THE RIVER RESTORATION CENTRE
Working to restore & enhance our rivers

River Restoration News

Issue 40 May 2012

Click on the titles *on the right to go to the articles.*

A chance to comment
We would like to hear your views on these articles and similar schemes.

To suggest an article for a future issue, contact RRC.
rrc@theRRC.co.uk

Implementing a catchment-based approach

A catalyst for partnership working
Catchment Restoration Fund

Payments for Ecosystem Services
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West Region update
LIFE+ RESTORE

An Isle of Man perspective on the
RRC Annual Conference

You can still keep up to date with important news and events through our monthly bulletin. Join the debate on LinkedIn, Twitter or Facebook, or contact the Centre directly.

Don't forget
The RRC is able to provide an independent source of advice and information.

Main photo: Environment Agency

The Catchment Restoration Fund

Jerry Gallop
Environment Agency

Roland Moore
DEFRA

The Department for Environment, Food and Rural Affairs (Defra) has created the **Catchment Restoration Fund** (CRF) to support third sector groups to bring forward projects that will:

- Restore more natural features in and around watercourses
- Reduce the impact of man-made structures on wildlife in watercourses
- Reduce the impact of diffuse pollution that arises from rural and urban land use.

Photo: Environment Agency

How is the CRF administered and how is funding awarded?

The Fund is providing up to £10m a year for three years from 2012/13. Projects must be delivered in 2012/13, 2013/14 and 2014/15.

The Environment Agency is administering the fund and formal applications and expressions of interest for projects starting in 2012/13 were invited in the first phase by 29th February 2012.

The Environment Agency received 54 applications from 35 different organisations equating to £23.6m worth of funding. River Basin Liaison Panels, the River Restoration Centre and experts from the Environment Agency and Natural England have assessed the technical quality and value of each application.

A national panel chaired by the Environment Agency, with representatives from Defra, Natural England and the River Restoration Centre will consider the assessment and recommend initial grant awards from the first round of applications in early May.

A second phase of applications for funding in 2012/13 is now open and will run until **18 May 2012**.

Catalyst for ideas, community action and partnership working

Jerry Gallop from the Environment Agency's Integrated Catchment Management Team said, "*We are really pleased with the responses we've received in the first wave of bids. It has shown us how the Catchment Restoration Fund can be a catalyst for ideas and community action and administrating it can help us to engage with our third sector partners. Even where bids are unsuccessful, we can work with the applicants to improve their proposals or find alternatives to get their projects off the ground*".

If the fund is a success, Defra will bid for further funding to continue it within the next spending review. Evaluating benefits is therefore a key part of the process. The Environment Agency and DEFRA are always keen to hear from practitioners on how this approach can be improved and also on what is working well to inform the ongoing development of the Fund.

For more information
please contact

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or
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Upstream Thinking

