

Natural Flood Management (NFM) Symposium

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Environment Agency

The Environment Agency

We work to create better places for people and wildlife, and support sustainable development.



Natural Flood Management Programme

- £15m announced
- Integrate NFM techniques in our 6 year programme
- £13.2m at Catchment Scale
- £1.8m Community lead



The Aims

- Reduction in Flood and Coastal Erosion risk
- Improve habitats and increase biodiversity
- Contribute to Research & Development; reducing the evidence gap for NFM
- Promote partnership working



Ministerial Involvement

- Minister Coffey has been involved in the process
- Her aspiration is that interventions are
 - Delivered at pace
 - Not over engineered
 - Community led
- This is about testing interventions and drawing conclusions from the data



Types of Interventions

- A variety of interventions
- A range of catchment types
- Different methods of delivery
- Long term monitoring

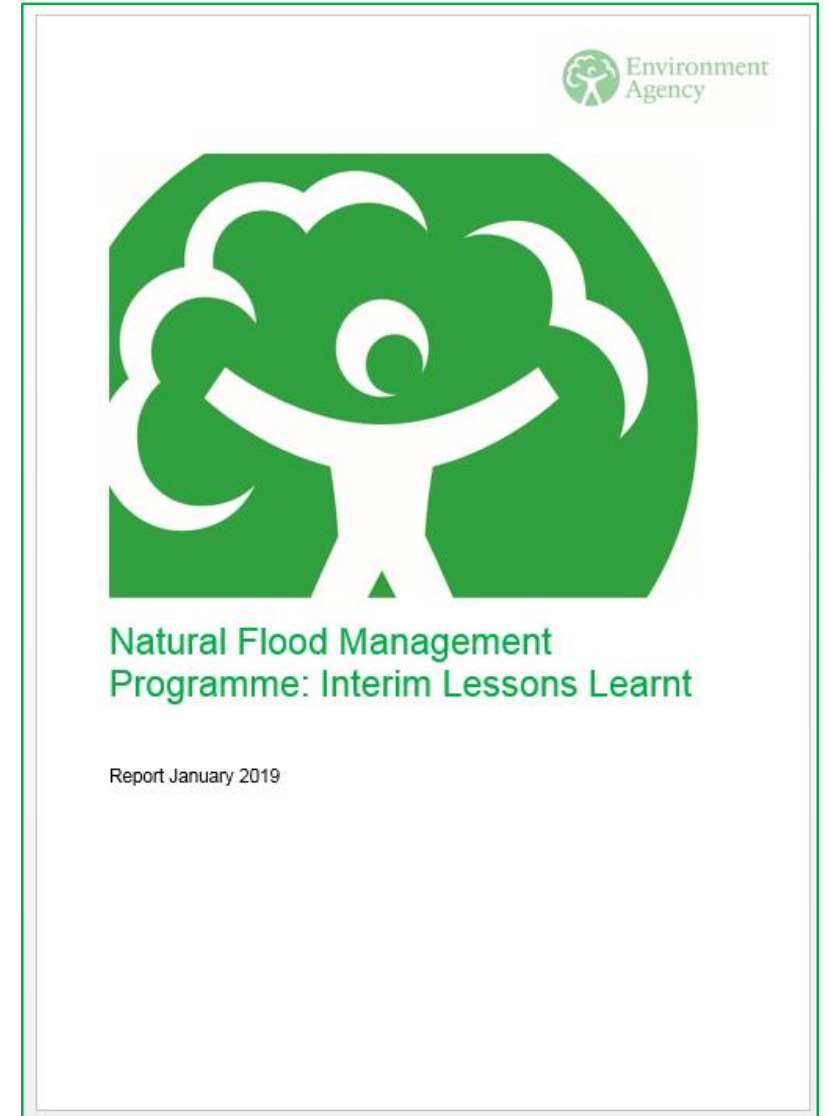


Natural Flood Management Projects



Interim Lessons Learnt Report

- Project teams require clarity on how projects proposals will be assessed.
- Timetables should not be fixed before practicalities are agreed with partners.
- Teams want information to assess and value the benefits and costs of NFM.
- Engagement is crucial to form and sustain partnerships needed for NFM.
- Engagement to clarify long responsibilities is critical.



