



# Managing the risk of flooding in South West River Basin District

What's being planned and when

We are the Environment Agency. We protect and improve the environment and make it a better place for people and wildlife.

We operate at the place where environmental change has its greatest impact on people's lives. We reduce the risks to people and properties from flooding; make sure there is enough water for people and wildlife; protect and improve air, land and water quality and apply the environmental standards within which industry can operate.

Acting to reduce climate change and helping people and wildlife adapt to its consequences are at the heart of all that we do.

We cannot do this alone. We work closely with a wide range of partners including government, business, local authorities, other agencies, civil society groups and the communities we serve.

Published by:

Environment Agency  
Horizon house, Deanery Road,  
Bristol BS1 5AH  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk).

Further copies of this report are available from our publications catalogue:  
<https://www.gov.uk/government/organisations/environment-agency>

or our National Customer Contact Centre:  
T: 03708 506506

© Environment Agency 2014

All rights reserved. This document may be reproduced with prior permission of the Environment Agency.

# Foreword

Over the next two years, the Environment Agency will be undertaking considerable planning work, culminating in the publication of Flood Risk Management Plans (FRMPs) and updated River Basin Management Plans (RBMPs). Together, these plans will shape important decisions, direct considerable investment and action and deliver significant benefits to society and the environment.

RBMPs identify the state of, and pressures on, the water environment. They consider the technical and economic viability of beneficial actions, set objectives and coordinate/monitor delivery of agreed actions. In so doing they set direction to maintain and improve the quality of all surface, ground water and coastal waters.

FRMPs identify the risk from flooding and set out objectives and measures for managing that risk. In so doing, they aggregate information about all sources of flooding - and coastal erosion where appropriate - to better inform prioritisation, decision making and work programming.

The Environment Agency, Local Authorities, Water Companies, Internal Drainage Boards and Highways Authorities carry out a 'Risk Management Authority' role in relation to flooding. We all work together to help communities and businesses understand their flood risk, deliver solutions to minimise this and support them to adapt to flooding and become more resilient, if the worst should happen.

Recently published information about the areas that get flooded and what's affected by the flooding means that understanding of flood risk is improving. We and other risk management authorities are in a good position to set out, with communities, how best to manage the risk of flooding. Planning to manage flood risk is something that the Environment Agency and Lead Local Flood Authorities are already doing in partnership but now the Environment Agency is setting out plans for flood risk management across each river basin district. These river basin districts (RBDs) are areas identified to manage the water environment effectively. Each RBD has a defined drainage area so that what happens in one RBD is independent of another: this document covers the South West RBD.

This document is not a consultation, but it highlights the scope of those plans: what sources of flooding are included and what consultation the Environment Agency and Lead Local Flood Authorities are carrying out on those draft plans.

The Environment Agency will be consulting on a draft flood risk management plan for the whole of South West RBD that sets out the objectives and measures we are proposing to manage flood risk. The draft plan will also include objectives and measures that some Lead Local Flood Authorities are also proposing. The draft plan will include:

- flooding issues for main rivers, the sea and reservoirs across the whole of the RBD
- flooding issues for local sources (ordinary watercourses, surface water and groundwater) for No. 10 Lead Local Flood Authority areas included on voluntary basis

Consultation on the draft FRMP will be from September 2014 to December 2014. We will publish the final FRMPs in December 2015.

This Scoping Report sets out the approach to the Strategic Environmental Assessment and we have consulted the statutory environmental bodies in developing it.

We hope that in understanding what plans are being developed, by whom and when, you will be able to join us in shaping those flood risk management plans, and be part of a more resilient country.

**Mark Sitton - Kent**

**Director Operations West, Environment Agency**

# Table of Contents

<b>Foreword .....</b>	<b>3</b>
<b>Table of Contents.....</b>	<b>4</b>
<b>1. Why produce this document .....</b>	<b>5</b>
<b>2. How we plan for flood and coastal erosion risk .....</b>	<b>6</b>
<b>3. What planning is happening now .....</b>	<b>Error! Bookmark not defined.</b>
<b>4. What this means for the South West River Basin District.....</b>	<b>Error! Bookmark not defined.</b>
<b>5. Strategic environmental assessment .....</b>	<b>Error! Bookmark not defined.</b>
<b>References .....</b>	<b>17</b>
<b>Annex 1: A summary of information for inclusion in the Flood Risk Management Plan ..</b>	<b>Error! Bookmark not defined.</b>
<p>Table A1. Information compiled by the Environment Agency related to flooding from rivers, the sea and reservoirs, and by local authorities related to coastal erosion risk management</p> <p><b>Error! Bookmark not defined.</b></p> <p>Table B1. Information compiled by Lead Local Flood Authorities related to 'local' sources of flooding (ie flooding surface water, groundwater and ordinary watercourses)</p> <p><b>Error! Bookmark not defined.</b></p>	
<b>Annex 2 Results of SEA scoping process .....</b>	<b>Error! Bookmark not defined.</b>
<b>Annex 3: Policies, plans and programmes to be considered by the Strategic Environmental Assessment.....</b>	<b>Error! Bookmark not defined.</b>
<b>Annex 4: Environmental Baseline Summary to be considered by the Strategic Environmental Assessment .....</b>	<b>28</b>

# 1. Why produce this document

The impacts of flooding on homes and businesses, the communities directly affected, are clear, but flooding can have a much wider indirect effect. We want communities to be actively involved in planning for managing the risk posed by floods.

## **Box 1. The purpose of this document**

This document is not a consultation. It sets out:

- what flood risk planning is going on across the river basin district
- the timing of specific consultations
- which organisations lead on those consultations

By highlighting these activities early on we hope that you will get involved in shaping the plans and be part of managing the risk from floods.

The document also includes the proposed scope of the strategic environmental assessments for the plan that we are preparing. We are sharing our proposals with statutory environmental bodies so they can help shape our proposed approach.

## 2. How we plan for flood and coastal erosion risk

### Legislation and strategy in England

- The [roles and responsibilities](#) of different flood risk management authorities (RMAs) in England and Wales are set out in the [Flood and Water Management Act, 2010](#). This act also requires the Environment Agency to set out the approach to managing flood and coastal erosion risk in England in a [National Flood and Coastal Erosion Risk Management Strategy for England](#). This strategy aims to improve flood and coastal erosion risk management for communities and businesses, and deliver greater environmental gain. The Strategy also establishes ways of working for risk management authorities:
- focusing on communities and working in partnership
- co-ordinating across management catchments and coastlines
- considering sustainability issues
- taking a proportional, risk-based approach
- seeking to deliver multiple benefits
- encouraging beneficiaries to contribute to invest in flood risk management

### European requirements

In addition, the [European Floods Directive](#) aims to provide a consistent approach to managing flood risk across Europe. The Directive is implemented through the [Flood Risk Regulations 2009](#) and we are currently in the first cycle of planning which means Flood Risk Management Plans (FRMPs) need to be prepared by December 2015.

### How we are delivering Flood Risk Management Plans

Our [previous consultation](#)<sup>6</sup> on the approach to developing Flood Risk Management Plans in England and Wales considered options for delivering FRMPs. See the [findings from that consultation](#)<sup>7</sup>.

In parallel to flood risk management planning, we also work with others to improve the quality of the water environment through River Basin Management Planning. As we develop FRMPs we aim to co-ordinate effectively with the River Basin Management Planning so we and others can deliver more for the environment.

#### **Box 2. Co-ordinating Flood Risk Management Planning with River Basin Management Planning**

The Environment Agency leads on the development of Flood Risk Management Plans and River Basin Management Plans. We aim to co-ordinate our work effectively, and support others to do the same, so that we can do more for the environment when we manage flooding.

If you want to know more about River Basin Planning, or get involved, visit our [web site](#)<sup>9</sup>.



The National Flood and Coastal Erosion Risk Management Strategy for England provides a national framework for all Risk Management Authorities to work within. A hierarchy of strategic and tactical plans then establish the governance and approach for the various RMAs to delivering the aims and objectives of the national strategy.

The table below summarises the main plans and who leads on them.

