAC Regulation 33 advice, SSSI management plans, BAP management

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				practices e.g. to prevent disturbance to birds					plans
11.35	SHAR7	Stroud	England	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EA	NE, Stroud District Council, EH	
11.36	SHAR7	Stroud	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council	EA	SEFRMS, Local Flood Risk Strategy
11.37	SHAR7	Stroud	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council, IDBs	
11.38	SHAR7	Stroud	England	Undertake a study into opportunities to remove flood embankments (links to action 11.32 above)	Increase the connection of the floodplain with the rivers	Produce and implement a connectivity improvement plan	EA - CFMP	NE, Stroud District Council, IDB, stakeholders	SEFRMS, BAP management plans, Severn Tidal Tributaries CFMP - PU2

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
11.39	SHAR7	Stroud	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
11.40	SHAR8	Stroud	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council	EA	SEFRMS, Local Flood Risk Strategy
11.41	SHAR8	Stroud	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council, IDBs	
11.42	SHAR8	Stroud	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	

Table 3.13 - Sharpness to Severn Crossings (SEV)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
12.1	SEV1	Stroud	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Stroud District Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
12.2	SEV1	Stroud	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council	EA	SEFRMS, Local Flood Risk Strategy
12.3	SEV1	Stroud	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council, IDBs	
12.4	SEV1	Stroud	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
12.5	SEV2	Stroud	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Stroud District Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
12.6	SEV2	Stroud	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council	EA	SEFRMS, Local Flood Risk Strategy
12.7	SEV2	Stroud	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council, IDBs	
12.8	SEV2	Stroud	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
12.9	SEV2	Stroud	England	Research into the contamination of soils from Berkeley Power Station	To better understand the potential risks to people and the environment of flooding of erosion of land surrounding Berkeley Power Station	Report is produced. Plans / actions developed	Berkeley Power Station	EA, HSE	
12.10	SEV3	Stroud / South Gloucestershire	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Stroud District Council / South Gloucestershire Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
12.11	SEV3	Stroud / South Gloucestershire	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Stroud District Council / South Gloucestershire Council	EA	SEFRMS, Local Flood Risk Strategy
12.12	SEV3	Stroud / South Gloucestershire	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, Stroud District Council / South Gloucestershire Council, IDBs	



Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
12.13	SEV3	Stroud / South Gloucestershire	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
12.14	SEV3	Stroud / South Gloucestershire	England	Research into the contamination of soils from Berkeley and Oldbury Power Stations	To better understand the potential risks to people and the environment of flooding of erosion of land surrounding Berkeley and Oldbury Power Stations	Report is produced. Plans / actions developed	Berkeley Power Station, Oldbury Power Station	EA, HSE	
12.15	SEV4	South Gloucestershire	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, South Gloucestershire Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
12.16	SEV4	South Gloucestershire	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	South Gloucestershire Council	EA	SEFRMS, Local Flood Risk Strategy

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
12.17	SEV4	South Gloucestershire	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, South Gloucestershire Council, IDBs	
12.18	SEV4	South Gloucestershire	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
12.19	SEV4	South Gloucestershire	England	Research into the contamination of soils from Oldbury Power Station	To better understand the potential risks to people and the environment of flooding of erosion of land surrounding Oldbury Power Station	Report is produced. Plans / actions developed	Oldbury Power Station	EA, HSE	
12.20	SEV5	South Gloucestershire	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, South Gloucestershire Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
12.21	SEV5	South Gloucestershire	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	South Gloucestershire Council	EA	SEFRMS, Local Flood Risk Strategy
12.22	SEV5	South Gloucestershire	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, South Gloucestershire Council, IDBs	
12.23	SEV5	South Gloucestershire	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks, Severn Trent	
12.24	SEV6	South Gloucestershire	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	South Gloucestershire Council	EA	SEFRMS, Local Flood Risk Strategy
12.25	SEV6	South Gloucestershire	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, South Gloucestershire Council, IDBs	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
12.26	SEV6	South Gloucestershire	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Central Networks/Western Power Distribution, Severn Trent	

Table 3.14 - Severnside, Bristol & Avon (BRIS)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
13.1	BRIS1	South Gloucestershire	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, South Gloucestershire Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
13.2	BRIS1	South Gloucestershire	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	South Gloucestershire Council	EA	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU7
13.3	BRIS1	South Gloucestershire	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, South Gloucestershire Council, IDBs	
13.4	BRIS1	South Gloucestershire	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Western Power Distribution / Central Networks, Wessex Water / Severn trent	

