

Jenny Mant

The River Restoration Centre





The River Restoration Centre (RRC)

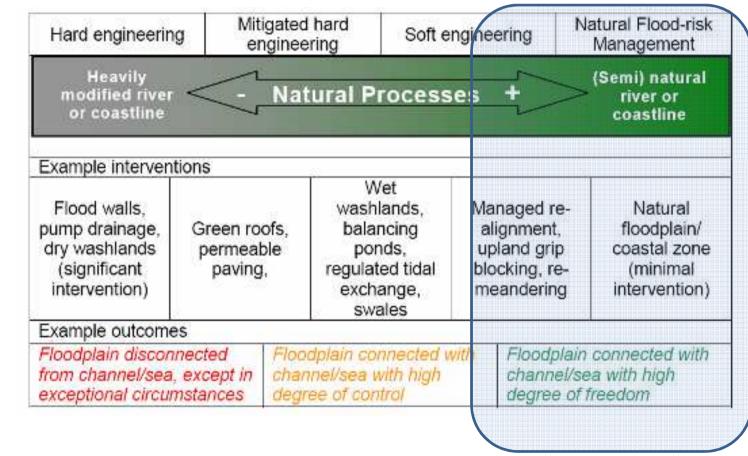
- Independent, not-for-profit, technical advisory centre
- Supports the development of river restoration as an integral part of best-practice river management

Achieve effective river management through influencing policy and disseminating information

Since 1994



Key issue: natural water retention measures



Habitat Enhancement & River Restoration





- For wildlife benefit
- For community benefit

Multiple benefits: society & funders



The UK scenario today

- Current situation... flooding, flooding and more flooding.....
- Government level debates on need to dredge... opposite to working with natural processes
- Lack of recognition about catchment scale impacts from landowners to policy makers
- Against a backdrop of catchment scale approaches





4:08PM, MON 6 JAN 2014 FLOODS CLEAN-UP CONTINUES ACROSS THE WEST COUNTRY

Village of Muchelney trapped by floodwaters

- last updated Tue 21 Jan 2014

UK • Muchelney • Somerset









There's a risk even travelling by boat to Muchelney because of the danger posed by submerged cars. Photo: ITV



ASVIJ .

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SOMERSET FLOODING: To dredge or not to dredge battle lines drawn over floodings on The Levels



By WMNPBowern | Posted: January 20, 2014







Farmers urged by WWF to do more to prevent flooding



By Roger Harrabin Environment analyst







Farmers getting public grants should be forced to capture water on their land to prevent floods downstream, environmentalists have said.

Green group WWF said farmers should get subsidies only if they agreed to create small floods on their own land to avoid wider flooding in towns and villages.

The average family pays £400 a year in grants to farmers.

Farmers' leaders rejected the idea but said they would support incentives to farmers to prevent flooding.

WWF is already working with eight farmers on the young River Nar in Norfolk in an experimental project to restore upstream rivers to their original state.

Rivers have been squeezed into straight, fastflowing channels over hundreds of years to hurry rainwater off fields.



Environmentalist David Nussbaum (left) and farmer John Austen support "lazy river" schemes

THE CHETTERCOLOR

www.therrc.co.uk



Natural rivers change shape and size to fit hydrological regime: global change?





