



# Managing the risk of flooding in the South East 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.

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# 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, Highways Authorities and Internal Drainage Boards 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 East 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 East 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 one Lead Local Flood Authority areas as a statutory requirement
- flooding issues for local sources (ordinary watercourses, surface water and groundwater) for three 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.

Howard Davidson

Director of Operations South East, Environment Agency

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# 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**

1. 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 provide 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

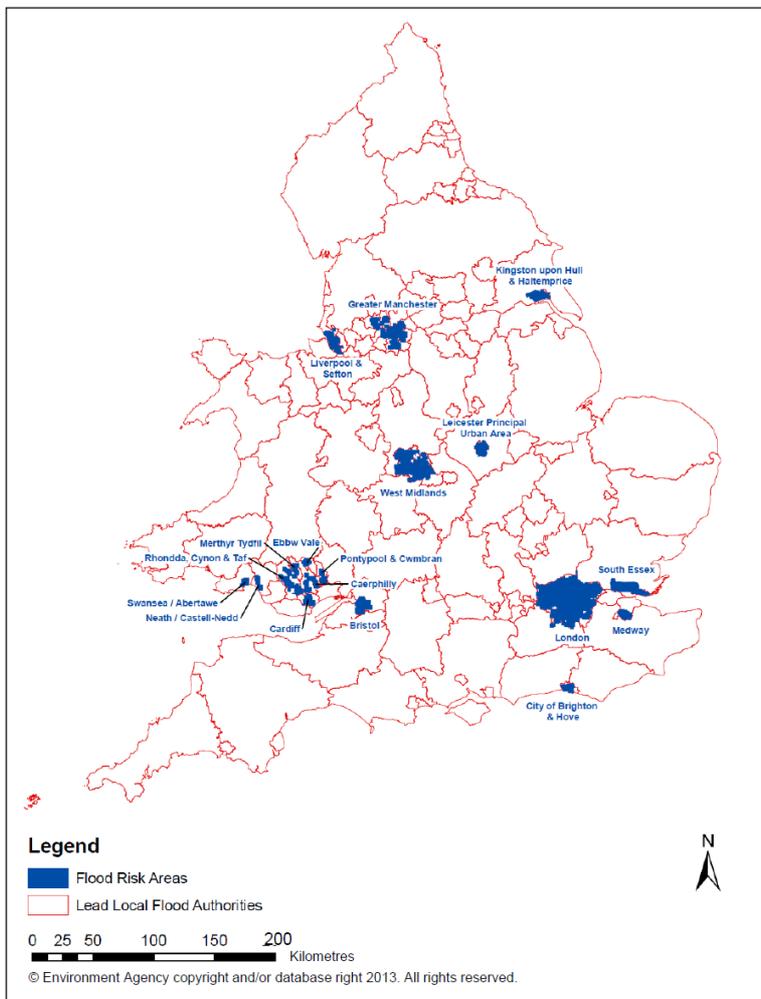
Plan or Strategy	Purpose and scope of plan or strategy	Drivers	Lead authority
<a href="#">Shoreline Management Plans</a> <sup>14</sup> (SMPs)	Current and future flood and coastal erosion risk management along the coastline.  These plans set out preferred policies for the coastline of England and Wales.	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 the South East River Basin District

