

# RESTORE WORKSHOP SCOTLAND 25<sup>th</sup> September 2012



## 'Improving morphology and fish passage in high energy rivers'

Location: The Birnam Institute, Dunkeld, Scotland PH8 0DS

### Optional Site Visits 26<sup>th</sup> September 2012 (Based around Pitlochory and the Rivers Tay and Tummel) *exact locations TBC*

This event focuses on demonstrating the benefits of implementing natural fish passes, outlining new evidence about what barriers fish can really pass and discussing the implication of sediment movement and deposition if we remove or alter structures in high energy rivers.

This one day event will discuss current thinking about best practice fish passage, the effects of sediment on species life cycles and identify how RESTORE and can help to disseminate current knowledge to a wide audience of policy makers, river basin manager and other stakeholders across Europe to help ensure best practice river management and restoration are implemented.

It will also be used as an opportunity to look at RESTORE's new wiki-tool which focuses on collecting information on river restoration projects across Europe.

*For more information on the RESTORE's aims and objects visit:  
[www.restorerivers.eu](http://www.restorerivers.eu)*

#### RESTORE West Region Project Partners



Life+ Project Code: LIFE09 INF/UK/000032



## Draft Programme - Tuesday

**9.00** Introduction to the day

**9.10** Restore: what it means for you! *RRC (UK)*

**9.30** Discussion and Questions

**9.40** Natural Fish passage work completed by the EIFAC Working Party on Fish Passage Best Practices. *Jukka Jormola, Finnish Environment Institute*

**10.00** Linking the issues surrounding hydropower needs, WFD and fish passage from a commercial and EU policy perspective. *Marq Redeker, ARCADIS (Germany)*

**10.20** Discussion

**10.35** Coffee/Tea Break

**11.05** The porosity of barriers: what can fish really managed to navigate through and over. *Colin Bull, Stirling University (Scotland)*

**11.30** Fresh water pearl mussels and sediment *Angus Tree, SNH (Scotland)*

**11.40** Discussion

**12.00** Achieving hydro-morphological and ecological continuity in high energy rivers. *Speaker Inland Fisheries Ireland TBC*

**12.20** Discussion

**12.30** Lunch

**13.30** Workshop 1: High Energy Rivers and Restoration

The evidence for effective barrier removal in high energy rivers:

What are the missing questions?

How can these be addressed?

What are the examples of river restoration on high energy rivers?

What are the key drivers?

**14.20** REFORM: Towards the development of tools to support cost-effective implementation of restoration measures and monitoring and links with RESTORE *Iain Gunn, CEH (Scotland)*

**14.45** Launch of the RESTORE WIKI-tool aimed at providing an updateable, online resource of best practice river restoration projects across Europe. *RRC (UK)*

**15.00** Demonstration of WIKI-tool

**15.15** Coffee/Tea Break and feedback forms





**15.45** Workshop 2: Discussion about the WIKI-tool with questions to include:

How will the wiki-tool help you and how might you use it?

What are the most useful elements?

What additional information do you need to know about river restoration?

**16.30** Final comments

**16.45** Close

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### **Site Visit - Wednesday**

**9.00** Inchewan Burn, Birnam



A tributary of the River Tay, the Inchewan Burn was structurally altered as it passed under the A9. The failed works was unsightly and a barrier to fish passage. In 2007 improvement work was undertaken on the tributary to reduce the influence of conifer plantation and to restore a more representative bed structure in the constrained A9 reach. [http://www.therrc.co.uk/rrc\\_case\\_studies1.php?csid=52](http://www.therrc.co.uk/rrc_case_studies1.php?csid=52)

The walk will look at the pressures on these small watercourses, ways to address them and discuss how best to design 'natural' features.

**10.30** Coffee



**11.30** Pitlochry Dam and Fish Ladder



Over a packed lunch there is an opportunity to view the 1950's fish ladder and counter and discuss the impact of barriers and the success of passes. Clear evidence of downstream erosion demonstrates the issue of depriving the river of its sediment load. What other pressures are derived from hydropower dams and how can we address them? <http://www.secret-scotland.com/Attractions/pitlochry-salmon-ladder.html> ; [http://en.wikipedia.org/wiki/Pitlochry\\_fish\\_ladder](http://en.wikipedia.org/wiki/Pitlochry_fish_ladder)

**13.30** River Tummel, Ballinluig



Just above its confluence with the River Tay, the Tummel demonstrates how it can change rapidly to recover a more natural form 100 years after riverside field embankment maintenance was discontinued. Discuss the processes of erosion and deposition at work on this 'mobile' gravel bed river whilst enjoying a walk along the gravel bars and islands. [http://en.wikipedia.org/wiki/River\\_Tummel](http://en.wikipedia.org/wiki/River_Tummel)



**16.30** Return to Birnam and depart.

