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Introduction

Dear readers,

Herewith you receive already the fourth ECRR newsletter of this year. In this newsletter again you will find a variety of news items, reports from the field, information about EU water policies plus an overview of activities and coming events.

I specially would ask for your attention to the article about the upcoming European River Restoration Conference that will be organized by ECRR, together with RESTORE and the International Commission for Protection of the Danube River (ICPDR), in September 2013, in Vienna. Already preparations have begun and a website is open for visitors .

Furthermore, a short report about the latest EUROPE INBO conference is presented in this newsletter, as well as an article about the awarding of the international river prize, in Melbourne, Australia. During this annual event, the ECRR was represented

by our chairman, who was also one of the jury members.

In this edition you will also find some interesting articles about the river restoration efforts in the Krakau region in Poland, and dam removal projects in Spain/Portugal and the UK.

Furthermore a short announcement about the European Blueprint Water is given by Wetlands International, as it supports the targets of River Restoration.

As usual a list of new events coming up is also incorporated.

For more information I refer to the ECRR website and to the website of next European River Restoration conference.

I wish you pleasant readings.

*Hil R. Kuypers*  
Secretary ECRR



10<sup>th</sup> European INBO 2012, Istanbul

During October 17-19 the 10th Europe INBO conference was held in Istanbul, Turkey.

More than 350 people, representatives of national administrations, basin organisations, NGO's, as well as companies and international organizations attended this conference, representing 47 countries. The conference's theme was Implementation of the EU Water Frame Work Directive (WFD).

On behalf of ECRR, secretary Hil Kuypers attended the conference, and held a presentation about new approaches of river restoration. In his presentation, focus was laid especially on the (new) EU Blueprint that is foreseen to be released before the end of this year.

ECRR, together with Wetlands International, RESTORE, Face and UK's RRC have submitted a contribution to this Blueprint earlier this year. The blueprint will set the agenda for EU water policy for the years to come. The main issues here are:

- The need to develop a comprehensive water policy, addressing environmental impacts of major water using sectors
- The fundamental weaknesses of the blueprint: the weaknesses regard the

implementation of water legislation and the confliction of EU policies and copes with these weaknesses. The blueprint tries to ensure availability of good quality water for sustainable water use in line with WFD objectives (by 2020).

At the end of the conference an official Istanbul Europe-INBO Declaration has been drafted out of the results of the five different round tables. In general, the draft declaration covers the actual problems river restoration is facing nowadays, and is in line with the conclusions that were generated earlier this year, during the



WWF6 in Marseille at the ECRR working table.

The declaration reflects in many ways the main commitments made and targets that were defined here, finding solutions on best practices, land use, public education and sustainable tourism. A basin view on integrated river management is needed, which implies:

- starting water management from the source of the river, included wetlands and groundwater, right out to the sea.. (WFD approach) to include urban, terrestrial, freshwater, estuarine and coastal areas, and include also sectors like transport, energy, spatial planning
- integration of water and other policy's objectives (better understanding of costs and benefits, economic activities and resources management)
- improving tools for better management of water resources
- sharing knowledge and research

The complete text of the declaration can be found on the website of INBO: [www.inbo-news.org](http://www.inbo-news.org)

Hil Kuypers



The International RiverFoundation rewards and gives recognition for the restoration and sustainable management of the world's river basins. Our flagship program is in awarding the Thiess International Riverprize each year, the largest environmental prize globally, to organisations im-

plementing and achieving best practice in river basin management.

Visionary leadership by all levels of government, large and small business, individuals and environmental organisations, all working in long-term partnerships, have made great advancements to the management of water and river basins in Europe.

In order to highlight the importance of integrated river basin management in Europe, the IRF has formed a partnership with the International Commission for the Protection of the Danube River (ICPDR) and the European Centre for River Restoration (ECRR) to deliver the IRF European Riverprize.

The IRF European Riverprize will cel-

brate successful approaches that have overcome the challenges to river restoration, ecosystem health, water quality and climate change within the social and political context of the European continent.

Participation is open to all organisations, including business, government and civil society, who are engaged in the sustainable management of waterways from the Ural Mountains to the Atlantic Ocean. The winner of the IRF European Riverprize will automatically qualify as a finalist in the Thiess International Riverprize in the following year.