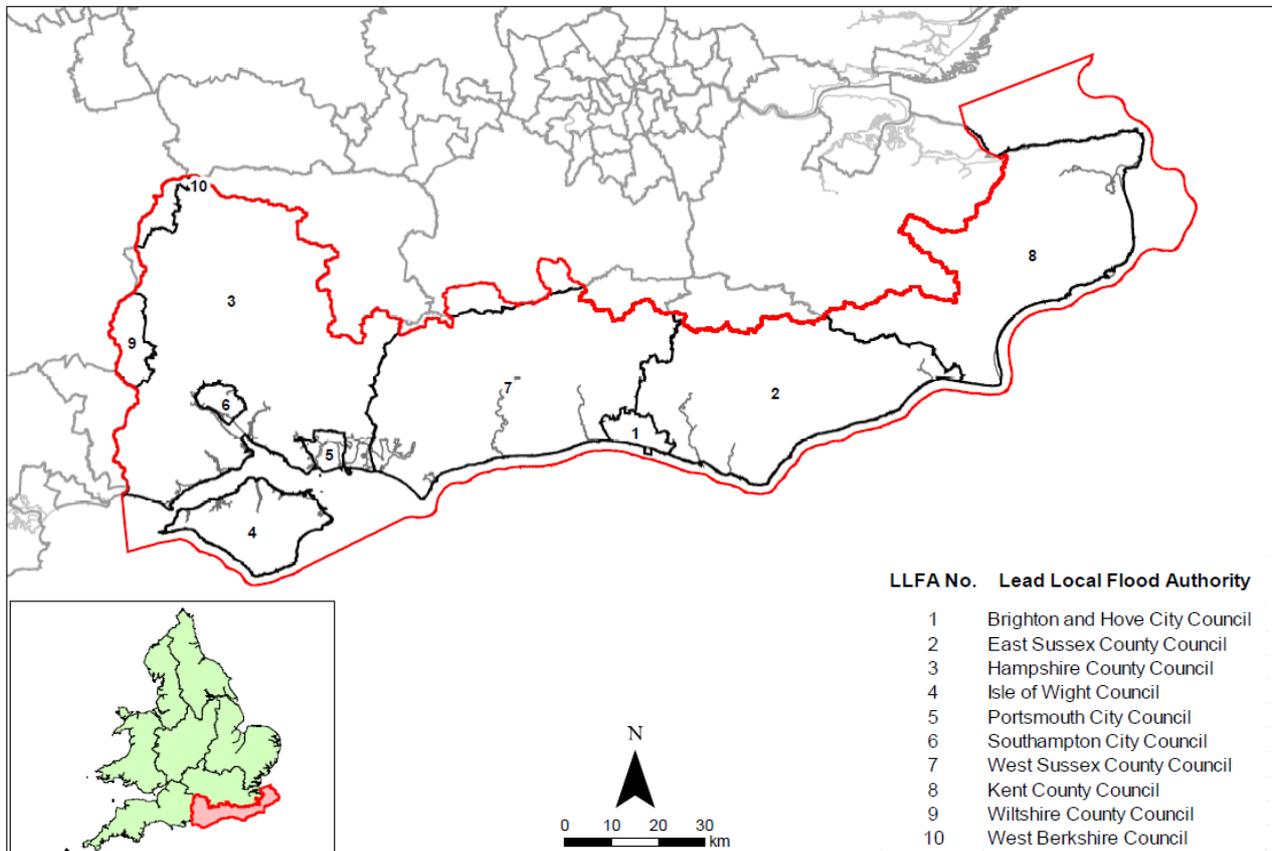
### Overview

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: Lead Local Flood Authorities in the South East River Basin District**

Box 3, and Figure 3 below, shows the LLFAs within the South East River Basin District (RBD) which have included within the FRMP for the South East 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. They also show the Flood Risk Areas for which two separate FRMPs will be prepared by LLFAs.

In developing Flood Risk Management Plans, we would also like to include information about coastal erosion risk management that is set out within Shoreline Management Plans. In this way, risk management authorities can share information about all sources of flooding and coastal erosion risk management in one place, in a way that is more accessible to the various authorities involved in planning, as well as interested communities and the public.

Annex 1 lists the plans and strategies that have been drawn from to develop the draft FRMP for the South East RBD, and the dates of previous consultation.

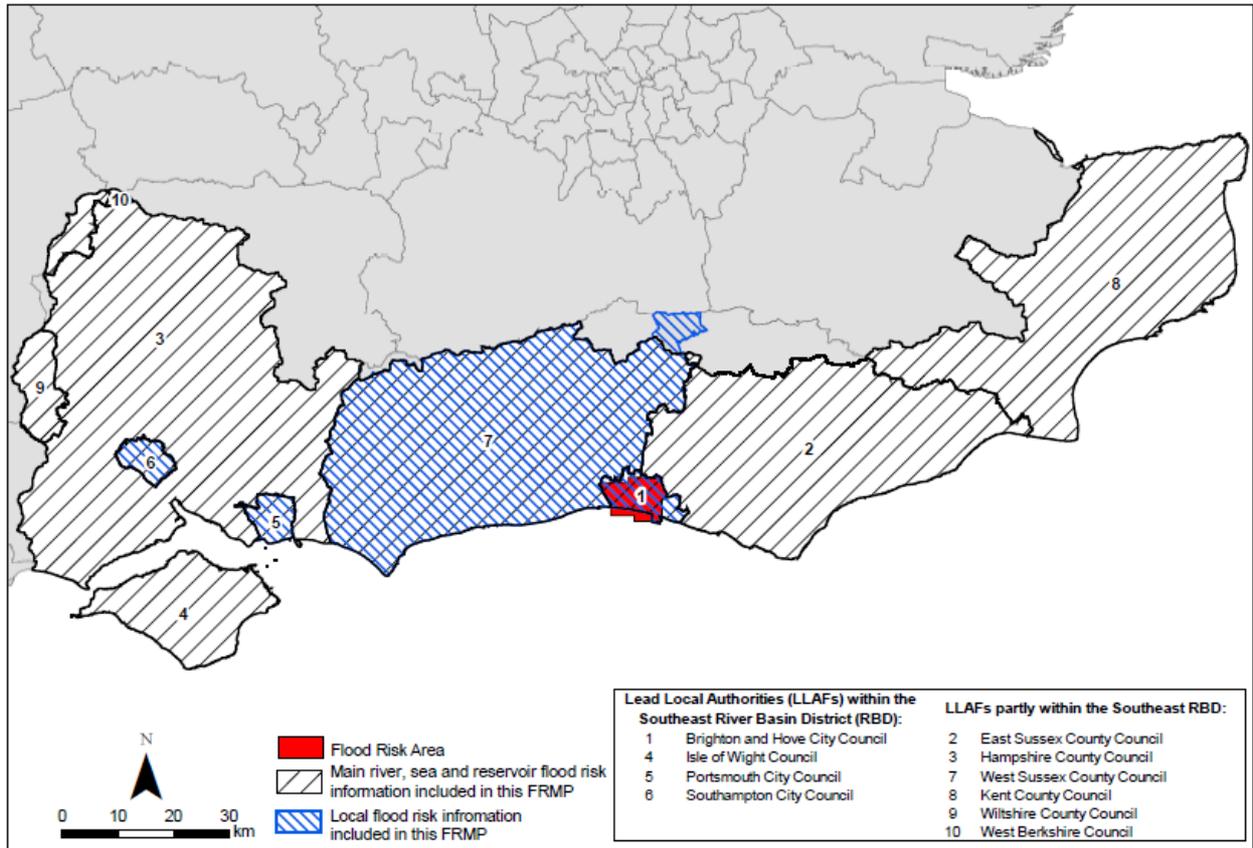
### **Box 3. FRMPs in South East RBD being prepared and consulted on**

For South East River Basin District, for the first cycle of planning under the Flood Risk Regulations, risk management authorities will prepare the following plans and consult the public on draft plans during the dates set out below:

#### **Consultation from September 2014 to December 2014 on a draft single Flood Risk Management Plan for South East RBD that covers:**

- flooding from main rivers the sea and reservoirs for the RBD (as a statutory requirement)
- coastal erosion risk management (as voluntary information)
- all sources of flooding for the following areas:
  - The City of Brighton and Hove (as a statutory requirement)
  - The City of Portsmouth (as voluntary information)
  - The City of Southampton (as voluntary information)
  - West Sussex (as voluntary information)

These areas and sources of flood risk are shown in Figure 3.



