

CE 597D Water Resources Seminar
Friday February 27, 2004
Stavely Conference Room —202 Hammond Building
12:00-12:15 REFRESHMENTS
12:15-1:15 SEMINAR PRESENTATION

**“River restoration and fluvial geomorphology: Past,
present and future.”**

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ABSTRACT: The use of instream structures to improve aquatic habitat has a long history in the United States with the first published use of instream structures in New York during the 1800s. Evidence of early structures can still be found along the Beaverkill River, New York demonstrating the potential for long-term impacts. In the 1930s, after only three years of scientific investigation, cheap labor and government-sponsored conservation projects spearheaded by the Civilian Conservation Corps allowed the widespread adoption of instream structures. World War II temporarily ended the government conservation efforts and prevented the evaluation of structures installed. During the 1940s, 1950s and 1960s, designs of instream structures remained essentially unchanged. The Blackledge River, Connecticut provides a good illustration of the historic problems with channel-restoration using instream structures. This river was the first site for scientific investigation of the impact of instream structures on fish populations. Remarkably, some of the 1930s-era structures still survive today in various stages of decay. A case study was undertaken to determine the current state and geomorphic impact of habitat improvement activities after almost 60 years of existence. Even where structures remain, traditional restoration techniques do not replicate natural channel processes and often fail to create the improvements envisioned by restoration designers. More success is likely if future restoration designs consider natural processes and focus on land-use impacts within the watershed. Eventually, the most cost-effective approaches will rely on the reestablishment of the natural process that existed prior to human disturbance.

Moderator: Dr. Peggy Johnson
Refreshments: Florence Brachet

Suggested reading is available on the ANGEL seminar site.