**Table 1: Flood and coastal erosion risk management plans and strategies**

Plan or Strategy	Purpose and scope of plan or strategy	Drivers	Lead authority
<a href="#">The National Flood and Coastal Erosion Risk Management Strategy for England</a> <sup>18</sup>	The approach to managing flood and coastal erosion risk in England.	Statutory requirement under the Flood and Water Management Act 2010.	Environment Agency.
<a href="#">Flood Risk Management Plans</a> <sup>10</sup> (FRMPs)	To manage the risk of flooding from rivers, the sea, reservoirs, surface water and groundwater.  These may be separate plans for Flood Risk Areas that need to be co-ordinated across each river basin district in the whole of England.	Required under the European Floods Directive; implemented in England by the Flood Risk Regulations 2009.  FRMPs for this first cycle of planning must be published by December 2015.	Lead Local Flood Authorities for flooding from surface water, groundwater and ordinary watercourses.  Environment Agency for flooding from main rivers, the sea and reservoirs.
<a href="#">Local Flood Risk Management Strategy</a> <sup>11</sup>	To manage local flood risk in each Lead Local Flood Authority across the whole of England.  These also include objectives and measures for the management of local flood risk (i.e. from surface water, groundwater and ordinary watercourses).	Statutory requirement under the Flood and Water Management Act 2010.  No statutory deadline for production.	All Lead Local Flood Authorities must prepare a Local Flood Risk Management Strategy.
<a href="#">Surface Water Management Plans</a> <sup>12</sup> (SWMPs)	To establish preferred approach to managing surface water flooding.	Voluntary plans for co-ordinated measures to manage surface water flooding.	Likely to be Lead Local Flood Authorities, in partnership with others.
<a href="#">Catchment Flood Management Plans</a> <sup>13</sup> (CFMPs)	Current and future inland flood risk management across all catchments.  These plans set out preferred policies for inland flooding in England and Wales.	Voluntary plans.  Published in 2009-10.	Environment Agency

<a href="#">Shoreline Management Plans</a> <sup>14</sup> (SMPs)	Current and future flood and coastal erosion risk management along the coastline.  These plans set out preferred policies for the coastline of England and Wales.	Voluntary plans.  Second round of SMPs published in 2010-13.	Coastal Groups.
Other <a href="#">river, estuary and coastal investment strategies</a> <sup>15</sup>	Outline investment proposals for flood and coastal erosion risk management. Prepared to support an investment proposal for funding.	Voluntary plans.	Operating authorities.
<b>Water Level Management Plans (WLMPs)</b>	Approach to managing water levels in environmentally sensitive areas. These plans are developed to enable agreement between different users of water.	Voluntary plans.	Drainage Boards, other operating authorities and land owners
<a href="#">Reservoir Flood Plans</a> <sup>16</sup>	These include on-site and off-site flood plans that set out procedures for the management of flood risk in the event of an emergency.  On-site plans deal with the management of the on-site risk and off-site plans deal with the risk in areas adjacent to the reservoir.	Voluntary plans.	On-site Flood Plans are developed by the owners of the reservoir.  Off-site Flood Plans are developed by the Local Resilience Forums.
<a href="#">Long-Term Investment Strategy</a> <sup>17</sup>	Long-term strategic assessment of funding scenarios for flood and coastal erosion risk management. This evidence is used to support government's decision making on funding as part of periodic spending reviews.	Voluntary plans.	Environment Agency.

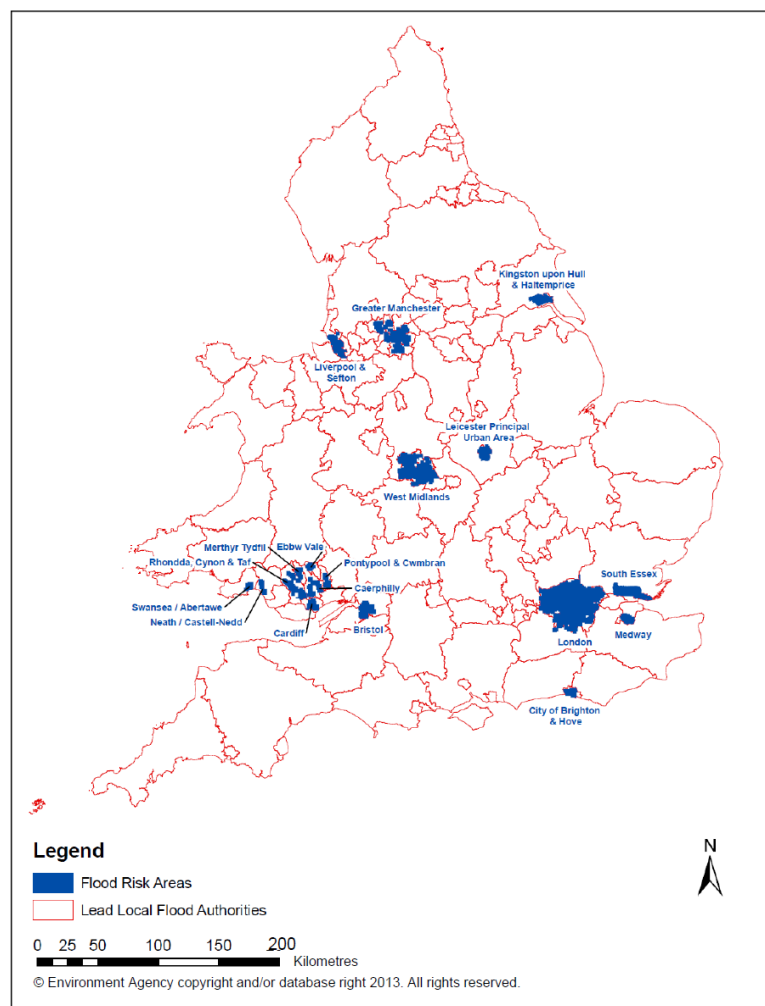


### 3. What planning is happening now

Flood risk management planning is something that Risk Management Authorities (RMAs) do already, domestic legislation, in particular the Flood and Water management Act 2010 supports this, as does new European Floods Directive. The Floods Directive aims to provide a consistent approach to managing flood risk across Europe. The Directive is implemented through the Flood Risk Regulations and we are currently in the first cycle of planning which means Flood Risk Management Plans (FRMPs) need to be prepared by December 2015.

For this cycle of plans, Lead Local Flood Authorities (LLFAs) need to prepare Flood Risk Management Plans that cover local sources of flooding (ie from surface water, groundwater and ordinary watercourses) for the 10 Flood Risk Areas<sup>1</sup> in England and eight in Wales (see Figure 1). The Environment Agency, and Natural Resources Wales need to prepare FRMPs, for main rivers the sea and reservoirs covering the whole of England and Wales.

FRMPs are important because they set out how risk management authorities and communities will work together to reduce the impacts of flooding.



*Note:*

*All Lead Local Flood Authorities (upper tier and single tier authorities) under took a Preliminary Flood Risk Assessment in 2011 to prioritise planning for flood risk management. They determined a number of areas where local flooding was particularly significant (Figure 1). The priority for the first planning cycle under the Flood Risk Regulations is to prepare FRMPs by December 2015 for these "Flood Risk Areas".*

*All Lead Local Flood Authorities also need to prepare Local Flood Risk Management Strategies but there is no statutory deadline to develop these.*

**Figure 1: Flood Risk Areas in England and Wales**

<sup>1</sup> Flood Risk Areas have been identified through a Preliminary Flood Risk Assessment published in December 2011. In this first cycle of planning, to 2015, LLFAs are only required to prepare FRMPs in Flood Risk Areas (as described in [Government guidance](#)).

