

Policy note: flood and coastal erosion risk management spending

This note draws together publicly available data on flood and coastal erosion risk management expenditure (FCERM) in England. It looks at how this has changed following recent government spending decisions, the introduction of [Partnership Funding](#), and in comparison with estimates of the long-term investment need.

Is more being spent than ever before?

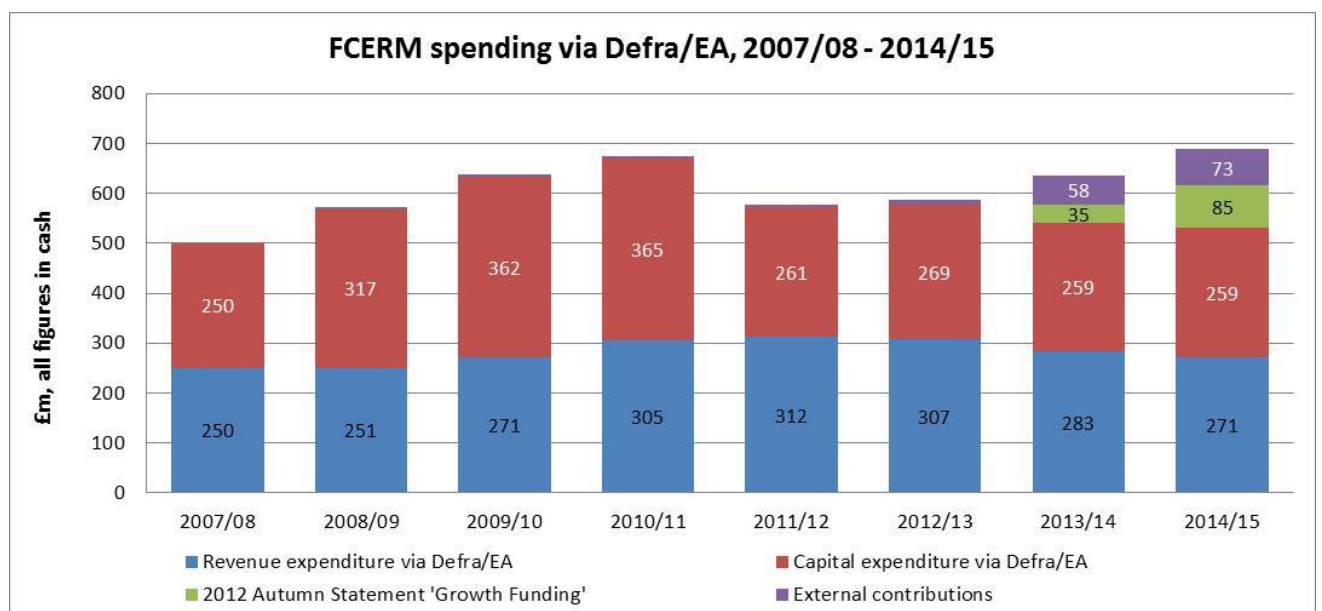
Table 1 presents the overall amount of funding in this spending period (April 2011 to March 2015) compared with the previous four years. The headline analysis shows that more money is in the system than previously but there are at least three important points to note:

- The figures are all in cash terms, i.e. before inflation is taken in to account. Whilst the Environment Agency has committed to offset inflationary price increases through efficiencies, such as in procurement, this only applies to a proportion of the overall expenditure total. Inflation will be pushing up costs more generally.
- The higher total this period relies on sufficient external contributions being secured to supplement central Government's own spending. Contributions levels have risen by over 1,000 per cent to £148 million this period following the introduction of Partnership Funding. Taken alone, central Government funding will be less than it was over the previous four years, even in cash terms. This is despite [an extra £120 million](#) being announced by the Chancellor in the 2012 Autumn Statement. Environment Agency flood defence grant-in-aid (FDGiA) remains £108 million below the amount provided by Defra over the previous four years.
- The Government's figures also include £129 million being provided to local authorities. This is to fund their important [new roles under the Flood and Water Management Act](#) following the Pitt Review of the 2007 flooding. However, this money is unringfenced, meaning local authorities are free to decide how to spend it. The latest local authority outturn figures suggest the amount they are spending on flood risk management has not increased by the amount Defra has provided. Local authorities were due to spend £13.5 million more on flood and coastal erosion in 2012/13 than in 2010/11, but were given £36 million to fund their new roles. This suggests more than half of the £129 million being provided is not being spent on local flood risk management.