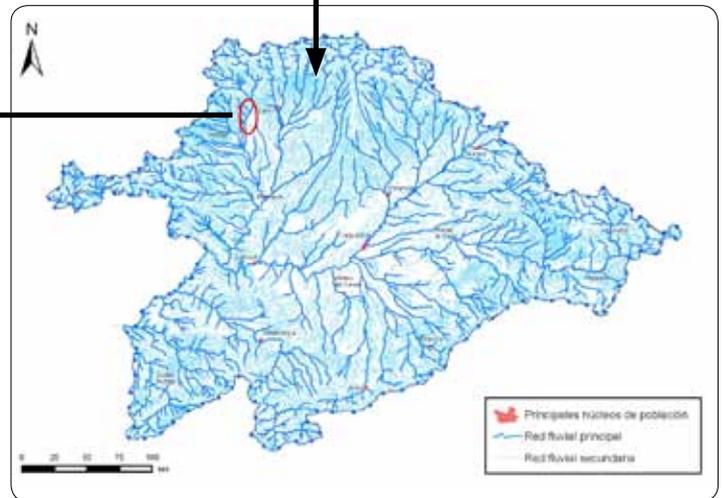
For application [www.riverfoundation.au.org](http://www.riverfoundation.au.org) under programmes.

more information : Bart Fokkens

## Demolition of the La Gotera Dam

Ignacio Rodríguez Muñoz, José Ignacio Santillán Ibáñez and Rosa Huertas González. Office of the Water Commissioner, Duero River Basin Authority. Luis Ortega Regato, Infraestructura y Ecología, S.L.

Map showing the location of the Duero River Basin District (International) and the Spanish portion of the Duero basin. Location of the demolition project of the La Gotera dam or weir.



The La Gotera dam or weir was located on the upper Bernesga River, with UTM coordinates 30T-283688,4755462, between the towns of Villasimpliz and Villamanín. It was used for a small hydropower plant developed in the 1920s; this use ended after the concession period of 75 years expired. Once no longer in use, it was demolished in order to recover the longitudinal continuity of the river in that stretch, thereby reconnecting about 15 km. As well as recovering the longitudinal connectivity, the project resulted in the recovery of the river's natural state in a stretch of river of singular beauty, as the river runs through a canyon formed by Ordovician quartzite of the La Gotera mountain, which lends its name to the dam. The demolition was difficult because the river runs through a narrow canyon in that stretch and access of heavy machinery to the area is difficult. The data corresponding to the demolished dam are as follows:

- Type: gravity, with a diversion channel in the left abutment.
- Maximum height: 8 m
- Average height: 7.1 m
- Length: 24.5 m
- Cost: 120,000 euros

Volume of rubble material: 1,068 m<sup>3</sup>: the sediments accumulated upstream as a result of the obstruction have not been removed

since they are part of the sediment flow of the river; therefore, they have been left to be redistributed by the river current itself.

This type of projects are part of the River Channel Conservation and Maintenance Programme of the Duero basin, within the National Strategy for River Restoration, and specifically Sub-programme 3 on the improvement of the longitudinal continuity of rivers in the Duero basin. They consist primarily of eliminating transverse obstacles which are no longer in use (to date 79 demolition projects have been carried out) and the construction of fish passage structures in those that are still in use (105 in total in the basin; 25 of them built by the Duero River Basin Authority and 70 built or under construction by users as a result of a review of concession rights).

Brief summary of the project:

**Preliminary work phase:**

1. Processing and resolution of the administrative proceedings to extinguish the right to the hydropower development (18 months)
2. Preparation of a valued report (1 month)
3. Public information and environmental evaluation process (3 months)

4. Monitoring work for later follow up of the works: electric fishing, biological sampling and physico-chemical characterization

**Project operation phase** (15 days), which includes the following activities:

1. Electric fishing to remove the fish downstream from the dam
2. Construction of the access ramp
3. Dismantling of machinery and gates
4. Opening of the channel to evacuate part of the water stored and therefore leave out of the water the upper part of the wall

to allow starting the demolition work

5. Demolition of the wall and part of the channel with mechanical methods using heavy machinery
6. Removal of rubble and transportation to a regulated landfill
7. Removal of the part of the ramp built with materials that were not river materials.

The rest of the materials, as well as the sediment accumulated at the dam, were left at the river since they are part of sediment flows Morphological and biological monitoring phase in the affected stretch (1 year)



Electric fishing work



Demolition of the wall starts



Detail of the demolition of the wall



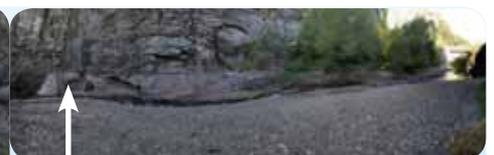
Removal of rubble



Beginning of the head cut into the accumulated sediment



Finalization of the work



La Gotera Dam, before and after the demolition. The pictures show the large amount of accumulated sediment. (Photos with permission from Gustavo González of Ichthyos Gestión Ambiental, S.L.)

