



RIVER RESTORATION CENTRE 18TH ANNUAL NETWORK CONFERENCE

"River Restoration: Addressing Uncertainty"
4th and 5th April 2017 – Hilton Brighton Metropole Hotel

PROGRAMME OF EVENTS

DAY 1: --- TUESDAY 4TH APRIL ---

REGISTRATION at Reception

09:00 NETWORKING & EARLY VIEWING POSTER SESSION 60 mins
in the Durham Suite

Session 1 **Oxford Suite**

CHAIR: *Martin Janes (RRC)*

10:00 **River Restoration Centre introduction & welcome** 15 mins
Martin Janes (the River Restoration Centre)

10:15 [Lessons for river restoration from understanding natural channel adjustment: 30 years of examples from the UK and Denmark](#) 15 mins
Andrew Brookes (Jacobs)

10:30 [10 years of restoring English rivers with special designations for wildlife](#) 15 mins
Jenny Wheeldon (Natural England)

10:45 **Discussion** 15 mins

11:00 SHORT BREAK *with coffee and tea* 35 mins

11:35 [5 years' achievement in unstable political times](#) 15 mins
Peter Barham (Welland Rivers Trust)

11:50 [Multi-objective floodplain management \(aka natural flood management\): practitioner's perspective parsed by the pond](#) 15 mins
Chris Bowles (cbec eco-engineering Ltd.)

12:05 [Restoration beyond the wall – delivering success](#) 15 mins
Charles Perfect (Scottish Environment Protection Agency)

12:20 **Discussion** 15 mins

12:35 LUNCH in the Durham Suite 60 mins





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Session 2

Oxford Suite

Hard engineering removal

CHAIR: *Kevin Skinner (Atkins)*

Stamner

Healthy rivers, healthy habitats

CHAIR: *Judy England (Environment Agency)*

Hall 4

Geomorphological design

CHAIR: *David Hetherington (Arup)*

13:35	<p><u>Wandle weir removal</u> James Maclean (<i>Land & Water Services Limited</i>)</p>	<p>Restoring an agricultural river: experience of the Pow Burn Charles Perfect (<i>Scottish Environment Protection Agency</i>)</p>	<p><u>Applications of geomorphology in engineering design: delivering substantial economic and environmental benefits</u> Helena Parsons (<i>Jacobs</i>)</p>	15 mins
13:50	<p><u>Avon Water Barriers: supporting the return of Salmon to the Upper Clyde System</u> Rob Mitchell (<i>Scottish Environment Protection Agency</i>)</p>	<p><u>Restoration & future management of the River Ems</u> Seeseana Wright (<i>Arun & Rother Rivers Trust</i>)</p>	<p><u>How much "design" is required for a successful river restoration scheme?</u> Ian Dennis (<i>Royal HaskoningDHV</i>)</p>	15 mins
14:05	<p>Discussion</p>	<p>Discussion</p>	<p>Discussion</p>	10 mins



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Session 2 – continued...

14:15	<p><u>How have Pearls in Peril physical restoration measures performed?</u> Kenneth MacDougall (<i>EnviroCentre Ltd.</i>)</p>	<p><u>River Slea, working with a dry river</u> Marie Jane Taylor (<i>Lincolnshire Rivers Trust</i>)</p>	<p><u>The importance of in-channel feature creation when naturalising active river channels</u> George Heritage (<i>AECOM</i>)</p>	15 mins
14:30	<p><u>Porter Brook de-culverting and Pocket Park creation</u> Paul Gaskell (<i>Wild Trout Trust</i>)</p>	<p><u>The use of indigenous aquatic plants & floating ecosystems in river restoration</u> Bill Gush (<i>Land & Water Ltd.</i>) & Galen Fulford (<i>Biomatrix Water</i>)</p>	<p><u>Flexibility in design & construction – success and challenges at Norton Bavant Mill</u> James Maddison (<i>CH2M</i>) & Alasdair Maxwell (<i>Environment Agency</i>)</p>	15 mins
14:45	Discussion	Discussion	Discussion	10 mins
14:55	<p>POSTER SESSION in the Durham Suite <i>with tea and coffee</i></p>			45 mins