A detailed breakdown of these figures is available at Annex A together with how budgets have moved over time following spending decisions and in-year changes.

Table 1: Funding via Defra and EA (£m, cash)

	07/08 - 10/11	11/12 - 14/15	4 YEAR CHANGE	As a %
	TOTAL	TOTAL		
1. Revenue expenditure via Defra/EA	1,077	1,174	97	9.0%
2. Capital expenditure via Defra/EA	1,294	1,167	-126	-9.8%
3. Total central Government expenditure (1+2)	2,371	2,341	-30	-1.2%
<i>Of which FDGiA to the Environment Agency</i>	<i>2,297</i>	<i>2,189</i>	<i>-108</i>	<i>-4.7%</i>
4. External contributions in pipeline	13	148	135	1038%
5. OVERALL EXPENDITURE (3+4)	2,384	2,489	105	4.4%



Has funding been cut?

The figures show there has been a significant fall in spending since the peak in 2010/11. Spending took a sharp dip in 2011/12 and has not yet fully recovered. In July 2010 the Environment Agency’s flood defence budget for 2010/11 [was reduced by £30 million](#). As well as reducing activity in that year, it reduced the baseline for the 2010 Spending Round that imposed further reductions. As a result the Environment Agency’s budget from Defra fell from £659 million (2010/11 budget in May 2010) to £521 million (2011/12 budget in October 2010) in the space of six months.

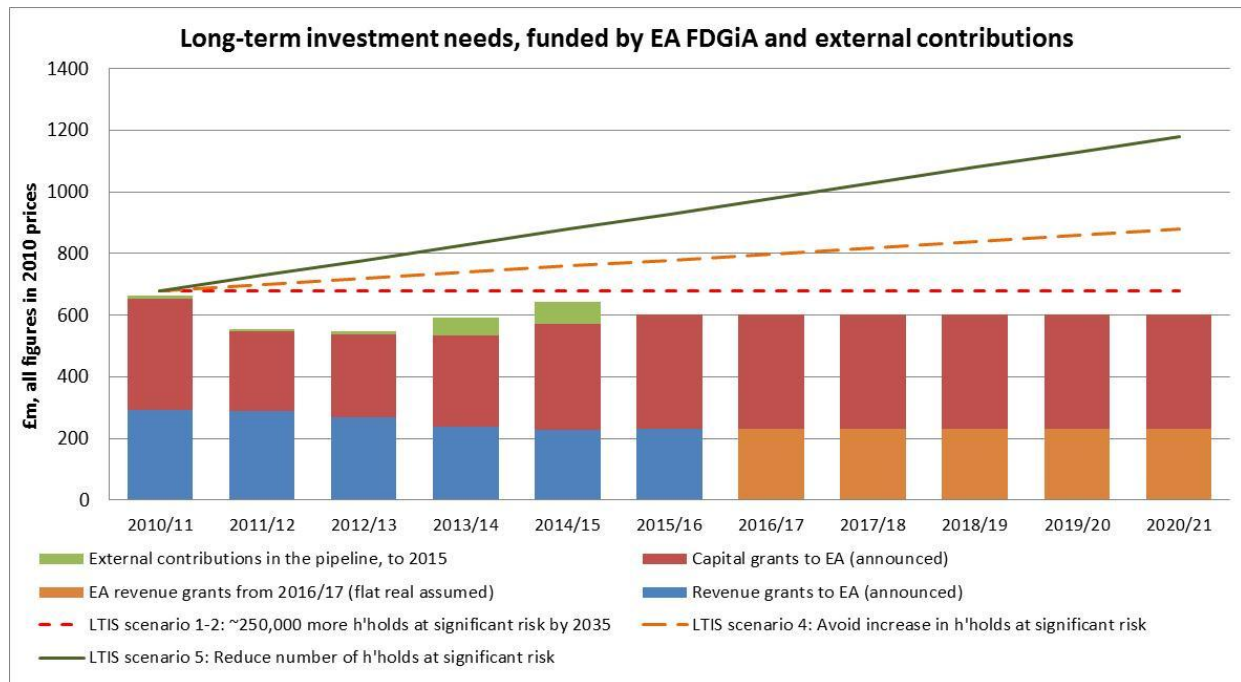
On the capital side, grants to EA were reduced by 32% from the planned £380 million spending in 2010/11 in May 2010 to the post 2010 Spending Review budget of £259 million. EA’s original 2010/11 capital budget was due to be £400 million. Grants for revenue expenditure by the Environment Agency are in decline and will be 22% less in 2014/15 than was provided by Defra in 2010/11.