Paying providers prevents downstream problems

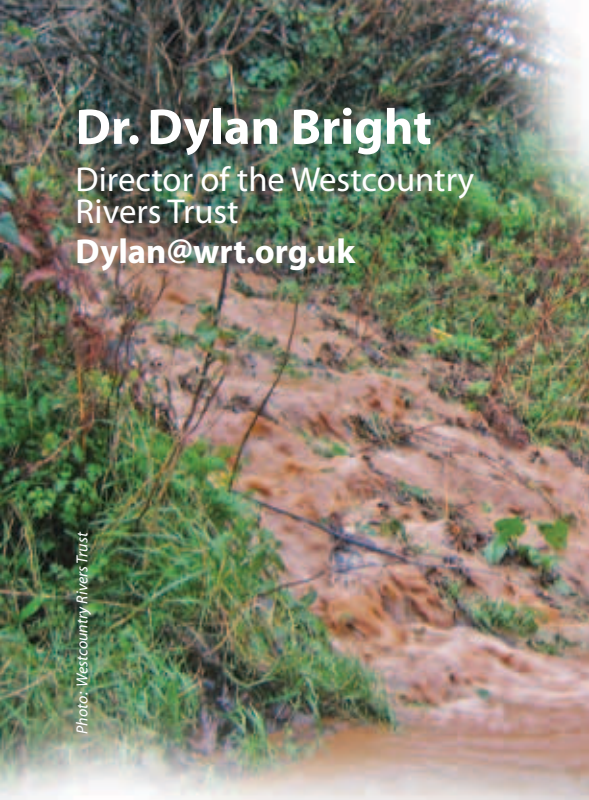


Photo: Westcountry Rivers Trust

Introduction– Evolution of conservation

Traditionally conservation has been heavily reliant on regulation and public funding with a focus on species and habitats often in isolation rather than ecosystems (of which people are part of) and whole catchments. This specialist and separatist approach has led to a reduction in the public's awareness of their environment. This approach is now evolving into 'Community Conservation' and **Westcountry Rivers Trust** (WRT) has been at the forefront of this movement in the UK.

Community Conservation relies on establishing a win-win scenario for resource managers. WRT developed an extensive suite of best farming practice advisory information sheets to describe how to make subtle changes to land management practices to reduce costs to the farmer and achieve environmental benefits; however environmental conservation was delivered indirectly and could not therefore be either targeted or guaranteed.

In the future Payments for Ecosystem Services (PES), also known as Payments for Environmental Services (or Benefits) may be the way forward. This is the practice of offering incentives to farmers or landowners in exchange for managing their land to provide ecological services. These programmes promote the conservation of natural resources in the marketplace. Currently, farmers in the Westcountry represent less than 1% of society and yet they manage nearly 80% of the land. This management of ecosystems services on behalf of society includes flood defence, water supply, biodiversity, amenity, landscape value, greenhouse gas exchange and food production.

Through the PES approach, a direct economic link would be created between those who benefit from the eco-services (the general public) and those who provide the service (the farmers). Payment would be given for delivering these services on land which would have otherwise been used to grow food. PES is an improvement on previous conservation strategies in that payment is conditional on conservation being achieved, can be more easily targeted to critical areas or ecosystems, and can create a direct link between conservation and the welfare of the provider.

When did the project start?

WRT, South West Water and a group of farmers have embarked on a substantial PES project called **Upstream Thinking** (UST). For this project the farmer is the provider of clean water, the water company is the potential beneficiary and WRT is the broker. By working with and funding farmers to improve raw water quality prior to abstraction or reservoir storage, the cost of water treatment for the water company could decrease. Furthermore, by implementing best farming practices, these could provide a whole raft of additional benefits for society.

In recent years, water companies have been asked to think about how to manage their assets over a longer time frame, and new tools allow a demonstration of cost-benefit based land management for the first time. The partners involved were able to demonstrate that by working in partnership, Good Ecological Status could be achieved in catchments which were strategically important for water supply. It was estimated that undertaking this approach was over 65 times more cost effective for the water company than installing the equivalent infrastructure for post-abstraction filtration, treatment, blending storage and pumping, when assessed over 30 years.

WRT will continue to deliver large elements of this initiative, totalling more than £3 million, over five years. Advice will form part of an integrated approach to good land management including tailored, one-to-one advice and farm plans supported by a capital grant scheme. Targetted catchments include the Tamar, Upper Tamar Lake, Roadford, the Fowey and Wimbleball. Additional actions are being delivered by South West Water on the Westcountry moors in collaboration with land-owners as part of the Tamar project, included in the Defra Test Catchment Initiative, which will monitor the results.

Treading carefully into the future

By developing and introducing new market mechanisms such as UST, this will allow us to target strategic catchment planning through the ecosystem services approach. In simple terms, we need to map all ecosystem services and generate a map of aspirational ecosystem services provision which incorporates and balances all of society's needs. Regulation, subsidy and market funding could be used to deliver this, and providers of ecosystem services would be paid accordingly. WRT believe that this is achievable, good value and in keeping with the shifting concepts of conservation to pursue degradation of our ecosystems. It is anticipated that the local and visible nature of the redistribution of funding will allow people to reconnect with the land and rivers that nurture them.

