# ERRC 2013 **CONFERENCE PROGRAMME** 11-13 SEPTEMBER, VIENNA



Featuring the IRF Riverprize

Celebrating Successes and Addressing Challenges 5th edition | 11-13 September 2013 | Vienna







The RESTORE partnership is made possible with the contribution of the LIFE+ financial instrument of the European Community.

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### Forward



On behalf of the conference organisers, the European Centre for River Restoration and the LIFE+ RESTORE project, I cordially welcome you to the 5th European River Restoration Conference in Vienna, Austria. Together we are three hundred participants from thirty-five nations. In the days ahead, I invite you to actively participate and

contribute your experiences, share your knowledge and make connections in order to advance the science, policy and practice of Pan-European river restoration.

Maintaining and restoring the ecological functions of rivers in light of growing demands for water, energy and food, and increasing pressures from climate change are formidable challenges. But Pan-European policies and directives offer grounds for optimism. Concepts such as the role of restoring river ecosystems to better adapt to climate change, reduce disaster risk, improve people's quality of life and offer economic development opportunities are being recognised in new European policy initiatives, including a Green Infrastructure Strategy and the Blueprint to Safeguard Europe's Water Resources.

River restoration stands at the threshold of a change in thinking whereby approaches that better value the goods and services provided by healthy aquatic ecosystems are more fully integrated into river planning and management, and are integral to providing solutions. It is my sincere

hope that this conference creates an inspiring environment that will help to further galvanise action on behalf of river restoration.

Our programme includes more than one hundred presentations covering fifteen themes and a distinguished list of speakers. Three outstanding excursions will take us into the field to see the value of river restoration firsthand. And a special evening will celebrate successful river restoration in Europe with the first ever European Riverprize awarded by the International River Foundation.

With your participation I am confident that we can realise the ambitions of the European Centre for River Restoration and the LIFE+ RESTORE project to improve knowledge sharing, promote best practice and build stronger networks. I would like to express my gratitude to all of the attendees, speakers, presenters, panellists, conference partners and organisers for your efforts to make this conference a great success. Thank you for taking this time to celebrate the successes and address the challenges of river restoration.

Sincerely,

Bart Fokkens **Conference** Chair Chairman, European Centre for River Restoration



# General Information 5<sup>th</sup> European River Restoration Conference

### **Dates and Venue Opening Hours**

Wednesday, 11th of September 2013 Thursday, 12th of September 2013 Friday, 13th of September 2013

08:00 to 20:00 08:00 to 12:00 08:00 to 16:00

### Venue Address

Tech Gate Vienna Wissenschafts- und Technologiepark GmbH A-1220 Wien, Donau-City-Straße 1

### **Registration Desk**

The conference registration desk is located in the entrance lobby of Tech Gate Vienna. You can also come here to collect your conference material and ask for information.

### Fees

Conference Early Bird Fee (€250 incl. VAT) until 10th June 2013 Conference Participation Fee is €300 after 10th June 2013 Conference registration includes the European Riverprize Gala and a field trip excursion

Exclusive participation to the European Riverprize Gala is €120 (incl. VAT)

### Language

English



### Internet Access

WiFi is available at the conference venue. You will be provided with the access code at the registration desk.

### **Stay Connected**

Throughout the conference we will be providing updates from all sessions via Twitter. Stay connected and follow: @RESTORErivers, @fokkensbart and @WetlandsInt - Hashtags: #ERRC13, #riverrestoration

### **Public Transportation**

#### **Underground (U-BAHN)**

U1-Station Kaisermühlen - Vienna International Centre. Schüttaustraße exit. You will reach us in less than two minutes via the footway.

The subway line U1 connects Tech Gate Vienna with Vienna's historic city centre. It is only 8 minutes to Vienna city centre (U1 station Stephansplatz), ten minutes to the City Airport Train connection (CAT) to Vienna-Schwechat Airport (U3 station Landstraße).

### Bus

The following buses have stations in close proximity to Tech Gate Vienna (at the U1 station Kaisermühlen-Vienna International Centre): 20B, 90A, 91A, 92A, Airport Bus

### Rail

From the Südbahnhof take U-Bahn Line U1 in the Leopoldau direction. Alight at Kaisermühlen - Vienna International Centre Station. Take the Schüttaustraße exit.

At the Westbahnhof take U-Bahn Line U3 towards Simmering. At Stephansplatz change to Line U1 in the Leopoldau direction. Alight at Kaisermühlen - Vienna International Centre Station. Take the Schüttaustraße exit.

### Parking

Tech Gate Vienna has a car park. If needed you can obtain a free parking ticket at the conference registration desk.

### **General Info Vienna**

For things to do in Vienna please check: http://www.wien. info/en.

### **Conference Website:**

http://www.errconference.eu/

# Lead Organisations

### ECRR



The ECRR is a European network consisting of national centres and individual members bound by

their mission to enhance and promote river restoration throughout Europe. The ECRR counteracts the threats to natural riverine habitats by fostering the establishment of national river restoration networks, and by disseminating information on river restoration. For more information go to www.ecrr.org.

# **Conference** Partners

### The International Commission for the Protection of the Danube River (ICPDR)



The International Commission for the Protection of the Danube River (ICPDR) works to ensure the sustainable and equitable use of waters and freshwater

resources in the Danube River Basin. The work of the ICPDR is based on the Danube River Protection Convention, the major legal instrument for cooperation and trans-boundary water management in the Danube River Basin. For more information go to http://www.icpdr.org.

### The Global Water Partnership

Global Water The Global Water Partnership Partnership vision is for a water secure world. Our mission is to support the sustainable development and management of water resources at all levels. The Global Water Partnership (GWP) is an international network created in 1996 to foster the implementation of integrated water resources management (IWRM): the coordinated development and management of water, land and related resources in order to maximise economic and social welfare without compromising the sustainability of ecosystems and the environment. GWP was founded by the World Bank, the United Nations Development Programme (UNDP) and the Swedish International Development Cooperation Agency (Sida). The Network is open to all organisations that recognise the principles of integrated water resources management endorsed by the Network. It includes states, government institutions (national, regional and local), intergovernmental organisations, international and national nongovernmental organisations, academic and research institutions, companies and service providers in the public sector. The Network currently comprises 13 Regional Water Partnerships and 74 Country Water Partnerships, and includes more than 2,300 Partners located in more than 150 countries.

### RESTORE



### **Restoring Europe's Rivers**

RESTORE is a partnership for sharing knowledge and promoting best practice on river restoration in Europe. We encourage the restoration of European rivers towards a more natural state for increased ecological quality, flood risk reduction, and social and economic benefits. For more information go to www.restorerivers.eu.



The RESTORE partnership is made possible with the contribution of the LIFE+ financial instrument of the European Community.

### International RiverFoundation



International RiverFoundation works in partnerships around the world to fund and RiverFoundation

management of river basins. As an international dynamic public benefit organisation, we have a life-changing impact on individuals and communities. By helping restore and sustainably manage rivers we have achieved improved health, ecological, economic, and social outcomes for people and the environment. IRF rewards and champions best practice in river basin management through the International, Australian and European Riverprizes. From the Danube River in Europe, to the Mekong River in South-East Asia, and the St Johns River in the United States, the IRF has a far reaching network. IRF acts as a catalyst for replication of effective river system management around the world and promotes long term relationships between developed and developing countries around sustainable river system management. IRF provides companies and individuals with the opportunity to be part of the solution and to establish an enduring legacy. We are only limited by the funds we raise.