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				resilience and adaptation plan as appropriate.					
13.5	BRIS1	South Gloucestershire	England	Put in place monitoring programme of erosion rates and salt marsh levels/extent	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre, habitat creation needs, SAC management	Monitoring data is collected	EA	NE	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans
13.6	BRIS2	South Gloucestershire/ City of Bristol	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, South Gloucestershire Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
13.7	BRIS2	South Gloucestershire/ City of Bristol	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	South Gloucestershire Council	EA	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU7
13.8	BRIS2	South Gloucestershire/ City of Bristol	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, South Gloucestershire Council, IDBs	
13.9	BRIS2	South Gloucestershire/ City of Bristol	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Western Power Distribution / Central Networks, Wessex Water / Severn Trent	
13.10	BRIS2	South Gloucestershire/ City of Bristol	England	Put in place monitoring programme of erosion rates and salt marsh levels/extent	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre, habitat creation needs, SAC management	Monitoring data is collected	EA	NE	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
13.11	BRIS2	South Gloucestershire/ City of Bristol	England	Carry out a study to determine the combined fluvial / tidal flood risk to Bristol from the tide, the River Avon and the Bristol Frome	To inform and further develop a flood risk management strategy for Bristol and reduce uncertainty about the risk of flooding	Study is carried out / report is produced. Integrated flood risk management strategy is completed	EA - SEFRMS	Bristol City Council	SEFRMS, Local Flood Risk Strategy, Severn Tidal Tributaries CFMP - PU7
13.12	BRIS3	City of Bristol	England	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EA - SEFRMS	NE, Bristol City Council, Bristol Docks	SEFRMS, Local Flood Risk Strategy, Bristol and Avon CFMP - PU L, PU E
13.13	BRIS3	City of Bristol	England	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EA	NE, Bristol City Council, Bristol Docks	SAC Regulation 33 advice, SSSI management plans, BAP management plans
13.14	BRIS3	City of Bristol	England	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EA	NE, Bristol City Council, EH	



Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
13.15	BRIS3	City of Bristol	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Bristol City Council	EA	SEFRMS, Local Flood Risk Strategy, Bristol and Avon CFMP - PUL, PU E
13.16	BRIS3	City of Bristol	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Western Power Distribution / Central Networks, Wessex Water / Severn Trent	
13.17	BRIS3	City of Bristol	England	Put in place monitoring programme of erosion rates and salt marsh levels/extent	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre, habitat creation needs, SAC management	Monitoring data is collected	EA	NE	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans
13.18	BRIS3	City of Bristol	England	Carry out a study to determine the combined fluvial / tidal flood risk to Bristol from the tide, the River Avon and the	To inform and further develop a flood risk management strategy for Bristol and reduce	Study is carried out / report is produced. Integrated flood risk management strategy is	EA - SEFRMS	Bristol City Council	SEFRMS, Local Flood Risk Strategy, Bristol and Avon CFMP - PU L, PU E

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				Bristol Frome	uncertainty about the risk of flooding	completed			
13.19	BRIS3	City of Bristol	England	Undertake a study of the flood risk associated with the development of the Bristol Deep Water Container Port	To ensure development of Bristol Deep Water Container Port does not affect flood risk. Changes to flood risk are taken account of in other flood risk management plans	Study is carried out / report is produced.	Bristol Docks	EA, Bristol City Council	SEFRMS, Local Flood Risk Strategy, Bristol and Avon CFMP - PU L, PU E
13.20	BRIS4	City of Bristol	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, Bristol City Council, Bristol Docks, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
13.21	BRIS4	City of Bristol	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development /	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Bristol City Council	EA	Local Flood Risk Strategy, Bristol and Avon CFMP - PU E