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	Oxford Suite Geomorphic surveying & modelling	Session 3 Stamner Urban restoration	Hall 4 Natural flood management	
	CHAIR: <i>Charlie Perfect (SEPA)</i>	CHAIR: <i>Oliver Lowe (Natural Resources Wales)</i>	CHAIR: <i>Fiona Bowles (RRC Board)</i>	
15:40	<u>Mobile data collection for geomorphological survey work</u> Katie Atkinson (<i>Arup</i>)	<u>Clean streams and community teams</u> Bonnie Boulton (<i>Atkins & Manchester City Council</i>) & Pamela Bradley (<i>Manchester City Council</i>)	<u>Letting nature innovate – can natural processes manage flood risk?</u> Steve Rose (<i>JBA Consulting</i>)	15 mins
15:55	<u>Integrated riparian survey – A holistic survey technique</u> Kieran Sheehan (<i>JBA consulting</i>)	<u>Outfall safari: a way of working with volunteers to map and record the impact of polluted surface water outfalls in a river</u> Joe Pecorelli (<i>Zoological Society of London</i>)	<u>Upland drainage network extension: A prime target for NFRM</u> Neil Entwistle (<i>University of Salford</i>)	15 mins
16:10	Discussion	Discussion	Discussion	10 mins

Session 3 – continued...



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16:20	<p><u>Putting the pieces together: Dynamic modelling of river restoration measures</u> Samantha Jane Hughes (<i>University of Trás-os-Montes e Alto Douro</i>)</p>	<p><u>Multifunctional benefits of urban restoration – Stanmore Marsh</u> Kevin Skinner (<i>Atkins</i>) & Mick Bradshaw (<i>London Borough of Harrow</i>)</p>	<p><u>Modelling, mapping and engaging with NFM in Cumbria</u> Barry Hankin (<i>JBA Consulting</i>)</p>	15 mins
16:35	<p><u>Is morphodynamic sediment transport modelling a useful tool for piecewise restoration design?</u> Eric Gillies (<i>cbec eco-engineering Ltd.</i>)</p>	<p><u>The River Alt Restoration Project – A catalyst for change</u> Helen Rawlinson (<i>The Cass Foundation</i>)</p>	<p><u>Local authorities working with communities and landowners to restore streams and reduce flood risk using natural flood management</u> Chris Uttley (<i>Stroud District Council</i>)</p>	15 mins
16:50	Discussion	Discussion	Discussion	10 mins
17:00	SHORT BREAK TO MOVE TO FINAL JOINT SESSION			10 mins



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Session 4

Oxford Suite

CHAIR: *Will Bond (Alaska)*

Keynote address

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|-------|---|---------|
| 17:10 | <u>Putting the 'geo' in hydro(geo)morphology</u>
Angela Gurnell (<i>Queen Mary University of London</i>) | 25 mins |
| 17:35 | Discussion (Keynote and General) | 20 mins |
| 17:55 | Poster competition prizes, final announcements and close
Martin Janes (<i>the River Restoration Centre</i>) | 5 mins |
| 18:00 | END OF DAY 1 | |
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19:30 – PRE-DINNER DRINKS RECEPTION

Durham Suite

&

20:00 – UK RIVER PRIZE AWARDS DINNER

Oxford Suite

2017 UK RIVER PRIZE FINALISTS



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DAY 2:

--- WEDNESDAY 5TH APRIL ---

Registration

Opens at 8:30 am

Session 5

9:00

CHOICE OF ONE SITE VISIT OR ONE WORKSHOP

3 h 30 min

Oxford Suite

Workshop A:

How to implement adaptive management effectively

Stammer

Workshop B:

Managing silt: Muddy Waters or Clearwater Revival?

Facilitator: Judy England – Environment Agency

The response of natural systems to restoration can be uncertain because of the complexity of the systems and our imperfect knowledge of how they operate. Adaptive management provides a structured but flexible process for making decisions and solving problems in the face of this uncertainty. It is an iterative process which includes a series of steps: planning, monitoring, implementing measures, further monitoring and evaluation of effectiveness, followed by adjustments to measures or additional measures as needed.

Within this workshop we will explore adaptive management best practice, the difficulties of implementing adaptive management the lessons learnt from recent case studies. We will have a chance to discuss what tools are available to help the process and what evidence is needed to make adaptive management decisions and evaluate success.