The results of the project are being monitored by following up on a series of morphological and biological parameters. The photo on the left shows a cut with the mobilization of sediment that has resulted with relatively low water flows, which have not been above 20 m<sup>3</sup>/s, well below the high water flows (banfull discharge) which here would be above 100 m<sup>3</sup>/s according to the map of maximum water flows in Spain. Nevertheless, about 20,000 m<sup>3</sup> of sediment have been mobilized in the three months after the project was completed.

## **RESTORE, ECRR and ICPDR present the 5th European River Restoration Conference**

**Restoring Rivers in Europe:  
Celebrating Successes and Addressing Challenges  
FEATURING Awarding of the International River Foundation's  
1st European River Prize  
11th-13th September 2013, Vienna**

The Fifth European River Restoration Conference will reflect on the current policy implementation environment and highlight what leading river restoration thinkers and practitioners have to offer in helping to bring new thinking into achieving goals. It will show-case inspiring examples of river restoration that point the way towards the implementation of existing policies and the realization of new initiatives such as the EU Water Blueprint and the Green Infrastructure strategy.

The collaboration of ECRR and RESTORE will bring together the knowledge base and best practices within the EU that can best address these key challenges in respect to relating policy to practice and implementation. This cooperative approach will support practitioners, from those tasked with implementing policy to those undertaking river restoration on the ground to access current state of the art thinking and approaches. It will highlight key developments and resources that can support increased and better river restoration to be realized.

### **The 5th European River Restoration Conference will feature:**

- plenary key note presentations by relevant speakers from various corners of the river restoration world and from neighbouring disciplines;
- a range of different session formats, from highly interactive workshops to panel discussions;
- poster presentations;
- field trip excursions to inspiring initiatives related to river res-

- restoration and ecologically sound water management in Austria;
- side events by the REFORM project and ECRR's WWF6 pilot basins.
- the awarding of the first European Riverprize;
- the International Riverfoundation Gala dinner;

### **The following themes will be covered in these sessions:**

- 1 Realising European policy ambitions;
- 2 Cost-effective solutions to water resource management challenges;
- 3 Sustainable flood risk management;
- 4 Re-balancing water use benefits;
- 5 Ensuring environmental resilience: green infrastructure;
- 6 Enhancement of multi-use landscapes;
- 7 Maintaining water supply;
- 8 Maintaining and enhancing European biodiversity;
- 9 Tools and resources to support River Restoration;
- 10 Ensuring local sustainability;
- 11 River Restoration: A shared challenge

**We are still looking for submissions for all conference session formats and themes, please find or call for submissions here <http://errc2013.eu/index.php/speakers/background-submissions>**

For more information, go to [www.ERRC2013.eu](http://www.ERRC2013.eu), and leave your email address on the website's email update if you want to stay informed.



## RIVER RESTORATION ACTIVITIES IN SOUTHERN POLAND

Over the 20th century channel regulation, gravel mining, dam or weir construction changed channel morphology and ecosystems of Polish Carpathian rivers. However, a significant decrease in agricultural and pastoral pressure in the catchments, changes in forest management and establishment of national parks introduced positive changes in the functioning of many Carpathian rivers, manifested by the development of riparian forest and delivery of large wood to the channels. Recently, new examples of more environment-friendly management practices have been introduced along with river restoration projects to re-establish most nature-like functioning of fluvial processes and improvement of the ecological status of the rivers. Currently two large restoration projects are being carried out in southern Poland along with some smaller projects aimed at protection of infrastructure at the lowest environmental cost to the river channel.

### RESTORING CONNECTIVITY OF THE ECOLOGICAL CORRIDOR IN THE BIAŁA RIVER VALLEY

River and river basin	Biała Tarnowska, Vistula River
Catchment area	983 km <sup>2</sup>
Land use in the catchment	Upper part: forest 50% and extensive agriculture 50%; middle and lower parts: extensive agriculture 70%, forest 30%
Dominant geology	siliceous (sandstone and shale flysch)

Project duration	April 2010 - March 2014
Lead organization	Regional Water Management Board in Kraków
Funding	the European Union Development Fund (85%), Ministry of Environment of Poland (15%)



A fish pass on the Biała Tarnowska River constructed in the place of a dismantled weir.