### Royal HaskoningDHV (RHDHV)



Royal HaskoningDHV is a leading independent, international engineering consultancy service provider with roots established in the Netherlands, the United Kingdom and South Africa. We specialise in aviation, buildings, industry, energy and mining, infrastructure, maritime and waterways, planning and strategy, rivers, deltas and coasts, transport and asset management, and water technology. A first choice consultancy for major world challenges, our experts provide sustainable and pragmatic solutions for pit-toport, food security and water scarcity, the development of mega-cities, sustainable infrastructure, energy resources and supply. Working together we can achieve more. At Royal HaskoningDHV we embrace this philosophy. With an overarching aim to enhance society together, we work

closely with clients, stakeholders, industry, and academic leaders, to ensure projects are delivered on time and within budget, while providing a better, brighter, sustainable future.

### The World Wildlife Fund (WWF)

The World Wildlife Fund (WWF) works to stop the degradation of the planet's natural environment and to build a future in which humans live in **WWF** harmony with nature. WWF implements floodplain and wetland restoration projects in the Danube basin through its Green Heart of Europe initiative across 12 countries in Central and Eastern Europe. WWF supports implementation of the Lower Danube Green Corridor, the Alpine-Carpathian Corridor, the Mura-Drava-Danube Transboundary Biosphere Reserve - "Europe's Amazon", the March-Thaya trilateral reserve and other Ramsar sites.

### Wetlands International

WETLANDS

Wetlands International is the only global not-for-profit organisation dedicated INTERNATIONAL to the conservation and restoration of

wetlands. We are deeply concerned about the loss and deterioration of wetlands such as lakes, marshes and rivers. Our mission is to sustain and restore wetlands, their resources and biodiversity. Our vision is a world where wetlands are treasured and nurtured for their beauty, the life they support and the resources they provide. In Europe and around the world we are dedicated to maintaining and restoring wetlands-for their environmental values as well as for the services they provide to people. For more information, visit www.wetlands.org.

### RAMSAR

The Convention on Wetlands of International Importance, called the Ramsar Convention, is an intergovernmental treaty that provides the Kamsar framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The Ramsar Convention is the only global environmental treaty that deals with a particular ecosystem. The treaty was adopted in the Iranian city of Ramsar in 1971 and the Convention's member countries cover all geographic regions of the planet.

### INBO



The International Network of Basin Organisations was established during the constitutive assembly in 1994 at Aix-les-Bains, France, by organisations whose

common goal was to implement integrated basin water resource management, which made a voluntary act of joining the charter adopted in 1996 at Morelia, Mexico, and then confirmed at the following general assembly meetings in Valencia, Spain, 1997 and in Salvador, Brasil, 1998.

# European Riverprize Partners

### The Coca-Cola Company

The Coca-Cola Company is the world's largest beverage company, refreshing consumers with more than 500 sparkling and still brands. Led by Coca-Cola, the world's most valuable brand, our Company's portfolio features 16 billion-dollar brands including Diet Coke, Fanta, Sprite, Coca-Cola Zero, vitaminwater, Powerade, Minute Maid, Simply, Georgia and Del Valle. Globally, we are the No. 1 provider of sparkling beverages, ready-to-drink coffees, and juices and juice drinks. Through the world's largest beverage distribution system, consumers in more than 200 countries enjoy our beverages at a rate of more than 1.8 billion servings a day. With an enduring commitment to building sustainable communities, our Company is focused on initiatives that reduce our environmental footprint, support active, healthy living, create a safe, inclusive work environment for our associates, and enhance the economic development of the communities where we operate. Together with our bottling partners, we rank among the world's top 10 private employers with more than 700,000 system associates. For more information, visit Coca-Cola Journey at www.cocacolacompany.com, follow us on Twitter at twitter.com/ CocaColaCo or check out our blog, Coca-Cola Unbottled, at www.coca-colablog.com.

### **City of Vienna**

StoDt Wien

For the City of Vienna, its good strategic location on a major water way - the Danube - has influenced

the development of the City for many centuries. It has become a source of prosperity over time, stimulating economic development as well as a greater quality of life. The port of Vienna has developed in to one of the most important European logistic hubs on the Danube. Boat trips on the Danube are growing in popularity and over 700.000 passengers have travelled on the Twin-City-Liners between Vienna and Bratislava in the last years. The Danube Island with 43km of shoreline for recreation, leisure and sports has added substantially to the quality of life, being one of the many reasons that Vienna has been chosen for years as the city with the highest quality of life worldwide. In recent developments, the City of Vienna also plays an important role in the implementation of the EU Strategy for the Danube Region being a coordinator for the Priority Area 10 (improving institutional capacity and cooperation) and participating in many cross border projects with neighbouring regions and countries.

# Programme - Wednesday 11<sup>th</sup> September 2013

Conference Centre, Tech Gate Vienna Wissenschafts - und Technologiepark GmbH, A-1220 Wien, Donau-City-Straße 1

Philip Weller, International RiverFoundation ambassador

Ms Lucia Varga, Minister of Environment and Forests, Romania.

Keynote Plenary Presentations (main theatre hall)

### **Morning Programme**

09:00

09:30

10:45

11:15

Welcome Coffee

Coffee break

Lunch

Coffee break

Bart Fokkens (main theatre hall)

Ecology and Inland Fisheries









12:30

13:30

13:00 Poster session - authors will be available to discuss their posters and you can vote for the best poster

Keynote Plenary Presentations - Case Studies in Restoration Success (main theatre hall)

"Practical tools for River Restoration" Antonia Scarr, RESTORE project manager

Plenary Welcome and Introduction, Mainstreaming River Restoration - Conference chair

"The State of Rivers in Europe" Hans Bruyninckx, Executive Director, European Environment Agency "Addressing the Challenges in River Restoration & Building Organisational Capacity to Support It"

"Holding up a mirror to river restoration" (an outsider's perspective) Fred Pearce, author/journalist

"River Restoration in a National Policy Context" Gheorghe Constantin, Water Director on behalf of

"The Science of River Restoration" Klement Tockner, Director, Leibniz-Institute of Freshwater

Klement Tockner

### Afternoon Programme





- "The Thames Recovery from Biological death" Alastair Driver, Environment Agency "The Danube – Integrated Development and River Restoration" Carl Manzano, Danube National Park Introduction to the Conference Themes and Parallel Session - Conference Chair Bart Fokkens
- 14:30 Three Parallel Sessions (For more information about the parallel sessions, see page 11 and onwards) • Maintaining and enhancing European biodiversity - (main theatre hall)
  - Realising European policy ambitions (ground floor workshop room)
  - Sustainable flood risk management (19<sup>th</sup> floor workshop room)

16:00

- 16:30 Three Parallel Sessions (For more information about the parallel sessions, see page 11 and onwards)
  - River restoration techniques (main theatre hall)
  - Cost-effective solutions for river management (ground floor workshop room)
  - Lowland rivers in central Europe (19th floor workshop room)
- 18:00 Afternoon Reception - Ramsar's River Poster Prize, drinks & finger food
- 19:00 Screening of the 'Lost River' film (19th floor workshop room)



## Programme - Thursday 12th September 2013

Conference Centre, Tech Gate Vienna Wissenschafts - und Technologiepark GmbH, A-1220 Wien, Donau-City-Straße 1

### **Morning Programme - Three Side Events**

09:00 1<sup>st</sup> European Riverprize (main theatre hall)

The European Riverprize: Celebrating Success in Integrated River Management, Chair Matthew Reddy, CEO International RiverFoundation Australia

Presentation of the four European Riverprize Finalists

- Órbigo river, Spain
- Mura/Drava/Danube Rivers, Austria, Croatia, Hungary, Serbia, Slovenia
- River Rhine, France, Germany, Luxembourg, The Netherlands, Austria, Liechtenstein, The Belgian Region of Wallonia
- Upper Drau (Drava) river, Austria

### 09:00 REFORM (ground floor workshop room)

REFORM is a four-year integrated research project (2011-2015). This project receives funding from the European Union's Seventh Framework Programme under the grant agreement no. 282656. www.reformrivers.eu

### Chair: Tom Buijse, Deltares, The Netherlands

- Hydromorphology of rivers and floodplains What is at stake and how will REFORM contribute?
- Modifying rivers: ecological responses to hydromorphological degradation and restoration.
- Knowledge sharing on hydromorphology and ecology of rivers
- 09:00 Green infrastructure solutions to European river basin management challenges: launch of a river basin community of practice (19<sup>th</sup> floor workshop room)

Chair: Hil Kuypers, ECRR

Five water basins\* from around greater Europe are realising the targets and solutions of World Water Forum 6 by developing pilot projects for three key areas:

- Strategic land and land use planning with private owners
- Development of sustainable tourism
- Public education/Stakeholder involvement

\* These are the Rhône-Mediterranean and Corsica Water Agency (France), the Arpa River Basin (Armenia), the Irpin river basin (Ukraine) (speaker: Olga Zhovtonogh), the Obigo river basin (Spain) (speaker: Alberto Cabrero), and the Irwell river basin (UK).