However the overall funding picture has improved somewhat since the low point in October 2010. As well as the significant rise in external contributions under the Partnership Funding approach, and the additional sums announced in the 2012 Autumn Statement, Defra has been able to provide additional sums each year of the period so far to allow the Environment Agency to spend more than was originally allocated in the 2010 Spending Round.

Is enough being spent?

The Government is [currently on course](#) to provide better protection against flood and coastal risk to more than 165,000 households in England. It is important to note that most of these households will already be protected. Households that are having their defence upgraded or refurbished at the end of its design life to the same standard are included against the target. The number of previously undefended households receiving protection for the first time is not stated. Meanwhile, ageing assets elsewhere will be putting other households at steadily greater risk, especially with climate change. It's the net effect on overall levels of flood risk that is important, and this is largely unknown.

One way to estimate the net effect is to use the Environment Agency's [long term investment strategy](#) (LTIS). This assessed their future funding needs and what the overall level of flood risk might be as a result in 2035. It took as a baseline the EA's original 2010/11 flood defence budget of £679 million, as set in by the previous government 2007, of which £570 million was due to be spent building and maintaining flood defence assets. The assessment said that to hold constant the number of properties at significant flood risk over time, spending needs to increase at a rate of £20 million plus inflation per year for the next 25 years. To make headway and reduce the number of properties at risk over time around an extra £50 million plus inflation would be needed. The chart below shows what these scenarios look like in the context of current spending plans. Figures can be found at Annex B.



Even with the rise in external contributions and assuming inflation can be countered by efficiencies, spending plans for this period are set to be more than half a billion pounds below the amount EA estimated they need to avoid risk increasing in the long-term (LTIS scenario 4, the “most favourable scenario”). Spending between 2011 and 2015 is £380 million behind even the least expensive scenario the Environment Agency considered. That would result in around 250,000 more households becoming exposed to a significant risk of flooding by 2035.

Whilst capital investment is set to increase to £370 million in 2015/16, and then rise each year with inflation, funding from Defra will still be £1.4 billion behind what the Environment Agency has estimated it needs between 2015 and 2021 to avoid flood risk increasing. Local contributions towards flood defence projects will need to increase again and keep rising to make up this shortfall. These figures assume that beyond 2015/16 resource funding is held level in real terms.

Development of the flood plain is continuing below the Government’s radar

Furthermore, the Environment Agency scenarios do not take account of future development. The ASC’s [2012 progress report](#) found that development on the flood plain is taking place at a faster rate than other areas. 20% of floodplain development (involving around 40,000 properties) was in areas of significant flood risk between 2001 and 2011. Whilst much of this development will be behind existing flood defences, this binds in the need to spend ever more on flood alleviation. As we have seen in recent months, flood defences can be overwhelmed.

More than 99% of developments that the Environment Agency has objected to on flood risk grounds [are refused or amended in line with their advice](#) in cases where they are informed of the outcome. But the Environment Agency is not informed of the outcome in around a third of cases where they object. There is no compulsion on planning authorities to notify them. This means that up to a third of new development in flood risk areas that the Environment Agency has objected to on flood risk grounds may be proceeding, without their or the Government's knowledge.