**Figure 3: Scope of Flood Risk Management Planning for South East 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 East 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.

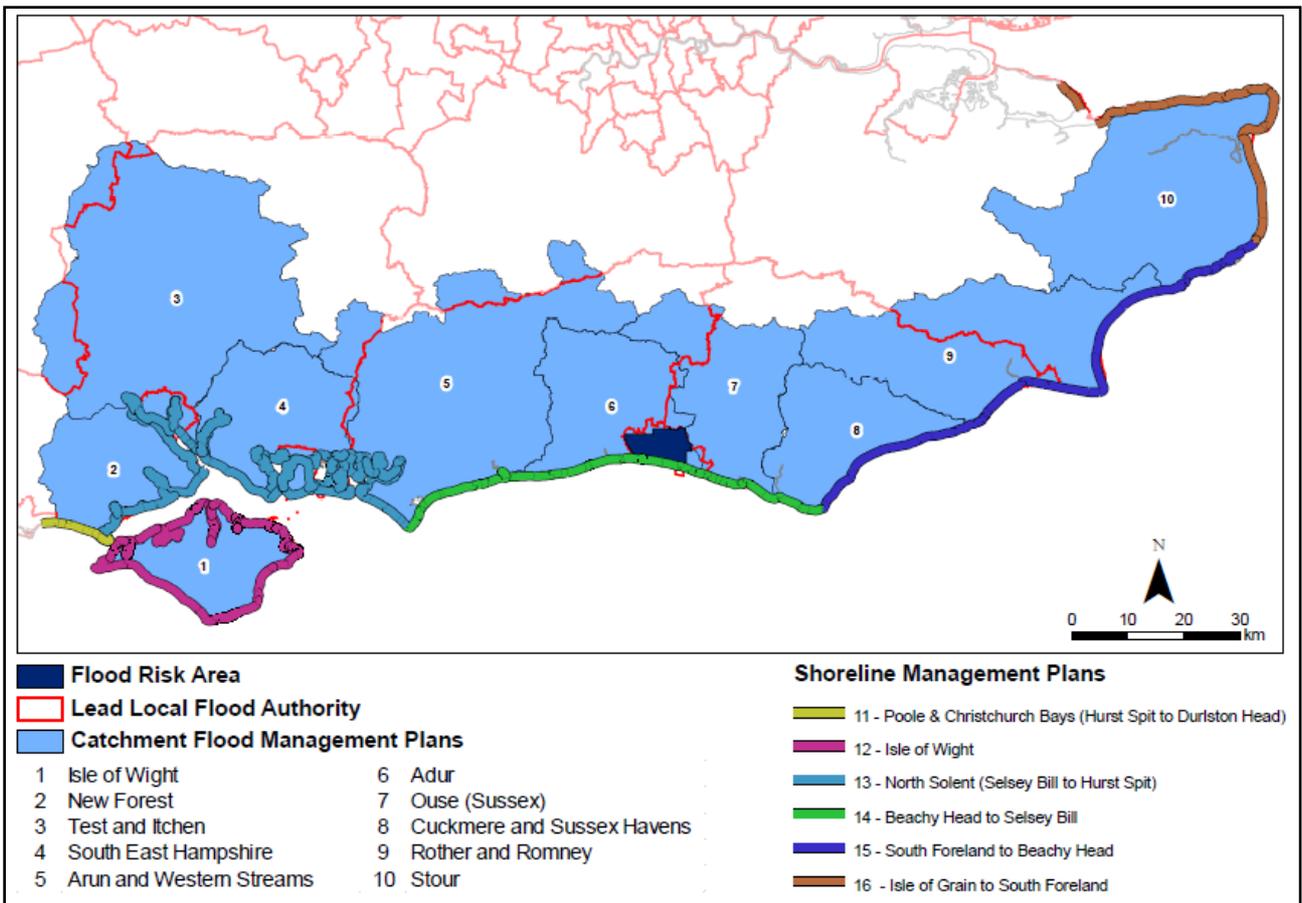
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18. <https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-for-england>
19. <http://www.legislation.gov.uk/uksi/2004/1633/contents/made>

# 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 South East 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).