### **Field Excursions**

- 10:30 Participants to collect a packed lunch and find the coach for their selected field trip.
- **11:00** Field trips (Field trips will return to the conference centre by 17:00)
  - 1. Morava River restoration
  - 2. National Park Donau-Auen river restoration
  - 3. Examples of good practices for fish migration at hydropower plants

### Evening Programme - IRF European Riverprize Gala Evening - Aula der Wissenschaften, Wollzeile 27a, 1010 Vienna

- 18:45 Cocktail reception and Dinner
- 19:30 Welcome and Introduction by Matthew Reddy, CEO International RiverFoundation
- 20:15 Keynote statement from Janez Potočnik, EU Commissioner for the Environment
- 20:20 Presentation from the four IRF European Riverprize finalists
  - Órbigo River Spain
  - Mura/Drava/Danube Austria, Croatia, Hungary, Serbia, Slovenia
  - River Rhine Switzerland, France, Germany, Luxemburg, Netherlands, Austria, Liechtenstein, the Belgian region of Wallonia and Italy
  - Upper Drau (Drava) Austria
- 21:25 Speech by the Australian Ambassador, HE David Gordon Stuart

### 21:30 Announcement of the Winner of the 1st IRF European Riverprize



# Programme - Friday 13th September 2013

# Conference Centre, Tech Gate Vienna Wissenschafts - und Technologiepark GmbH, A-1220 Wien, Donau-City-Straße 1

### **Morning Programme**

09:00 Mainstreaming River Restoration into the future Introduction by Conference Chair (main theatre hall)

Keynote Plenary Statement – A Commitment to Rivers – Janez Potočnik, European Commissioner for Environment, DG Environment

Presentation from the IRF European Riverprize Winner

- **10:00** Three parallel sessions (For more information about the parallel sessions, see page 11 and onwards)
  - Water uses and environmental flows (main theatre hall)
  - Ensuring local sustainability (ground floor workshop room)
  - Enhancement of multi-use landscapes (19th floor workshop room)
- 11:30 Coffee break
- 12:00 Three parallel sessions (For more information about the parallel sessions, see page 11 and onwards)
  - Contemporary river corridor management (SEE River Project) (main theatre hall)
  - Communicating river restoration (RESTORE partnership) (ground floor workshop room)
  - River restoration: a shared challenge (19<sup>th</sup> floor workshop room)
- 13:30 Lunch

### Afternoon Programme "The Future of river restoration", (main theatre hall)

- 14:15 The Future of river Restoration a panel discussion with the audience on the future of river restoration with representatives from different sectors. Chairman: Wolfgang Stalzer, ICPDR President 2012. Panelists: Joppe Cramwinckel – World Business Council on Sustainable Development, Helmut Belanyecz – European Angling Association, Helen Dangerfield – National Trust England, Otto Pirker – Verbund Hydropower AG, Austria, Andrew Kerr - Sustainable Eel Group, Hanna Plotnykova – OSCE-UNECE.
- 14:55 Keynote interview Water resource protection, integrated water management and river restoration Peter Gammeltoft, Head of Unit for Water, DG Environment – Interviewer Jane Madgwick, CEO Wetlands International
- 15:10 Restoring your river of thoughts a performance with the Quatschtronauts, an interpreted look at the findings from the conference from a new and entertaining perspective.
- 15:30 Summary of the conference statement and Closing summary statements by Conference Chair
- 15:45 End



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# SESSION 01: Realising European Policy Ambitions

**Summary:** River restoration has enormous potential to help tackle many of Europe's river related challenges, including flood risk management, water quality regulation, urban regeneration, biodiversity conservation and fishery support are all key. There are a number of strong policy drivers and river restoration is increasingly becoming part of the suite of tools and approaches that river managers and landscape architects turn to. However it is still not a mainstream solution. This session will identify the key challenges to policy implementation in Europe that constrain the use of river restoration and identify how these can be overcome.

Chair: Jane Madgwick (Chief Executive Officer, Wetlands International)

### **Oral Presentations**

**Title:** Policy implementation challenges to mainstreaming river restoration. **Speaker:** C.Baker (Wetlands International)

**Title:** Negotiated agreements at basin scale as a tool for the integrated implementation of WFD and FD in Italy: results of a national census of River Contracts experiences (2002-2012) and future challenges. **Author(s):** G. Pineschi (Ministry of Environment, Italy), G. Gusmaroli (environmental advisor, Italy). **Speaker:** G. Gusmaroli

Title: Are rivers being restored in the Iberian Peninsula? Author(s): F. Magdaleno (Iberian Centre for River Restoration, Spain). **Speaker:** F. Magdaleno

**Title:** Setting up a national restoration monitoring criteria. **Author(s):** S. Koljonen (Finnish Environment Institute, Finland). **Speaker:** S. Koljonen

**Title:** New mechanisms of WFD delivery. **Author(s):** K. Hughes (WWF, United Kingdom). **Speaker:** K. Hughes

### Posters

**Title:** Catchment-scale river restoration and WFD implementation: lessons learned from the Ouse and Adur pilot catchment. **Author(s):** I. Dennis et al (Royal Haskoning DHV, the United Kingdom)

**Title:** An outlook on River Restoration in Italy: state of the art, trends and perspectives. **Author(s):** G. Gusmaroli et al (Centro Italiano per la Riqualificazione Fluviale, Italy)

**Title:** IRBM Planning and the WFD - A guideline on how to get started. **Author(s):** J. Heymans (Royal Haskoning DHV, the Netherlands).

**Title:** River restoration management in the face of climate change: in-stream habitat or catchment restoration? **Author(s):** T. Vehanen & T. Sutela (Finnish Game and Fisheries Research Institute, Finland)

# SESSION 02: Cost-effective Solutions for River Management

**Summary:** River restoration is often a very cost-effective solution to water management challenges. However, economic valuation of river restoration options often does not include costs associated with all the benefits, reducing their apparent value as an option. The workshop will examine the nature of the challenge from the point of view of river basin planners and managers and show-case case studies that highlight the way forward. A keynote talk on this issue will be given by lan Barker, Head of Land and Water from the Environment Agency, England. The workshop will allow time for you to discuss your experiences and knowledge of measuring the costs and benefits of different river management options. We will also investigate the gaps and challenges in valuing river restoration.