### Objectives of the restoration project:

This project is based on a complex approach to restoration of the ecological integrity of a mountain valley corridor, with restoration measures focused on the habitat conditions in the river and riparian area as well as on the populations of some threatened species. The project aims at improvement of the habitat conditions for riverine and riparian biota in the Biała valley, including the restoration of longitudinal river connectivity, reintroduction of Atlantic salmon population and increasing the size and range of thick-shelled river mussel and yellow-bellied toad populations. Fish passes will be constructed at four weirs to restore



Oblique aerial photo of the Raba channel within the erodible corridor delimited in the river reach in the vicinity of Lubień village.

longitudinal connectivity along approximately 51 km-long sections of the river and re-establish migration potential for river biota, including 21 fish species. The restored continuity will benefit the fragmented population of thick-shelled river mussel (*Unio crassus*) and is expected to result in a renewed occurrence of some fish species in the middle and upper river course; reintroduction of the Atlantic salmon involves releasing of 1.2 million unfed fry. Establishing an erodible river corridor along 17 km-long sections of the Biała is intended to increase habitat heterogeneity, whereas enhanced storage of bed material will improve the spawning conditions for fish. The Erodible River Corridor (ERC) will also support the formation of early successional stages of riparian plant communities. Other actions are undertaken to restore the continuity of the fragmented population of yellow-bellied toad (*Bombina variegata*). The project is also expected to result in an increased area and continuity of riparian forest and subsequent reduction in the occurrence of invasive plant species in the riparian area.

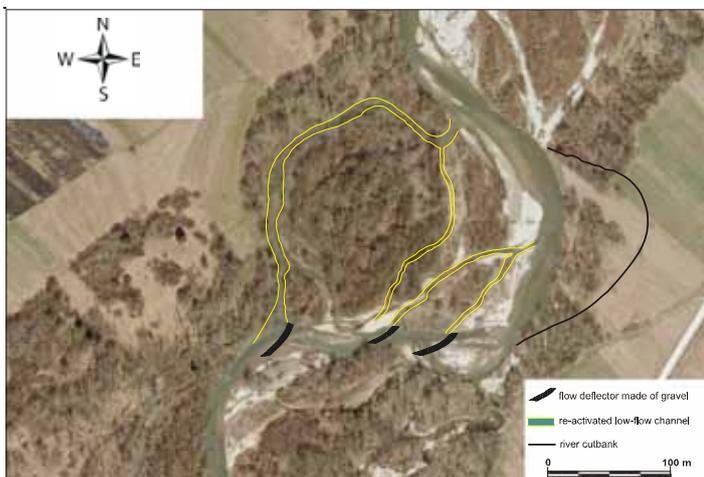
Apart from the improved ecological values of the river, the project has a significant impact on water management and local community. Arresting or reversal of channel incision may help re-establish the conditions of geomorphic dynamic equilibrium and vertical channel stability. Increased retention of flood water within the ERC may help decrease flood risk to downstream reaches.

**THE UPPER RABA RIVER SPAWNING GROUNDS**

River and river basin	Raba, Vistula River
Catchment area	644 km <sup>2</sup>
Land use in the catchment	forest 50% and extensive agriculture 50%
Dominant geology	siliceous (sandstone and shale flysch)
Project duration	January 2012 - December 2016
Lead organization	Ab Ovo Association (NGO)
Funding	Swiss Contribution to the Enlarged European Union grant (90%), Ab Ovo (10%)

**Objectives of the restoration project:**

The project aims at establishing an erodible corridor on the Raba River and changing the approach to river maintenance: avoiding channelization and bank reinforcement to conserve river habitats and their connectivity and attain a quasi-natural state of the valley. Reinforcement is limited to the corridor boundaries, without disturbance to the river channel. The project also involves decommissioning of check dams on two tributaries.



Czarny Dunajec River. Environment-friendly solution to the erosion threat to the local road, performed in the autumn 2011. Inlets to blocked braids distant from the road were opened and gravelly flow deflectors were formed in the main channel to direct flow to the re-activated braids.

**Expected results:**

The free river migration within the ERC is expected to bring about:

- increased retention of flood water due to the formation of low-lying floodplain areas;
- increased morphological and hydraulic complexity of the river, reflected in increased variability of habitat conditions for river biota;

- reduction in river's transport capacity resulting from increased channel-form resistance to flow in the natural channel;
- formation of early successional stages of riparian plant communities;
- reduction of the costs of channel maintenance.

