

North American River Management Symposium

Asheville, North Carolina

PRELIMINARY PROGRAM

Symposium Tracks

- Engaging Youth—Assuring Future Generations of River Rats
- Water Trails as Tools for Advocacy, Stewardship, Education, and Management
- Accessing the River—From Landownership to Technology
- Got Water? Is it Clean? What About the Fish?
- Loving the River without Loving It to Death
- A River Runs Through It

April 24, 2012

Concurrent Sessions 1

Engaging Youth 1

Building a Junior River Ranger Program for Wild and Scenic Rivers

Lee Steppacher and Liz Lacy, National Park Service

In 2011, the Sudbury, Assabet and Concord Rivers (SuAsCo) (MA) and Farmington (CT) Wild and Scenic Rivers began a joint effort to develop a Wild and Scenic Rivers version of the popular NPS “Junior Ranger” Program. The intent is two-fold – 1) Get more kids out on our WSRs! And, 2) Adapt the materials and methods refined by the Junior Ranger parks program to be applicable to a Wild and Scenic River, its corridor, and the outstanding and remarkable features that earned each Wild and Scenic River its designation. Unlike a National Park or Historic Site, Wild and Scenic Rivers generally do not exist as a Park unit; many are comprised of public and private lands joined by the flowing and changing waters of the river running through the landscape.

The Junior River Rangers Program uses a tailored approach to teach young people about these rivers’ unique “Outstandingly Remarkable Values” - and fosters an appreciation of and a sense of stewardship for our Wild and Scenic rivers as well. Equally important, because most Wild and Scenic Rivers do not have a physical built presence (a visitor center) or Park Rangers, the Junior River Ranger Program seeks an alternative approach to publicizing and distributing workbooks and conferring badges for participants. These two rivers have many experiences to share in developing workbooks, publicity, distribution, award of badges and follow through of the Junior River Ranger program. While still in its infancy, initial efforts were well received. River managers are continuing to work to refine and expand the program. A template/catalogue of activities, graphics etc. are being developed for use by wild and scenic rivers throughout the country. There are many ways in which RMS and other rivers could support and partner with NPS on this effort to reach young people and create the next generation of river stewards. We welcome an opportunity to share our experiences and explore new possibilities.

Got Water? 1

Innovative Solutions for River Flow Protection and Restoration

Gerrit Jobsis, Jenny Hoffner and John Seebach, American Rivers

Rising demand for water withdrawals, recent droughts, climate change and the highly engineered nature of many of our rivers threaten aquatic life, clean water and recreational uses that are dependent on flowing water. We will review innovative solutions to address water management challenges while protecting natural flows and associated values. Our session will explore opportunities for river flow protection and restoration through effective water efficiency policies and practices, federal hydropower licensing and authorities under the Clean Water Act (CWA). A panel session with the three speakers and other water management experts will allow frank discussion of challenges and solutions with workshop participants.

Water efficiency is the most reliable, quickest and cheapest means of securing new water supplies. Increased efficiency results in reduced water withdrawals and ultimately leads to more water in rivers. While many communities prioritize conventional solutions that decrease river flows such as dams and increased withdrawals, efficiency should instead be pursued first as the least damaging solution. We will review new EPA guidelines for water efficiency as an alternative to building water supply reservoirs, other key policies and practices, as well as success stories that will illustrate the feasibility and effectiveness of these water efficiency policies as water supply strategies.

Federal licenses set the rules for how individual hydropower dams are built and operated. Once a license is in place, it can determine how a river's flows will be managed for up to fifty years, balancing electricity generation with flows needed for healthy river ecosystems, fish, wildlife, and recreation. An increasing number of licensing negotiations are turning to innovative solutions that allow for a wider range of natural flow events. We will focus on how these ideas have been applied to several recent hydropower licensings and new policy initiatives that may encourage outcomes like these in the future.

The goal of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. River flow is fundamental to achieving these goals and the courts have been clear that regulation of flow as necessary to protect water quality standards and designated uses, including aquatic life and recreation, fall under the authority of the CWA. We will focus on how the CWA can be used to protect natural river flows and strategies to better assure flow protection through state water quality standards and water permitting decisions.