## 4. What this means for South West River Basin District

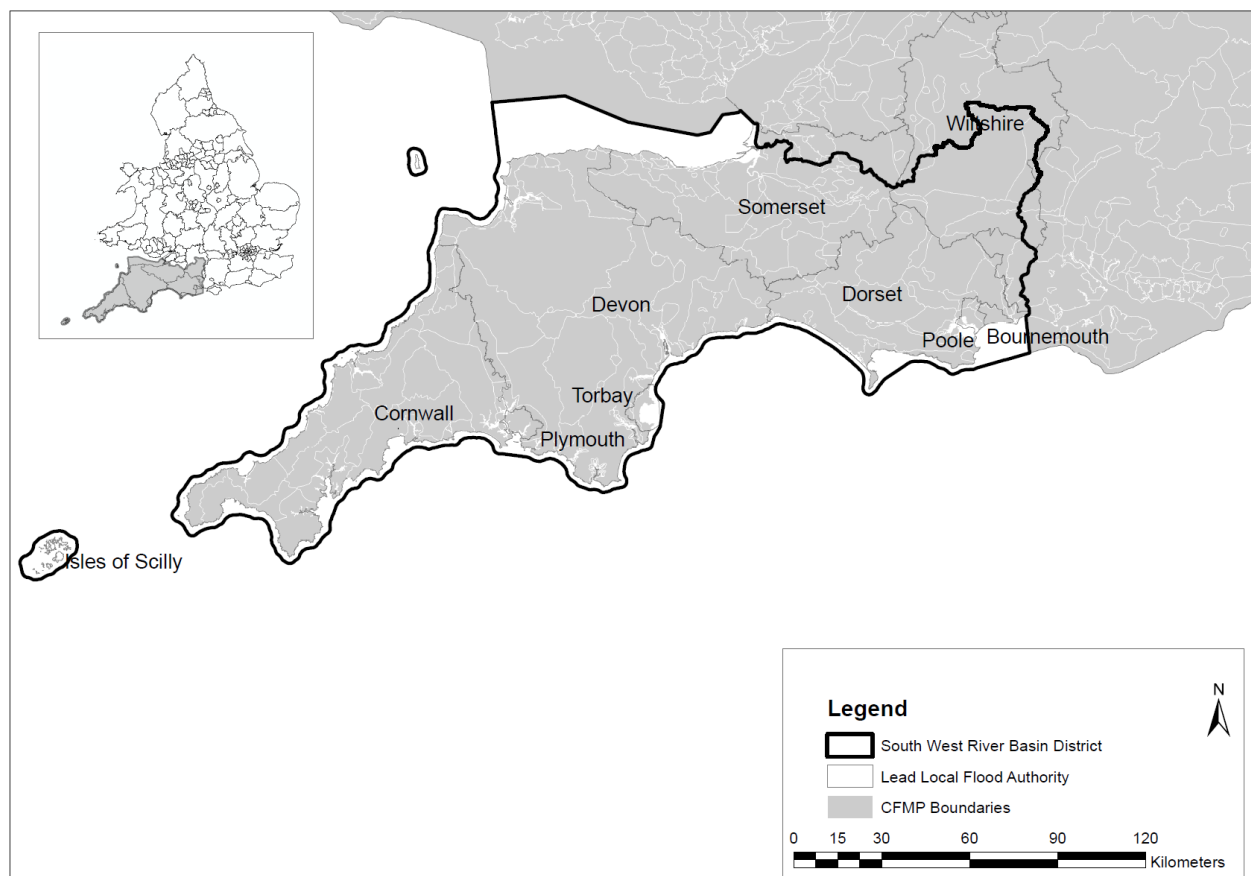
### Overview

The Environment Agency and LLFAs can develop separate plans for managing the risk from the various sources of flooding for which each is responsible. This means that LLFAs can prepare FRMPs that deal with flooding from surface water, groundwater and ordinary watercourses, while the Environment Agency will prepare FRMPs that deal with flooding from main rivers the sea and reservoirs. Alternatively, LLFAs can decide to prepare FRMPs jointly with the Environment Agency so that, in those areas, the plans cover all sources of flood risk.

While the Flood Risk Regulations only require LLFAs to prepare FRMPs by December 2015 for areas defined as Flood Risk Areas (see Figure 1), all LLFAs are already required under the Flood and Water Management Act to prepare Local Flood Risk Management (FRM) Strategies for their area (see Table 1). These Local FRM Strategies also need to consider the management of flooding from surface water, ground water and ordinary watercourses. The Environment Agency has to prepare FRMPs for the whole of each river basin district.

Some LLFAs outside significant Flood Risk Areas have chosen to prepare FRMPs jointly with the Environment Agency, on a voluntary basis. These LLFAs are using their Local FRM Strategies and sharing a more complete picture of flood and coastal erosion risk management by including flooding from all sources.

Lead Local Flood Authority areas are shown in Figure 2.

**Figure 2. LLFAs in South West River Basin District****Figure 2: Lead Local Flood Authorities in South West River Basin District**

We are aiming to provide a strategic overview of flooding from all sources of flood and coastal erosion in the South West River Basin FRMPs. LLFAs in this area have agreed to work with us to bring information from all sources of flooding together using the FRMP Database. Working together has multiple benefits. It allows us to share knowledge and technical expertise, make better use of our resources, capitalise on wider ranging funding opportunities and present a more holistic approach to flood risk management to our communities.

We would also like to include relevant information about coastal erosion risk management set out within Shoreline Management Plans. In this way, risk management authorities can share relevant information about all sources of flooding and coastal erosion risk management in one place

Box 3, and Figure 3 below, shows the LLFAs within the South West River Basin District (RBD) which have included within the FRMP for the South West RBD the management of flooding from surface water, groundwater and ordinary watercourses as well as flooding from main rivers, the sea and reservoirs included by the Environment Agency.

### **Box 3. FRMPs in South West RBD being prepared and consulted on**

The Environment Agency will consult from September 2014 to December 2014 on a draft South West River Basin District Flood Risk Management Plan for the first cycle of planning under the Flood Risk Regulations. This will cover the statutory requirement of flooding from main rivers the sea and reservoirs for the RBD.

LLFAs have chosen to voluntarily share information on coastal erosion risk management and flooding from surface water, ground water and ordinary watercourses. How and when this will happen is detailed below and in Figure 3:

Option A - LLFA to work in partnership with the Environment Agency and contribute relevant information into the FRMP database to publish with the draft FRMP by September 2014.

Somerset County Council

Devon County Council

Torbay District Council

Plymouth City Council

Option B - LLFA to contribute relevant information on local sources of flooding into the FRMP database after we have consulted on the draft FRMP for the river basin district by June 2015.

Option C - LLFA to use the FRMP database to share relevant plan information but not necessarily include this in the FRMP report to EC.

Wiltshire Council

Borough of Poole

Bournemouth Borough Council

Dorset County Council

Cornwall Council

Isles of Scilly

Figure 3. South West Flood Risk Management Plan Coverage

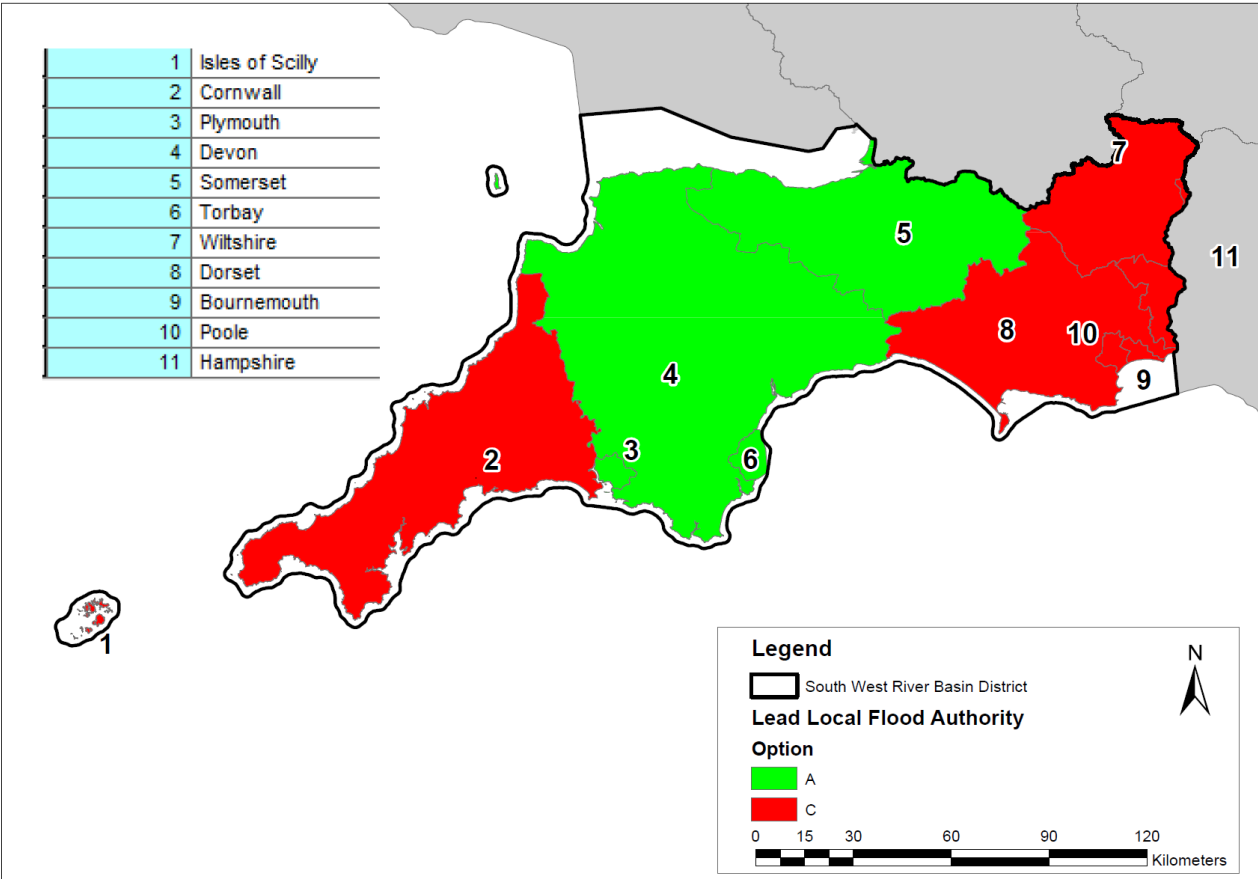


Figure 3: Scope of Flood Risk Management Planning for South West River Basin District