**ENVIRONMENT-FRIENDLY REDUCTION OF FLOOD RISK AND INFRASTRUCTURE DAMAGE IN THE MOUNTAINOUS CZARNY DUNAJEC RIVER**

**Objectives of the project:**

Introducing an alternative approach to prevent bank erosion in order to protect a nearby road and the river section of high ecological value. The scheme was proposed to prevent channelization of the reach that would deteriorate its ecological status and cause increased flood risk to downstream reaches.



The initial plan to arrest erosion of the laterally migrating channel involved construction of a ditch with reinforced banks, cutting the forested neck of the bend, and damming the main channel with a boulder groyne. The new scheme, applied in 2011 with the budget of 9000 euro, included opening of the inlets to inactive side braids located by the neck of the bend of the main channel to re-establish the flow in the steeper low-flow channels, leading to a natural cut-off of the main channel and its abandonment. Directly below the inlets to the side channels, gravel deflectors were constructed to divert the flow into the channels and prevent the water from entering the main channel. This enables the opened side channels to take over most of the flow during the next flood, hence leading to the abandonment of the main channel bend. The implemented solution:

- enhanced ecological functions of the multi-thread channel and the variability of physical habitat conditions
- maintained the role of the reach as sediment and wood debris trap
- was significantly less expensive.

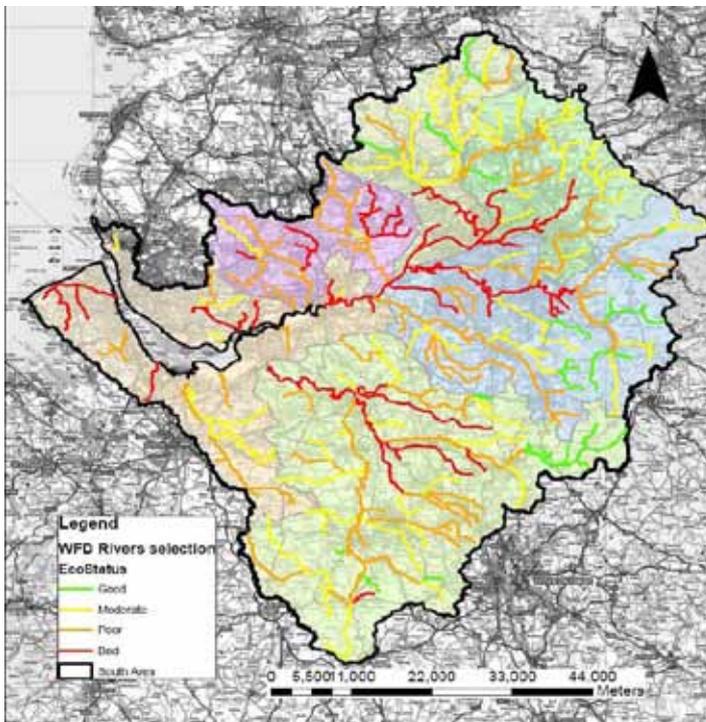
*Joanna Zawiejska & Bartłomiej Wyżga*

## How do you go about restoring one of the UK's most heavily modified rivers!

### The story of the River Irwell project – Manchester

#### Site Background

The Water Framework Directive requires that the Environment Agency to achieve Good Ecological Status or Potential in UK rivers by 2027. This is reflected in the North West River Basin Management Plan and Regional BAGs. At local level, the Environment Agency are working closely with a wide variety of organisations and individuals, not only to deliver the commitments contained in the plan, but wherever possible to expand upon them for the benefit of the water environment. The RBMP states that we will deliver mitigation measures associated with Heavily Modified Water Bodies, and these waterbodies dominate the Irwell catchment and are the single most common cause of WFD failure in the Irwell Basin.



The River Irwell rises in the Pennines and passes through some of the UK's largest towns and cities before joining the River Mersey south of Manchester, before eventually flowing out into the Irish Sea near Liverpool. The river provided a dependable and important resource for industry across Greater Manchester in the 18th and 19th centuries. Without it Greater Manchester would have been a very different place and probably not the industrial powerhouse in which it became.

As a result of the river's industrial past, the River Irwell is one of the most heavily modified rivers in England and only 30 years ago was classified as one of the most polluted rivers in Europe

#### A major tributary of the Irwell was brick lined for 2km in 1909

There have been significant improvements in water quality and as a result aquatic life such as fish are now prevalent in many stretches of the river. Brown trout are now even found in the

heart of Salford, and otters have returned to the Irwell after 150 years absence. However, there are still hundreds of barriers and modified sections of river i.e. culverts, walls (as well as weirs) left behind by the Industrial revolution, many of which are now failing and severely constraining the rivers natural processes. This project aims to work with partners and communities to set about removing these - (some people may disagree ) barriers from the river corridor and returning this large waterbody back into a haven for wildlife and recreation.

