



WISEwaterways

A Workshop in Stream Management Principles and Practices

26 - 30 October 2009

Venue: La Trobe at Beechworth

Presented by

North East Catchment Management Authority
Department of Sustainability and Environment
Department of Primary Industries
North East Water
Sinclair Knight Merz
Wodonga Institute of TAFE
La Trobe University
River Basin Management Society
Alluvium Consulting Pty Ltd

Testimonial

Restoring the invisible: recovering stream - groundwater linkages in the hyporheic zone

The saturated sediments of many gravel-bed rivers are a zone of active exchange between groundwater and surface water, the hyporheic zone. This dynamic region harbours many unusual invertebrates and is the site of diverse biogeochemical processes responsible for generating nutrients and breaking down organic matter. Despite the importance of the hyporheic zone to river function and health, it is seldom considered explicitly in river restoration programs. This talk will introduce the 'underworld' of gravel-bed rivers, outline some of the impacts that human activities have upon its ecological integrity, and discuss ways in which river restoration might restore lost function in this invisible zone.

Biography

Professor Boulton has had a distinguished career in research and academia being almost unique in academia as he considers teaching as important as research. He was a pioneer into the functioning of Australian temporary stream ecology and their invertebrate fauna. He also recognised the need to translate his research work so that it was available to stream managers. He has an extensive and impressive publication list, and recently he "retired" but others saw his value.

Professor Boulton is presently Editor of the CSIRO journal 'Marine and Freshwater Research', a position he has held since 2007 when he 'retired' from academia at University of New England after some 25 years teaching aquatic ecology and researching the ecology of rivers and groundwater. He has worked on a variety of topics ranging from invertebrates in temporary streams through to environmental flow allocations and groundwater-surface water interactions.



Professor Andrew Boulton

Editor "Marine and
Freshwater Research"
CSIRO Publishing
and

Adjunct Professor,
Ecosystem Management
University of
New England, Armidale

Vision

To provide a forum for a comprehensive overview of Stream Rehabilitation and Management Principles and Practices.

Aims

An integrated approach to Stream Management: Hydrology, Water Quality, Ecology, Riparian Vegetation, Geomorphology and Rehabilitation Techniques.

To provide extensive “hands on” experience through group assignments.

Background

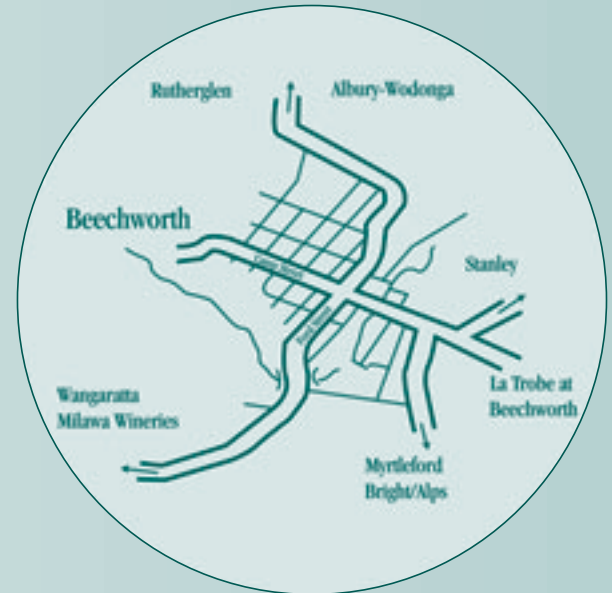
In the ten years that the Workshop has been running, some 610 participants have completed the program. The Workshop constitutes a minor “Stream Management Course” and on completion participants will receive a credit towards the TAFE “Diploma of Natural Resource Management”.

Who Should Attend?

The course is aimed at people working in, or who are interested in stream management, particularly those involved in practical natural resource works programs.