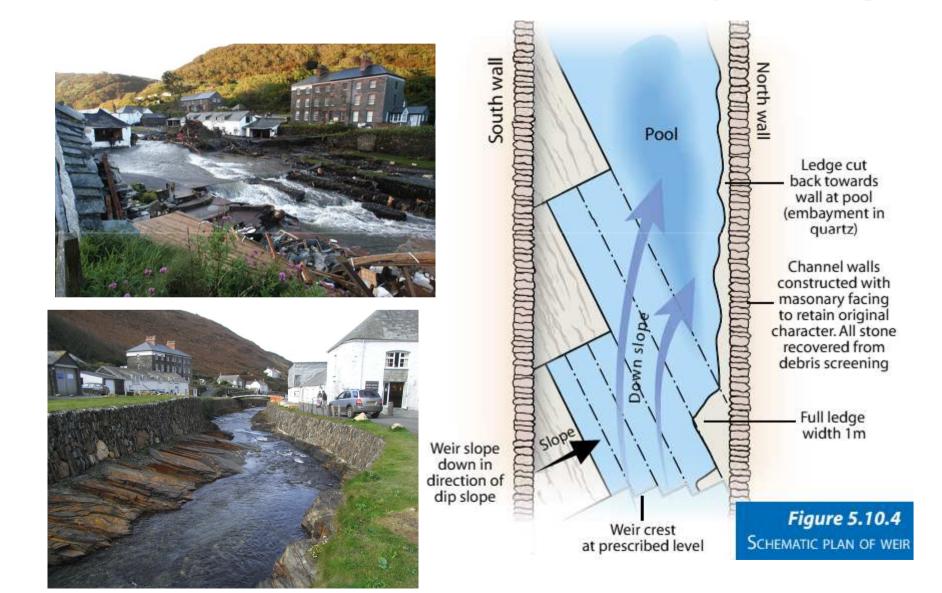


errc.co.uk

Examples UK – modified rivers

- Opportunities to design in climate change variability even in confined spaces for HMWB
- Think about the high flows and the low flow conditions
- And.... work with wider water industry to think about how and when we abstract flow
- Building resilience to climate change

Flood risk and restoration: future proofing?







Development near Manchester, England



Development defined by the river















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Urgent need to sharing and use good practice

RF







vegetation

Environment Agency	ETLANDS	<u>ک</u> ر ک
Restoring I	River Restoration Rivers	and the second second
	management sealthy Calchments - Flood Risk and the WFD	
Environmental improvements	and case studies	
Explore	ContentPane	RightPane
Creation of compensatory habitat	Environmental improvements & case studies	Guidance / Refe
Develop a strategy to manage sediment	River Basin Management Plans (RBMPs) identify which environmental	Environment Agency RBMPs out
Manage invasive species	improvements need to be undertaken in specific water bodies. These environmental improvements are grouped into similar activities.	environmental improvements nee achieve good ecology in water bo More information on the environm
Manage natural obstructions in the channel	There are at least 3 case study examples for each environmental improvement, which demonstrate how it could be implemented. These case studies can be found by clicking links to the left or by viewing each	improvements needed in specific bodies can be found here:
Manage vegetation appropriately	environmental improvement by group (below). When you click on each of the environmental improvements listed on the left	 Environment Agency - River B Management Plans: Annexes
Manage water levels appropriately	there will also be an explanation of what the environmental improvement involves, including:	For more information on RBMPs, see the WFD section here.
Minimise disturbance to channel bed and banks	 Case study examples on the right of the page An assessment of the multiple benefits provided by each case study 	✓ Edit Text ≤Settings
Retain and improve existing edge and bank habitats	■ An indication of cost ✓ Edit Text Settings	WFD Terminolo
Sensitive timing of vegetation management	 Habitat creation 	Throughout this section of the RE webpage the term 'environmenta improvement' is used instead of '

Sensitive techniques for managing Creating new compensatory habitat to mitigate for the impacts on habitats of FCERM schemes undertaken elswhere within a region/catchment. This group has one environmental improvement:

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STORE WED 'mitigation measures'. The names of some mitigation measures are different in England, Scotland and Northern Ireland

www.restorerivers.eu

together with **REFORM, REFRESH, BIO-FRESH etc**



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RRC and ECRR committed to continuous support of restoration information dissemination

Contents [hide]	Latest updated case studies •	Modification date •	Country 4
Map of case studies Countries	Morava restoration project	9 September 2013 02:52:10	Austria Slovakia
Search	Ålgårda nature-like bypass channel at River Rolfsån	6 September 2013 18:27:00	
5 Contacts	Černý potok stream restoration scheme	6 September 2013 18:25:23	
	'Restorations of River Nolån-Fishway in Forsa hydro power plant	6 September 2013 18:24:29	
	"Restorations of River Nolån-Bypass channel in Hulta Hydro power plant	6 September 2013 18:23:15	
	more.		

The river WIKI – RESTORE and managed by RRC

Map of case studies



What you can do:

Left click to look around in the map, and use the wheel of your mouse to zoom in and ou

- You can search the database to find case studies by using the different categories: country; monitoring or implementation costs and many more: click here to search for a case studies

- Please also add your own river restoration scheme to the database: click here to create a new case study.

- Provide us with your feedback: click here to take the survey 🗹 or add to the discussion pages