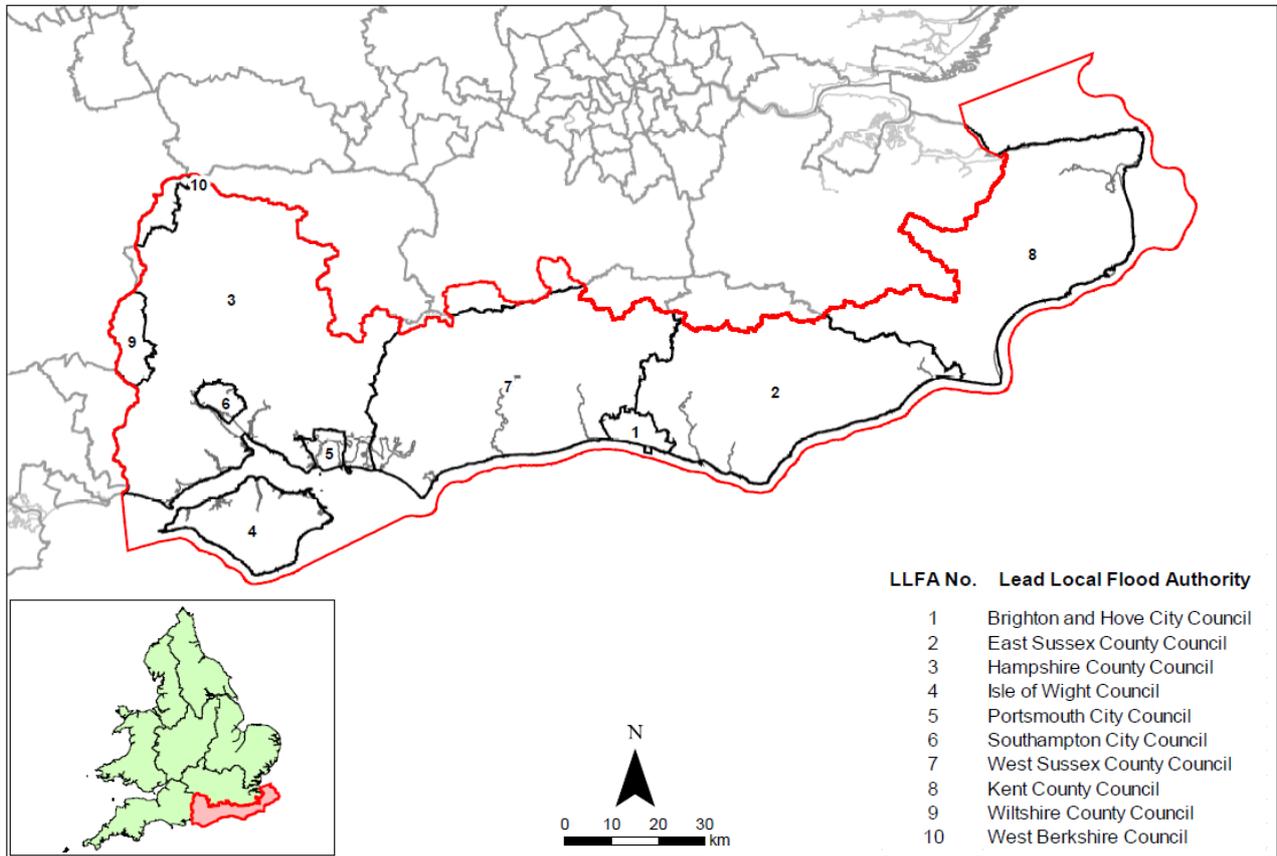
**Figure 4: CFMPs and SMPs in South East River Basin District**

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.



**Figure 5: Lead Local Flood Authorities in South East 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 4	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:											
1	Isle of Wight	Flooding from main rivers	statutory: this information informs the statutory requirements for Flood Risk Management Plans under the Flood Risk Regulations	We will undertake a review of the actions contained in this plan and any which are relevant for delivery over the timeframe of the FRMP will be included in the FRMP. These actions will be supplemented as appropriate with community based actions	May 2008	Yes, a voluntary Environmental Report was prepared to accompany the draft plan and consulted on at the same time.	Yes	Yes	Where Stage 3 assessment was required, the broad conclusion was one of uncertainty and that lower tier strategies and projects would need to undertake full HRA /AA to consider specific local circumstances. This would then lead to consideration of compensatory habitat requirement.	September 2008	Environment Agency: Contact: National Customer Contact Centre on: 03708 506 506 or email: enquiries@environment-agency.gov.uk
2	New Forest				May - July 2008		Yes	No		September 2008	
3	Test and Itchen				June - September 2007		Yes	Yes		September 2008	
4	South East Hampshire				July - October 2007		Yes	Yes		September 2008	
5	Arun and Western Streams				August - November 2006		Yes	Yes		September 2008	
6	Adur				August - November 2007		No	Yes		September 2008	
7	Ouse (Sussex)				May -July 2008		Yes	No		September 2008	
8	Cuckmere and Sussex Havens				March – June 2006		Yes	Yes		September 2008	
9	Rother and Romney				April -June 2008		Yes	Yes		August 2008	
10	Stour				September – December 2006		Yes	Yes		September 2008	

No. on CFMP / SMP map 4	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:												
	Local Resilience Forum Reservoir Plans	Flooding from Reservoirs	statutory: this information informs the statutory requirements for Flood Risk Management Plans under the Flood Risk Regulations	None  We will undertake a review of the actions contained in these plans and any which are relevant for delivery over the timeframe of the FRMP will be included	Various	N/A	N/A	N/A	N/A	Various	Local Resilience Forums	
	Lower Tidal River Arun Flood Risk Management Strategy	Flooding from main rivers and the sea			February - May 2013	Yes	Yes	Yes	No	February 2014	Environment Agency	
	River Arun to Adur Flood and Coastal Erosion Risk Management Strategy	Flooding from main rivers and the sea			July - September 2008	Yes	Yes	Yes	No	October 2010	Environment Agency	
	Pagham to East Head Coastal Defence Strategy				June - August 2008	Yes	Yes	Yes	183 Inter-tidal habit	August 2009	Environment Agency	
	River Arun to Pagham Flood and Coastal Erosion Risk Management Strategy				June - August 2009	Yes	Yes	Yes	No	Draft	Environment Agency	
	Southampton City FCRM Strategy				Flooding from surface water and ordinary watercourses	February - April 2014	Yes	Yes	Yes	N/A	In Draft	Southampton CC