#### WFD Pilot links

This project has strong links with the Irwell WFD Pilot, where the Agency will work with partners to develop new ways of engaging with stakeholders in the delivery of our NW River Basin Manage-



ment Plan. The Irwell WFD project will help to deliver some of the outcomes of the Irwell Pilot, it will also help to raise the profile of river restoration work and help us to engage more proactively with communities, organisations and local businesses.

#### Key Partners helping us to achieve Good Ecological Potential on the River Irwell Catchment

Irwell Rivers Trust, Association of Rivers Trust, Salford Friendly Anglers, Bury Council, Rossendale council, Groundwork, Manchester City Council, Bury Council and Bolton Council, APEM and the River Restoration Centre.

#### What have we done?

In only 14 months we have successfully removed 15 weirs from the catchment for a cost of only 240k. We have done this by working closely with not only internal Environment Agency teams but also working in unison with the Irwell Rivers Trust, communities and local authorities across Greater Manchester. This project instigated the new 'Low risk impoundment license policy' which enabled the project board to take a more risk approach to weir removal work, resulting in the removal of 14 significant barriers on the catchment and opening up approximately 50km of prime Brown Trout spawning habitat, re-naturalisation of channel. By utilising our own skills and knowledge we have significantly reduced costs that would have previously been channeled through a consult-

ant, which would have made many of the projects too costly and unfeasible to implement.

The River Restoration Centre undertook a walkover survey of three portions Irwell catchment (Irwell, Roch & Croal) including the major tributaries between 2009 & 2011. The RRC studies specifically focused on identifying all of the modifications within



the catchment, as well as their current condition and the impact that they were having on the river's natural hydromorphological and geomorphological processes. From this list we were able to prioritise our effort, identify weirs that were already failing and also seek quick win opportunities that would help us to kick the project off and actively engage with partners.

Weir removal work is often deemed as too risky or extremely difficult to implement quickly. We proved this theory wrong by quickly and safely removing a large number of barriers in a very short space of time. The key to this success was the implementation of a successful project board which included Hydromorphologists, Fisheries and Biodiversity officers, Engineers, Project Managers and of course the Irwell Rivers Trust. By getting this group of people engaged at an early stage we were able to identify risks and actively seek ways to manage them in order to still deliver the river restoration projects objectives and WFD improvements.

#### Have the objectives been achieved?

Although it is hard to fully measure the success of this project at such an early stage the signs are extremely promising. As it is hard to monitor fish populations and aquatic invertebrates at many of these locations (big, wide rivers with poor access) we decided to focus on the hydromorphological features and what we had done to improve them. By improving hydromorphological features and removing redundant barriers you can make a good assumption (quite big assumption!!) that aquatic life will be improved as direct result! It may be that if water quality is good, you just might be changing the macroinvert fauna from one of a slack/slow moving environment to one of a more dynamic/fast moving – not an improvement, just a change in fauna to reflect change in riverine habitat?. The general rule for river restoration is you get water quality improved, and then restore river – with out that improved water quality you probably won't get invert/fishery etc. associ-

ated with such a river. I guess this is why we are concentrating on Irwell/Croal/Roch catchments, and not so much on Irk, Medlock where water quality is still a big issue. This is particularly evident at some of the larger weir removal sites where the river corridor was heavily constrained/impounded with significant backwater effects for up to 1km+ upstream and therefore only provided little in terms of habitat diversity especially for spawning salmonids. The removal of the weirs has created a much more dynamic and diverse river corridor with natural geomorphological processes, that will now provide a more suitable range of habitats for a wide variety of flora and fauna. In many of the most heavily constrained sections there has been a notable increase in bird species such as dippers and Kingfishers (probably need evidence for this). The local wildlife trust are currently developing a monitoring programme to specifically monitor species and numbers of birds along a restored reach.

We are currently developing a 'Weir removal monitoring model' that will use techniques such as aerial mapping, habitat walkovers and fixed point photography to monitor habitat geomorphological changes over a period of time. We are also hoping to follow this up with some fisheries and invertebrate sampling on the more accessible sections of the river that we have improved.