Less funding means more, avoidable, flood damage

Flood defences on average [prevent £8 in future flood damages per £1 spent](#). This is because funding is limited and typically only the best value for money projects are taken forward. The Environment Agency published last February [a list of 387 projects](#) that will not proceed at least for the next four years due to a lack of funding, or where more money needs to be found to fund their development.

Perhaps counter-intuitively, if more was spent the average 8 to 1 return on investment would fall. Ideally, every flood defence project that achieves benefits greater than its costs would be funded (by someone, not necessarily Government). If more money were to be spent it would reduce the average rate of return but it would increase the overall value being achieved and the amount of flood damage avoided.

The current ratio implies that each £1 taken from the programme means expected future flood damages will be £8 higher than otherwise. Value for money will be less strong amongst schemes on the margin, perhaps achieving £6 in benefits per £1 spent. But even at this more modest rate of return we can expect an extra £3 billion in avoidable flood damages in future years because spending this period is half a billion pounds behind the identified need.

Adaptation Sub-Committee Secretariat

21 January 2014

ANNEX A: Detailed breakdown of expenditure figures

Table A.1: Funding via Defra and EA (£m)	2007/08	2007 Spending Period (CSR07)			4 YEAR TOTAL	2010 Spending Period (SR10)				4 YEAR TOTAL	4 YEAR DIFF	%
		2008/09	2009/10	2010/11		2011/12	2012/13	2013/14	2014/15			
1. Revenue expenditure via Defra/EA	250.1	250.5	271.2	305.2	1077.0	312.3	307.2	282.8	271.3	1173.6	96.6	9.0%
<i>Budgeted grants to EA (Flood Defence Grant-In-Aid)</i>	249.0	251.0	258.0	279.0	1037.0	262.0	251.0	238.9	226.4	978.3		
<i>Changes to EA FDGiA from budget to outturn</i>		-1.4	2.0	12.6	13.2	25.9	17.0			42.9		
<i>Defra grants to Lead Local Flood Authorities (LLFAs)</i>						21.0	36.0	36.0	35.7	128.7		
<i>Other Defra funding</i>	1.1	0.9	11.2	13.6	26.8	3.4	3.2	7.9	9.2	23.7		
2. Capital expenditure via Defra/EA	249.7	317.1	361.9	364.9	1293.6	260.7	269.1	293.8	343.8	1167.4	-126.2	-9.8%
<i>Budgeted grants to EA (Flood Defence Grant-In-Aid)</i>	210.4	308.0	334.5	400.0	1252.9	259.0	259.0	258.8	258.8	1035.6		
<i>£20m accelerated as part of 2009 'Fiscal Stimulus'</i>			20.0	-20.0	0.0							
<i>In-year savings to EA FDGiA, July 2010</i>				-30.0	-30.0							
<i>2012 Autumn Statement 'Growth Funding'</i>								35.0	85.0	120.0		
<i>Other changes to EA FDGiA from budget to outturn</i>		8.0	5.6	10.0	23.6	1.7	10.1			11.8		
<i>Other Defra funding (Pitt Review + 'adaptation')</i>	39.3	1.1	1.8	4.9	47.1	0.0	0.0	0.0	0.0	0.0		
3. Total central Government expenditure (1+2)	499.8	567.6	633.1	670.1	2370.6	573.0	576.3	576.6	615.1	2341.0	-29.6	-1.2%
<i>Of which FDGiA to the Environment Agency</i>	459.4	565.6	620.1	651.6	2296.7	548.6	537.1	532.7	570.2	2188.6	-108.1	-4.7%
4. External contributions in pipeline	no data	4	4	5	13	5	12	58	73	148	135	1038%
5. OVERALL EXPENDITURE (3+4)	500	572	637	675	2384	578	588	635	688	2489	105	4.4%