Our Evidence Base

Working with Natural Processes – Evidence Directory

SC150005

Case study 50. Medmerry Managed Realignment

Author: Robert Harvey
Main driver: Improved defences and habitat creation
Project stage: Completed 2013

Photo 1: Medmerry managed coastal realignment site, 10 October 2013 (source: © Environment Agency and John Akerman ABFmer)

Project summary:

The Medmerry Managed Realignment scheme in West Sussex (Photo 1) was identified in the Paghman Sea East Coast Strategy (2009). The project came about through a combination of the need to improve flood risk management and the requirement of the Environment Agency's Regional Habitat Creation Programme to create intertidal habitat. The Environment Agency purchased most of the land required for the project and constructed 6.2km of new realigned sea defences, led into the existing shoreline with rock revetments. Additional land was contributed by RSPB.

The project provides a 1 in 100 year standard of defence in year 100 (increased from 1 in 1 year standard prior to implementation) to 348 properties, the road serving Bexley and a waste water treatment works. It has created 18ha of intertidal habitat and 80ha of transitional grassland. Mitigation was also provided for 50ha of freshwater site of Special Scientific Interest (SSSI) within and around the realignment area. The project has increased recreation and tourism, creating new amenity and providing both new and replacement footpaths, cycleways and birdways. Most of the land within the project area has been leased to the Environment Agency to RSPB for management as a nature reserve.

River Restoration

What is it?

Historically rivers have been modified for many reasons (e.g. navigation, development, flood risk management). River restoration is the reinstatement of the natural physical processes and features (e.g. pools, riffles) that are characteristic of a river.

It can help reduce flood risk, by slowing the flow of water within the channel.

Case studies

- River Avon
- Donet Frome
- Mayes Brook
- New Forest

Flood Risk Benefits

Summary

- Can slow flood flows and increase conveyance through the restoration of features which encourage the flow to accelerate with its floodplain
- Can reduce flood risk, the extent of the effect depends on length of river restored relative to catchment size
- Can be constructed around or beside existing defences
- Can be constructed around or beside existing defences
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- Can be constructed around or beside existing defences

Multiple Benefits

Summary

- River restoration can provide a wide range of benefits across most ecosystem services (see benefits wheel)

For example:

- Regeneration benefits of improving the river and surrounding park at the River Donet Frome valued at £7.7 million over 100 years. Based on the uplift in property prices (Bennett et al., 2011).
- On the New Forest, coastal realignment is expected to save help manage diffuse pollution, accounting for 10% of the floodplain.

Knowledge gaps

- There is limited best evidence that demonstrates the flood risk benefits
- There is limited evidence that demonstrates the flood risk benefits
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Key reading and maps

Reading

- Green, 2010: *Restoration in River Engineering*
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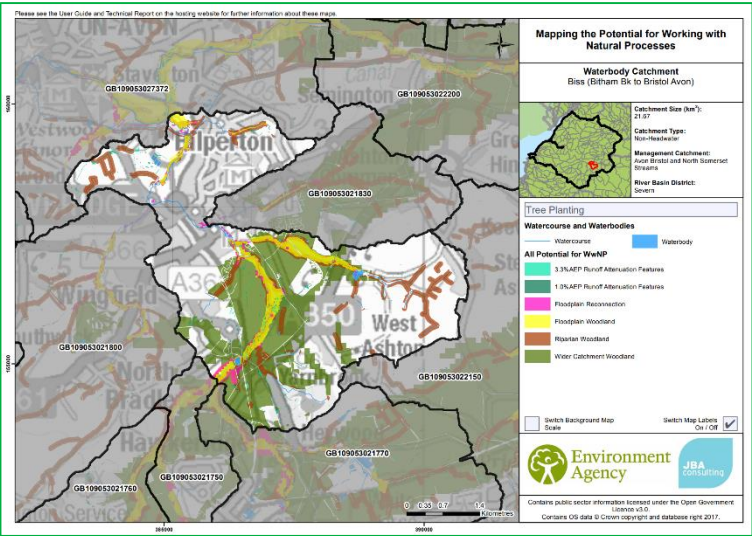
Maps

