



## Flood defence spending in England

Standard Note: SN/SC/5755

Last updated: 14 March 2013

Author: Oliver Bennett, Policy Analyst

Section: Science and Environment

---

Some 5.2 million properties are at risk of flooding in England. Annual flood damage costs are in the region of £1.1 billion. These costs could rise to as much as £27 billion by 2080. It has been estimated that maintaining existing levels of flood defence would require flood defence spending to increase to over £1 billion per year by 2035.

Central Government spending on flood defences will reduce in real terms over the spending review period. The Government has introduced a new flood defence funding system, which it believes will help to meet the shortfall. The new funding arrangements seek to encourage more local investment in flood defences, so that schemes that might not be funded nationally may still go ahead.

There are concerns about the extent to which local communities are able to contribute to flood defence funding. While the number of properties at risk of flooding may not rise in the short term, there could be a significant increase in the longer term if current spending levels do not increase.

For more information about flood insurance, see [Standard Note 6187 Household flood insurance](#).

This information is provided to Members of Parliament in support of their parliamentary duties and is not intended to address the specific circumstances of any particular individual. It should not be relied upon as being up to date; the law or policies may have changed since it was last updated; and it should not be relied upon as legal or professional advice or as a substitute for it. A suitably qualified professional should be consulted if specific advice or information is required.

This information is provided subject to [our general terms and conditions](#) which are available online or may be provided on request in hard copy. Authors are available to discuss the content of this briefing with Members and their staff, but not with the general public.

## Contents

<b>1</b>	<b>The problem</b>	<b>3</b>
<b>2</b>	<b>National flood defence spending</b>	<b>3</b>
2.1	Recent additional funding	4
2.2	Managing the budget cut	4
2.3	Partnership funding arrangements—local contributions	5
2.4	Will local contributions meet the shortfall?	5
2.5	Will the number of properties at risk increase over the spending review period?	6
<b>3</b>	<b>Who manages flood risk?</b>	<b>6</b>
3.1	Flood risk management policy	6
3.2	Flood risk from main rivers, estuaries, the sea and reservoirs	6
3.3	Flood risk from surface water run-off, groundwater and smaller watercourses	7
3.4	Flood risk from sewers and highways	7
3.5	Coastal erosion	7

## 1 The problem

Flood damage costs in England are around £1.1 billion per year.<sup>1</sup> The Environment Agency has calculated that:

- One in six homes in England is at risk of flooding.
- Over 2.4 million properties are at risk of flooding from rivers or the sea in England, of which nearly half a million are at significant risk.
- One million of these are also vulnerable to surface water flooding with a further 2.8 million properties susceptible to surface water flooding alone.
- 55 per cent living in flood risk areas knew they were at risk and for these three out of five of them had taken some action to prepare for flooding.<sup>2</sup>

The challenge posed by flooding could increase in future due to a number of factors. Annual flood damage costs could exceed £27 billion across the UK by 2080.<sup>3</sup> The main factors include:

- climate change, which could lead to rising sea levels and changes in rainfall;
- ageing drainage and flood defence infrastructure;
- more buildings in flood-prone areas; and
- more paving, which increases the volume of water running off the ground.<sup>4</sup>

It has been calculated that spending on flood defences would have to increase by £10-£30 million plus inflation per year to maintain existing levels of flood protection to 2035.<sup>5</sup> Additional funds for surface and groundwater flooding, £150 million a year, would also be needed. The Environment Agency found that increasing spending by around £20 million each year would deliver benefits of some £180 billion over the next 100 years.<sup>6</sup>

## 2 National flood defence spending

There was a significant increase in flood defence spending from 1997 to 2010—spending increased by three-quarters in real terms.<sup>7</sup>

In the 2010 Comprehensive Spending Review (2011-12 to 2014-15), a total of £2.17 billion was provided for flood and coastal defence. This represented “a six per cent fall in central government funding”.<sup>8</sup> The Committee on Climate Change calculated that this represented a real term cut of around 20% compared to the previous spending period.<sup>9</sup>

---

<sup>1</sup> National Audit Office, *Flood risk management in England*, October 2011

<sup>2</sup> *Flooding in England: A National Assessment of Flood Risk*, Environment Agency, 2009