Durleigh reservoir adaptive management trial

Chris Tattersall & Andy House (*Wessex Water*)

Geomorphic change detection: constraining uncertainty in restoration monitoring

Richard Williams (*University of Glasgow*)

Facilitators: Simon Whitton & Di Hammond – Affinity Water

Increased rates of river sedimentation, caused not least by inappropriate land management practices in recent decades, has reduced channel capacities, affected navigation and brought about environmental degradation. The mobilisation of fine sediment in the water column is particularly difficult to manage, with water quality impacts affecting riverine fauna and incurring additional costs for drinking water purification.

Ever tightening waste regulations mean that it is becoming harder to beneficially re-use dredged material on riparian land or coastal sites, but the cost of remediating the arisings or taking it to landfill, especially if it is considered as contaminated, makes some projects financially unviable. This, in turn, hampers efforts to help rivers and coastal waters meet the requirements of the Water Framework Directive.

This workshop will explore the options open to river management practitioners, including initial prevention, sediment removal and in-channel silt control during restoration activities. Participants will have the opportunity to hear about innovative techniques to remove silt, discuss and share approaches of silt disposal, and learn from others' experiences.

[Managing sedimentation, ingenuity driven by challenges to navigation](#)

William Coulet (*Exo Environmental Ltd.*)

[Silt control: Application of Water Lynx](#)

Richard Haine (*frog environmental*)

[Dealing with inland dredged sediments for wetland habitat creation and for alternative disposal through land spreading](#)

David Holland & Peter Barlow (*Salix*)

[Bubble Curtains: a silt control solution](#)

Leela O'Dea (*frog environmental*)

12:30

LUNCH

65 mins



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Session 5

9:00 CHOICE OF ONE SITE VISIT OR ONE WORKSHOP continued... 3 h 30 min

Hall 4 Workshop C:

Green measures in river engineering

Queens Workshop D:

Community delivery and capacity –
Messages for policy makers

Facilitator: Marta Roca – HR Wallingford

Green infrastructure (GI) approaches are fundamental to improving the quality, morphology and ecology of our waterbodies and as part of an overall strategy to help people and communities to adapt to the negative effects of climate change. However, there are procedural and technical barriers which prevent and obstruct the implementation of green solutions as part of river engineering protection schemes.

This workshop will explore different elements to consider in the decision-making process to implement green solutions and will discuss some recent examples exploring their main challenges and success factors.

How to select green measures to protect rivers from erosion?

Marta Roca (*HR Wallingford*)

Engineering river naturalisation for the Brent Cross Cricklewood Urban Regeneration: challenges and geomorphological solutions

Neil Williams (*AECOM*)

Facilitator: RRC

River restoration in the UK is undertaken by organisations at a wide range of scales, from large government agencies to small trusts, local interest groups and community volunteers. The varying scales of these organisations mean they have different resources and requirements in terms of funding and support. The catchment-based river restoration movement is growing, and government policies may not necessarily align with the evolving needs of these grassroots organisations.

This workshop, funded by the Esmée Fairbairn Foundation and delivered by the RRC, aims to identify these misalignments and provide opportunities to consolidate ideas and views from a range of small organisations around the country. Participants will have an opportunity to suggest and discuss potential improvements to the policy framework that would better support small organisations to conduct efficient and effective river restoration planning, delivery and reporting. The outcomes from this workshop will include briefings which will be delivered to key policy makers with recommendations.

12:30

LUNCH

65 mins



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Session 5

9:00 CHOICE OF ONE SITE VISIT OR ONE WORKSHOP 3 h 30 min
continued...

Preston
Workshop E:
The costs of river restoration

Site visit 1:
Woodsmill Stream

Facilitated By Jackie Webley, Iain Sime & Angus Tree (Scottish Natural Heritage) With Kevin Skinner (Atkins)

Implementing in-stream restoration in our changing economic climate is a challenging prospect. It is essential that, from the outset, funders, practitioners, stakeholders and partners have a realistic understanding of the risks and costs in order to complete successful projects.

This workshop will share experiences from the Pearls in Peril (PIP) LIFE+ project. PIP has completed over ten river restoration projects, of varying sizes, applying a range of techniques on four rivers in Scotland, England and Wales.

Using project examples we shall:

- discuss risk management;
- investigate the full costs to restore river reaches; and
- consider the opportunities and approaches that can be developed to make efficiencies and thereby achieve greater value.