- Green, 2010: *Restoration in River Engineering*
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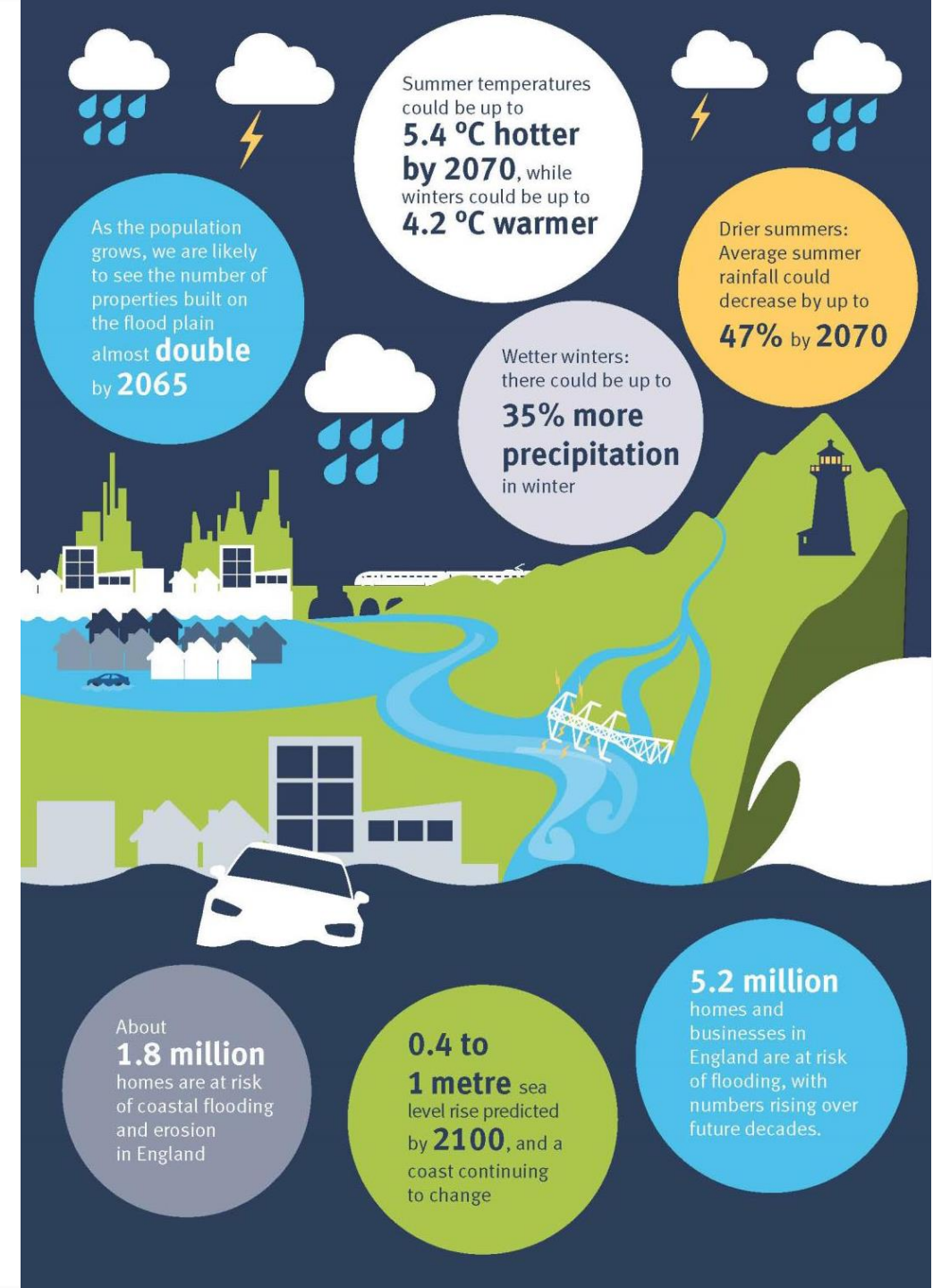
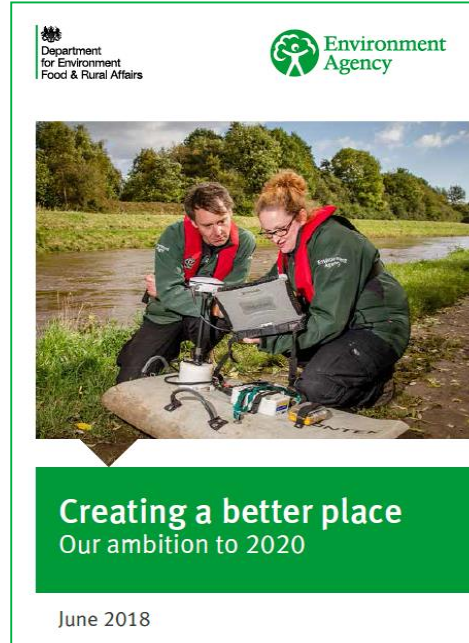
Terms of reference