The Region

Beechworth is situated in North East Victoria. It is approximately 3½ hours drive from Melbourne. The nearest airport is Albury Airport (30 minutes drive). Transfers from Albury Airport can be arranged. Beechworth is an ideal location for the Wise Water Ways Workshop. Diverse vegetation, macro invertebrates and geomorphic issues in the area provide a number of opportunities for managers to evaluate stream systems.



Accommodation

Accommodation has been reserved for participants at La Trobe at Beechworth.

Special rates for shared bathroom room (1 bathroom between 2 rooms) of \$105.00 per room per night and cottage rooms (cottages contain 3-4 bedrooms) of \$90.00 per room per night. The rates include a fully cooked breakfast.

Please complete your accommodation requirements on the registration form.

Program of Activities

Sessions		Presenter
Monday 26/10	Day One Introduction to Stream Management	
12.45 – 2.30pm	Stream Rehabilitation Concepts <ul style="list-style-type: none"> • Steps for stream rehabilitation • Assessment • Investigations • Concepts • Design • Community consultation • Prioritisation 	Dr Ian Rutherford Director Integrated River Health Policy & Investment Office of Water <i>DSE</i>
2.30 – 3.00pm	Afternoon Tea	
3.00 – 5.45pm	Riparian Vegetation Field Demonstration	Sam Marwood Office of Water <i>DSE</i>
7.00pm	Keynote Address - Professor Andrew Boulton <ul style="list-style-type: none"> • 2008 Wise Water Ways Honours Research Presentation - Simon Maffei • 2009 - Wise Water Ways Scholarship Announcement 	Professor Andrew Boulton Editor 'Marine and Freshwater Research' Adjunct Professor UNE Armidale
Tuesday 27/10	Day Two Assessment Techniques	
8.30 – 9.00am	Victorian River Health Strategy <ul style="list-style-type: none"> • Policy - context, priorities 	Dr Ian Rutherford Office of Water <i>DSE</i>
9.00 – 12.30pm	Stream Assessment Techniques <ul style="list-style-type: none"> • Introduction and overview • Assessment of hydrology, vegetation and physical condition • Role of macro-invertebrates • Water quality and blue-green algae 	Sam Marwood Dr Roger Croome Dr Phil Suter <i>La Trobe University Albury Wodonga Campus</i>

Program of Activities

1.30 – 5.30pm	Demonstration of Field Data Collection <ul style="list-style-type: none"> • Field surveys (level and staff) • GPS data collectors • Macro-invertebrate sampling • Vegetation assessment • Physical condition assessment 	Sam Marwood Chris Dwyer <i>SKM</i> Phil Suter
7.00pm	Hypothetical - “State vs State”	
Wednesday 28/10	Day Three	Processes
8.30 – 9.00am	Catchment Processes / Catchment Management - Case Study Ovens Basin	Rick Felton <i>DPI – Wangaratta</i>
9.00 – 9.45am	Stream Ecology <ul style="list-style-type: none"> • Why is ecology important? • Streams as ecological systems • Indicators of stream health 	Professor Gerry Quinn <i>Chair in Marine Biology Deakin University Warrnambool Campus</i>
9.45 – 10.30am	Fish Habitat <ul style="list-style-type: none"> • Fish ecology - flows, habitat, water quality, barriers, large woody debris • Fish migration triggers and patterns 	Dr David Crook <i>Arthur Rylah Institute for Environmental Research DSE</i>
10.30 – 11.00am	Morning Tea	
11.00 – 12.00pm	Physical Processes <ul style="list-style-type: none"> • Open channel hydraulics • Stream geomorphology 	Mr Tim Loffler <i>Water Technology Pty Ltd</i>