Chair: Ian Barker (Environment Agency, England)

### **Oral Presentations**

### Title: Introduction Speaker: I. Barker

**Title:** Estimating costs and benefits of Water Framework Directive implementation by Flood and Coastal Risk Management at a water body scale. **Author(s):** I. Dennis and P. Williamson (Royal Haskoning DHV, United Kingdom); T. Fenn and E. Daly (Risk and Policy Analysts, United Kingdom); D. Huggett (Environment Agency, England). **Speaker:** I. Dennis

**Title:** Comparing stream restoration and flow restoration benefits to instream habitat conditions. **Author(s):** M. Olsen (Roskilde University, Denmark - Geological Survey of Denmark and Greenland, Denmark), P. Thorn (Roskilde University, Denmark - Danish Nature Agency, Denmark), J.C. Conallin (Roskilde University, Denmark - Murray Catchment Management Authority, Australia). **Speaker:** M. Olsen

### Posters

**Title:** Rehabilitation of the Lower Salzach - concept and first experiences. **Author(s):** M. Hengl (Federal Agency for Water Management, Austria)

**Title:** River landscapes and their multiple functions - the ecosystem service concept as a way to integrate complex thinking into strategic planning. **Author(s):** K. Bock et al (University of Natural Resources and Applied Life Sciences, Austria)

# SESSION 03: Sustainable Flood Risk Management

**Summary:** Intensifying use of land and water coupled with the impacts of climate change are increasing flood risk in many parts of Europe. River restoration can play an important role in contributing to the realisation of sustainable flood risk management strategies and infrastructure whilst generating multiple benefits.

Chair: Fernando Magdaleno (CEDEX - CIREF, Spain).

### **Oral Presentations**

**Title:** Restoration potential for Danube river basin, lower Danube and Mura Drava Danube Biosphere Reserve. **Speaker:** U. Schwarz (FLUVIUS, Austria)

**Title:** Flood protection combined with stream restoration in a complex context on the river Etsch (Italy). **Author(s):** W. Gostner, C. Lucarelli, M. Paternolli (Engineers Patscheider and Partner Ltd., Italy). **Speaker:** W. Gostner

**Title:** The Durme valley river restoration plan. **Author(s):** R. Adams (IMDC, Belgium), H. Quaeyhaegens (WENZ, Belgium), K. Verhaegen (TECHNUM, Belgium), P. De Smedt (LDR, Belgium). **Speaker:** J. Verbelen (International Marine and Dredging Consultants, Belgium)

### Posters

**Title:** Environment-friendly reduction of flood risk and infrastructure damage in a mountain river: case study of the Czarny Dunajec. **Author(s):** B. Wyzga et al (Institute of Nature Conservation, Polish Academy of Sciences, Poland).

**Title:** Morphodynamic design for River Restoration. **Author(s):** E. Wijma and Q. van Agten (Royal Haskoning DHV, the Netherlands).

**Title:** Statutory flood risk management operations implement Ireland's national river enhancement programme. **Author(s):** N. Gilligan et al (Office of Public Works; Inland Fisheries Ireland, Ireland).

**Title:** Integrating River Restoration and Sustainable Drainage Systems for effective Flood Risk Management in urban contexts. **Author(s):** Veról et al (Universidade Federal do Rio de Janeiro, Brazil).

# SESSION 04: Water Uses and Environmental Flows

**Summary:** The session will tackle the issue of defining environmental flows to balance river ecosystems with other services that we need from our rivers.

Multiple uses of rivers mean that the maintenance of essential flows for different users, including ecosystems, hydropower, agriculture, fisheries and recreation is becoming increasingly difficult. River restoration has a role to play here in supporting river flow that balance these varied uses. The value of maintaining environmental flows particularly for rivers which support hydropower will be explored in this session.

Chair: Andrea Goltara (Centro Italiano per la Riqualificazione Fluviale CIRF, Italy)

<ul> <li>Title: Introduction. Speaker: J. Jormola (Finnish Environment Institute SYKE, Finland).</li> <li>Title: River restoration – a means for connecting the objectives of RES and WFD? Author(s): B.O. Dønnum (E-CO Energy AS, Norway). Speaker: B.O. Dønnum</li> <li>Title: Improved environmental flows for river restoration – a case study from the Greater Caucasus, Azerbaijan. Author(s): F. Imanov, H. Leummens, A. Nuriyev, S. Zeynalova (Baku State University, Azerbaijan). Speaker: H. Leummans</li> <li>Title: Habitat and recreational suitability in an Alpine River subject to hydropeaking: Noce River, Trentino, Italy. Author(s):</li> <li>Title: Assessment of spawning conditions of endemic fish case study for provide the provide the</li></ul>	Oral Presentations	Posters
<ul> <li>Title: River restoration – a means for connecting the objectives of RES and WFD? Author(s): B.O. Dønnum (E-CO Energy AS, Norway). Speaker: B.O. Dønnum</li> <li>Title: Improved environmental flows for river restoration – a case study from the Greater Caucasus, Azerbaijan. Author(s):</li> <li>F. Imanov, H. Leummens, A. Nuriyev, S. Zeynalova (Baku State University, Azerbaijan). Speaker: H. Leummans</li> <li>Title: Habitat and recreational suitability in an Alpine River subject to hydropeaking: Noce River, Trentino, Italy. Author(s):</li> </ul>		method in regulated rivers. Author(s): S. Olin and M. Arola
<ul> <li>case study from the Greater Caucasus, Azerbaijan. Author(s):</li> <li>F. Imanov, H. Leummens, A. Nuriyev, S. Zeynalova (Baku State University, Azerbaijan). Speaker: H. Leummans</li> <li>Title: Habitat and recreational suitability in an Alpine River subject to hydropeaking: Noce River, Trentino, Italy. Author(s):</li> <li>Title: Assessment of spawning conditions of endemic fish</li> </ul>	objectives of RES and WFD? <b>Author(s):</b> B.O. Dønnum (E-CO Energy AS, Norway). <b>Speaker:</b> B.O. Dønnum	<b>Title:</b> Mitigation measures for sustainable water abstractions in alpine streams. <b>Author(s):</b> D. Istenic
subject to hydropeaking: Noce River, Trentino, Italy. Author(s): Title: Assessment of spawning conditions of endemic fish	case study from the Greater Caucasus, Azerbaijan. <b>Author(s):</b> F. Imanov, H. Leummens, A. Nuriyev, S. Zeynalova (Baku State University, Azerbaijan). <b>Speaker:</b> H. Leummans	constrains of water supply protection: the case study of the Bocq River at Spontin. <b>Author(s):</b> B. de le Court (Service
Siviglia (V. Wasserbau, Hydrologie u. Glaz, Switzerland), P. Vezza (Valencia Polytechnic University, Spain), O. Cainelli Academy of Sciences, Armenia).	subject to hydropeaking: Noce River, Trentino, Italy. <b>Author(s):</b> M. Carolli, F. Carolli, G. Zolezzi (Trento University, Italy), A. Siviglia (V. Wasserbau, Hydrologie u. Glaz, Switzerland), P. Vezza (Valencia Polytechnic University, Spain), O. Cainelli	species in major tributaries of lake Sevan (Armenia) with a purpose to restore them. <b>Author(s):</b> S. Hakobyan (National
<ul> <li>(Smart Hydrogeological Solutions Ltd, Italy), D. Geneletti (Trento University, Italy). Speaker: M. Carolli</li> <li>Title: The new Swiss legislation on water protection: overview and first successes. Author(s): L. Bonnard (environmental advisor, Switzerland). Speaker: L. Bonnard</li> </ul>	(Trento University, Italy). <b>Speaker:</b> M. Carolli <b>Title:</b> The new Swiss legislation on water protection: overview and first successes. <b>Author(s):</b> L. Bonnard (environmental	Umbrías (Ávila), Duero river basin, Spain. Author(s): C. M.

# SESSION 05: Enhancement of Multi-use Landscapes

**Summary:** A diverse and greener landscape can have many benefits to other sectors such as agriculture, recreation and tourism. These different sectors will often have diverging interests, but there will also be opportunities for synthesizing benefits to the various functions at the same time. Integrating this thinking into the process to delivering river restoration is a particular challenge. This session will showcase innovative approaches to achieving this. A selection of case studies from all over Europe will explore the theme.