One other element that we are hoping to monitor is the amount of people that use the river for activities such as fishing. As this river was deemed poor for fish and habitat many of the stretches are unused by anglers and other recreational users. By working with local angling clubs and park rangers we will be able to gain a better understanding whether our work has helped to increase the amount of people using the river and also gauge a better understanding of their views by undertaking an annual questionnaire programme at popular locations.



#### Goshan Weir Removal – WFD win for the Irwell GEP Project

Goshan weir on the River Roch in Bury was severely constraining the river corridor and restricting fish passage upstream. The weir was carefully removed by Environment Agency operations delivery operatives and the results are already plain to see. This is the largest weir that has been removed as part of the Irwell WFD 'Good ecological potential' project and is now number 15 for the project delivery team.

**Goshan Weir – Bury, Gtr Manchester**

Weir Specification – 22m in length, 2m head height, owned by Bury Borough Council

*Before*



*After*



**Little Lever Weir Removal**

Irwell WFD Good Ecological Potential Project

July 2012

Cost – 20k

Civils Delivered by Operations delivery team

*Before collapse*



*After severe flows (July 2012)*



*After initial completion of works (small bit of tidying to still do)*



## European Commission Blueprint recognises the importance of wetlands for safeguarding Europe's waters

15-Nov-2012

Brussels, Belgium – Wetlands International welcomes the European Commission's *Blueprint to Safeguard Europe's Water Resources*. The Communication to the Parliament and European Council recognises the benefits of *river restoration* and *green infrastructure* to improve the ecological status of Europe's waters. However, bolder steps are needed to address the increasing threats to Europe's waters.

Jane Madgwick, chief executive officer of Wetlands International stated, "Europe's waters face many daunting challenges. Better implementation of the *Water Framework Directive* is urgently needed. The Blueprint rightly highlights the benefits of river restoration and green infrastructure as solutions. Proposals on *Natural Water Retention Measures*, ecological flows, water accounting and funding for green infrastructure measures under Cohesion and Rural Development are a step in the right direction."



"The Blueprint recognizes that the ultimate success of these proposals will depend on implementation by Member States. Awareness and know-how of green infrastructure are still lacking at the Member State level and need additional incentives and guidance are to ensure uptake."

"To ensure that the goal of improved ecological status is achieved, bolder steps are definitely needed. Modification of water bodies due to *hydropower*, navigation, *agriculture* and *flood protection* is impairing water quality, biodiversity, and the overall ecological status of these waters. The Blueprint needs the ambition to tackle the multiple impacts of these different sectors head on, in a manner that is consistent with the threats."

### More knowledge sharing with Member States needed

The Blueprint only encourages green infrastructure measures in the River Basin Management Plans (RBMPs) and Flood Risk Management Plans (FRMPs) submitted by Member States. More needs to be done to turn this encouragement into tangible action



and ensure uptake by river basin managers, landscape architects and local government agencies. Additional knowledge brokering, dissemination of best practices and support for formal and informal river restoration networks as exemplified by *RESTORE*, *REFORM* and *ECRR* is needed to enable effective implementation.

### Support for river restoration and green infrastructure

River restoration as part of ensuring green infrastructure is a key means to help reduce and counter the impacts of land and water use, and provides the basis for resilient and sustainable water resource management. Green infrastructure and river restoration are already encouraged in the Water Framework Directive, but guidance to date has not been enough to stimulate action, and there has been no obligation to look at the value of green infrastructure and specifically river restoration.

Proposals on Natural Water Retention Measures, ecological flows and water accounts are steps in the right direction. Making activities such as the restoration of floodplains and wetlands a priority for funding under the *Common Agricultural Policy* and Cohesion and Structural Funds is an opportunity to expand the use of green infrastructure. Though significant, these proposals did not originate in the Blueprint and their adoption is in no way certain.

### Underlying pressures on good ecological status demand greater attention

Modification of water bodies due to hydropower, navigation, agriculture and flood protection is impairing water quality, biodiversity, and the overall ecological status of Europe's waters. Around 30% of rivers are now considered to be heavily modified and only a small fraction are in a natural condition. In some European countries up to 70% of rivers are heavily modified. To address these drivers the Blueprint needs to consider sectors outside of the environment, including transport, energy and *spatial planning*. A bolder, multi-sectoral and more clearly integrated approach is needed if measures to improve ecological status, including green infrastructure, are to be put in place.

*View Blueprint submission* by Wetlands International and partners.

