

EFRA Committee inquiry into Future Flood Prevention

Written evidence submitted by the Blueprint for Water

1. Blueprint for Water coalition

The Blueprint for Water is a unique coalition of environmental, water efficiency, fisheries and angling organisations that is calling on the Government and its agencies to set out the necessary steps to achieve “sustainable water” by 2021. The Blueprint for Water is a campaign of Wildlife and Countryside Link. More information on www.blueprintforwater.org.uk

2. Summary

Flood risk management currently fails to consider the whole catchment. Spending money on protecting and restoring the environment can lead to long term and cost-effective measures to substantially reduce flood risk.

There needs to be a cross Government long term strategy for flood resilience based on a strategic catchment approach to include: an assessment of land use and management; identification of funding mechanisms; hard and soft defences; variation in scale from property to landscape-scale; consideration of societal measures to tackle flood risk and multiple benefits improving water quality and biodiversity.

The Government is failing to encourage innovative approaches to slow the flow of water in urban and rural catchments with few incentives to introduce or retrofit sustainable drainage systems or on farm measures beyond agri-environment schemes (if they qualify). Funding mechanisms such as payments for ecosystem services need to be identified and piloted and cost benefit analysis needs to better account for environmental and societal benefits.

2.1 Protecting communities and infrastructure: How adequately do defences protect communities and agricultural land from floods and do current funding arrangements target spending in the right way?

We fully commend the Environment Agency over their action during the flooding period. However, in the last 15 years we have not seen a reduction in flood damage. The Government approach isn't working. We refer the committee to our joint report with CIWEM – Floods and Dredging a reality check 2014¹

Current defences are not enough and flood defence spending is not being put in the right place. £500-800 million of tax payers money is spent every year on flood defence². Yet the Association of British Insurers paid out £1.5 billion in flood

¹ <http://blueprintforwater.org.uk/wp-content/uploads/bfw-publications/Floods%20and%20Dredging%20-%20A%20Reality%20Check%20%5b2014%2002%5d.pdf>

² DEFRA (2015) Central Government Funding for Flood and Coastal Erosion Risk Management in England.

damages between 1990 -2000, £4.5 billion between 2000-2010 and £3.7 billion between 2010-2015³.

The same locations are still being flooded: Cumbria and Carlisle suffered significant flooding in 2005, 2009, 2012 and 2015; Yorkshire and York flooded in 2007, 2012 and 2015. However, it is important to note that 25% of flooding occurs outside of areas formally designated as being flood prone.

Estimates are that climate change and increased urbanisation will increase surface water flooding risk and river flows. Spending money on protecting and restoring the environment can lead to long term and cost-effective measures to substantially reduce flood risk.

Flood risk management currently fails to consider the whole catchment and the way in which land use and management impacts on flood risk and could contribute to reduced risk. To deliver flood protection for communities, consideration needs to be given to reducing protection for some agricultural land or a change in land use – it does not necessarily need to take land out of production. Reviewing land use and management needs to be at the heart of a refreshed approach to flood risk management.

In addition flood risk management is not sufficiently well integrated into other plans and strategies including those addressing Water Framework Directive, strategic planning etc.

There appears to be little strategic overview of the whole system to identify where money is best spent for multiple benefits. The UK lacks ambition for large scale natural flood management which could deliver huge benefits. For example the Sigma Plan II in the Scheldt Estuary, Belgium, is a long-term strategy with short and long term projects (2006–2030), affecting 200 km of watercourses, to restore flood plains, estuarine nature and wetlands.

Flood risk is high and flood plains are well chosen to protect cities and industrial areas. The costs of the project up to 2030 are significant (€500 million) but the expected flood protection benefits (€740 million (all actualised benefits 2010–2100)) guarantee a positive, net economic effect. Other benefits include estimated recreational benefits of €22 million and ecological benefits/ecosystem services of €130 million.

Recommendations:

- Blueprint recommends integration of flood risk management into the catchment based approach and further integration between flood risk management plans and river basin management plans.

³ 2007 - £3 billion paid out; 2012 - £1.19 billion; 2014 - £1.1 billion, 2015 - £1.3 billion (estimate)

- A cross Government long term strategy for flood resilience based on a strategic catchment approach to include: an assessment of land use and management; identification of funding mechanisms; hard and soft defences; variation in scale from property to landscape-scale; consideration of societal measures to tackle flood risk and multiple benefits improving water quality and biodiversity.

2.2 Managing water flows: How effectively do Defra and the Environment Agency's policies encourage innovative approaches to managing risk such as slowing the flow of water in urban and rural river catchment areas and promoting water storage?

The Government is failing to encourage innovative approaches to slow the flow of water in urban catchments. Schedule 3 of the Flood and Water Management Act 2010 included a powerful set of provisions for mandating sustainable drainage in new developments. However, Government has not brought those sections of the Act into force, instead relying on planning measures with significant exemptions. As such developers have no incentive to consider sustainable drainage (SuDS) measures which can significantly reduce surface water run-off. SuDS manage rainfall in a way similar to natural processes, by using the landscape to control the flow and volume of surface water and promote recharging of groundwater. SuDS offer multiple benefits including habitats and stepping stones for wildlife in the urban environment, reduce the urban heat island effect and improve water quality. This also plays a role in making the urban environment more aesthetically pleasing and providing health and well-being benefits.⁴ **These important connections are not being made across Government.**

Another large barrier to such innovative approaches is the cost benefit analysis process which does not currently adequately incorporate the full range of environmental and social benefits from such schemes.