<sup>3</sup> *ibid*

<sup>4</sup> *Foresight Future Flooding*, Office of Science and Technology, 2004

<sup>5</sup> <http://www.bis.gov.uk/foresight/our-work/projects/published-projects/flood-and-coastal-defence/project-outputs>

<sup>6</sup> <http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/geho0609bqdf-e-e.pdf>

<sup>7</sup> *Reducing flood risk*, House of Commons Library, May 2010

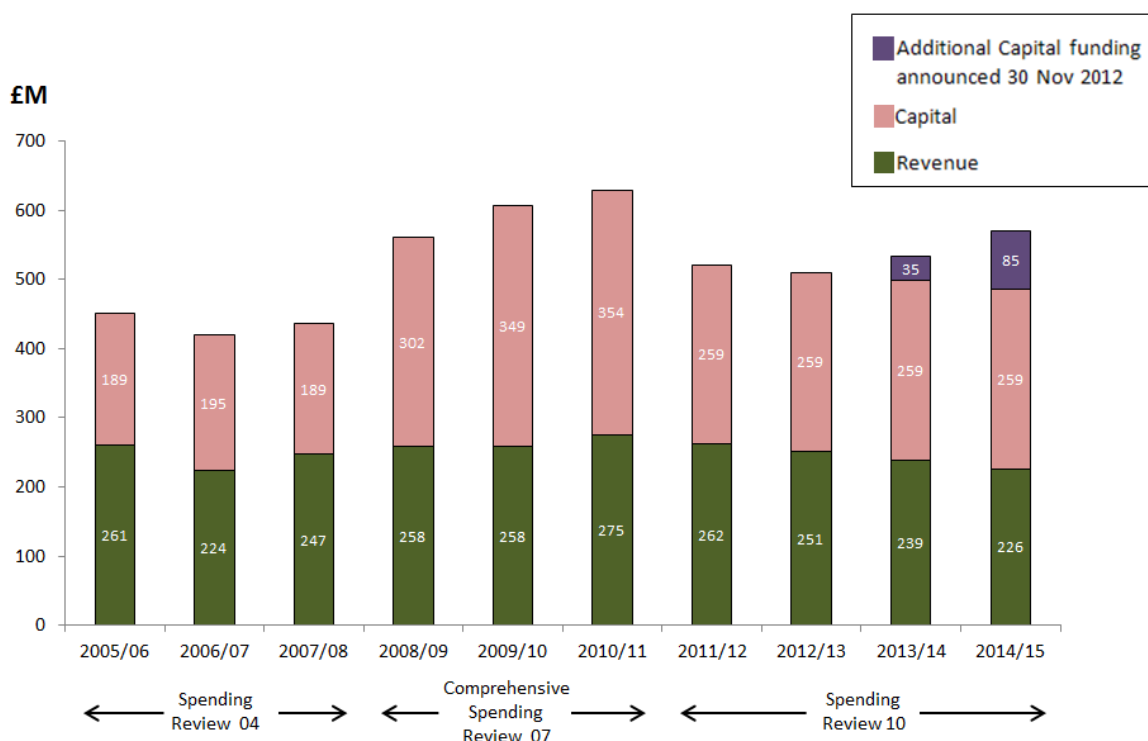
<sup>8</sup> <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmenvfru/writev/flood/flood.pdf>

<sup>9</sup> [http://hmccc.s3.amazonaws.com/ASC/CCC\\_ASC\\_2012\\_bookmarked\\_2.pdf](http://hmccc.s3.amazonaws.com/ASC/CCC_ASC_2012_bookmarked_2.pdf)

Defra said of the budget cut:

We expect to spend at least £2.1billion on flooding and coastal erosion over the next four years, only a slight decrease on the £2.36billion spent over the last four years [.] We've protected the budget as much as possible, meaning 145,000 homes will be better protected from flooding by 2015.<sup>10</sup>

Table 1: Flood defence grant in aid from 2005 to 2015. Table produced by the Association of Drainage Authorities for the EFRA Select Committee. Figures are in cash terms.



