

**The New Jersey Section of the
American Water Resources Association
Announces**



**RIVER & STREAM
RESTORATION:
GEOMORPHIC &
ECOLOGICAL PROCESSES**

October 20-21, 2008: 2-Day Fundamentals

October 20-24, 2008: 5-Day Short Course

Location: Somerset County, NJ (specific location TBD)

Instructors:

Matt Kondolf, UC Berkeley
Peter Wilcock, Johns Hopkins University
Margaret Palmer, University of Maryland
Jack Schmidt, Utah State University
Mark Tompkins, CH2MHill

Registration Fee includes:

- Course Materials
- Continental Breakfast
- Lunch
- Receptions Monday and Thursday evenings

2-Day Fundamentals: October 20-21, 2008

Cost: \$590.00

5-Day Short Course: October 20-24, 2008

Cost: \$1,500.00

Day 1:

- Fluvial Geomorphology
- Channel-habitat relations
- Channel response to alterations
- Field reconnaissance

Day 2:

- Channel-floodplain connections
- Stream Ecosystem Function
- Post-Project Appraisal
- Process Vs. Form-Based Restoration
- Setting Goals in River Restoration

Day 1 & Day 2—Same as 2-day course

Day 3:

- Sediment Transport
- Hydrology/Hydraulics
- Mapping & Measuring Habitat
- Field Reconnaissance

Day 4:

- Urban Streams
- Channel Classification

Day 5:

- Post-Project Appraisal Design & Monitoring
- Implementation

Registration: www.njawra.org

Registration for current AWRA members: June 6 – June 20, 2008

(Contact njawra_stream@yahoo.com for password)

Open registration for all others begins June 21, 2008

Payment via credit card, check or purchase order

Why take this course?

River restoration has become big business in the US, with well over \$17 billion spent on over 40,000 projects since 1990. Despite strong public support and the magnitude of the investment, the field has not advanced as quickly as one might expect. This lack of advancement is from two key factors: learning through post-project evaluation is rare, and insights from current research are often not effectively incorporated in planning and design. Not surprisingly, many restoration projects are ecologically ineffective or have washed out, although the extent of failure is hidden by the lack of post-project evaluation. River restoration can be more effective when it is designed with an understanding of processes and the larger watershed context, when it benefits from systematic learning from previous built projects, and when it is based on predictive connections between objectives and actions.

Who Should Attend? The course is ideal for anyone responsible for managing and restoring rivers and streams, including those who have previously taken short courses in the field, as this course offers wide range of insights and approaches . Practitioners and agency staff responsible for reviewing restoration proposals will benefit from the high caliber of instruction and direct link to current research. This course is a good choice for those seeking an understanding of process-based river restoration in contrast to the form-based projects commonly implemented. And this course is unique in offering the opportunity to learn from such an extensive and growing data set of post-project appraisals of restoration projects, and to learn how to conduct effective post-project monitoring.

This short course emphasizes sustainable river restoration through:

- Understanding geomorphic and ecological processes in rivers;
- Considering watershed-scale and longer-time scale context ;
- Incorporating insights from recent research in fluvial geomorphology and ecology;
- Developing predictive connections between objectives and actions;
- Analyzing effectiveness of built restoration projects;
- Devising strategies to restore (where possible) physical and ecological processes in rivers;
- Setting goals in the context of a continuum from urban-to-wilderness settings;
- Developing restoration strategies and innovative management approaches based on understanding of underlying causes of channel or ecosystem change, rather than prescriptive approaches;
- Knowing when to intervene and when the river can heal itself without meddling.

The course balances lecture with field observation and discussion.

This course consists of organized lectures, backed by lecture notes, a reference text on measurement and analysis methods in fluvial geomorphology, spreadsheets, and other relevant reading, field trips, exercises, and discussions. The course includes several field trips to rivers and streams in the Raritan River Basin.

Arrangements are being made to provide a range of local lodging choices for those who will be attending from out of the area. Somerville is the Somerset County seat and offers a variety of dining options to meet all needs.

**Questions? www.njawra.org
or email
njawra_stream@yahoo.com**