## 5. Strategic environmental assessment

The primary purpose of a strategic environmental assessment (SEA) is to ensure that wider environmental effects are considered during the development of a plan. SEA aims to contribute to a higher level of protection of the environment and promote sustainable development. The relevant legislation sets out the [requirements for SEA](#)<sup>19</sup>.

The FRMP for each river basin district is intended to bring together information from a number of plans covering different sources of risk, prepared by different authorities across the river basin district. A list of the plans from which information has been drawn to compile the FRMP, alongside a record of any SEA reports, is shown in Annex 1.

SEA is a statutory requirement under the SEA Regulations for FRMPs. For the joint information brought together in the FRMP from Risk Management Authorities, the Environment Agency proposes that the scope will need to include:

1. a high level assessment at the river basin district scale of all objectives and measures brought together in the draft FRMP
2. a detailed assessment at a more local scale of any new measures or changes to measures in existing plans where they may have significant effects on the wider environment

As the lead for the FRMP, the Environment Agency will consider the effects of the plan at the catchment scale to ensure that we consider how any nationally designated environmental features would be affected. We consider it more appropriate that local designations are considered at lower tiers of planning or within projects.

We will refine our approach to SEA by taking into consideration the views of statutory bodies in response to scoping letters and will continue to work with them on this.

### A high level assessment of the FRMP for each RBD

The high level assessment covering the RBD will consist of:

- a summary of baseline information covering environmental and social indicators of current status and trends for the South West RBD, and we will take into account any significant changes that might influence decisions that had been taken in previous plans. See Annex 4.
- a summary of other policies and plans that will have an influence on the objectives of the FRMP or will be influenced by it. See Annex 3.
- a high level assessment of the appropriate objectives, measures and actions included in the FRMP

### Detailed assessment of flood risk management measures

Risk Management Authorities will be responsible for considering if the high-level assessment of the whole FRMP is sufficient for the information they are proposing in the FRMP or if further more detailed assessment is required. As part of this consideration, a scoping exercise may be applied to any changes to a measure or action drawn from an existing plan and to any new measures included in the FRMP, for example from an analysis of communities at risk. This would identify whether such measures are likely to have significant environmental effect and will need a more detailed environmental assessment. The results of the first stage of the scoping exercise undertaken on Environment Agency information is set out in Table A2, Annex 2.



## How the SEA high level and detailed assessment relate to the FRMP content

Table 3 outlines the content of the draft FRMP and describes the parts of the FRMP that will be included in the SEA.

**Table 3: Proposed scope of the assessment**

<b>Content of the FRMP</b>	<b>Will it be considered in the high level SEA i.e. for the whole plan?</b>	<b>Will a more detailed assessment be required i.e. at the measure level?</b>
<b>Flood risk maps</b>	No, this provides factual information	No
<b>Flood risk management objectives</b>	Yes, we will assess the likely impacts of our objectives. This will be a high-level assessment at a river basin district scale.	No
<b>Flood risk management measures</b>	Yes, we will provide a summary of the significant environmental effects and use this to help identify cumulative impacts.	A scoping exercise will be undertaken to consider whether measures are likely to have significant environmental effects and consider existing evidence. If significant environmental effects are likely then a more detailed assessment will be carried out. If significant environmental effects are not likely then they will not be included in the assessment. The scoping exercise will be clearly documented in the Environmental Report.
<b>Flood Risk Area FRMP</b>	Yes, we will provide a summary of the significant environmental effects and use this to help identify cumulative impacts.	Plan owner to decide.

## Other policies and plans

We have set out the plans that we consider to be relevant to the River Basin District in Annex 3 to this document. We will be producing an Environmental Report to be published with the draft Flood Risk Management Plan, that will provide a brief commentary of the key issues arising from the plans, policies and programmes and how we have taken them into account.

## Habitats Regulations Assessment

We will undertake a Habitats Regulations Assessment (HRA) as the FRMP is developed. At this stage, it is likely that HRAs undertaken for existing plans will be used to provide information for an HRA for the FRMP at the River Basin District scale. We will discuss HRA requirements with Natural England and Natural Resources Wales as the FRMP is formulated.

## **Water Framework Directive Assessment**

The FRMP will be closely aligned with the River Basin Management Plan. As the plans are both being prepared at the river basin district scale and following the same timescales, we will use much of the same information (environmental baseline and contextual information) for the SEAs. Opportunities for the FRMP to contribute to WFD objectives will be explored as part of the FRMP preparation process and will be highlighted in the Environmental Report.

WFD compliance assessment requirements will be incorporated into the SEA and reported in the Environmental Report.

## **The SEA Environmental Report and draft FRMP**

The SEA process will deliver an Environmental Report to be published with the draft FRMP for consultation (from September to December 2014). It will describe the environmental baseline of the river basin district, explain how the environmental assessment was carried out, identify the environmental impacts of the plan along with mitigation measures and set out our proposals for monitoring.

## **Statement of Environmental Particulars and Final FRMP**

Feedback from consultation on the draft FRMP and Environmental Report will be reviewed and taken into account by the Environment Agency and the LLFAs contributing to the FRMP. The draft FRMP will then be finalised and published alongside a Statement of Environmental Particulars that will include how feedback on the draft plan and Environmental Report have been taken into account and how environmental impacts will be monitored.