In addition to risks and the economic costs, we shall also consider and discuss how to demonstrate the non-monetary value and wider benefits that can be achieved as part of river restoration.

This project was delivered by the Environment Agency and Sussex Wildlife Trust in 2010. The old stream had been previously channelised and slightly embanked on either side. A new meandering course was established which created a significantly wider flood corridor as well as a low flow channel in the lowest part of the floodplain. The stream was designed to freely adjust following construction. Features that were installed as part of the scheme included riffles, deeper bends, meander cut-offs, a ford and woody material features.

Site visit 2:
Twineham

With Peter King (Ouse and Adur Rivers Trust)

This project on the River Adur has removed four weirs, created five backwaters, planted 5,000 trees and used the creation of berms to introduce sinuosity into the channel. With the use of volunteers and local groups it has been a great example of cost saving whilst still delivering a successful project. In 2016 the project was a finalist in the Wild Trout Trust Conservation Awards.

12:30 LUNCH 65 mins



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		Session 6		
		<u>Oxford Suite</u>	<u>Stamner</u>	<u>Hall 4</u>
		Restoring rivers with trees and wood	Floodplain reconnection	Community & partnership delivery
		CHAIR: <i>Ann Skinner</i>	CHAIR: <i>Jo Cullis (CH2M)</i>	CHAIR: <i>Geraldene Wharton (Queen Mary University of London)</i>
13:35	<p><u>Trees, roots and how we can use them</u> James Holloway (<i>Queen Mary University of London</i>)</p>	<p><u>EcoCo Life: "Joining up nature" in the Glazert water catchment</u> Clare Rodgers (<i>Royal HaskoningDHV</i>) & Roberto Martinez (<i>Scottish Environment Protection Agency</i>)</p>	<p><u>Working in partnership to deliver multiple benefits: integrated sub-catchment mapping in the River Ouse, Sussex</u> Peter King (<i>Ouse & Adur Rivers Trust</i>) & Sandra Manning-Jones (<i>Sussex Flow Initiative</i>)</p>	15 mins
13:50	<p><u>Making use of dead wood</u> Joe Huddart (<i>Imperial College London</i>)</p>	<p><u>Rewilding in a managed landscape: a case study from the Lake District</u> Lee Schofield (<i>Royal Society for the Protection of Birds</i>)</p>	<p><u>Planning and delivery of a multi-landowner river restoration project on the River Avon in Wiltshire</u> A. Martijn Antheunisse (<i>Wiltshire Wildlife Trust</i>)</p>	15 mins
14:05	Discussion	Discussion	Discussion	10 mins



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Session 6 – continued...

14:15	<u>Ystrad Mynach: tree revetment</u> David Penny (<i>Natural Resources Wales</i>)	<u>Improving habitat along a small headwater stream</u> Lev Dahl (<i>Wiltshire Wildlife Trust</i>)	<u>Letting the Dove flow – River restoration in a much loved landscape</u> Julie Wozniczka (<i>Trent Rivers Trust</i>)	15 mins
14:30	<u>Could beavers have a role in river restoration?</u> Martin Gaywood & Angus Tree (<i>Scottish Natural Heritage</i>)	<u>Changing minds on the River Test</u> Heb Leman (<i>Environment Agency</i>)	<u>Community mapping of the lost streams of London</u> Adam Broadhead (<i>Arup</i>)	15 mins
14:45	Discussion	Discussion	Discussion	10 mins
14:55	SHORT BREAK TO MOVE TO FINAL JOINT SESSION			10 mins



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Session 7

Oxford Suite

CHAIR: *Rob Mitchell (SEPA)*

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| 15:05 | <u>River restoration in Europe: A hobby or a planned action? (A Polish Perspective)</u>
Ewelina Szalkiewicz (<i>Poznań University of Life Sciences, Poland</i>) | 15 mins |
| 15:20 | <u>Bringing business into catchment management</u>
Kathy Hughes (<i>WWF</i>) | 15mins |
| 15:35 | Sharing good practice and building capacity
Marc Naura (<i>the River Restoration Centre</i>) | 15 mins |
| 15:50 | Discussion and Close
RRC Speaker | 30 mins |
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- 16:20 **END OF CONFERENCE** *with tea and coffee*
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