Chair: Hans Verhoogt and Ian Dennis (Royal Haskoning–DHV, the Netherlands/ United Kingdom)

### **Oral Presentations**

**Title:** Great (un) expectations: the Isar-Plan in Munich. **Author(s):** N. Mahida (State Office for Water Management, Munich, Germany). **Speaker:** N. Mahida

Title: Floodplain restoration to improve green infrastructures and address multiple management objectives in an urban context: the case study of the Lobau. **Author(s):** T. Hein (BOKU Vienna, Austria -WasserCluster Lunz GmbH, Austria), C. Baumgartner (National Park Donau-Auen GmbH, Austria), E. Bondar-Kunze (BOKU Vienna, Austria - WasserCluster Lunz GmbH, Austria), A. Funk (BOKU Vienna, Austria - WasserCluster Lunz GmbH, Austria), W. Preiner Stefan Reckendorfer (BOKU Vienna, Austria - WasserCluster Lunz GmbH, Austria), S. Sanon (UNESCO - IHE, the Netherlands), G. Weigelhofer (BOKU Vienna, Austria - WasserCluster Lunz GmbH, Austria). **Speaker:** T. Hein.

**Title:** Planning tools for reopening and restoring urban streams and rivers.**Author(s):** T. Fergus (Oslo Water and Sewage Works, Norway). **Speaker:** T. Fergus

**Title:** Restore freshwater systems within a multi-objectives integrated strategy: the case of Venice Lagoon watershed. **Author(s):** B. Gumiero (Bologna University, Italy), B. Boz (freelance advisor, Italy), P. Cornelio (Drainage Authority Acque Risorgive, Italy). **Speaker:** B. Gumiero

### : Posters

**Title:** Innovative solutions for the Dommel river basin. **Author(s):** J. van der Cruijsen (Waterschap Dommel, the Netherlands).

**Title:** Conservation of biodiversity in floodplains: Is multifunctionality the solution? **Author(s):** S.Schindler et al (University of Vienna, Austria).

**Title:** Biodiversity offsets and ecological compensation: finding the missing link between green infrastructure and river restoration. **Author(s):** C. Pöll et al (University of Vienna, Austria).

**Title:** Renaturation in the floodplain of the Po river: results after 10 years - interventions on the initiative of private farms. **Author(s):** P. Cielo and F. Pesce (ForTeA, Italy).

**Title:** Methods of modeling the energy fluxes of low land rivers including the shading effect of river geometry and riparian vegetation. **Author(s):** H. Trimmel et al (University of Vienna, Austria).

**Title:** LIFE to ad(d)mire, mire restorations in Sweden. **Author(s):** L. Tenning (Jämtland County Administrative Board, Sweden).

**Title:** Province of Teramo experience about Tordino river hydrographic basin contract. **Author(s):** M. Ronci et al (Province of Teramo, Italy).

**Title:** Landuse impacts on the drinking water reservoir of a straightened mountain river – an initial GIS-based survey. **Author(s):** M. Hoffmann (Institute of water problems and land reclamation, Ukraine).

# SESSION 06: Maintaining and Enhancing European Biodiversity

**Summary:** The re-establishment of river habitats and the biodiversity they support can play a significant role in enhancing the quality of individual ecosystems and those along a river. River restoration is a core approach to achieving good ecological status for the WFD. The approach needs to be holistic, addressing local watercourse issues through identification and treatment of cause rather than managing the effect. This session will look at how river restoration need to treat the river and floodplain as a single functional unit and recognises the role of natural processes in causing change to the system and ecology. Physical changes including sediment transport processes lead to changes in erosion and deposition and resulting ecology. Issues arise during schemes between differing user groups and regulators. Discussion within the session will be directed by the chair to gauge the feeling of the wider audience.

Chair: George Heritage (JBA Consulting and University of Salford, United Kingdom).

### **Oral Presentations**

**Title:** The role of river restoration in maintaining and enhancing European biodiversity. **Author(s):** P. Boon (Scottish Natural Heritage, Scotland). **Speaker:** P. Boon

**Title:** Restoration on tidal rivers in Flanders – case study on the Grote Nete. **Author(s):** PV. Jeroen (IMDC, Belgium), J. Maarten (Flemish Government, Belgium), Michaël Van Rompaey (Tractebel Engineering, Belgium). **Speaker:** M. Van Rompaey and/or J. Maarten

Title: Local floodplain restoration – experiences in the Lower Volga, Russia. **Author(s):** D.V. Zolotarev (Volgograd Oblast Administration, Russia), D.A. Solodovnikov, O.V. Filippov, S.N. Kanischev, A.I. Kochetkova, G.Y. Klinkova, N.B. Lopantseva, H.J.L. Leummens. **Speaker:** D.V. Zolotarev

**Title:** Results of conservation and management measures from two LIFE Programs in Nestos River Delta, Northern Greece – a critical review. **Author(s):** H. Jerrentrup (Society for Protection of Nature and Ecodevelopment, Greece), G. Efthimiou (Technological Educational Institute Larissa, Greece). **Speaker:** H. Jerrentrup

**Title:** Naturalisation VS Land Use – The New Forest SAC, SPA, RAMSAR and SSSI. **Author(s):** K. Sheehan (JBA Consulting, United Kingdom), J. Gifford (Natural England, England). **Speaker:** S. Bentley (JBA Consulting, United Kingdom)

**Title:** Protecting the habitats of priority bird species of the Vistula Valley under the circumstances of intensive pressure of Warsaw agglomeration. **Author(s):** I. Zwoliñska, L. Poławski, E. Kominek (Capital City Property Management, Warsaw, Poland – Warsaw Society for the Protection of Birds, Poland). **Speaker:** Ł. Poławski

### **Posters**

**Title:** Dynamics of macroinvertebrates community in response to river restoration in different hydrological regimes. **Author(s):** D. Campana et al (Free University of Bozen-Bolzano, Italy).

**Title:** Monitoring of bird species on NATURA 2000 middle Vistula river valley area within the Warsaw agglomeration. **Author(s):** M. Elas et al (Biuro Analiz Przyrodniczych, Poland).

**Title:** River Kennet Catchment - a strategic approach to restoration and assessment. **Author(s):** J. England et al (Environment Agency, England).

**Title:** River Restoration: restoring habitats used for timber floating. **Author(s):** G. Jacobsson (Jamtland County Administrative Board, Sweden).

**Title:** Benthic and fish fauna for pollution classification in the Natanebi river, west Georgia. **Author(s):** B. Japoshvili et al (Ilia State Universit, Georgia).

**Title:** Restoration of water flow of Khor Virap Marsh Ramsar site as an important step for rehabilitation of wetland biodiversity of River Arax in Ararat Valley (Armenia). **Author(s):** K. Jenderedjian (National Focal Point of Armenia RAMSAR, Armenia).

**Title:** Prader Sand: river restoration due to channel widening. **Author(s):** K. Kofler et al (ArgeNatura, Italy).

**Title:** Vegetation response to a floodplain dynamisation project - a case study from the Danube between Neuburg and Ingolstadt (Bavaria, Germany). **Author(s):** P. Lang et al (Catholic University Eichstatt-Ingolstadt, Germany).

**Title:** Fish mesohabitat characteristics in Austrian lowland rivers. **Author(s):** P. Rauch et al (BOKU, Austria).

**Title:** Riverine fish assemblages in the areas of acid sulphate soils in Western Finland. **Author(s):** T. Sutela (Finnish Game and Fisheries Research Institute, Finland) and T. Vehanen (Finnish Game and Fisheries Research Institute, Finland).

**Title:** Movement pattern and colonisation potential of stream fishes with restoration context. **Author(s):** G.Thomas (EAWAG, Switzerland) and A. Peter (EAWAG, Switzerland).