More information

see the project page on the WRT website:
www.wrt.org.uk

Westcountry Rivers Trust

The 'Jekyll and Hyde' catchment

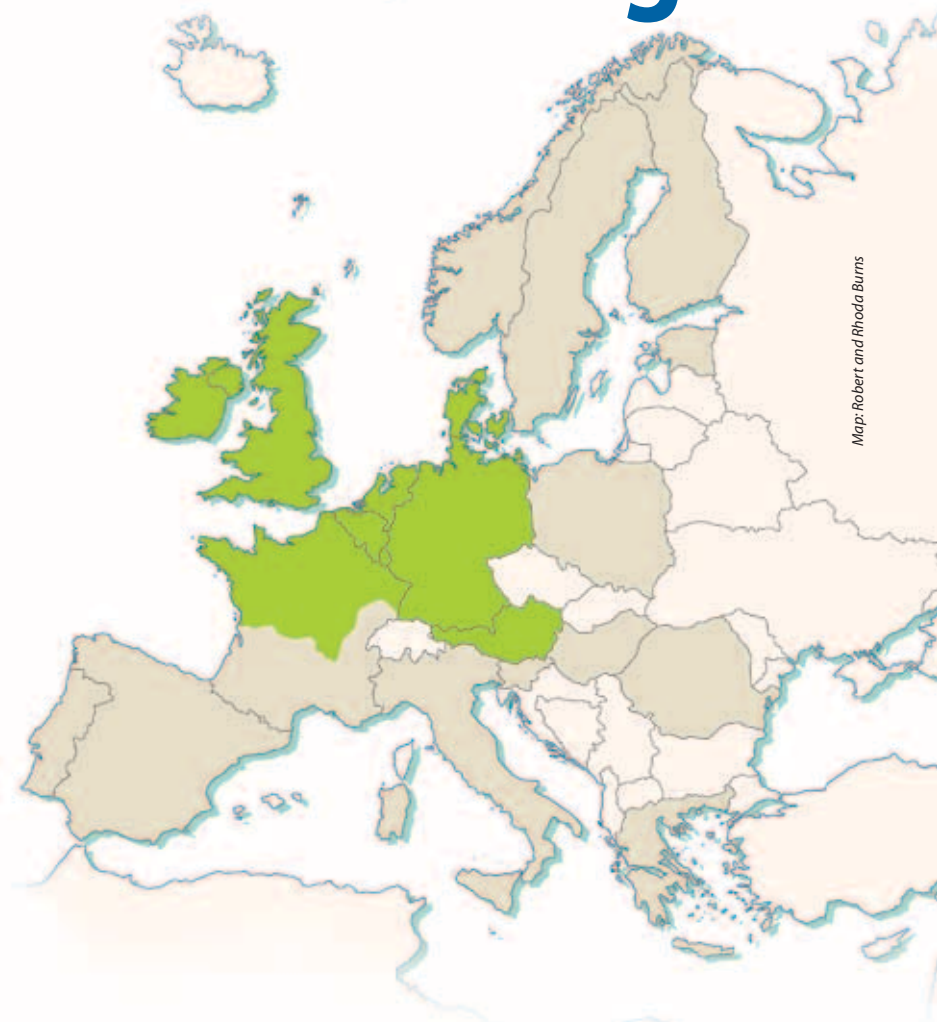
On the left *we have a very familiar (but not ubiquitous) situation where, over the decades, public subsidies and powerful food purchasing groups have driven expansion and intensification without investment in infrastructure; the farm has to be driven over-intensively and unsustainably to make a small annual profit, while pollution can occur, threatening farm income and the environment.*

Conversely, on the ***right*** *is a more profitable farm, which is delivering food, flood defence, biodiversity, water protection and amenity value after a visit from the Upstream Thinking project. Would you be happy to see 5p a year of your water bill used to raise £1m to achieve the right hand scenario now at a landscape scale or would you rather pay £3.25 in a few years' time towards an activated carbon filter and more costly water supplies?*

The RESTORE Partnership progress in the West Region

RESTORE is a partnership for sharing knowledge and promoting best practice on river restoration in Europe. The EU LIFE+ project Information and Communication project encourages the restoration of European rivers towards a more natural state for increased ecological quality, flood risk reduction, and social and economic benefits.