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				land use plans					
13.22	BRIS4	City of Bristol	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Western Power Distribution / Central Networks, Wessex Water / Severn Trent	
13.23	BRIS4	City of Bristol	England	Carry out a study to determine the combined fluvial / tidal flood risk to Bristol from the tide, the River Avon and the Bristol Frome	To inform and further develop a flood risk management strategy for Bristol and reduce uncertainty about the risk of flooding	Study is carried out / report is produced. Integrated flood risk management strategy is completed	EA - SEFRMS	Bristol City Council	Local Flood Risk Strategy, Bristol and Avon CFMP - PU E
13.24	BRIS5	City of Bristol	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to	Environment is not damaged by flood defence management	EIA is carried out	EA	EA, NE, Bristol City Council, Bristol Docks, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				prevent disturbance to birds					
13.25	BRIS5	City of Bristol	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Bristol City Council	EA	Local Flood Risk Strategy, Bristol and Avon CFMP - PU E
13.26	BRIS5	City of Bristol	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Western Power Distribution / Central Networks, Wessex Water / Severn Trent	
13.27	BRIS5	City of Bristol	England	Carry out a study to determine the combined fluvial / tidal flood risk to Bristol from the tide, the River Avon and the Bristol Frome	To inform and further develop a flood risk management strategy for Bristol and reduce uncertainty about the risk of flooding	Study is carried out / report is produced. Integrated flood risk management strategy is completed	EA - SEFRMS	Bristol City Council	Local Flood Risk Strategy, Bristol and Avon CFMP - PU E

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
13.28	BRIS6	North Somerset	England	Identify where new defences will need to be, when they will need to be replaced, how they should be constructed	Reduce the risk of flood consequences to businesses / properties where defences currently exist	Asset management plan or similar is created	EA - SEFRMS	EA, NE, North Somerset Council, Bristol Docks	SEFRMS, Local Flood Risk Strategy, Bristol and Avon CFMP - PU L, PU E, North & Mid Somerset CFMP - PU2, actions 2.1, 2.2
13.29	BRIS6	North Somerset	England	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence construction	EIA is carried out	EA	EA, NE, North Somerset Council, Bristol Docks	SAC Regulation 33 advice, SSSI management plans, BAP management plans
13.30	BRIS6	City of Bristol	England	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EA	NE, Bristol City Council, EH	
13.31	BRIS6	North Somerset	England	Put in place monitoring programme of erosion rates and salt marsh levels/extent	Provide more data for future management decisions, SMP2 updates, for Wales Coastal Monitoring Centre, habitat creation needs,	Monitoring data is collected	EA	NE, Bristol Docks	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
					SAC management				
13.32	BRIS6	North Somerset	England	Develop an integrated drainage plan (surface water /sewer/river flooding) for the Royal Portbury Docks	Maintain the same standard of protection into the future, allowing for potential increases in rainfall intensity and tide-locking due to climate change	Plan is produced	EA - CFMP	Bristol Docks, Wessex Water, North Somerset Council	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU2, action 2.2
13.33	BRIS6	North Somerset	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Bristol City Council	EA	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU2, action 2.2
13.34	BRIS6	North Somerset	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Western Power Distribution, Wessex Water	

Table 3.15 - Portishead & Clevedon (PORT)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
14.1	PORT1	North Somerset	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	North Somerset Council	EA	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU1, action 1.1
14.2	PORT1	North Somerset	England	Put in place monitoring programme of erosion rates	Provide more data for future management decisions, SMP2 updates	Monitoring data is collected	EA	North Somerset Council	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU1, action 1.1
14.3	PORT2	North Somerset	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	North Somerset Council	EA	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU1, action 1.1
14.4	PORT2	North Somerset	England	Put in place monitoring programme of erosion rates	Provide more data for future management decisions, SMP2 updates	Monitoring data is collected	EA	North Somerset Council	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU1, action 1.1
14.5	PORT3	North Somerset	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	North Somerset Council	EA	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU1, action 1.1
14.6	PORT3	North Somerset	England	Put in place monitoring programme of erosion rates	Provide more data for future management decisions, SMP2 updates	Monitoring data is collected	EA	North Somerset Council	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU1, action 1.1

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
14.7	PORT4	North Somerset	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, North Somerset Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
14.8	PORT4	North Somerset	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	North Somerset Council	EA	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU1, action 1.1
14.9	PORT4	North Somerset	England	Put in place monitoring programme of erosion rates	Provide more data for future management decisions, SMP2 updates	Monitoring data is collected	EA	North Somerset Council	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU1, action 1.1



