



NExUS Ongoing Projects and Activities Tue Dec 12 22:23:03 EST 2017

Name	Evaluating Reservoir Operations and the Impacts of Climate Change in the Connecticut River Basin
Description	The Connecticut River Basin is the principal water source for communities in portions of Vermont, New Hampshire, central Massachusetts and central Connecticut, with over 70 major dams and reservoirs in operation to help control the water supply. This project will provide The Nature Conservancy, the US Army Corps of Engineers and other stakeholders with climate-informed guidance for current and future dam operations, and illustrate the potential trade-offs between policies that optimize one or more of services provided by the systems' operations. Downscaled data from climate model projections, fed into hydrology models, is used to construct informed streamflow forecasts; these in turn support a reservoir management model that enhances the biological community supported by the river, and existing infrastructural services including flood control, water supply, recreation and hydropower generation. This project also involves the development of decision support tools to guide river operations and to facilitate stakeholder involvement. Workshops are held to gather information about stakeholder requirements for the basin, such as ecological flow targets and dam operations
Category	- Climate-change Specific Projects
Sector	- Public Health and Safety - Infrastructure
Focus Area	- Climate Impacts on Water Resources - Conservation/ Restoration of Sensitive Species and Habitats
Region	- Regional Or State -- New England
Status	- Ongoing
Timelines	Date of Completion, April 2013
Lead Agencies	NOAA Regional Integrated Sciences and Assessments
Contacts	Richard Palmer, Department of Civil and Environmental Engineering, University of Massachusetts Amherst, palmer@ecs.umass.edu