Summary

- The purpose of this study is to provide a comprehensive review of the current state of knowledge on the benefits of river restoration, with a focus on flood risk reduction and ecosystem services.
- The study will involve a literature review, stakeholder consultation, and the development of a framework for assessing the benefits of river restoration.
- The study will also involve the development of a framework for assessing the benefits of river restoration.



The opportunity and evidence



Launch of the National FCERM Strategy consultation





Search consultations

Consultation Hub Find Consultations We Asked, You Said, We Did

Draft National Flood and Coastal Erosion Risk Management Strategy for England

Overview

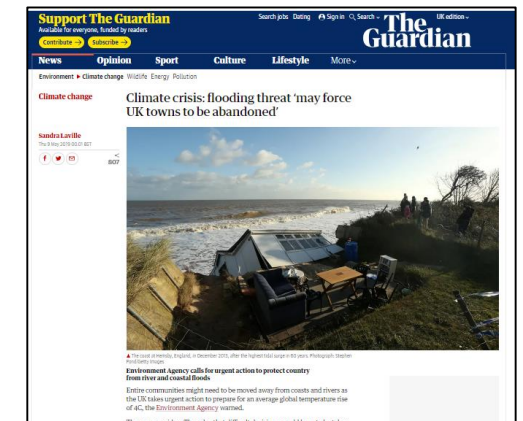
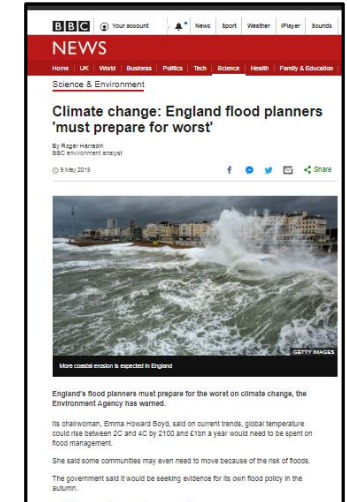
Flooding of any kind is horrendous. Erosion destroys. Flooding events are dirty, invasive, damaging, and they can kill. They can force people to leave their homes and their businesses, cause prolonged mental ill health, destroy livelihoods and natural habitats.

The Environment Agency has been leading a conversation with people and organisations who are affected by or work to manage flooding and coastal change. We are now consulting on a draft strategy, which sets out a vision for a nation ready for, and resilient to, flooding and coastal change – today, tomorrow and to the year 2100.

Closes 4 Jul 2019

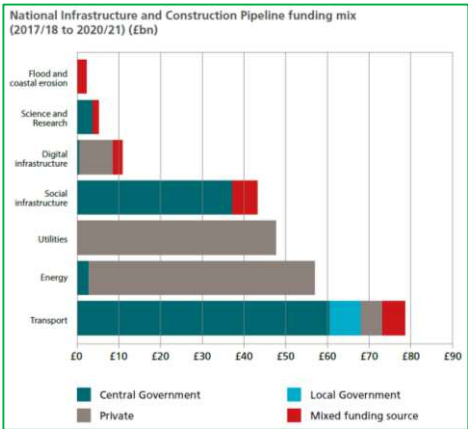
Opened 9 May 2019

Contact
FCERM Strategy Team
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National FCERM strategy for England

“A nation ready for, and resilient to, flooding and coastal change – today, tomorrow and to the year 2100.”



FCERM Strategy 2100 aspirations

Climate resilient places



- Helping places plan and adapt to flooding and coastal change across a range of climate futures



Today's growth and infrastructure resilient in tomorrow's climate

- Getting the right kind of development in the right places to deliver sustainable growth and infrastructure resilient to flooding and coastal change.



A nation of climate champions

- Better preparing society through education and accessible digital information as well as being a world leader in flood and coastal resilience.

