Update on the Willamette Basin Sustainable Rivers Project:
A framework for assessing geomorphic and vegetation responses to environmental flows and recent findings from the Middle Fork

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The Willamette Sustainable Rivers Project (SRP) is one of eight nationwide sites where the US Army Corps of Engineers and The Nature Conservancy (TNC) have partnered to identify opportunities for providing more ecologically sustainable flows while still meeting human needs and congressionally authorized purposes. To date, the Willamette SRP has established year-round flow recommendations for the Middle Fork Willamette, McKenzie, and Santiam River Basins. However, evaluating success of the Willamette SRP requires monitoring and assessment to document which targets were achieved and evaluate hydraulic, geomorphic, and vegetation responses to these flows. Over time, the flow recommendations can be adaptively refined to ensure that each target is realistic given the present-day geomorphic and vegetation characteristics of the Willamette Basin.

This presentation will describe progress by the US Geological Survey and TNC in 2013–2014 to monitor and assess hydraulic, geomorphic, and vegetation responses to environmental flows. Specifically, we will describe (a) development of a reach-based status and trends monitoring framework, (b) findings from geomorphic monitoring of the Middle Fork Willamette River for 2005–2012, and (c) next steps for developing an adaptively managed environmental flow program in the Willamette Basin.