No. on CFMP / SMP map 4	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:											
	Portsea Island Coastal Strategy Study	Flooding from the sea	statutory: this information informs the statutory requirements for Flood Risk Management Plans under the Flood Risk Regulations	We will undertake a review of the actions contained in these plans and any which are relevant for delivery over the timeframe of the FRMP will be included	July 2002 and spring 2008	Yes	Yes	Yes		Jun-08	Portsmouth CC/East Solent Coastal Partnership
	River Hamble to Portchester Castle Coastal Defence Strategy	Flooding from the sea			August to October 2014	Yes	Yes	Yes		Draft	East Solent Coastal Partnership
	Portchester Castle to Emsworth	Flooding from the sea			February to April 2014	Yes	Yes	Yes		Draft	EA/East Solent Coastal Partnership
	East Yar Fluvial and Coastal Strategy	Flooding from main rivers and the Sea			2009/10	Yes	Yes	Yes	no	Draft	IOW Council
	West Wight Coastal Defence Strategy Study	Flooding from the sea			2007 and future	in progress	in progress	in progress	in progress	in progress	IOW council
	River Ouse to Seaford Head Coastal Defence Strategy	Flooding from main rivers and the Sea			January-February 2011	Yes	No	No	No	May-12	Environment Agency
	Cuckmere Estuary Strategy	Flooding from main rivers and the Sea			2008	Yes	No	No	No	2008	Environment Agency
	Sussex Ouse Strategy	Flooding from main rivers			2001	Yes	No	No	No	2004	Environment Agency

No. on CFMP / SMP map 4	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:											
	Folkestone to Cliff End Flood and Coastal Erosion Risk Management Strategy	Flooding from the sea	statutory: this information informs the statutory requirements for Flood Risk Management Plans under the Flood Risk Regulations	We will undertake a review of the actions contained in these plans and any which are relevant for delivery over the timeframe of the FRMP will be included	2008	Yes	Yes	No	19ha inter-tidal needed	2010	Environment Agency
	Pegwell Bay to Kingsdown Strategy	Flooding from the sea			2007	Yes	Yes	No	No	2008	Environment Agency/Dover District Council
	Reculver to Minnis Bay Strategy	Flooding from the sea			1996	Yes	Yes	No	No	2007	Canterbury City Council

No. on CFMP / SMP map 4	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:											
11	Poole & Christchurch Bays (Hurst Spit to Durlston Head)	Flooding from the sea	statutory: this information informs the statutory requirements for Flood Risk Management Plans under the Flood Risk Regulations	We will undertake a review of the actions contained in this plan and any which are relevant for delivery over the timeframe of the FRMP will be included in the FRMP. These actions will be supplemented as appropriate with community based actions	November 2009	Yes, SEA was undertaken and an Environmental Report consulted on alongside the draft SMP	Yes	Yes	33ha of heathland habitat, 353ha coastal and floodplain grazing marsh, 329ha intertidal and transitional habitat	August 2011	Bournemouth Borough Council
12	Isle of Wight				July 2010	Yes, SEA was undertaken and an Environmental Report consulted on alongside the draft SMP	Yes	Yes	62ha of coastal grazing marsh	May 2011	Isle of Wight Council
13	North Solent (Selsey Bill to Hurst Spit)				February 2010	Yes, SEA was undertaken and an Environmental Report consulted on alongside the draft SMP	Yes	Yes	435ha saltmarsh, 173ha mudflat, 4ha freshwater habitat, 45ha coastal grazing marsh	May 2011	New Forest District Council
14	Beachy Head to Selsey Bill				March 2008	No, environmental matters were considered under Thematic Studies as part of the SMP	No	No	Not clear	February 2010	Arun District Council
15	South Foreland to Beachy Head				March 2008	No, environmental matters were considered under Thematic Studies as part of the SMP	No	No	Not clear	August 2010	Shepway District Council
16	Isle of Grain to South Foreland				April 2008	Yes, SEA was undertaken and an Environmental Report consulted on retrospectively	Yes	Yes	679ha freshwater terrestrial habitat	August 2010	Canterbury County Council

No. on CFMP / SMP map 4	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:											
11	Poole & Christchurch Bays (Hurst Spit to Durlston 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 Anglian 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	We will undertake a review of the actions contained in this plan and any which are relevant for delivery over the timeframe of the FRMP will be included in the FRMP.	November 2009	Yes, SEA was undertaken and an Environmental Report consulted on alongside the draft SMP	Yes	Yes	33ha of heathland habitat, 353ha coastal and floodplain grazing marsh, 329ha intertidal and transitional habitat	August 2011	Bournemouth Borough Council
12	Isle of Wight				July 2010	Yes, SEA was undertaken and an Environmental Report consulted on alongside the draft SMP	Yes	Yes	62ha of coastal grazing marsh	May 2011	Isle of Wight Council
13	North Solent (Selsey Bill to Hurst Spit)				February 2010	Yes, SEA was undertaken and an Environmental Report consulted on alongside the draft SMP	Yes	Yes	435ha saltmarsh, 173ha mudflat, 4ha freshwater habitat, 45ha coastal grazing marsh	May 2011	New Forest District Council
14	Beachy Head to Selsey Bill				March 2008	No, environmental matters were considered under Thematic Studies as part of the SMP	No	No	Not clear	February 2010	Arun District Council
15	South Foreland to Beachy Head				March 2008	No, environmental matters were considered under Thematic Studies as part of the SMP	No	No	Not clear	August 2010	Shepway District Council
16	Isle of Grain to South Foreland				April 2008	Yes, SEA was undertaken and an Environmental Report consulted on retrospectively	Yes	Yes	679ha freshwater terrestrial habitat	August 2010	Canterbury County Council