Water Trail Innovations 1

Linking the Landscape: Conservation Strategies Along Water Trail Corridors

Staci Williams, American Rivers; Kari Hanna, Palmetto Conservation Foundation; Maria Whitehead, The Nature Conservancy

Lands immediately bordering trails play an integral role in protecting ecological services while providing valued recreational experiences. These adjacent landscapes are increasingly vulnerable to incompatible development and land use. To conserve the natural and cultural heritage that make water trail experiences unique, American Rivers and Palmetto Conservation Foundation are using water trails as a catalyst to engage communities, foster economic development and protect riverside land.

American Rivers' Blue Trail program has evolved since its conception a few years ago. Our

presentation will detail how what began as a way to improve recreation and reconnect communities to local rivers has evolved into much more; an innovative protection tool. We will highlight examples from our work with communities in South Carolina that serve as a model for this unique approach to riverside land conservation and the ways we are working with federal partners and NGOs to garner support for the Land and Water Conservation Fund (LWCF) and a national system of blueways.

Palmetto Conservation Foundation, through its Glendale Outdoor Leadership School, has formed partnerships with public agencies, private landowners, and other non-profits in the Spartanburg area to develop a 50 mile paddle trail along the Pacolet River and Lawson's Fork Creek. PCF is also spearheading the creation of a clearinghouse called Paddle SC, in which people can access vital information about South Carolina's paddle trails. A number of organizations from around the state have partnered in this effort to promote the responsible use and enjoyment of South Carolina's rivers.

A River Runs Through It I

Flows and Recreation on Virginia's New River

Jot Splenda, The Louis Berger Group, Inc.

Appalachian Power's Claytor Hydroelectric Project on Virginia's New River operates under a peaking regime in winter and run-of-river regime in summer. Flows can have important impacts on 56 miles of downstream river recreation including fishing, hunting, scenic floating, whitewater kayaking, and tubing. Relicensing studies analyzed the river's hydrology, and conducted fieldwork, interviews, and focus groups to identify acceptable flow ranges and fluctuation tolerances for recreation opportunities and management options that might improve them.

Findings showed opportunities occupy different "niches" in the hydrograph that don't necessarily overlap, highlighting trade-offs between different flow regimes. Higher flows provide better boatability and access for powerboats and scenic floaters but may limit wading-based fishing, reduce water clarity, or diminish perceived fishing success. The best flows for whitewater kayak playboating are marginally unsafe for family-oriented tubing at a popular falls for both activities. Winter peaking regimes offer better kayaking when tubing is not popular, but irregular timing can make those flows difficult to use. Management improvements include 1) improved flow release information, 2) higher minimum base flows, 3) reduced "double peak" days, 4) upper fluctuation limits, 5) special event flows, 6) scheduled occasional summer whitewater flows, and 7) summer pulse flows to reduce algae concentrations.

Climate Change Predictions and Water Management Options from Coupled Watershed and Salmon

Lisa C. Thompson, University of California, Davis

Conflict over water allocation for multiple uses is common, yet the costs of compromise are often unclear. Climate change may alter the quantity and timing of water availability, potentially heightening conflicts. We developed an analytical framework to examine trade-offs between water use for fish habitat and hydropower generation in the face of climate change. Spring-run Chinook salmon are vulnerable to climate change because adults over-summer in freshwater streams before spawning in autumn. We determined whether future streamflows and water temperatures could lead to reductions in these salmon in a California stream, and evaluated water management adaptations to ameliorate these impacts. We used projected climate data for 2010 – 2099, as input to the WEAP watershed hydrology model, which passed streamflow and water temperature to

SALMOD, a salmon population dynamics model. WEAP forecast lower summer flows and higher temperatures, while SALMOD forecast decreased adult summer survival and population declines. Of management adaptations tested, only ceasing water diversion for hydropower production from the summer fish habitat resulted in cooler water, more adults surviving to spawn, and extended population survival time, albeit with a loss of hydropower production. This framework could be transferred to other watersheds, and extended to include other water uses.

Railroads and Access on Alaska's Rivers

David W. Schade, MPA, Alaska Department of Natural Resources

The Alaska Railroad system runs across many rivers from tidewater to the interior of Alaska. The Alaska railroad is currently doing two rail extensions, one through a major urban area, and the other through a rural part of the state. During the development of the railroad plans, many access and use issues related to the railroad have been debated, and design issues addressed. The presenter will outline these conflicts, and some of the design changes which have been proposed. Other positive railroad programs for river drop offs etc. will be shown as well.