The project started in 2010, and half-way through its three year period, **Nick Elbourne (nick@therrc.co.uk)** outlines progress made so far in the West Region (*green area on map*) where RRC are the lead organisation.



Map: Robert and Rhoda Burns

Why RESTORE LIFE+?

One of the limitations to promoting the use of, and understanding the benefits of river restoration practices has been the lack of cost-effective ways to share best practice and knowledge across Europe.

RESTORE is an EU+ LIFE Information and Communication project that aims to deliver this support through developing existing river restoration networks and raising awareness of river restoration best practice across twenty-one European countries. At the same time the benefits of river restoration techniques for EU Water Framework Directive delivery will be explored.

Three key objectives of RESTORE are to:

- provide a platform for effective river restoration knowledge transfer and information sharing
- strengthen river restoration networks
- through engagement with policy makers, practitioners and river basin planners, develop 'fit for purpose' output and tools

Providing practical solutions to common issues

As part of this project, the RRC have run a series of workshops to identify what the burning issues are and what can be done to resolve some of these both from the perspective of integration into policy and into working practice from practitioners and key stakeholders. As an example of some of the discussions, funding that takes account of catchment benefits and over appropriate timescales (i.e. over financial years) was identified as one way to improve the success of river restoration projects. In England, this is now being delivered through the Catchment Restoration Fund. A further element to address has been the need to promote and enable monitoring and evaluation and RESTORE has highlighted the importance of post-project evaluation at many events and RRC's new PRAGMO monitoring guide has proved instrumental in helping to discuss this element.

RESTORE's events so far have improved ways of working for project designers, managers and deliverers. It has promoted the benefits of early contractor involvement with consultants internationally and with relevant government agencies. It has encouraged more direct engagement with EU water and land policy makers and the wider water management community in raising awareness of conflicts in decision-making. In the Netherlands, spatial planners and river restoration professionals were brought together to highlight the importance of integrating land and water management within the planning sector. Outputs from these important workshops have, and will continue to raise awareness and provide solutions to some of the issues which may prevent or hold river restoration activities back. The outputs of these can all be found on the RRC website.

Incentivising and developing tools for river restoration

In France, it was identified that more needed to be done in terms of recognising river restoration and sustainable management projects which demonstrate excellence or trial new approaches to encourage others to improve their rivers. The launch of the European Riverprize under the steer of the International River Foundation may in turn provide more incentive for experiences to be shared.

The RestoreRivers.EU website is an important tool that provides a wealth of information on the diverse benefits of more naturally functioning rivers, aimed at all levels of audience. This will be supplemented with the development of a best practice handbook.

The project has also developed an online Wiki Knowledge Management Tool which will go live in June 2012. This will hold as much information on past restoration experiences as we and you can provide! In the style of Wikipedia, the user interface will be familiar to many, and it is hoped that this will make it easier for people to input, share and discuss examples of restoration with the wider European and global river restoration communities. This can be accessed through the RESTORE website, and West Region entries will be approved by the RRC.

So how far have we got, and what's next?

RESTORE has brought together all freely available guidance from all 21 partnership countries, across Europe. It has taken steps to build on existing river restoration networks and to extend it to other EU countries previously uninvolved. Now part-way through, the challenge is to ensure that tools and resources being developed are appropriate. Take some time to explore the website and the Wiki Knowledge Management Tool, and let us know how you get on.

An Isle of Man perspective on the RRC Conference from a seasoned attendee

Chris Lally
Isle of Man Government

When the RRC asked me to write a short review of the recent RRC Conference I thought where does one begin?