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 maps 2 & 3	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 Southern RBD FRMP?	Status of information in FRMP (statutory or voluntary)	Local Strategy progress (as of 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)
1	Brighton and Hove City Council	Surface water and ground water from Local FRM Strategy	Yes	Yes	Statutory	In progress	None	In progress	In progress	Unknown	Unknown	Brighton and Hove City Council
		Surface Water and ground water from SWMP				N/A	None	N/A	N/A	N/A	N/A	
2	East Sussex County Council	N/A	No	No	N/A	Summary of strategy published	None	Yes	Yes	No	No	East Sussex County Council
3	Hampshire County Council	N/A	No	No	N/A	Summary of strategy published	None	Yes	Yes	Yes	No	Hampshire County Council
4	Isle of Wight Council	N/A	No	No	N/A	In progress	None	In progress	In progress	In progress	In progress	Isle of Wight Council
5	Portsmouth City Council	Surface water from Local FRM Strategy	No	Yes	Voluntary	Summary of strategy published	None	Yes	Yes	Unknown	Unknown	Portsmouth City Council
6	Southampton City Council	Surface water from Local FRM Strategy	No	Yes	Voluntary	Public consultation on strategy in progress or complete	None	Yes	Yes	No	No	Southampton City Council

Number on LLFA maps 2 & 3	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 Southern RBD FRMP?	Status of information in FRMP (statutory or voluntary)	Local Strategy progress (as of 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	West Sussex County Council	Surface water from Local FRM Strategy	No	Yes	Voluntary	Public consultation on strategy in progress or complete	None	Yes	Yes	unknown	unknown	West Sussex County Council
8	Kent County Council	N/A	No	No	N/A	Summary of strategy published	None	Yes	Yes	unknown	unknown	Kent County Council
9	Wiltshire County Council	N/A	No	No	N/A	In progress	None	In progress	In progress	In progress	In progress	Wiltshire County Council
10	West Berkshire Council	N/A	No	No	N/A	Public consultation on strategy in progress or complete	None	Yes	Yes	No	No	West Berkshire Council
11	Surrey County Council	N/A	No	No	N/A	Public consultation on strategy in progress or complete	None	Yes	Yes	unknown	unknown	Surrey County Council

# Annex 2 Results of SEA 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 scoping for detailed assessment**

Plan or Community at Risk	Level of changes for FRMP	Outcome of plan review	Initial SEA scoping results
Any new EA 'proposed' measures and analysis	New in FRMP A number of new Communities at Risk and actions will be included	Uncertain number of Communities at Risk actions	Actions will be preliminary so will be scoped out of detailed assessment. All actions will be scoped in to the high level assessment
<b>Shoreline Management Plans (SMP)</b>			
Isle of Grain to South Foreland SMP	27 policy units unchanged	All policies and actions unchanged	Scoped in to the high level assessment only
South Foreland to Beachy Head SMP	28 policy units unchanged 2 policy units changed	Policy unit 4c10 (Hythe Ranges): Change from managed realignment in long term to hold the line (HTL). Policy unit 4c14 (Lydd Ranges): Change from managed realignment to HTL with a further review of long term options requested by Defra during the appraisal phase for further work on flood risk management schemes on this frontage. All policies and actions otherwise retained.	Scoped out of detailed assessment as assessed within the Folkestone to Cliff End Coastal Defence Strategy which will be considered in the high level assessment. Scoped in to the high level assessment only
		UNCLASSIFIED	

Plan or Community at Risk	Level of changes for FRMP	Outcome of plan review	Initial SEA scoping results
Beachy Head to Selsey Bill SMP	23 policy units unchanged. 1 policy unit changed.	Cuckmere haven and Cuckmere Valley unit change from maintain to no active intervention. All policies and actions otherwise retained.	Scoped out due to assessment of change occurring within Cuckmere Estuary strategy which will be considered in the high level assessment. Scoped in to the high level assessment only
North Solent SMP (Selsey Bill to Hurst Spit SMP)	62 policy units unchanged	All policies and actions retained.	Scoped in to the high level assessment only
Poole & Christchurch Bays SMP (Hurst Spit to Durlston Head SMP)	46 policy units unchanged	All policies and actions retained.	Scoped in to the high level assessment only
Isle of Wight SMP	26 policy units unchanged	All policies and actions retained.	Scoped in to the high level assessment only
<b>Catchment Flood Management Plans (CFMP)</b>			
Stour CFMP	9 policy units unchanged	All policies and actions retained.	Scoped in to the high level assessment only
Rother and Romney CFMP	6 policy units unchanged	All policies and actions retained.	Scoped in to the high level assessment only
Cuckmere and Sussex Havens CFMP	8 policy units unchanged. 1 policy unit changed.	Sub Area 1, Cuckmere Estuary change from maintain to no active intervention. All policies and actions otherwise retained.	Scoped out of detailed assessment due to assessment of change occurring within Cuckmere Estuary strategy which will be considered in the high level assessment. Scoped in to the high level assessment only
Adur CFMP	9 policy units unchanged	All policies and actions retained.	Scoped in to the high level assessment only
Ouse CFMP (Sussex)	8 policy units unchanged. 1 policy unit changed.	Sub Area 6, The Brooks and Lower Ouse change from Policy Option 6; 'take actions with others to store water or manage runoff to reduce flood risk' to maintain. All policies and actions otherwise retained.	Scoped out of detailed assessment due to assessment of change occurring within River Ouse to Seaford Head (ROSH) strategy which will be considered in the high level assessment. Scoped in to the high level assessment only