In rural river catchments there are few incentives for innovative measures to slow the flow of water. There is little enforcement or compliance testing to ensure that baseline measures for good practice are undertaken. Bad practice is often left to continue unnoticed leading to sediment loading and erosion, increasing flood risk—see Wildlife and Countryside Link evidence to the EAC inquiry on soil health (January 2016)⁵. Some agri-environment schemes can get money for water management projects such as rural SuDS, however, agri-environment schemes are only available to about a third of rural land. There are also perverse incentives which can increase flood risk such as removing trees and scrub in order to qualify for agri-

⁴ WWT has created guidance on how to design sustainable drainage systems for multiple benefits. It can be downloaded from

http://www.wwt.org.uk/uploads/documents/1400927422_SustainableDrainageSystemsGuide.pdf

⁵ http://www.wcl.org.uk/docs/Link%20response%20to%20EAC%20Soil%20Health%20inquiry_Final.pdf

environment funding and weakened rules over the dredging of farm ditches and drains⁶.

Ways forward should include rural sustainable drainage systems, wetlands and woodlands on farms and mechanisms by which to implement these. In order for innovative measures to be adopted there needs to be a robust and accessible framework for funding catchment measures which include flood mitigation. This needs to leverage new money and delivery bodies such as the insurance industry and upland framers. Mechanisms for implementing catchment approaches to flood risk are lacking beyond Grant in Aid funding and initiatives on e.g. National Trust land. There should be more research and possible pilots into payments for ecosystem services (PES). Work by the Rivers Trusts in the Leicestershire Soar suggests local residents at risk from flooding in urban Leicester would be willing to pay a certain amount to implement a PES scheme to reduce flood risk – recognising that may well mean farmers being compensated in some form.

The Government has yet to fulfil a number of recommendations made in the Pitt Flooding Review (2008) (these include but are not limited to recommendation numbers 8, 10, 11 and 60) and by the Climate Change Adaptation subcommittee.

Recommendations:

- The Government should incorporate the need for green and blue infrastructure in the mandate of the National Infrastructure Commission. The Commission is [expected to focus](#) on flood defence as one of its priorities. Its conclusions will not be robust without consideration of the importance of natural infrastructure options.
- A robust and accessible framework for funding catchment measures which include flood mitigation
- Cost benefit analysis adequately accounts for environmental and societal benefits.
- Review all Government grants to ensure they are not leading to perverse outcomes in terms of flood risk.

2.3 Planning for floods: How well do planning policies ensure new buildings are not put in areas of high flood risk nor where they would increase risk to others – and how well do new developments incorporate sustainable drainage and flood-resilient buildings?

In March 2015 the All Party Group for Excellence in the Built Environment Inquiry into flood resilience of the future⁷ concluded that Government appears unable to

⁶ See Blueprint consultation response on making flood defence consents part of the environmental permitting framework <http://blueprintforwater.org.uk/wp-content/uploads/bfw-publications/Making%20flood%20defence%20consents%20part%20of%20the%20environmental%20permitting%20framework%20%5b2015%2002%5d.pdf> and Wildlife and Countryside Link's letter to the Times (January 13, 2016 <http://www.thetimes.co.uk/tto/opinion/letters/article4663544.ece>)

consider the dual issues of water supply stress, which will increase in the future, and flood risk as simply parts of the water cycle that need to be managed in a holistic and integrated way.

According to the Climate Change Adaptation Sub Committee more than 251,000 new homes have been built in the floodplain between 2001 and 2014 (around 12% of all new residential development in England over that time). Around 23,000 new homes (9% of floodplain development) have been built in areas with a high likelihood of flooding, with a 1-in-30 or greater annual chance of flooding from rivers or the sea, even where flood defences are in place.

Although the National Planning Policy Framework states that local authorities should give priority to sustainable drainage, an Adaptation Sub Committee analysis of 100 planning applications in areas of flood risk found less than 15% proposed sustainable drainage measures. In a letter to Baroness Trafford in December, Lord Krebs, Chair of the Adaptation Sub-Committee wrote "*the uptake of sustainable drainage systems in new development is lamentable and the new proposals introduced in April repeat the same mistakes of the past*", noting there is no evidence that resilience measures will affect the speed of development. In addition there is no national ongoing monitoring on the uptake or effectiveness of SuDS in new development. This will make it difficult to test whether the new approach in April 2015 is having the desired impact and an absence of evidence to support options for stronger intervention, should that be necessary.

There is also no Government strategy on retrofitting sustainable drainage, as such retrofitting occurs on a general ad hoc process with limited strategic overview. The potential for area based approaches to retrofitting, risk and benefit based targeting and optimising on multiple benefits is not being realised. SuDS in new developments are important in reducing increases in flood risk, but retrofitting SuDS is the opportunity for Government to reduce flood risk in areas that are already developed.

Recommendation:

- A strategic approach to retrofitting SuDS would enable greater efficiency and overall greater reduction in flood risk across the UK.

Blueprint for Water coalition

This inquiry response is supported by the following nine organisations:

- Amphibian and Reptile Conservation
- Angling Trust
- Buglife
- Friend of the Earth - England
- Institute of Fisheries Management
- Salmon & Trout Conservation UK

⁷ <http://cic.org.uk/admin/resources/cic9605-appg-report.pdf>

- The Rivers Trust
- Wildfowl & Wetlands Trust
- WWF - UK

**Wildlife and Countryside Link
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