

Using Watershed-Scale Restoration for Hydropower Compliance

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Putting policy and science into practice is not a simple task. Protecting and restoring watersheds that cross state lines, are governed by multiple agencies, and represent complex environmental interactions present a particular challenge. This presentation will examine a proposed multi-decade restoration program of multiple Snake River watersheds that is built using components of successful water quality trading programs.

The Idaho Power Company is working toward meeting the obligations of its Hells Canyon hydroelectric power complex relicensing with the Federal Energy Regulatory Commission while also aiming to address the more holistic issue of returning a heavily used and hydrologically altered waterway to a more healthy state. The main questions guiding this program have been: Is it possible to restore ecosystem function to a historically important reach of the Snake River in order to support native fish habitat and meet federal regulations? And can a regulated entity translate the benefits of restoring functional riverine conditions into parameters that matter to regulatory agencies and a variety of stakeholders?

I will discuss The Freshwater Trust's recent experience designing a multi-faceted ecosystem services approach to restoring river function and counting benefits towards Clean Water Act compliance. Large sets of environmental data (including LiDAR, FLIR, flow, temperature and sediment data) have been collected to guide program development and set goals, and models such as Surface Irrigation Soil Loss (SISL) and Shade-a-Lator have been used to gauge site-specific restoration opportunities. The implementation of restoration actions at the Bayha Island Research Project will begin in 2015; details of this project will frame the discussion.