<b>Plan or Community at Risk</b>	<b>Level of changes for FRMP</b>	<b>Outcome of plan review</b>	<b>Initial SEA scoping results</b>
Arun and Western Streams CFMP	7 policy units unchanged. 2 policy units changed	Policy unit 12. Change from action to reduce flood risk to maintain. Policy unit 7 change from action to increase flooding to Sustain. All policies and actions otherwise retained.	Scoped out of detailed assessment as assessed within Lower Tidal River Arun Strategy which will be considered in the high level assessment. Scoped in to the high level assessment only.
SE Hampshire CFMP	7 policy units unchanged	All policies and actions retained.	Scoped in to the high level assessment only
Test and Itchen CFMP	9 policy units unchanged	All policies and actions retained.	Scoped in to the high level assessment only
New Forest CFMP	7 policy units unchanged	All policies and actions retained.	Scoped in to the high level assessment only
Isle of Wight CFMP	6 policy units unchanged	All policies and actions retained.	Scoped in to the high level assessment only

# 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 East RBD**

Policy / Plan / Programme	Published by	Year
Catchment Flood Management Plans (respectively Arun and Western Streams, Isle of Wight, Stour, Test and Itchen, New Forest, SE Hampshire, Adur, Ouse (Sussex), Cuckmere and Sussex Havens, Rother and Romney)	Environment Agency	2009
Catchment Abstraction Management Plans (respectively Adur and Ouse, Arun and Western Streams, Cuckmere and Pevensey Levels, East Hampshire, Isle of Wight, New Forest, North Kent and Swale, Rother, Stour, Test and Itchen).	Environment Agency	2007-8
Flood and Coastal Erosion Risk Management strategies (respectively Eastern Yar, Folkestone to Cliff End, Lower Tidal River Arun, Sussex Ouse, Ouse to Seaford Head, Arun to Adur, Arun to Pagham, Pagham to East Head, Portchester Castle to Emsworth, West Wight, Pegwell Bay to Kingsdown , Hamble to Portchester, Southampton, Portsea Island, , Cuckmere Estuary, Reculver to Minnis Bay).	Environment Agency and Local Authority	Various
Shoreline Management Plans (respectively Isle of Grain to South Foreland, South Foreland to Beachy Head, Beachy Head to Selsey Bill, Selsey Bill to Hurst Spit, Isle of Wight).  (Note: we will be drawing from these to develop the FRMPs)	Environment Agency	2009
SE Region Drought Plan	Environment Agency	2012
Water Resources Strategy - Regional Strategy Actions for South East Region	Environment Agency	2012
South Inshore Marine Plan	Marine Management Organisation	In process 2014
Management Plans for Areas of Outstanding Natural Beauty (AONBs) (respectively Chichester Harbour, High Weald, Kent Downs, Isle of Wight,)	Individual AONB Unit /local Partnership Board	2004

Policy / Plan / Programme	Published by	Year
District Authority Core Strategies (respectively Swale, Canterbury, Thanet, Dover, Ashford (Growth Area), Shepway, Rother, Hastings, Tunbridge Wells, Wealden, Eastbourne, Lewes, Mid Sussex, Horsham, Adur, Worthing, Arun, Chichester, Havant, East Hampshire, Winchester, Fareham (Growth Area), Eastleigh, Test Valley, New Forest).	Various as available	Various
Unitary Authority Core Strategies (respectively Brighton & Hove, Portsmouth (Growth Area), Southampton (Growth Area), Isle of Wight.)	Various as available	Various
County Waste and Minerals Plans (respectively Wiltshire (part of), Hampshire, Surrey (part of), West Sussex, East Sussex, Kent (some half of).	Various as available	Various
Lead Local Flood Authority Flood Risk Management Strategies (respectively Hampshire, Surrey (part of), Wiltshire (part of), West Berkshire (part of), Kent (part of), West Sussex (part of), Portsmouth, Southampton, Isle of Wight, East Sussex)	Various LLFAs	Various
Water Company planning (respectively Southern Water, Portsmouth Water, Affinity Water (formerly Veolia), South East Water)	Water companies	Pending
Water Level Management Plan (respectively Pevensey Levels, Lewes Brooks)	Environment Agency	Various
Test and Itchen River Restoration Plan	Natural England	2013
South Downs Way Ahead Nature Improvement Area	Natural England	2012-15

# 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 considered by the high level assessment?
<b>Biodiversity, flora and fauna</b>	<ul style="list-style-type: none"> <li>• 13 Special Areas of Conservation (SAC).</li> <li>• 11 Special Protection Areas (SPA).</li> <li>• 10 Ramsar sites and one proposed Ramsar.</li> <li>• 394 Sites of Special Scientific Interest (SSSIs). Compared to the UK average, a lower proportion of these sites are in favourable or unfavourable recovering condition. Adverse woodland and forestry management are the most common causes for the poor condition of SSSIs.</li> <li>• 6 Marine Conservations Zones (MCZ).</li> <li>• 28 National Nature Reserves.</li> <li>• water bodies and wetland areas support a number of protected species (e.g. otter, water vole) and priority species listed in the UK Biodiversity Action Plan (e.g. White-clawed Crayfish).</li> <li>• water bodies and wetland areas support priority habitat including vegetated shingle and salt marsh communities along the coast and reedbed and chalk rivers along water courses.</li> <li>• there is a significant and increasing problem with non-native invasive species, including in rivers and lakes, and signal crayfish are a particular threat.</li> </ul>	Yes
<b>Population and human health</b>	<ul style="list-style-type: none"> <li>• covers an area of 10,500km<sup>2</sup> and includes the counties of Hampshire, East and West Sussex. It also includes about half of Kent and parts of Wiltshire and Surrey.</li> <li>• there are ten Tier One Local Authorities (County or Unitary Authority) fully or largely in the river basin district as well as the South Downs National Park</li> </ul>	Yes