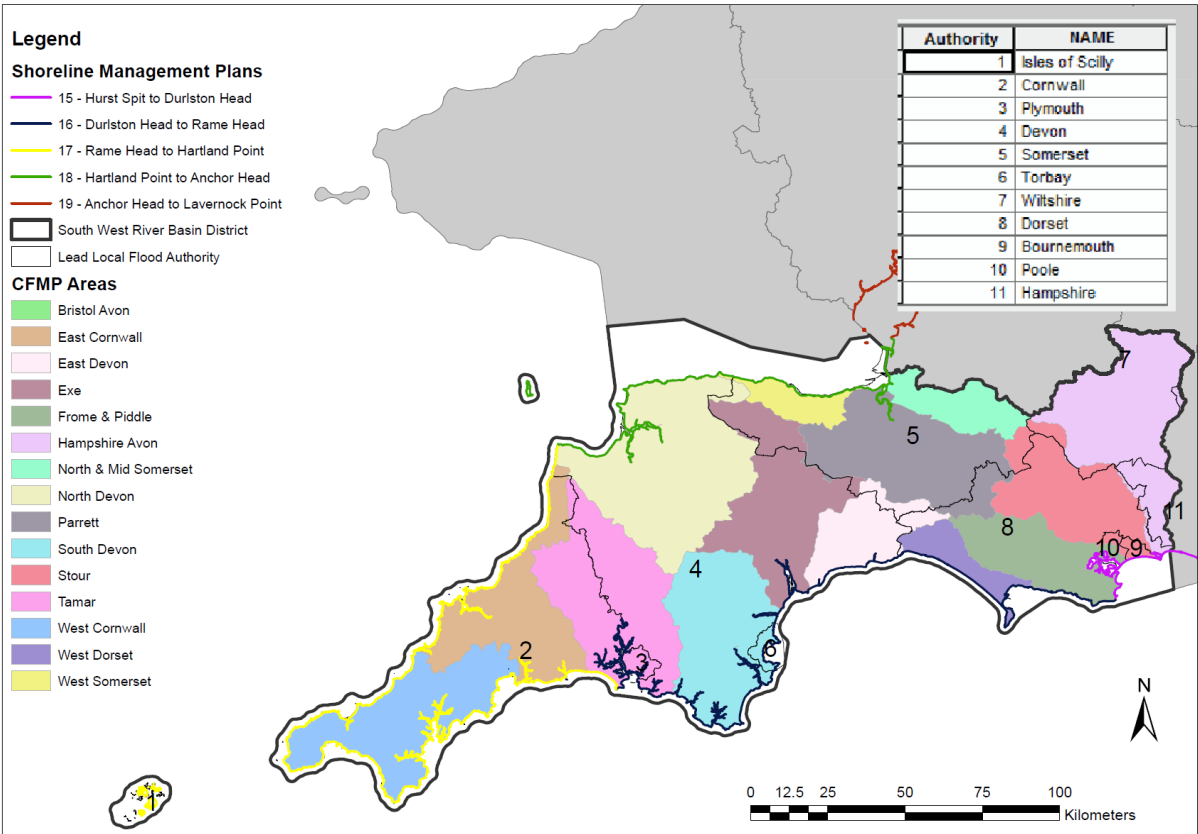
# References

1. [http://ec.europa.eu/environment/water/flood\\_risk/](http://ec.europa.eu/environment/water/flood_risk/)
2. <http://webarchive.nationalarchives.gov.uk/20140328084622/http://www.environment-agency.gov.uk/research/planning/125459.aspx>
3. <https://www.gov.uk/flood-risk-management-information-for-flood-risk-management-authorities-asset-owners-and-local-authorities>
4. <http://www.legislation.gov.uk/ukpga/2010/29/contents>
5. <https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-for-england>
5. <http://wales.gov.uk/topics/environmentcountryside/epq/flooding/nationalstrategy/strategy/?lang=en>
6. <https://consult.environment-agency.gov.uk/portal/ho/flood/plans/approach>
7. <https://consult.environment-agency.gov.uk/portal/ho/flood/plans/approach>
8. <http://watermaps.environment-agency.gov.uk/wiyby/wiyby.aspx?topic=floodmap#x=357683&y=355134&scale=2>
9. <https://www.gov.uk/government/policies/improving-water-quality>
10. <http://webarchive.nationalarchives.gov.uk/20140328084622/http://www.environment-agency.gov.uk/research/planning/135520.aspx>
11. [http://www.local.gov.uk/local-flood-risk-management/-/journal\\_content/56/10180/3618366/ARTICLE](http://www.local.gov.uk/local-flood-risk-management/-/journal_content/56/10180/3618366/ARTICLE)
12. <https://www.gov.uk/government/publications/surface-water-management-plan-technical-guidance>
13. <https://www.gov.uk/government/collections/catchment-flood-management-plans>
14. <https://www.gov.uk/government/publications/shoreline-management-plans-smmps>
15. <https://www.gov.uk/government/collections/flood-risk-management-current-schemes-and-strategies>
16. <https://www.gov.uk/reservoirs-a-guide-for-owners-and-operators>
17. <https://www.gov.uk/government/publications/flood-and-coastal-risk-management-in-england-long-term-investment>
18. <https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-for-england>
19. <http://www.legislation.gov.uk/ukxi/2004/1633/contents/made>

# Annex 1: A summary of information for inclusion in the Flood Risk Management Plan

This annex sets out the information that will be drawn from other flood and coastal erosion risk management plans in order to develop the FRMP. Of particular relevance are the Catchment Flood Management Plans (CFMPs) and Shoreline Management Plans (SMPs) that have been developed for the whole of England and Wales. Figure 4 shows which of these plans are relevant for the River Basin District.

Proportionate measures for managing flood risk from reservoirs are likely to comprise the preparation of on-site and off-site Reservoir Plans. In some cases, such plans have already been developed and the FRMP will aim to broadly set out if these measures are already established and propose where such measures need to be developed by reservoir owners and Local Resilience Forums (details will be subject to further discussion from security services).



**Figure 4: CFMPs and SMPs in South West River Basin District**

Tables A1 and A2 list the plans that risk management authorities are specifically drawing on and where previous consultation has been undertaken. They also show, if environmental assessment has been undertaken and any assessment related to the Habitats Regulations. The table also highlights the major changes we propose to make (if any) to those plans as we use the information to develop FRMPs.

Importantly, both tables also show if the information being used is for statutory purposes (used to fulfil a legal requirement of the FRMP), or voluntarily by the RMA to help present a more complete picture of flood and coastal erosion risk for the river basin district.

Contact details for the lead authorities are also included in the table so that the public can contact the relevant authorities should they want further information about specific plans.

Of particular importance for FRMPs and Local FRM Strategies are the Lead Local Flood Authorities (see figure 5 below). We also welcome inclusion of objectives and measures developed by other risk management authorities, such as Water and Sewerage Companies and District Councils.



**Figure 5: LLFAs in South West River Basin District**

Table A1. Information compiled by the Environment Agency related to flooding from rivers, the sea and reservoirs, and by local authorities related to coastal erosion risk management

No. on CFMP / SMP map	Title of plan used to develop draft FRMP	Sources of risk drawn from plan	Status of information in FRMP (statutory or voluntary)	Comments on proposed changes to the information contained in the original plan for inclusion in the FRMP	Dates of consultation on draft plan	Was an Environmental Assessment of the plan undertaken?	Was a Habitats Regulations Assessment undertaken?	Was an Appropriate Assessment (under the Habitats Regulations) undertaken?	Was compensatory habitat needed (and a case agreed with the relevant Minister(s))?	Publication date of final plan	Lead Authority (Who to contact for further information)
Information from the following Catchment Flood Management Plans:											
	Exe	Flooding from main rivers	statutory: this information informs the statutory requirements for Flood Risk Management Plans under the Flood Risk Regulations	We will retain the agreed strategic direction for management of flood risk, where it is still appropriate. We will take forward any CFMP actions that are still appropriate and transition them into FRMP measures/actions. We may also supplement these with alternative objectives and actions.	May-Jul 2006	Yes, a voluntary Environmental Report was prepared to accompany the draft plan and consulted on at the same time.	Yes	Yes	No	24/12/2008	Environment Agency: Contact: National Customer Contact Centre on: 03708 506 506 or email: enquiries@environment-agency.gov.uk
	North Devon				Apr-Jun 2008		Yes	Yes	No	24/12/2008	
	South Devon				Jan-Mar 2007		Yes	Yes	No	24/12/2008	
	East Devon				Nov 2006 - Feb 2007		Yes	Yes	No	24/12/2008	
	West Cornwall				2009		Yes	Yes	Yes	2009	
	East Cornwall				2009		Yes	Yes	No	2009	
	Tamar				2009		Yes	Yes	No	2009	
	West Somerset				May-07		Yes	Yes	No	Sep-08	
	Parrett				Feb-08		Yes	Yes	No	Sep-08	
	North & Mid Somerset				Oct-06		Yes	Yes	No	Sep-08	
	Hampshire Avon				May-08		Yes	Yes	No	Sep-08	
	Frome & Piddle				Apr-08		Yes	Yes	No	Sep-08	
	Dorset Stour				Jul-06		Yes	Yes	No	Sep-08	
	West Dorset				May-08		Yes	Yes	No	Aug-08	



No. on CFMP / SMP map	Title of plan used to develop draft FRMP	Sources of risk drawn from plan	Status of information in FRMP (statutory or voluntary)	Comments on proposed changes to the information contained in the original plan for inclusion in the FRMP	Dates of consultation on draft plan	Was an Environmental Assessment of the plan undertaken?	Was a Habitats Regulations Assessment undertaken?	Was an Appropriate Assessment (under the Habitats Regulations) undertaken?	Was compensatory habitat needed (and a case agreed with the relevant Minister(s))?	Publication date of final plan	Lead Authority (Who to contact for further information)
Information from the following Inland, coastal and estuary strategies and plans											
	Exe Estuary Strategy	Flooding from Rivers and Sea	statutory: this information informs the statutory requirements for Flood Risk Management Plans under the Flood Risk Regulations	We will not be making changes to the existing strategy. We will take forward any objectives and actions that are appropriate. This will provide status and progress monitoring as these measures are programmed and implemented	21/01/13 to 04/03/13	Yes	Yes	Yes	Yes	Aug-13	Environment Agency: Contact: National Customer Contact Centre on: 03708 506 506 or email: enquiries@environment-agency.gov.uk
	Taw/Torridge Estuary Study				Oct-12	Yes	Yes	Yes	No	May-13	
	Poole & Wareham Strategy				Feb-13	Yes	Yes	Yes	Yes	Not yet published	
	Severn Estuary Strategy				Jul-12	Yes	Yes		No	Not yet published	
	Parrett Estuary Flood Risk Management Strategy				Jan-09	Yes				Not yet published	
	Burnham on Sea, Berrow & Brean Beach, Dune & Coastal Defence Assets Managements Plan	Flooding from Sea			May-12	No	Yes		No	Aug-12	