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## Crossing Borders

### Accessible practical handbook on transboundary water management

Worldwide more and more organizations working in water management see the strategic importance of cross-border cooperation at regional level. Sometimes driven by international legislation, or sometimes as a result of identifying joint opportunities and benefits. Developing this form of cooperation is however still an area that needs some uncovering. The book *Crossing Borders. Creating and Managing Cross-border Regional Alliances* by Jan van der Molen and Hannah Ietswaart clearly describes how this cooperative process is initiated and clarifies further steps of implementation. This concisely written book can be [downloaded for free](#) at the website [www.crossingbordersacademy.org](http://www.crossingbordersacademy.org).

Developing successful cross-border cooperation is a complex process in which various diverging aspects are simultaneously in play. *Crossing Borders* is the very first book that addresses all these aspects in their mutual correlation. The book provides not only insight in the theoretical backgrounds of the subject, but also highlights the concrete, practical implementation. *Crossing Borders* is a book with a pleasant reading structure, that uses clear language and straightforward examples of the daily practices in water management, as well as a playful - carefully illustrated - animal

storyline, making this complex subject accessible for everyone.

By providing a well-constructed balance between theory and strategies and tools for daily practice, *Crossing Borders* is a useful practical guidance for (future) managers of these cooperative processes and a delightful and concise learning book for students. For other interested parties the book provides a solid introduction to a topic that is being placed on the strategic agenda in more and more governmental organizations. Yet, cooperation across borders not only offers new perspectives for water management, but also for various other disciplines such as education, safety, energy, public transportation and nature conservation.

The book is supplemented with examples from the broad practical experiences of both authors. Jan van der Molen and Hannah Ietswaart work for the Dutch water board Velt & Vecht, a regional governmental organization in the area of water management.

On the website [www.crossingbordersacademy.org](http://www.crossingbordersacademy.org) opinions and questions can be exchanged and all involved can benefit from experiences and research by others.

#### More information

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## Call for articles

The newsletter of the ECRR should also be a way to share with one another what interesting work is being done, information about seminars or literature.

One way of doing this is by writing an article of any project, event or literature you may be acquainted with. Send this article (**maximum of 500 words**) to the secretariat of the ECRR at [info@ecrr.org](mailto:info@ecrr.org).

We will take a close look to the content and if it is coherent with the philosophy of ECRR (ecological river restoration and sharing knowledge) your article will be published with pleasure in the next edition (s) of the ECRR Newsletter.

The secretariat of the ECRR hopes to receive any article on ecological river restoration from any of its members.

## Free Membership ECRR!

All who are interested in river restoration and sustainable water management are encouraged to join.

Members receive the ECRR newsletter approximately four times per year, and are the first to be informed about activities by the ECRR, its members and partner organisations.

To register, go to [www.ecrr.org](http://www.ecrr.org), and click contact.

## Events calendar

For events in other continents please consult the website

Date/periode	Titel/issue	Location	Links
Feb 2013	REFORM Stakeholder Workshop	Brussels , Be	<a href="http://www.reformrivers.eu">www.reformrivers.eu</a>
30th April— 1st May 2013	RRC 14th Annual Network Conference	Northhamptonshire UK	<a href="http://therrc.co.uk/2013%20Conference/RRC_Conf_Announcement_v2.pdf">http://therrc.co.uk/2013%20Conference/RRC_Conf_Announcement_v2.pdf</a>
22 -24 May 2013	7th International Conference On River Basin Management	New Forest, UK	<a href="http://www.wessex.ac.uk/13-conferences/river-basin-management-2013.html">http://www.wessex.ac.uk/13-conferences/river-basin-management-2013.html</a>
18 Aug 2013	11th Intecol International Congress Of Ecology	London, UK	<a href="http://intecol2013.org/">http://intecol2013.org/</a>
8-9 June 2013	Wild Trout Trust Get-Together 2013	Dartmoor UK	<a href="http://www.wildtrout.org/">http://www.wildtrout.org/</a>
11-13th Sept. 2013	5th European River Restoration Conference	Vienna, Au	<a href="http://www.ERRC2013.eu">www.ERRC2013.eu</a>
4 - 8 Nov 2013	International Water Week (IWW)	Amsterdam, Ne	<a href="http://www.internationalwaterweek.com/">http://www.internationalwaterweek.com/</a>



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Secretariat: DLG Government Service for Land and Water Management, P.O.Box 20021, 3502 LA Utrecht, The Netherlands | [www.ecrr.org](http://www.ecrr.org). Executive secretary Mr. Hil R. Kuypers. If you do not wish to receive the ECRR newsletter in the future, please send an email to [info@ecrr.org](mailto:info@ecrr.org) with the subject "unsubscribe". This will also terminate your ECRR membership.