	<p>Authority.</p> <ul style="list-style-type: none"> <li>the area is densely populated and population is increasing. Between 2001 and 2010, the population increased by 6.2%, which is greater than the average rate of increase for England. Population increase is due to a combination of inward migration from other UK regions and natural change.</li> <li>growth is set to continue and there are plans to build an extra 300,000 new dwellings by 2026 to cater for housing demand. The effects of this will be felt most around high-growth areas such as Fareham, Hedge End, Southampton, Portsmouth and Ashford.</li> <li>life expectancy is slightly higher than the UK average and the proportion of people over the age of 65 is expected to rise from its current level of 16.5% to 25% by 2033.</li> <li>one particular area of concern is obesity. The RBD has seen overall obesity rise from under 16% in 1993 to 24% in 2010. Higher obesity levels as well as other health inequalities are seen in deprived areas.</li> <li>the economy is second only to London in terms of productivity, employment and per capita income but there are major variations in economic activity.</li> </ul>	
<b>Soil</b>	<ul style="list-style-type: none"> <li>there is a high proportion of soils either with chalk substrate or with soft, impermeable substrate.</li> <li>of the 394 SSSIs, more than 70 are designated for geological features, for example the Brighton to Newhaven Cliffs SSSI.</li> <li>mineral extraction is an important industry.</li> </ul>	Yes
<b>Water</b>	<ul style="list-style-type: none"> <li>the water environment is under pressure due to lower than average rainfall and high population density.</li> <li>nine catchments with 405 surface water bodies (rivers, lakes, canals, estuaries and coastal waters) and 30 groundwater bodies. The majority of these are not in good condition. Key issues identified include pollution from waste water, physical modifications and changes to the natural flow and level of water. Some are in a more natural state, such as the highly protected chalk streams of the Test and Itchen catchment.</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 within the river basin district.</li> </ul>	No
<b>Climatic factors</b>	<ul style="list-style-type: none"> <li>UKCIP (2009) makes a number of climate change predictions for the SE RBD:</li> <li>annual mean temperature in the RBD could rise by a further 2-3oC by 2050.</li> <li>long-term average rainfall to be approximately 15-20% higher than current average rainfall and to comprise heavier bursts of rainfall.</li> </ul>	Yes

	<ul style="list-style-type: none"> <li>winters will be warmer and wetter, with a 40% increase in rainfall.</li> <li>summers will be hotter and drier, with a 20% reduction in rainfall. This may lead to much lower summer river flows and droughts. This may also result in risk to biodiversity from warmer water. The potential risk of sediment run-off into rivers and other water bodies from lower soil moisture content impacting on structure is likely to increase.</li> <li>Sea level rise of some 1-2m by 2115. Will increase risk of coastal flooding and erosion and cause loss of intertidal priority habitat through coastal squeeze.</li> <li>nationally the water industry currently contributes 2% of the UK's greenhouse gas emissions.</li> </ul>	
<b>Material Assets (Infrastructure)</b>	<ul style="list-style-type: none"> <li>agricultural land, railways, primary roads, power stations, airports, marinas, fishing ports and major naval and maritime transport hubs.</li> <li>flood defences line much of the 500km coastline of the RBD and many of the rivers also have flood defences associated with them.</li> <li>the RBD has approximately 588 licensed waste sites and 1,100 historic landfill sites, many of which lie in close proximity to water bodies.</li> </ul>	Yes
<b>Cultural heritage</b>	<ul style="list-style-type: none"> <li>1,615 Scheduled Monuments</li> <li>37,000 listed buildings</li> <li>Canterbury World Heritage Site</li> <li>many hundreds of historic parks and gardens.</li> <li>historic defence features along the coast are of particular importance as the south east has been at front line of national defence for centuries. Examples include defences such as the numerous Martello Towers</li> <li>many of the river basin district's historic assets are associated with the water environment, for example mills, bridges, locks and weirs. Examples include the Royal Military Canal in the Rother catchment.</li> </ul>	Yes
<b>Landscape</b>	<ul style="list-style-type: none"> <li>the RBD has a diverse and high quality landscape with a higher proportion (35%) of land under national landscape designation than any other UK river basin district.</li> <li>2 National Parks (South Downs, New Forest).</li> <li>4 Areas of Outstanding Natural Beauty (Isle of Wight, Chichester Harbour, High Weald, Kent Downs).</li> <li>5 Heritage Coasts (Hamstead, Tennyson, Sussex, Dover-Folkestone, South Foreland).</li> <li>landscapes include broad coastal floodplain and river valleys, iconic chalk cliff coastlines, and rolling uplands.</li> <li>up to 20% of the land in the South East RBD has been developed, for example for housing, industry or transport. Predominant rural land uses are</li> </ul>	Yes

	<p>agricultural, improved grassland and woodland. Arable farming is particularly dominant in the east of the river basin district.</p>	
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