No. on CFMP / SMP map	Title of plan used to develop draft FRMP	Sources of risk drawn from plan	Status of information in FRMP (statutory or voluntary)	Comments on proposed changes to the information contained in the original plan for inclusion in the FRMP	Dates of consultation on draft plan	Was an Environmental Assessment of the plan undertaken?	Was a Habitats Regulations Assessment undertaken?	Was an Appropriate Assessment (under the Habitats Regulations) undertaken?	Was compensatory habitat needed (and a case agreed with the relevant Minister(s))?	Publication date of final plan	Lead Authority (Who to contact for further information)
Information from the following Shoreline Management Plans:											
	North Devon & Somerset (Hartland Point to Anchor Head)	Flooding from sea	statutory: this information informs the statutory requirements for Flood Risk Management Plans under the Flood Risk Regulations	The Shoreline Management Plans and associated action plans will remain as plans in their own right, but we will transfer agreed actions in relation to flooding from the sea, where they are appropriate and relevant. We will not be making changes to the existing plan. We will retain the SMP Policy Units and agreed strategic direct for the management of the coast	Oct 09 - Jan 10	Yes	Yes	Yes	Yes	Jun-10	Environment Agency: Contact: National Customer Contact Centre on: 03708 506 506 or email: enquiries@environment-agency.gov.uk You may also wish to contact the relevant groups that lead on the development of SMPs (see below)
	South Devon & Dorset (Durlston Head to Rame Head)				May to July 2009	Yes	Yes	Yes	Yes	Jun-11	
	Rame Head to Hartland Point				Jan-10	Yes	Yes	Yes	Yes	Jun-11	
	Durlston Head to Rame Head				2011	Yes	Yes	Yes	Yes	2011	
	Hurst Spit to Durlstone Head				Nov-09	Yes	Yes	Yes	Yes	Aug-11	
	Hartland Piont to Anchor Head				Jan-10	Yes	Yes	Yes	NA	Not yet published	

No. on CFMP / SMP map	Title of plan used to develop draft FRMP	Sources of risk drawn from plan	Status of information in FRMP (statutory or voluntary)	Comments on proposed changes to the information contained in the original plan for inclusion in the FRMP	Dates of consultation on draft plan	Was an Environmental Assessment of the plan undertaken?	Was a Habitats Regulations Assessment undertaken?	Was an Appropriate Assessment (under the Habitats Regulations) undertaken?	Was compensatory habitat needed (and a case agreed with the relevant Minister(s))?	Publication date of final plan	Lead Authority (Who to contact for further information)
Information from the following Shoreline Management Plans:											
	North Devon & Somerset (Hartland Point to Anchor Head)	Coastal erosion risk	voluntary: this information will be included in the FRMP on a voluntary basis in order to provide a more complete picture of flood and coastal erosion risk management in the South West River Basin District. The information should not be considered to form part of the statutory FRMP developed to meet the requirements for Flood Risk Management Plans under the Flood Risk Regulations		Oct 09 - Jan 10	Yes	Yes	Yes	Yes	Jun-10	
	South Devon & Dorset (Durlston Head to Rame Head)				May to July 2009	Yes	Yes	Yes	Yes	Jun-11	
	Rame Head to Hartland Point				2011	Yes	Yes	Yes	Yes	2011	
	Durlston Head to Rame Head				2011	Yes	Yes	Yes	Yes	2011	
	Hartland Piont to Anchor Head				Jan-10	Yes	Yes	Yes	NA	SMP2 Not yet published	

Table B1. Information compiled by Lead Local Flood Authorities related to 'local' sources of flooding (ie flooding surface water, groundwater and ordinary watercourses)

Number on LLFA map	Lead Local Flood Authority	Sources of risk drawn from plan	Within a Flood Risk Area identified in the PFRA? (Yes/No)	Is local flood risk information included in South West RBD FRMP?	Status of information in FRMP (statutory or voluntary)	Local Strategy progress (as of 31 March 2014)	Comments on proposed changes to the information contained in the original plan for inclusion in the FRMP	Was an Environmental Assessment of the plan undertaken?	Was a Habitats Regulations Assessment undertaken?	Was an Appropriate Assessment (under the Habitats Regulations) undertaken?	Was compensatory habitat needed (and a case agreed with the relevant Minister(s))?	Lead Authority (Who to contact for further information)
4	Devon County Council	Local FRM Strategy - Flooding from Surface Water, Ground Water and Ordinary Watercourses	No	Yes	Voluntary	Public consultation on strategy in progress or complete	Review and include relevant information from their Local FRM Strategy and SWMP	Yes	In progress	Duplicate cell?	n/a	Martin Hutchings, Devon County Council, Flood Risk Management, AB3 Lucombe House, County Hall, Topsham Road, Exeter, EX2 4QD
		Surface Water Management Plans: Phase 1: High level study - Devon Strategic Surface Water Management Plan Completed Phase 2a: Risk Assessment - Exeter & Devon Completed Phase 2b: Detailed investigation - Exeter Completed & Braunton and Sidmouth Currently in delivery. Ilfracombe Yet to start Phase 3: Options - Exeter Currently in delivery	No	Yes	Voluntary	In progress	Review and include relevant information from their Local FRM Strategy and SWMP	tbc	tbc		n/a	

Number on LLFA map	Lead Local Flood Authority	Sources of risk drawn from plan	Within a Flood Risk Area identified in the PFRA? (Yes/No)	Is local flood risk information included in South West RBD FRMP?	Status of information in FRMP (statutory or voluntary)	Local Strategy progress (as of 31 March 2014)	Comments on proposed changes to the information contained in the original plan for inclusion in the FRMP	Was an Environmental Assessment of the plan undertaken?	Was a Habitats Regulations Assessment undertaken?	Was an Appropriate Assessment (under the Habitats Regulations) undertaken?	Was compensatory habitat needed (and a case agreed with the relevant Minister(s))?	Lead Authority (Who to contact for further information)
6	Torbay Council	Local FRM Strategy - Flooding from Surface Water, Ground Water and Ordinary Watercourses	No	Yes	Voluntary	In progress	Review and include relevant information from their Local FRM Strategy and SWMP	tbc	tbc		n/a	David Stewart, Torbay Council, Civic Offices, Torquay, TQ1 3DR
2	Cornwall Council	Surface water and ordinary watercourse from Local FRM Strategy	No	Yes	Voluntary	Public consultation on strategy in progress or complete	LLFA to use the FRMP database to share relevant plan information but not necessarily include this in the FRMP report to EC.	yes	yes	yes		Dave Watkins
3	Plymouth City Council	Surface water and ordinary watercourse from Local FRM Strategy	No	Yes	Voluntary	Summary of strategy published	LLFA to work in partnership with the EA and contribute relevant information into the FRMP database to publish with the draft FRMP by July 2014	yes	yes	yes		Andy Cottam
1	Isles of Scilly	Surface water and ordinary watercourse from Local FRM Strategy	No	Yes	Voluntary	In progress	not in progress					David Senior
5	Somerset County Council	Local FRM Strategy - Flooding from Surface Water, Ground Water and Ordinary Watercourses	No	Yes	Voluntary	Summary of strategy published	Review and include relevant information from their Local FRM Strategy and SWMP	Yes	Yes	No	No	Steve Webster