Well, I was first involved in the late nineties working with a consultant to the then National Rivers Authority who decided to remove channelized concrete sections on various rivers. We had to create our own interpretation of meanders, riffles and pools with the only tools available being the early HEC-RAS software. Fast forward ten years and I find myself based on the Isle of Man in the Land Drainage Section looking after flooding issues and the maintenance of Main Rivers (which are under the supervision of the Isle of Man's Government).

It is an interesting perspective working on the Island, as nearly all the Main Rivers have had major channelizing and straightening works carried out over the last 70 years (before we knew better). However as we are only affiliated to Europe by our ties with the UK we do not have to comply with the Water Framework Directive (WFD). Therefore this is not a legislative driver or incentive for restoration work on the Island.

Computer models and (a lack of) monitoring

As we are all aware, there is a big incentive to improve the quality of our rivers and this is being achieved at a wide variety of scales in different ways. From my yearly attendance at the RRC Conference, it would appear that initially the emphasis was to restore back to the original condition prior to our intervention, but we are now retrospectively asking where the system would be if we hadn't interfered. There is also a much greater reliance on new computer software and modelling tools. Are we spending too much on design and not enough on execution? It would seem that after design, it's often left to the excavator driver and local supervisor to do their own thing and tweak the design accordingly. Are we becoming too reliant on computers and losing our own judgement gained from experience? At the end of the day, fish and invertebrates generally seem fairly resilient and able to adapt to small changes to their environment.

Every year monitoring in some form or other raises its head or should I say "the lack of it". There always seems to be very little pre-project monitoring and limited post project monitoring which is driven by money or the lack of it! Shouldn't we be investing more in the monitoring particularly for major schemes? Some of these are years in conception and design so pre-project monitoring could be set up early. The post-project monitoring needs to be set up for many years after completion and needs to include adjacent reaches to establish if the whole river system is changing and not just the restored reaches. It seems that some restoration works will take up to ten years or more before we can say the restoration has really been successful! To make it work effectively, this must be governed and conducted at the national scale.

Apply caution with 'popular' techniques

Other project aims which seem to be growing in popularity are the retention and introduction of woody debris, and the removal of redundant weirs and mills. While woody debris is good for diversity, flood risk needs to be considered to avoid damming downstream structures. On the Island we have a lot of redundant weirs which are expensive to maintain. Two of which we have recently rock ramped to maintain the structure and adjacent reach conditions. It would now seem that there is a growing movement to demolish these but there are implications to the condition of the upstream embankments and other structures. It would be great to have more information on the effects of removing these structures, but again it is still early days and we need good monitoring. There is also a drive to remove culverted sections of watercourses and it would be interesting to see the long term costs-benefit of this. These were all topics discussed at the RRC Conference with the recognition that before the evidence base improves, there remains a degree of uncertainty.

On the Isle of Man, the Water Authority Land Drainage section's main function is flood risk management but we also cover works to Main Rivers and consent works on all watercourses. The Department of Environment, Food & Agriculture (DEFA) monitors fisheries and licences water quality. Despite our predecessors' efforts to affect the water systems over the last few decades, the Island has excellent water quality and a healthy population of

Salmon, Sea and Brown Trout, European Eel, Brook and River Lamprey and Stickleback. Fish records over the last decade indicate an increase in the salmon and trout population but unfortunately we have no accurate records prior to this. On the whole we try to champion green solutions wherever practical and we have had visits from several organisations to train our in house contractor skills including willow weaving. The reuse of rock from abandoned local quarries in one presentation at the conference was an ideal example of sourcing readily available materials cheaply, but how often do circumstances dictate our options?

Reflections

I have been fortunate to be able to attend the RRC Conference for the last five years since 2008. The conference provides an excellent forum for people to discuss their projects, but also to keep people up to speed with the latest policies and ideas. You can network and discuss specific problems and ideas, catch up with acquaintances and meet the face behind that phone call. This is particularly helpful for the likes of myself and my colleagues, as we are not required to comply with the WFD.