**Title:** Ecological status of a mountain river based on pre- and post- flood data. **Author(s):** J. Zawiejska et al (University of Cracow, Poland).

**Title:** LIFE measures mur[er]leben. Inneralpine river basin management – Upper Mur. **Author(s):** H.J Raderbauer (Freiland, Austria)

**Title:** Hydromorphological analyses of restoration measures at different spatial scales: Six mountain rivers case studies in Central Europe. **Author(s):** M. Poppe et al (University of Natural Resources and Applied Life Sciences, Austria).

**Title:** Northern Oder Valley: Recent ecological state and biodiversity. **Author(s):** J. Chmieleski and K. Zielewska (Eberswalde University for Sustainable Development, Germany).



## **SESSION 07: River Restoration Techniques**

**Summary:** There are a large number of techniques and approaches to river restoration, but the key to successful outcomes is to work with natural processes. Taking a catchment scale approach, focussing on restoring natural processes and dealing with major pressures, stimulates sustainable re-establishment of river habitats and enhancement of ecosystem quality. This session will discuss how we can work with these processes on different scales, the techniques and manuals available and it will give some exciting examples of best practice.

Chair: David Baxter (Environment Agency, England)

### **Oral Presentations**

**Title:** Introduction. **Speaker:** M. Janes (River Restoration Centre, United Kingdom)

**Title:** Keeping Rivers Cool – creating riparian shade. **Author(s):** R. Lenane (Environment Agency, England). **Speaker:** R. Lenane

**Title:** Restoring gravel bed spawning grounds – solution or cosmetics? Lessons learned from European projects in the last decades. **Author(s):** U. Pulg (UNI RESEARCH, Norway), C. Hauer (Universitaet fuer Bodenkultur Wien, Austria). **Speaker:** U. Pulg

**Title:** An application of the Process Restoration Philosophy on a Scottish upland river. **Author(s):** H. Moir (CBEC ecoengineering Ltd, United Kingdom). **Speaker:** H. Moir

Title: Adding large structures to improve habitat health. Author(s): J. Gardeström (Umeå University, Sweden). Speaker: J. Gardeström

### **Posters**

**Title:** Evaluation of newly built riffles for juvenile fishes in the Meuse. **Author(s):** A. De Vocht (Hasselt University and PHL University College, Belgium).

**Title:** Upstream and downstream fish migration in a restored confluence of the river Geul and the river Meuse. **Author(s):** A. De Vocht et al (Hasselt University and PHL University College, Belgium).

**Title:** River Restoration and biodiversity: techniques developed and used in Belgium by private consultants. **Author(s):** S. Den Doncker (Stream and River Consult, Belgium).

**Title:** The potential of riparian vegetation for river restoration demonstrated at the two lowland rivers Lafnitz and Pinka. **Author(s):** G. Holzapfel and H. P. Rauch (University of Natural Resources and Life Science, Austria).

**Title:** Living space in the river Danube and its tributaries in Lower Austria/ Mostviertel. **Author(s):** T. Kaufmann (Freiwasser, Austria).

**Title:** Restoring the longitudinal connectivity for fishes with block ramps: upstream passage evaluation studies in Swiss rivers. **Author(s):** A. Peter (Swiss Federal Institute of Aquatic Science and Technology, Switzerland).

**Title:** The RECORD Catchment Project: River restoration in the context of climate and global change. **Author(s):** D. Radny and M. Schirmer (Swiss Federal Institute of Aquatic Science and Technology, Switzerland).

**Title:** Using Virtual Landscapes for River Restoration. **Author(s):** H. Reid (Environment Agency, England).

**Title:** Restoring of longitudinal connectivity of crisul repede river in front of the Dacia bridge weir into Oradea town. **Author(s):** R. Voicu et al (National Institute of Hydrology and Water Management, Romania).

**Title:** Simulating the effects of hydropower dams on potamodromous fish populations with a special focus on downstream migration in river systems affected by multiple human pressures. **Author(s):** A. Zitek et al (University of Natural Resources and Life Science, Austria).

**Title:** River Restoration in an urban environment. **Author(s):** O. Southgate (Environment Agency, England).

# **SESSION 08: Communicating River Restoration**

**Summary:** River and land managers do not always have access or experience of river restoration techniques/ processes and the benefits from river restoration. Existing experiences and knowledge are not widely available. Together this is a barrier to good practice. The RESTORE project has worked to develop a series of approaches and tools to overcome these challenges. This workshop will be facilitated by the RESTORE partnership. European examples of tools to communicate will be showcased, including the posters submitted to this workshop. There will be time for you to discuss your experiences and knowledge of communicating river management. We will also investigate how existing knowledge sharing tools might also be improved.

Chair: Jenny Mant (River Restoration Centre, United Kingdom)

### **Oral Presentations**

**Title:** Introduction. **Speaker:** A. Scarr (Environment Agency, England).

**Title:** A method for systematic river restoration planning using network analysis, optimisation, and geographic information systems. **Author(s):** G. Oldford, P. Duinker (Dalhousie University, Canada), E. Gunn (DALTECH, Canada), D. Kehler (Parks Canada, Canada). **Speaker:** G. Oldford

**Title:** A collection of river restoration examples in France: building, sharing and updating it, how to make it a living tool? **Author(s):** J. Peress (The French National Agency for Water and Aquatic Environments ONEMA, France). **Speaker:** J. Peress

### • Posters

**Title:** Austrian Floodplain Inventory. **Author(s):** W. Lazowski (TB Okologie, Austria) and U. Schwarz (Fluvius, Austria).

**Title:** Bank erosion control as part of a rehabilitation strategy at the river basin level. **Author(s):** A. Pinto et al (University of Porto, Portugal).

**Title:** River Restoration experience in Central and East Europe within RESTORE Project. **Author(s):** D. Radulescu et al (NIHWM, Romania).

# SESSION 09: Ensuring Local Sustainability

**Summary:** A major challenge to river restoration is ensuring that an initiative is sustainable from a local stakeholder perspective. This requires securing local support and engagement in the planning, implementation and monitoring of a particular initiative. Though restoration initiatives may have clear benefits at larger scales and responsible agencies and actors, they may not always easily translate into benefits that are positively understood or perceived by local communities. When this is achieved, it can also translate into local stakeholder support and action to facilitate the realisation of the initiative and its maintenance. This session will consider how to engage stakeholders to maximise support and sustainability of river restoration.

Chair: Hil Kuypers (Dienst Landelijk Gebied DLG, the Netherlands)

### **Oral Presentations**

**Title:** Introduction. **Speaker:** G. Gusmaroli (Centro Italiano per la Riqualificazione Fluviale, Italy).

**Title:** Evaluating the Catchment-Based Approach – transferable lessons for national implementation. **Author(s):** C. Black, D. Corbelli, K. Conlan (Cascade Consulting, United Kingdom). **Speaker:** C. Black

**Title:** European River Corridor Improvement Plans (ERCIP) project. **Author(s):** P. Chapman (London Borough of Lewisham, England). **Speaker:** P. Chapman

**Title:** Initiative "Place a Stone in the River" as a method for local stakeholder motivation and involvement in River Restoration and maintenance in Latvia. **Author(s):** A. Urtans (Nature Conservation Agency, Latvia), L. Urtane (LU Consulting, Latvia). **Speaker:** A. Utrans

**Title:** Options for cooperation with local public authorities to facilitate river restoration activities in Moldova. **Author(s):** D. Drumea (Global Water Partnership, Moldova). **Speaker:** D. Drumea

Title: "Sketch and Match" - Engaging stakeholders in design. Author(s): P. Boone, M. van Dijken (Dienst Landelijk Gebied, The Netherlands), E. Cserwid (NIHWM, Romania). Speaker: M. Van Dijken

### Posters

**Title:** River as Natural Engine for the City. **Author(s):** M. Niesten (Kuiper Compagnons, the Netherlands) and E. Wisniewska (land planner, Poland).