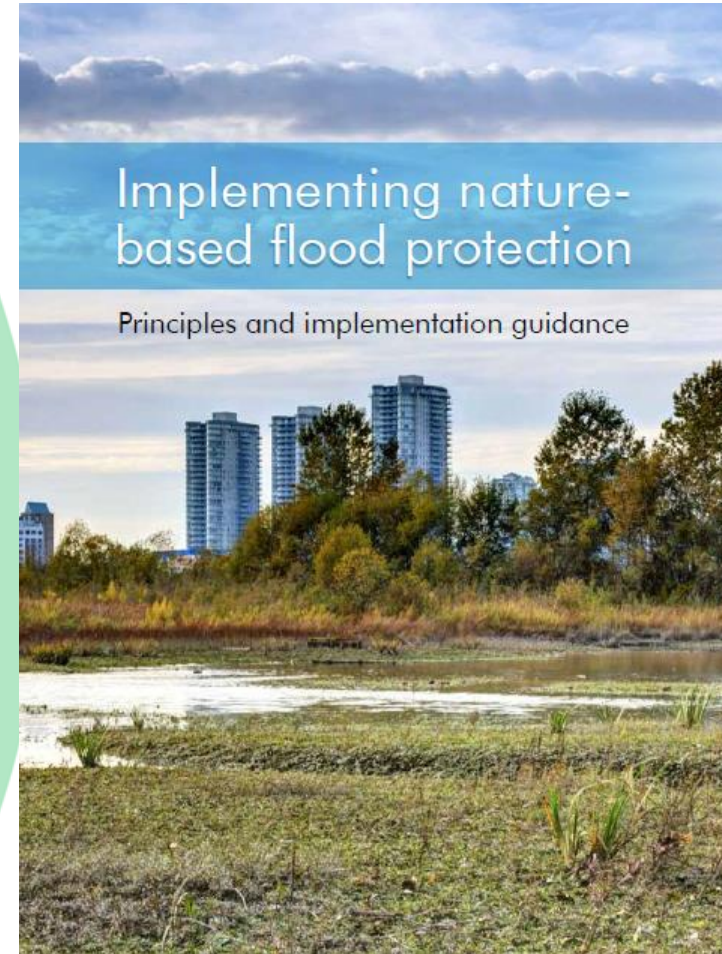
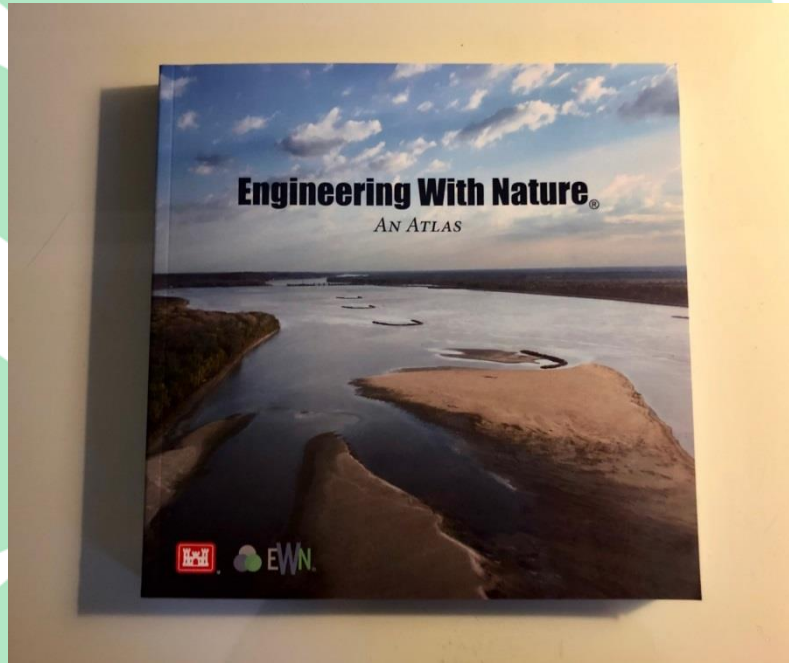
Getting involved

- Consultation materials published on GOV.UK on 9 May
- You can provide your feedback through the online consultation tool or by e-mailing:

fcermstrategy@environment-agency.gov.uk



Next steps



Thank you and questions

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