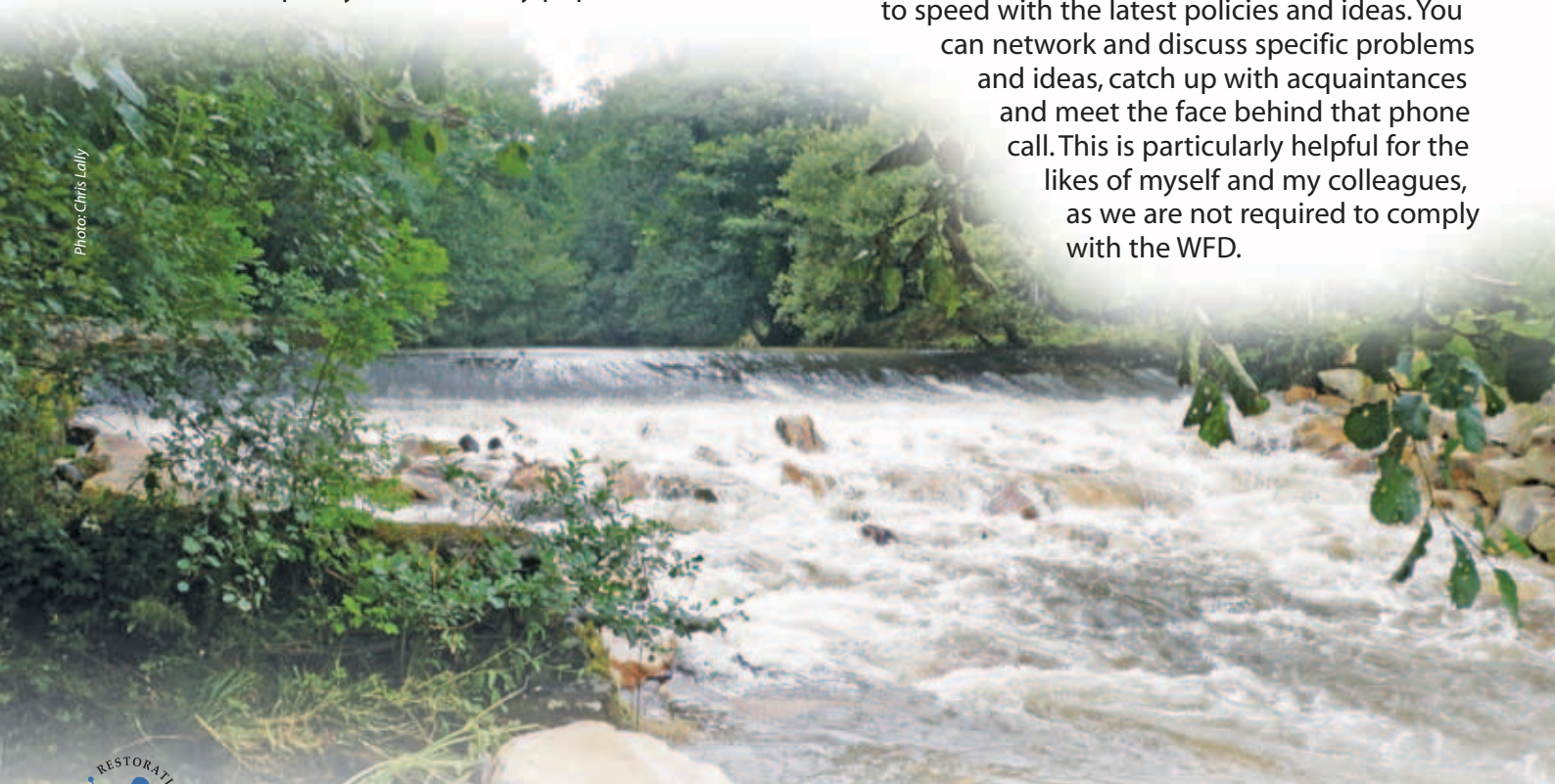


Photo: Chris Lally