**Title:** The young people of today are the stakeholders of tomorrow: the potential of integrating youth into applied river landscape research. **Author(s):** S. Scheikl et al (BOKU, Austria).

**Title:** River Basin Development Upper Traun River: from European to Local Level. **Author(s):** L. Feichtinger (Blattfisch consulting, Austria).

**Title:** Community engagement and involvement in catchment restoration and management on the lower river Shannon SAC. **Author(s):** R. O'Conchuir and G. Wightman (Inland Fisheries, Ireland).

**Title:** River restoration project of the river Jeker in Belgium. Restoring a river and bringing water to the Mill. **Author(s):** S. Belmans (Royal HaskoningDHV, Belgium) and Koen Martens (VMM – Flemish Government, Belgium).



# SESSION 10: River Restoration: A Shared Challenge

**Summary:** Challenges to achieving good river restoration are experienced the world over. Often these are similar in nature but different cultures, actors, networks and economic circumstances arrive at different approaches with different innovations and solutions. It is therefore useful and efficient to share knowledge and experiences internationally.

In this session comparative approaches to restoring river estuaries will be presented. The use of institutional concepts 'Integrated River Basin Management' and 'River Twinning Programmes' for the knowledge transfer will be demonstrated. There will also be discussion on the role of the private sector in developing River Restoration knowledge and experiences. In particular we should recognise the benefits from international cooperation in fostering River Restoration approached both overseas and in Europe, recognising a country's particular challenges to river management.

Chair: Ania Grobicki (Global Water Partnership, Sweden)

### **Oral Presentations**

**Title:** Introduction. **Speaker:** J.F. Donzier (International Network of Basin Organisations, France).

**Title:** Restoring European rivers while Latin America countries (and many others) are spoiling theirs at an unprecedented pace: comparative reflections from the EU FP7 "SERELAREFA" project. **Author(s):** A. Nardini, G. Gusmaroli (Centro Italiano per la Riqualificazione Fluviale, Italy), M. Miguez (Rio de Janeiro Federal University, Brazil), M. Agurto (Ministry of Public Works, Chile), J.L. Arumì, C. Meier (Concepcion University, Chile), L.M. Martinez (Guadalajara University, Mexico), M. Marchamalo (Madrid Polytechnic University, Spain). **Speaker:** A. Nardini

**Title:** Aichi Prefecture's efforts to restore Nagara River by optimized dam operation. **Author(s):** M. Aoyama (River Policy Network, Japan). **Speaker:** M. Aoyama

**Title:** Restoring the Ems-Dollard estuary together. **Author(s):** L.L.J. van Nieuwerburgh and H. Verhoogt (Royal Haskoning DHV, the Netherlands). **Speaker:** L.L.J. van Nieuwerburgh and H. Verhoogt

**Title:** The Thames and Ganges Twinning Programme. **Author(s):** R. Oates (Thames Rivers Trust, United Kingdom). **Speaker:** R. Oates

### Posters

**Title:** Restoring Europe's Rivers Amazon. **Author(s):** T. Nikowitz, Arno Mohl, Ulrich Schwarz et al (WWF, Austria)

**Title:** TComplex approach of drinking reservoir management; case study at middle Urals. **Author(s):** T. Pavluk et al (National Research Institute for Integrated Water Management and Protection, Russia).

**Title:** Application of CASiMiR Model for assessment of Tinfoil Barb Habitat suitable in Langat. **Author(s):** T.A. Mohammad et al (University Putra, Malaysia)

**Title:** River restoration advisor for post-disaster river works in Japan. **Author(s):** J.P. Nakamura (Ministry of Land, Infrastructure, Transport and Tourism, Japan).

**Title:** Creative ideas for river restoration in United States of America. **Author(s):** R. Wolotira (NOAA Fisheries Service Restoration Centre, USA).

**Title:** Velino river: an urban restoration of the vegetation in the NATURA2000 Network. **Author(s):** G. Cammerini et al (SCAT Company, Italy).



# SESSION 11: Contemporary River Corridor Management: From local to transboundary level, from top down to bottom up

**Summary:** Following the EU assessment of the River Basin Management Plans on the EU water legislation with overlapping and often antagonistic EU policies, the aim of the SEE River Session at the ERRC 2013 is to contribute to the improvement of the conventional manner by a new, integrated approach of river corridor land use management, based on the involvement of stakeholders from local to international level. By this opportunity, the session would with its active participation also contribute to some of the EU Blueprint to Safeguard Europe's Water Resources key themes, e.g. land use and improving river governance.

Chair: Bruno Mazzorana (Autonomous Province of Bolzano – South Tyrol, Department of Hydraulic Engineering, Italy)

**Introduction:** Contemporary river corridor management – a contribution to safeguard European water resources. **Author(s):** A. Bizjak (Institute for Water of the Republic of Slovenia). **Speaker:** A. Bizjak

### Work session

- What are from your experience the needs for improved river corridor management on local and transboundary scale?
- What are your experiences in managing rivers through the bottom-up approach and in linking the top-down and bottom up approaches?
- What are the needs to ensure sustainable transboundary river corridors in WE and SEE countries?

**Conclusions:** Messages to the ERRC 2013 conference. **Author(s):** A. Zinke, (Zinke Environment Consulting, Austria) and B. Mazzorana, (Department of Hydraulic Engineering, Italy). **Speaker:** B. Mazzorana

### Posters

M. Softić (Alianta, Slovenia) and A. Grmovšek (Institute of the Republic of Slovenia for Nature Conservation, Slovenia) Development of bottom up approaches in the Drava River pilot areas and their integration from local to transboundary scale.

B. Vučijak (Hydro Engineering Institute, Bosnia and Herzegovina) Achieving sustainable integrated management of selected international river corridors in SEE.

A. Nardini (international advisor on water resources management, Italy) and B. Mazzorana (Department of Hydraulic Works, Rep.30, Autonomus Province of Bolzano, South Tyrol, Italy) A contribution to the SEE River Toolkit.

### Note:

This session has been proposed by the SEE River Project (Sustainable Integrated Management of International River Corridors in SEE Countries), funded by the European Territorial Cooperation: Transnational Cooperation Programme – Operational Programme South East Europe. By developing innovative tools and by involving a diversity of 26 partners from 11 SEE countries (lead partner Institute for Water of the Republic of Slovenia), it tries to trace the way to sustainable management of six mostly international river corridors in SEE countries. The project lasts from October 2012 until September 2014. More information: www.see-river.net.



# SESSION 12: Lowland Rivers in Central Europe Characters and Perspectives

**Summary:** This session will give an overview of the current ecological status and the biological perspective of Central European lowland rivers, covering the geographical scope of Western Hungary, Slovakia, Southern Moravia and Austria. It will also highlight the abiotic (e.g. hydraulic, sediment) conditions of lowland rivers and will face the challenges of restoring meandering rivers by introducing former and current projects of the Morava-Dyje-Floodplains. The main focus will be on the Austrian-Czech- Slovakian Morava-Dyje floodplains. The Morava is the largest left-side tributary of the Upper Danube in Central Europe and Austria's only near natural lowland river with Pannonian character. Due to regulation and intensification measures in the last century on the river and its floodplains all meanders and side arms had been cut off, the river banks had been regulated and the lateral connectivity with the floodplains had mostly been disconnected. Over the last decades there has been a strong effort to restore this riverine landscape. Different restoration projects (e.g. Bilateral General Project Morava I and II, Life projects, etc.) primarily tried to improve the ecological status of the outstanding habitats as well as the connectivity with the river in the Morava-Dyje floodplains.