Table A.2: Local authority expenditure on FCERM

	2007/08	2007 Spending Period (CSR07)			4	2010 Spending Period (SR10)				4	4	%
		2008/09	2009/10	2010/11	YEAR	2011/12	2012/13	2013/14	2014/15	YEAR	YEAR	
Local authority net current expenditure	86	90	95	97	TOTAL 368	103	111	tbc		TOTAL tbc	DIFF tbc	tbc

consisting of four spending lines in local government finance Revenue Outturn accounts:

- Levies to Environment Agency ('local levy' payments to Regional Flood and Coastal Committees)
- Defences against flooding
- Land drainage and related work (will include 'special levies' paid to Internal Drainage Boards)
- Coast protection

30.4	31.1	
20.8	26.3	tbc
38.0	39.0	
13.7	14.4	

Note: these sums are not included in the overall total in table A.1 as there will be double counting. For example, Defra grants to LLFAs are intended to fund local authority net current expenditure.

Sources for Table A.1 and A.2

- Defra website, archived snapshot from October 2008
- Defra website, archived snapshot from July 2010
- Defra website, archived snapshot from July 2010
- NAO, Flood Risk Management in England, October 2011
- Gov.uk website, November 2012
- Gov.uk website, February 2013
- Hansard, 14 Mar 2013 : Column 309W
- Gov.uk website, Local Government Finance Statistics
- Defra, Funding for FCERM in England, January 2014

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Notes

- Shows historic spend from early '90s
- Details of in-year savings in 2010 including £30m taken from EA FDGiA
- Breakdown of Defra spending shortly after 2010 General Election.
- National Audit Office value for money audit
- £120m in 'growth funding' to accelerate flood defence schemes
- Details of 2013/14 Environment Agency programme, including £148m in contributions
- Written answer to PQ from Mary Creagh MP
- Uses table c2a and table C4a from Revenue Outturns. Figures for 2012/13 are estimates
- Factsheet produced by Defra after finding inconsistencies in previous figures

Calculation based on other cells



ANNEX B: Current expenditure against the long-term requirement

Table B.1: Long-term funding requirement (£m)	LTIS Baseline	2010 Spending Period				Future spending periods					
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
LTIS scenario 1-2: ~250,000 more h'holds at significant risk	679	679	679	679	679	679	679	679	679	679	679
LTIS scenario 4: Avoid increase in h'holds at significant risk	679	699	719	739	759	779	799	819	839	859	879
LTIS scenario 5: Reduce number of h'holds at significant risk	679	729	779	829	879	929	979	1029	1079	1129	1179
Capital grants to EA (announced)	360	261	269	294	344	370	370	370	370	370	370
Revenue grants to EA (announced)	292	288	268	239	226	231	Not yet announced				
EA revenue grants from 2016/17 (flat real assumed)							231	231	231	231	231
External contributions in the pipeline, to 2015	13	5	12	58	73	Not yet announced					
Annual funding gap, LTIS scenario 1-2	14	125	130	88	36	78	78	78	78	78	78
Annual funding gap, LTIS scenario 4	14	145	170	148	116	178	198	218	238	258	278
Annual funding gap, LTIS scenario 5	14	175	230	238	236	328	378	428	478	528	578
<i>Cumulative spending gap for the period, LTIS scenario 1-2</i>					379						466
<i>Cumulative spending gap for the period, LTIS scenario 4</i>					579						1,366
<i>Cumulative spending gap for the period, LTIS scenario 5</i>					879						2,716

Note: All the figures in the Table B.1 are in real terms (2010 prices). The Environment Agency has committed to deliver procurement efficiencies to offset inflation over the current period. This will only protect part of EA's budget from inflation. But to keep things simple (whilst erring on the optimistic side) we assume zero inflation up to 2015 so that nominal (cash) and real figures in 2010 prices are the same. After 2015, it is assumed that continuing to counter inflation through efficiencies will not be possible. The planned inflationary increases in capital from 2015 to 2021 will therefore be flat in real terms, at £370 million per year, in 2010 prices.

Source for Table B.1

EA, Long-Term Investment Strategy (LTIS), 2009

[Link](#)

'Scenario 1-2' above is based on flat cash until 2015 (LTIS s1) then flat real until 2021 (LTIS s2)