Number on LLFA map	Lead Local Flood Authority	Sources of risk drawn from plan	Within a Flood Risk Area identified in the PFRA? (Yes/No)	Is local flood risk information included in South West RBD FRMP?	Status of information in FRMP (statutory or voluntary)	Local Strategy progress (as of 31 March 2014)	Comments on proposed changes to the information contained in the original plan for inclusion in the FRMP	Was an Environmental Assessment of the plan undertaken?	Was a Habitats Regulations Assessment undertaken?	Was an Appropriate Assessment (under the Habitats Regulations) undertaken?	Was compensatory habitat needed (and a case agreed with the relevant Minister(s))?	Lead Authority (Who to contact for further information)
7	Wiltshire Council	Local FRM Strategy - Flooding from Surface Water, Ground Water and Ordinary Watercourses	No	No	N/A	In progress	LLFA to use the FRMP database to share relevant plan information but not necessarily include this in the FRMP report to EC.					Wiltshire Council
8	Dorset	Local FRM Strategy - Flooding from Surface Water, Ground Water and Ordinary Watercourses	No	No	N/A	In progress						Dorset Council
9	Bournemouth Borough Council	Local FRM Strategy - Flooding from Surface Water, Ground Water and Ordinary Watercourses	No	No	N/A	In progress						Bournemouth Borough Council
10	Borough of Poole	Local FRM Strategy - Flooding from Surface Water, Ground Water and Ordinary Watercourses	No	No	N/A	In progress						Borough of Poole
11	Hampshire	Local FRM Strategy - Flooding from Surface Water, Ground Water and Ordinary Watercourses	No	No	N/A	Summary of strategy published	LLFA to use the FRMP database to share relevant plan information but not necessarily include this in the FRMP report to EC.	Yes	Yes	TBC		Hampshire Council



# Annex 2 Results of SEA screening and scoping process

Table A2 provides the results of an early review of the proposed Environment Agency information for the FRMP. It identifies whether the objectives/measures/actions included are from existing plans and are likely to change as they are brought into the FRMP. It also identifies if new objectives/measures/actions are being proposed. This is important because it determines whether such information is adequately covered by existing SEA reports or if this information requires a further detailed level of environmental assessment (note all objectives/measures/actions will be scoped into the high level environmental assessment). SEA scoping is an ongoing process and table A2 is subject to future change.

**Table A2: Summary of the SEA screening/scoping outcomes**

Plan or Community at Risk	Level of changes for FRMP	Outcome of plan review	Initial SEA scoping results
<b>Communities at Risk</b>	New actions in the FRMP	Actions at the community level are under consideration. This FRMP is likely to include some new and existing actions taken forward from existing plans.	Detailed scoping of new actions is an ongoing process  As developed new actions will be assessed at an appropriate level  All actions will be scoped into the high level assessment
<b>Catchment Flood management Plans (CFMPs):</b>  Exe  North Devon  South Devon  East Devon  West Cornwall	Where appropriate the Plan will retain the agreed strategic direction for management of flood risk.  The Plan will take forward any CFMP actions that are still appropriate and transition them into FRMP measures/actions.  These may also be supplement with alternative objectives and actions.	Existing CFMP appraisals to provide basis of FRMP supporting evidence	Detailed scoping of new actions is an ongoing process. As these are developed new actions will be assessed at an appropriate level  All appropriate actions will be scoped into

<p>East Cornwall</p> <p>Tamar</p> <p>West Somerset</p> <p>Parrett</p> <p>North &amp; Mid Somerset</p> <p>Hampshire Avon</p> <p>Frome &amp; Piddle</p> <p>Dorset Stour</p> <p>West Dorset</p>			the high level assessment
<p><b>Shoreline Management Plans (SMPs)</b></p> <p>North Devon &amp; Somerset (Hartland Point to Anchor Head)</p> <p>South Devon &amp; Dorset (Durlston Head to Rame Head)</p> <p>Rame Head to Hartland Point</p> <p>Durlston Head to Rame Head</p> <p>Hurst Spit to Durlstone Head</p> <p>Hartland Point to Anchor Head</p>	<p>The Shoreline Management Plans and associated action plans will remain as plans in their own right, but we will transfer agreed actions in relation to flooding from the sea, where they are appropriate and relevant. We will not be making changes to the existing plan. We will retain the SMP Policy Units and agreed strategic direction for the management of the coast</p>	<p>Existing SMP appraisals to provide basis of FRMP supporting evidence</p>	<p>High level assessment only</p>
<p>Environment Agency Strategies and Plans</p> <p>Exe Estuary Strategy</p> <p>Taw/Torridge</p>	<p>We will not be making changes to the existing strategies/plans. We will take forward any objectives and actions that are appropriate. This will provide status and progress monitoring as these measures are programmed and implemented</p>	<p>Existing FRM Strategy and Plan appraisals to provide basis of FRMP supporting evidence</p>	<p>All actions will be scoped into the high level assessment and are unlikely to require detailed assessment</p>

Estuary Study Poole & Wareham Strategy Severn Estuary Strategy Parrett Estuary FRM Strategy Lower Parret and Tone FRM Strategy Mid parrett, Yeo and Isle FRM Strategy Burnham on Sea, Berrow & Brean Beach, Dune & Coastal Defence Assets Managements Plan			
---	--	--	--

## Annex 3: Policies, plans and programmes to be considered by the Strategic Environmental Assessment

Table A3 sets out the national plans, policies and programmes and Table B3 those that are only relevant to the catchment or River Basin District. Rather than identify every possible plan or programme we intend to focus on those that are likely to significantly influence the plan or our consideration of the environmental effects.

**Table A3: National plans, policies and programmes to be considered in the SEA**

Policy / Plan / Programme	Published by	Year
Water white paper: Water for life	Defra	2011
Water for people and the environment: Water resources strategy for England and Wales	Environment Agency	2009
National Planning Policy Framework	Communities & Local Government (CLG)	2012
Natural environment white paper: The natural choice: Securing the value of nature	Defra	2012
Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services	Defra	2012
Government Forestry & Woodlands Policy Statement	Defra	2013
The invasive and non-native species framework strategy for Great Britain	Defra, Scottish Government, Welsh Assembly Government	2008
Coastal squeeze: Implications for flood management. The requirements of The European Birds and Habitats Directives. Defra policy guidance.	Defra	2005
Safeguarding our soils: A strategy for England	Defra	2009
Understanding the risks, empowering communities, building resilience: The national flood and coastal erosion risk management strategy for England	Defra & Environment Agency	2011
UK Marine Policy Statement	HMG, NI Executive, Scottish Government, Welsh Assembly Government	2011
National Policy Statements (Overarching Energy, Renewable Energy, Fossil Fuels, Oil and Gas Supply and Storage, Electricity Networks, Nuclear Power, Ports, Hazardous Waste, Waste Water Treatment)	HMG	2011-12
Managing the Environment in a Changing Climate	Environment Agency	2010
The Government's Statement on the Historic Environment for England 2010	HMG	2010
All Landscapes Matter	Natural England	2009

When identifying plans, policies and programmes relevant to the RBD, we have concentrated on those plans that are similar in scale to the River Basin Management Plan or are likely to directly impact on the catchments within the RBD. We anticipate that as plans and projects are implemented, the implications of any local plans will also be considered. There are some plans that provide comprehensive coverage across the RBD, for example local authority core strategies. Rather than list these individually, we have identified the type of plan, and when we undertake the assessment we will consider all of the plans of this type that are relevant to the RBD.

**Table B3: Plans, policies and programmes relevant to the South West RBD**

Policy / Plan / Programme	Published by	Year
CFMPs (W Cornwall, E Cornwall, Tamar, N Devon, S Devon, Exe, W Somerset, Parrett, E Devon, W Dorset, Frome and Piddle, Dorset Stour, Hampshire Avon)	Environment Agency	2009
Catchment Abstraction Management Strategies (CAMS) (Dorset, E Devon, N Cornwall Seaton Looe and Fowey, N Devon, S and W Somerset, S Devon, Tamar, W Cornwall and the Fal)	Environment Agency	2012
Shoreline Management Plans (SMPs) (Hurst Spit to Durlston Head, Durlston Head to Rame Head, Rame Head to Hartland Point, Hartland Point to Anchor Head).	Environment Agency	2009
Flood Risk Management Strategies and Coastal Defence Strategies	Environment Agency and Local Authorities	Various
SW Region Drought Plan	Environment Agency	2012
South inshore Marine Plan	Marine Management Organisation	In process 2013
South West inshore Marine Plan	Marine Management Organisation	Future
Water Resources Plan 2010-2035	South West Water	2009
Water Resources Strategy Regional Action Plan for South West Region	Environment Agency	2009
Cornwall AONB management plan 11—16	Cornwall Council	2011
Tamar Valley management plan 09-14	AONB unit	2009
East Devon AONB management plan 09-14	AONB Unit	2009
South Devon AONB management plan 09-14	AONB Unit	2009
County Council and Unitary Authority core plans	Various	Various
County Council and Unitary Authority waste and minerals plans	Various	Various
Relevant Natural Character Areas	Natural England	Various
District Council plans (with respect to housing and employment land allocation only)	Various	Various
Wild Purbeck Nature Improvement Area (NIA)	Wild Purbeck NIA Partnership	undated
North Devon Nature Improvement Area (NIA)	North Devon NIA Partnership	undated