Chair: A. Zinke, Zinke Environment Consulting, Austria

### **Oral Presentations**

**Title:** Central European Lowland Rivers – from their ecological situation to a restoration perspective. **Author(s):** W. Lazowski (Private consultant – TB Ökologie, Austria) and M. Pannonhalmi (North-transdanubian Water Directorate, Hungary) **Speaker:** W. Lazowski, M. Pannonhalmi

**Title:** Abiotic characteristics of Lowland Rivers and the Challenges in Restoration. **Author(s):** A. Schwingshandl (Riocom Consulting Engineers, Austria). **Speaker:**A. Schwingshandl

**Title:** Morphodynamic Design for River Restoration. **Author(s):** E. Wijma (Royal HaskoningDHV, the Netherlands). **Speaker:** E. Wijma

**Title:** The Morava River Restoration: Plan of Measures prepared in agreement with EC Water and Nature Protection Directives – MoRe. **Author(s):** K. Holubova

(Water Research Institute, Slovakia). Speaker: K. Holubova

**Title:** European Territorial Cooperation Project Czech Republic – Austria Polder Soutok. **Author(s):** R. Konecny (Umweltbundesamt, Austria), N. N. (Povodí Moravy, Czech Republic). **Speaker:**R. Konecny, N. N.

**Title:** Restoring the Morava – Reconnecting Europe. **Author(s):** U. Eichelmann (River Watch, Austria). **Speaker:** U. Eichelmann

### Posters

**Title:** Morphodynamic Design for River Restoration. **Author(s):** E. Wijma (Royal HaskoningDHV, the Netherlands)

**Note:** This session has been proposed by G. Egger, WWF Austria, the field excursion to the Morava floodplains complements, and will be discussed, within this session.



# SIDE EVENT A: European Riverprize Finalists Presentations: Celebrating Success in Integrated River Basin Management

**Summary:** The International RiverFoundation (IRF) has recently formed a partnership to deliver a European Riverprize for the first time in 2013. The IRF European Riverprize will celebrate 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.

Judged by a panel of European experts and administered from the IRF Europe office in Vienna, the first IRF European Riverprize will be awarded in 2013 - International Year for Water Cooperation. Participation is open to all organisations.

The European winner will qualify as an automatic finalist in the Thiess International Riverprize the following year.

Chair: Matthew Reddy (International RiverFoundation, Australia)

### **Oral Presentations**

Title: Introduction Speaker: M. Reddy (IRF, Australia)

**River Finalist:** Orbigo River – Spain **Author(s):** R. Huertas, J.I. Santillán, C. Garcia-Asenjo, A. Cabrero, U.S. Cantalejo (Duero Basin, Spain). **Speaker:** R. Huertas Gonzáles, Duero Basin Authority, Spain.

**River Finalist:** Mura/Drava/Danube Rivers – Austria, Croatia, Hungary, Serbia, Slovenia. **Author(s):** A. Mohl (WWF Austria, Austria) **Speaker:** A. Mohl

**River Finalist:** River Rhine – Switzerland, France, Germany, Luxemburg, Netherlands, Austria, Liechtenstein, the Belgian region of Wallonia and Italy. **Author(s):** A. Weidenhaupt, B. van de Wetering, A. Schulte Wulwer – Leidig (ICPR, Germany) **Speaker:** B. van de Wetering

River Finalist: Upper Drau (Drava) River - Austria. Author(s): N. Sereing, H. Mandler, K. Michor. Speaker: N. Sereinig

# SIDE EVENT B: REFORM - Restoring Rivers for Effective Catchment Management

**Summary:** Restoring river ecosystems across Europe. REFORM addresses the challenges in reaching the ecological objectives for rivers set forth in the EU Water Framework Directive. Many European rivers have been regulated to support flood protection, navigation, freshwater supply, and hydropower production. Insufficient knowledge is available about the ecological impacts of these hydromorphological modifications including about whether they can be effectively reversed or mitigated. REFORM is a four-year integrated research project (2011-2015) and receives funding from the European Union's Seventh Framework Programme.

Key lessons learned in the first phase of this research project, featuring:

1. A review of hydromorphological assessment methods indicating a need for more comprehensive assessments and better consideration of physical processes.

2. The development of a spatially hierarchical framework to assess hydromorphology in rivers, emphasising the dependency of hydromorphological conditions on dynamic interactions between water, sediment, and plants

3. The establishment of thresholds for limiting factors (e.g., current velocity) to guide river rehabilitation work based on the review of literature and project results.

4. Insights from a comparative analysis of the first River Basin Management Plans and Programmes of Measures, which points to high uncertainty about suitable efficient hydromorphological measures and the dominance of conceptual measures.

5. The launch of the REFORM Geo-WIKI with generic river restoration knowledge

Chair: Tom Buijse (Deltares, the Netherlands)

### **Oral Presentations**

**Title:** Hydromorphology of rivers and floodplains – What is at stake and how will REFORM contribute? **Speaker:** T. Buijse (Deltares, the Netherlands)

**Title:** Modifying rivers: ecological responses to hydromorphological degradation and restoration. **Speaker:** C. Wolter (IGB, Germany)

Title: Knowledge sharing on hydromorphology and ecology of rivers. Speaker: G. Geerling (Deltares, the Netherlands)



# SIDE EVENT C: Green Infrastructure Solutions to European River Basin Management Challenges: Launch of a river basin community of practice

**Summary:** River restoration or "ecological river restoration" is a green infrastructure approach increasingly used in resolving river management challenges in some parts of Europe. Integrated approaches for river restoration planning and - programming are key issues. Flood risk, fisheries, urban environment and related human well-being, water quality, biodiversity and habitat can all benefit from river restoration. All these goals can often be integrated; combining different policy objectives into a river restoration plan can contribute to many different challenges. Main topics here are: land use planning and land bank; sustainable tourism; stakeholder involvement/public awareness and best practices.

In 2011-2012 the ECRR and its partners facilitated a consultation meeting of some 130 experts in Ljubljana and a stakeholder discussion during the 6th World Water Forum. It was concluded that an excellent way to move the river restoration agenda forward would be to encourage a number of river basins to pilot and share their progress and experiences. A practical initiative in which the basins can learn from one another and help others to learn from them would be an excellent basis to stimulate further understanding and action.

The side event will summarise some of the key restoration challenges in the basins and themes they wish to address and end with a pledge to take the action forward as Community of Practice in the coming years, facilitated by the ECRR. Representatives from five pilot basins will briefly present their first findings and experiences and will formally express their commitment to continue working as a community of practice (CoP) on the topics. This could be marked by signing a Memorandum of Understanding.

Chair: Hil Kuypers (ECRR/ Dienst Landelijk Gebied, the Netherlands)

### **Oral Presentations**

Title: Introduction Speaker: B. Fokkens (ECRR, the Netherlands)

**Title:** Irpen river basin: integrated river restoration planning. **Author(s):** M. Romaschenko (Institute of Water Problems and Land Reclamation, Ukraine). **Speaker:** O. Zhovtonogh (Institute of Water Problems and Land Reclamation, Ukraine)

**Title:** Irwell river: urban river restoration partnerships. **Author(s):** O. Southgate (Environment Agency, England) and S. Bentley (JBA Consulting, United Kingdom). **Speaker:** S. Bentley

Title: Orbigo river: experiences of a river restoration programme. Author(s): J.I. Santillán Ibañez (Confederacion Hidrografica del Duero, Spain). Speaker: A. Cabrero Rodriguez

Title: Arpa river: Short introduction on river restoration approaches in Armenia. Author(s): JA. Davoyan (Ministry of Nature Protection, Armenia). Speaker: H. Leumens

Title: Rhone basin: examples of river restoration. Author(s): B. Terrier (Agence de l'eau Rhône Méditerranée Corse, France). Speaker: B. Terrier















### **Restoring Europe's Rivers**

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Xander de Bruine, Project Platforms Alizia Kamani, Wetlands International





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