## 2.1 Recent additional funding

In November 2012 the Government announced additional funding of £120 million to the year 2014-2015. The additional funds will be used to speed high priority flood defence schemes and encourage economic growth in areas at risk of flooding.<sup>11</sup>

## 2.2 Managing the budget cut

To ensure that the budget cut did not have a major impact on current flood protection levels the Environment Agency targeted most of its investment on high priority schemes and committed itself to 15% efficiency savings. The Agency said that savings would be delivered through more effective working and reductions in contract costs, rather than reductions in the scale of the protection programme.<sup>12 13</sup> In addition the Government anticipated that local government and private bodies would increasingly help to meet the shortfall through the [new partnership funding arrangements](#).

<sup>10</sup> [Myths busted: flood budgets](#), Defra, 8 November 2010

<sup>11</sup> <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmenvfru/writev/flood/flood.pdf>

<sup>12</sup> Committee of Public Accounts, [Flood Risk Management in England](#), HC 1659, 31 January 2012

<sup>13</sup> National Audit Office, [Flood Risk Management in England](#), 28 October 2011

## 2.3 Partnership funding arrangements—local contributions

In the past flood defence projects were largely funded from a national budget. In May 2011 the Government announced changes to the system to encourage more local contributions to flood defence schemes. This was a recommendation of the Pitt Review, and it generally has widespread support.<sup>14</sup>

Under the new system, [Flood and Coastal Resilience Partnership Funding](#), central government contributions will cover the full cost of a scheme if it has high benefits—such as if many houses are protected. However, where the benefits are not high enough for central government contributions to cover the costs, local contributions can top up the funding. Alternatively, budget savings could be made. In this way the Government hopes that more flood defence projects will go ahead, at lower cost.

The National Flood and Coastal Erosion Risk Management Strategy summarised the new system:

In essence, instead of meeting the full cost of a limited number of schemes, a new partnership approach to funding could make government money available to pay a share of any worthwhile scheme. The amount in each case will depend on the level of benefits the scheme provides. For example, the number of households protected, or the amount of damage that can be prevented. The level of government funding potentially available towards each scheme can be easily calculated. Local authorities and communities can then decide on priorities and what to do if full funding isn't available. Projects can still go ahead if costs can be reduced or other funding can be found locally.<sup>15</sup>

There are a number of potential impacts of this change in funding. The Government stated that its proposals will help to:

Encourage total investment in Flood and Coastal Erosion Risk Management by operating authorities to increase beyond what is affordable to national budgets alone;

Enable more local choice within the system and encourage innovative, cost-effective options to come forward in which civil society may play a greater role; and

Maintain widespread take-up of flood insurance.<sup>16</sup>

## 2.4 Will local contributions meet the shortfall?

It appears as though local contributions will not meet the shortfall in the short term. The Environment Agency estimated that the new partnership arrangements will deliver £70.6 million to 2014-15. This means that, even with local flood levies, overall spending on flood defences will probably be lower than the previous spending review period.<sup>17</sup>

---

<sup>14</sup> [The Pitt Review: Learning lessons from the 2007 floods](#), Cabinet Office, June 2008

<sup>15</sup> [National flood and coastal erosion risk management strategy for England: Summary Strategy](#), Environment Agency, July 2011

<sup>16</sup> [Future Funding for Flood and Coastal Erosion Risk Management, Impact Assessment](#), 8 November 2010, Defra

<sup>17</sup> <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmenvfru/writev/flood/flood.pdf>

The Environment, Food and Rural Affairs select committee had anticipated this problem:

We conclude that it is right that beneficiaries such as developers should help fund new schemes, but it is by no means certain that any shortfall in central Government funding will be made up at this stage by contributions from other sectors, particularly the local government sector which is already contributing to funding many local flood defence projects. Clear principles and methods must be agreed urgently amongst all interested parties to secure funding from all sources to meet the Government's flood defence objectives in the next few years since timely investment in flood defences provides significant economic and social returns.<sup>18</sup>

On 31 January 2012 the Public Accounts Committee raised a number of more serious concerns about the possible implications of the new arrangements. In particular it was concerned that overall flood defence spending would not be adequate, and that the funding changes would reduce clarity for local people about where responsibility for flood defences lies.<sup>19</sup>

## **2.5 Will the number of properties at risk increase over the spending review period?**

Not necessarily. Cuts may not have a huge impact on overall risk levels in the short term, particularly when factoring in the planned efficiency savings and partnership funding.