# Annex 4: Environmental Baseline Summary to be considered by the Strategic Environmental Assessment

The SEA regulations set out a number of environmental factors to be considered during the assessment. In this FRMP assessment we want to focus on those effects that are likely to be significant, whether positive or negative at the scale of the plan which is for the river basin district. The following table sets out the environmental topics referred to in the regulations along with key baseline information for the river basin district and indicates whether we intend to consider it within the high level assessment

Table A4: Range of environmental topics for consideration in the high level assessment

Environmental topic	Baseline facts and figures	To be addressed by the high level assessment?
<b>Biodiversity, flora and fauna</b>	<ul style="list-style-type: none"> <li>The South West is rich in biodiversity and encompasses a large number of sites designated for nature conservation.</li> <li>Many of the 600+ Sites of Special Scientific Interest (SSSIs) also have European designations such as Special Protection Areas, Special Areas of Conservation or Ramsar, and a significant proportion of these are protected for aquatic or water- related habitats or species. There are currently:               <ul style="list-style-type: none"> <li>55 Special Areas of Conservation (SAC)</li> <li>9 Special Protection Areas (SPA)</li> <li>32 designated Shellfish Waters</li> </ul> </li> <li>11 Marine Conservations Zones have been designated in 2013 (8 offshore 3 onshore).</li> </ul>	Yes
<b>Population and human health</b>	<ul style="list-style-type: none"> <li>The South West covers an area of 21,000km<sup>2</sup>, incorporating the counties of Cornwall, Devon, Dorset and Somerset as well as parts of Wiltshire and Hampshire.</li> <li>It has the lowest population density of any English region at 220 per square kilometre. It also has the highest proportion of people aged over 65. Projections show the population of 5.3 million is growing faster than the rest of England,</li> <li>The South West is a popular destination for people to move to and for tourism. Net migration from other parts of the UK was higher than for any other English region at 35 per 10,000 residents in 2009.</li> <li>Significant growth in housing allocation of around 16,500 dwellings annually is planned to meet rising</li> </ul>	Yes



	<p>demand, with a particular development focus in and around Exeter, Bournemouth and Plymouth.</p> <ul style="list-style-type: none"> <li>• Health in the South West region is better than average for England although there are areas including inland Cornwall and inner-city areas in which health inequalities are increasing. Across the South West obesity has increased from around 16% of the population in 1993 to more than 24% in 2010.</li> <li>• The South West offers and supports a wide and diverse range of water based activities. The region has a large number of beaches, including 193 designated Bathing Waters. Other recreational activities include: Walking along the 630 mile long South West Coast Path; surfing, sailing, and canoeing.</li> <li>• Recreational access to a quality natural environment particularly around water has been shown to be beneficial for physical and mental health.</li> </ul>	
<b>Soil</b>	<ul style="list-style-type: none"> <li>• Soils are dominated by loam over granite or shale to the west and more clayey soils over chalk to the east.</li> <li>• About 30% of the SSSIs in the South West River Basin District are designated for geological features,</li> </ul>	Yes
<b>Water</b>	<ul style="list-style-type: none"> <li>• There is over 1000km of coastline and more than 1000 water bodies, (including rivers lakes, groundwater, estuaries, coastal waters and canals).</li> <li>• Although under less pressure than more densely populated regions, the majority of water bodies are not in good condition. Physical modifications arising from flood defences have been identified as a key pressure on a number of these water bodies.</li> <li>• Healthy waters contribute to the economic value of the South West. They help support a variety of industries from tourism to manufacturing, and it is essential that healthy waters are protected and others are improved.</li> </ul>	Yes
<b>Air</b>	<ul style="list-style-type: none"> <li>• While, individual actions may have a small localised impact on air quality, at a strategic level, it is very unlikely that the Flood Risk Management Plan would have a significant effect on air quality.</li> </ul>	No
<b>Climatic factors</b>	<ul style="list-style-type: none"> <li>• According to UKCIP the climate in the South West has shown an annual average temperature increase of about 0.9 degrees Celsius during the last 100 years. Under a medium emission scenario, annual mean temperature in the South West will rise by between 2.1 and 2.7 degrees Celsius over pre-industrial temperature by the 2050s; rainfall will increase in winter and decrease in summer. Extreme weather events are likely to take place with greater frequency.</li> </ul>	Yes
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>• Infrastructure and material assets in the South West includes agricultural land, railways (main &amp; branch). In some locations, such as the Exe estuary the railway embankments form part of the flood defence line. The M5 motorway, primary and trunk roads, power stations including nuclear facilities at Hinkley Point, marinas, numerous fishing ports and major naval and maritime</li> </ul>	Yes

	<p>transport hubs.</p> <ul style="list-style-type: none"> <li>The Plan area has approximately 307 licensed waste sites and 1922 historic landfill sites, many of which lie in close proximity to water courses.</li> </ul>	
<b>Cultural heritage</b>	<ul style="list-style-type: none"> <li>Cultural heritage and archaeology is of great significance in the South West.</li> <li>There are three World Heritage Sites, comprising Stonehenge in Wiltshire, the Jurassic Coast in Devon and Dorset and the mining landscape of Cornwall and West Devon.</li> <li>The 7000 Scheduled Monuments in the plan area make up 35% of the total in England</li> <li>Approximately 25 per cent of all listed buildings occur within the Plan area.</li> <li>20% of all English registered parks and gardens are located in the South West and most are of very high quality.</li> <li>60% of the UK's Heritage Coast is in located in the South West.</li> <li>Numerous cultural heritage assets are associated with the water environment, for example water meadow systems, engineering structures such as mills, bridges and canals, maritime defences and sites of historical boatyards.</li> </ul>	Yes
<b>Landscape</b>	<ul style="list-style-type: none"> <li>The landscapes of the district are rich, varied, heavily designated and influenced by industry and development.</li> <li>Only about 6% of land in the Plan area is built-up and this is significantly lower than the UK average. Farmed land accounts for about 80% of land use, with grazing predominant although Somerset and Wiltshire also have significant arable farming.</li> <li>The Dartmoor and Exmoor National Parks cover about 9% per cent of the plan area. There are 12 Areas of Outstanding Natural Beauty (AONBs) covering an additional 30% of the area and these recognise and protect mining landscapes, moorland, sandy beaches and granite headlands.</li> <li>There are over 200,000ha of woodland and forests, which is increasing in size.</li> <li>Rivers, floodplains and coastlines are intimately associated with the unique landscapes of the southwest.</li> <li>The Somerset level and Moors are a unique manmade wetland landscape of international importance for nature and archaeology. At its heart is the largest lowland grazing marsh system in Britain which is, consequently, of outstanding environmental interest. The catchment contains a number of designated sites of national and international importance. A significant part of the low-lying Somerset Moors is designated Special Protection Areas and a Ramsar site, which</li> </ul>	Yes

	depend upon flooding. The area is also rich in archaeological sites that depend on waterlogged conditions for their preservation. Important environmental sites in the catchment include 104 square kilometres of Areas of Outstanding Natural beauty, 0.8 square kilometres of Special Areas of Conservation (SAC), 43 square kilometres of Ramsar, 72 square kilometres of Sites of Special Scientific Interest and 112 Scheduled Monuments.	
--	--	--

**Would you like to find out more about us,  
or about your environment?**

**Then call us on  
03708 506 506 (Mon-Fri 8-6)**

**email  
enquiries@environment-agency.gov.uk  
or visit our website  
[www.gov.uk/environment-agency](http://www.gov.uk/environment-agency)**

**incident hotline 0800 80 70 60 (24hrs)  
floodline 0345 988 1188 / 0845 988 1188 (24 hrs)**

**Find out about call charges [www.gov.uk/call-charges](http://www.gov.uk/call-charges)**



**Environment first:** Are you viewing this on screen? Please consider the environment and only print if absolutely necessary. If you are reading a paper copy, please don't forget to reuse and recycle if possible.