Table 3.16 - Kingston Seymour to Sand Bay (KIN)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
15.1	KIN1	North Somerset	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to agreed working practices e.g. to prevent disturbance to birds	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, North Somerset Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans
15.2	KIN1	North Somerset	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	North Somerset Council	EA	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU5 action 5.1, PU8 action 8.1
15.3	KIN1	North Somerset	England	Identify where new MR defences will be, when they will be built and how they should be constructed	Reduce the risk of flood impacts to businesses / properties over the long term. Create new habitat. Improve flood plain / flood storage	New set back defences are created	EA - SEFRMS	NE, North Somerset Council, IDB, EH, stakeholders	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU5 action 5.1, 5.2, 5.3 PU8 action 8.1
15.4	KIN1	North Somerset	England	Undertake research involving stakeholders to identify where (and when) MR could take place within the Policy Unit in the medium and longer terms. Study should look at minor, staged and larger, long term	To identify areas of MR that can be practically implemented. To involve stakeholders and landowners in the management process	Stakeholders / landowners are aware of the need and reasons for MR. Stakeholders / landowners are involved in the process to identify areas for MR. Areas for	EA	NE, North Somerset Council, IDB, EH, stakeholders	SEFRMS, SAC Regulation 33 advice, SSSI management plans, BAP management plans, Regional Habitat plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				MR options		MR that can be implemented are identified.			
15.5	KIN1	North Somerset	England	Develop plans to implement the CAPE approach to areas where MR may be undertaken	To help residents / businesses / landowners understand the impacts of climate change and adaptation	Stakeholders / landowners are aware of the need and reasons for MR. Stakeholders / landowners are involved in the process to identify areas for MR. Areas for MR that can be implemented are identified.	EA	NE, North Somerset Council, IDB, EH, stakeholders	
15.6	KIN1	North Somerset	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, South Gloucestershire Council, IDBs	
15.7	KIN1	North Somerset	England	Ensure environmental issues are taken into account in the design / construction of new defences. Ensure any works adhere to	Environment is not damaged by flood defence construction	EIA is carried out	EA	NE, North Somerset Council, IDB, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				agreed working practices e.g. to prevent disturbance to birds					
15.8	KIN1	North Somerset	England	Engage with English Heritage / County Archaeologist on replacement of defences / flood risk management	Historic environment is not damaged by flood defence construction / flood risk management actions	EIA is carried out	EA	NE, North Somerset Council, EH	
15.9	KIN1	North Somerset	England	Encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding. Develop a flood resilience and adaptation plan as appropriate.	To better understand the risks to the water and electricity networks and how they can be managed	Report is produced. Plans / actions developed	EA	Western Power Distribution, Wessex Water	
15.10	KIN2	North Somerset	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	North Somerset Council	EA	SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU8 action 8.1
15.11	KIN3	North Somerset	England	Ensure environmental issues are taken into account in the management and maintenance of defences. Ensure any works adhere to	Environment is not damaged by flood defence management	EIA is carried out	EA	NE, North Somerset Council, EH	SAC Regulation 33 advice, SSSI management plans, BAP management plans

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
				agreed working practices e.g. to prevent disturbance to birds					
15.12	KIN3	North Somerset	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	North Somerset Council	EA	SEFRMS, ND&SSMP2, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU8 action 8.1
15.13	KIN3	North Somerset	England	Review the economic value of agricultural land at flood/erosion risk	To better understand the economic and food production importance of the agricultural land at risk	Report is produced	Defra	EA, South Gloucestershire Council, IDBs	
15.14	KIN3	North Somerset	England	Put in place monitoring programme of beach levels, dunes and erosion rates	Provide more data for future management decisions, SMP2 updates	Monitoring data is collected	EA	North Somerset Council	ND&SSMP2, SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU8 action 8.1
15.15	KIN4	North Somerset	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	North Somerset Council	EA	ND&SSMP2, SEFRMS, Local Flood Risk Strategy, North & Mid Somerset CFMP - PU8 action 8.1

Table 3.17 - The Holms (HOL)

Action no.	Policy Unit	Local Authority area	Country	Action	Objective	Indicator	Lead partner	Other partners	Links to other plans
16.1	HOL1	Cardiff	Wales	SMP2 is taken into account in Strategic Flood Consequence Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	Cardiff Council	EAW	
16.2	HOL1	Cardiff	Wales	Put in place monitoring programme of erosion rates	Provide more data for future management decisions, SMP2 updates	Monitoring data is collected	Cardiff Council	EAW	Future SMPs
16.3	HOL2	North Somerset	England	SMP2 is taken into account in Strategic Flood Risk Assessments for Council development / land use plans	To ensure integration of flood risk management plans and development plans	Development plans make reference to SMP2	North Somerset Council	EA	
16.4	HOL2	North Somerset	England	Put in place monitoring programme of erosion rates	Provide more data for future management decisions, SMP2 updates	Monitoring data is collected	EA	North Somerset Council	Future SMPs

