

**FLOW 2008 Pre-Conference Workshop #3:
The Nature Conservancy's Tools and Methods
for Developing Environmental Flow Recommendations**

October 6, 2008
San Antonio, Texas

Agenda

8:00 – 8:30 am

Welcome and Introductions

Review of workshop purpose, expectations, schedule, and logistics; and introduction of speakers and attendees.

30 minutes (Tom FitzHugh, The Nature Conservancy)

8:30 - 9:15 am

Environmental Flow Concepts

This session will introduce the concept of environmental flows as an emerging field that integrates ecological health into traditional water management. It will trace its historical development both within the US and internationally and list its key components.

30 minute presentation, 15 minute discussion (Brian Richter, The Nature Conservancy)

9:15-10:30 am

Methods for Developing Environmental Flow Recommendations

More than 200 methods have been used for determining environmental flow needs. How do you decide when to use which method? A 4-level hierarchy guides practitioners through a logical progression of methods, based on the availability of resources, capacity, and data. This session will also describe in detail the "Savannah process" for site-specific investigations and the ELOHA (Ecological Limits of Hydrologic Alteration) framework for regional environmental flow applications.

60 minute presentation, 15 minute discussion (Colin Apse and Eloise Kendy, The Nature Conservancy)

10:30-11:00 am

Break

11:00-12:00 am

**Tools for Assessing Environmental Flows:
Introduction to the Indicators of Hydrologic
Alteration (IHA) Software**

After a quick review of software tools that are useful in environmental flow projects, we will introduce the Indicators of Hydrologic Alteration (IHA) software program developed by The Nature Conservancy.

This introduction will cover background and evolution of the software, data requirements, and output statistics, including environmental flow components (EFCs) developed specifically to facilitate communication between hydrologists, ecologists, water managers, and other stakeholders.

45 minute presentation, 15 minute discussion (Tom FitzHugh, The Nature Conservancy)

12:00-1:00 pm

Lunch

1:00-2:15 pm

IHA Tutorial

Workshop attendees will use the IHA software to do an introductory exercise, which will expose them to different features of the software, including commands and output options.

60 minute facilitated software application, 15 minute discussion (Tom FitzHugh, The Nature Conservancy)

2:15-2:30 pm

Break

2:30-4:00 pm

Case Studies and Applications

Case studies demonstrate applications of the methods and tools presented in the workshop. The first case study will discuss how the "Savannah process" was applied to incorporate environmental flows into management of the Rivanna River basin, the primary water supply for Charlottesville and Albemarle County, Virginia. A second set of case studies will show how some states in the northeastern US are using IHA to support statewide environmental flow management and planning.

30 minutes for each presentation, and 15 minutes for each discussion (Brian Richter and Colin Apse, The Nature Conservancy)

4:00-4:30 pm

Challenges in Your Work

Discussion of the potential application of the methods and tools covered in this training in the places where the workshop participants work.

30 minute group discussion (Tom FitzHugh et al, The Nature Conservancy)

4:30 pm

Adjourn