However, if there is reduced overall spending in the longer term there could be an increase in properties at risk. The Committee on Climate Change Adaptation Sub-Committee indicated that if current spending levels were maintained, four times as many properties would be at risk of flooding in the next 20 years. Those at significant risk could increase from 330,000 today to 570,000 in 2035.<sup>20</sup>

## **3 Who manages flood risk?**

The *Flood and Water Management Act 2010* required the Government to publish a [National Flood and Coastal Erosion Risk Management Strategy](#).<sup>21</sup> The Strategy was published on 23 May 2011. Please consult the strategy for full information on flood risk management in England.

### **3.1 Flood risk management policy**

The Department for the Environment Food and Rural Affairs is the lead Government Department on flood policy. This policy defines what the Environment Agency and other bodies can do.

### **3.2 Flood risk from main rivers, estuaries, the sea and reservoirs**

The Environment Agency manages flood risk from main rivers, estuaries, the sea and reservoirs. It also has an overview role in the management of all types of flooding:

The Environment Agency is responsible for building flood defence schemes where funding is available, and works with LLFAs and local communities to identify local priorities and shape schemes accordingly. It also ensures that reservoirs with a storage capacity greater than 25,000m<sup>3</sup> are properly managed.

---

<sup>18</sup> [Future flood and water management legislation](#), Environment, Food and Rural Affairs Committee, 22 December 2011

<sup>19</sup> Committee of Public Accounts, [Flood Risk Management in England](#), HC 1659, 31 January

<sup>20</sup> [http://hmccc.s3.amazonaws.com/ASC/CCC\\_ASC\\_2012\\_bookmarked\\_2.pdf](http://hmccc.s3.amazonaws.com/ASC/CCC_ASC_2012_bookmarked_2.pdf)

The Environment Agency manages around 70 per cent (by length) of the defences used to reduce the risk of river and coastal flooding in England. The remaining 30 per cent (referred to as 'third party assets') are managed by local authorities, Internal Drainage Boards (IDBs), individual land and property owners and businesses...

The Environment Agency uses its strategic overview role to encourage owners to maintain their assets well. If at any time there is a risk to the public from these assets, the Environment Agency can exercise its emergency powers and make sure repairs are completed.<sup>22</sup>

Importantly, the Environment Agency sets up Regional Flood and Coastal Committees to direct flood risk management decisions in each region. These are comprised of members of the Environment Agency, the Lead Local Flood Authorities (see below) and independent members with relevant experience.

### **3.3 Flood risk from surface water run-off, groundwater and smaller watercourses**

The new Lead Local Flood Authorities (LLFA—either county or unitary authorities) manage local flood risks. Local flood risks are those caused by surface water run-off, groundwater and watercourses that are not main rivers.

LLFAs must set out how local flood risk will be managed in their area in a Local Flood Risk Management Strategy.<sup>23</sup> District councils have powers to manage flooding from certain watercourses.

### **3.4 Flood risk from sewers and highways**

Generally, water and sewerage companies are responsible for managing sewer flooding. Highways authorities generally manage highway drainage and roadside ditches.<sup>24</sup>

### **3.5 Coastal erosion**

Coastal erosion is managed by Coastal Erosion Risk Management Authorities, which are comprised of representatives from the Environment Agency and local authorities. These authorities have powers to install defences and control activities on the coast such as the removal of beach material.

The work of these authorities is guided by Shoreline Management Plans. These plans are formulated by coastal groups "comprising members from local authorities and other relevant organisations (such as Natural England, the Environment Agency, Network Rail and English Heritage)". These plans manage erosion "from a more strategic perspective... [they] assess the risks from coastal flooding and erosion and work out how to manage these risks over the short, medium and long term".<sup>25</sup>

---

<sup>21</sup> *Future Flood and water management legislation: Memorandum submitted by the Environment Agency*, EFRA Select Committee, October 2010

<sup>22</sup> *National flood and coastal erosion risk management strategy for England: Summary Strategy*, Environment Agency, July 2011

<sup>23</sup> *Improving surface water drainage*, Defra, 17 September 2010

<sup>24</sup> *National flood and coastal erosion risk management strategy for England: Summary Strategy*, Environment Agency, July 2011

<sup>25</sup> *ibid*