Program of Activities

12.00 – 12.40pm	Environmental Flows <ul style="list-style-type: none"> • Water resource allocation • Environmental flows importance and assessment methodology • Streamflow management 	Geoff Vietz <i>Alluvium Consulting Pty Ltd</i>
12.40 – 1.00pm	Lunch	
1.00 – 5.30pm	Project data collection and write-up / Field Work	
7.00pm	Free Evening	
Thursday 29/10	Day Four	Rehabilitation Techniques
8.30 – 9.10am	Riparian Vegetation <ul style="list-style-type: none"> • The role of filter strips, organic carbon, shading, biodiversity and revegetation • Components and importance of riparian vegetation • Vegetation management and revegetation techniques • Ecological vegetation communities 	Jane Roots <i>School of Environmental Sciences Charles Sturt University</i>
9.10 – 9.55am	Willows/Exotic Trees <ul style="list-style-type: none"> • Identification and reproduction • Ecology, dispersal and management issues • Control 	Dr Fiona Ede <i>DPI - Frankston</i> Terry McCormack <i>North East Catchment Management Authority</i>
9.55 – 10.25am	Morning tea	
10.25 – 12.00pm	Stream Channel Management <ul style="list-style-type: none"> • Replicating natural systems • Working with stream processes • Grade control structures • Sediment stabilisation 	Ross Hardie <i>Alluvium Consulting Pty Ltd</i>
12.00 – 12.45pm	Lunch	

Program of Activities

12.45 – 1.30pm	Field Projects and Construction Works Works. What works?	Terry McCormack
1.30 – 5.30pm	Preparation of project reports	
6.30 – 7.30pm	Dinner	
8.00 – 10.00pm	Presentations of Group Projects	
Friday 30/10	Day Five	Field Visit
8.45 – 12.30pm	Field Visit to Ovens Catchment <ul style="list-style-type: none"> • View structural works • Revegetation and willow management 	Chris Dwyer Terry McCormack
12.30pm	Lunch	

Details are correct at time of program production, although may be subject to change.

Registration Form

A. PARTICIPANT

Title: Dr Mr Mrs Ms

Name:

Position:

Organisation:.....

Address:

..... Postcode

Phone(B): Mobile:.....

Fax:.....

Email:

Special Dietary Requirements:

.....

Privacy - I give permission for my details to be disclosed (no tick will be taken as yes) Yes No

To register for the workshop or attend certain days please complete the registration on the following page and forward it to:

Wise Water Ways
 PO Box 645, Wangaratta Vic 3676
 Fax: 03 5725 7346
 Contact Virginia Eckels
 Tel: 0408 109 707
 Email: nemeet@bigpond.com



B. REGISTRATION FEES (by 14 October 2009)

Tax Invoice - North East CMA - ABN - 53 229 361 440

Full Workshop Fee

includes morning teas, lunches, dinners \$765
(GST Inclusive)

For Members of the River Basin Management Society (RBMS) \$720
(GST Inclusive)

Would you like to become a member of RBMS? \$45

C. DAY FEE

includes morning tea, lunch \$265
(GST Inclusive)

Day attending:

Mon. Tues. Wed. Thurs. Fri.

Dinner:

Mon. Tues. Thurs. \$50
(GST Inclusive)

D. ACCOMMODATION

Hotel Room
Per night x \$105.00 x Total
(GST Inclusive) No. of nights

Cottage Room
Per night x \$90.00 x Total
(GST Inclusive) No. of nights

Check in date..... Check out date.....

Method of payment

cheque enclosed EFT

TOTAL
GST Inclusive

If paying by cheque make payable to: North East Catchment Management Authority

EFT payment BSB: 083-971 Acc: 45 444 8352

Bank: National Australia Bank

Please ensure you fax or email details of your EFT payment and use your surname / organization as your reference. If EFT advice is not received then payment may not be associated with your registrations - and your registrations may not be processed. **Forward registration form and cheque to:**

NECEP, Wise Water Ways Secretariat, PO Box 645, WANGARATTA VIC 3676

Cancellation Policy: Full refund less 20% if advised 5 days prior to the Workshop

We would like to thank the following partners:



A Stream Rehabilitation Workshop

For further information contact:

North East Conference and Event Planners

Tel: 0408 109 707 Fax: 03 5725 7346 Email: nemeet@bigpond.com or Lachlan Campbell - Email: lachlan.campbell@alpvalleys.com.au

