Field crew collects stream data from the Olympic Experimental State Forest, Wash. The study findings will benefit the management of state and federal lands.

Photo credit: Jacqueline Winter

Collaborative Forest Research Benefits State Trust Land and Rural Communities

The USDA Forest Service maintains a network of 81 experimental forests and ranges. These “living laboratories” allow federal and nonfederal researchers to conduct operational-scale experiments—where the study areas are big enough to give indications of what the results would be if applied in the “real world.”

At 270,000 acres, the Olympic Experimental State Forest (OESF) is the newest and largest experimental forest in the Forest Service’s network. Established in 2009 on the west side of the Olympic Peninsula in Washington state, this working forest is composed of mostly state trust lands managed by the Washington Department of Natural Resources (WADNR). The experiments here focus on learning how to better integrate revenue production, primarily through timber harvests, with ecosystem values such as habitat conservation.

The USDA Forest Service Pacific Northwest (PNW) Research Station collaborates with WADNR on various studies in the experimental forest. An overarching study includes monitoring the status and trends of riparian and aquatic habitats in 54 watersheds ranging from 70 to 1750 acres.

“This project is critically important to WADNR, as it supplies information for inferences about management effects on habitat as a basis for adaptive management,” said Allen Estep, Habitat Conservation Plan and Scientific Consultation Section Manager. “On important projects such as these, WADNR values and actively seeks collaboration with organizations such as the PNW Research Station for the benefits such partnerships provide, such as sharing data, expertise, and experience.”

WADNR’s primary goal is to chart the recovery of these habitats by applying innovative forest management strategies that are being tested in the OESF. A primary goal of the PNW Research Station is to establish an aquatic and riparian monitoring program suitable for cross-site and regional comparisons with other experimental forests and long-term research sites.

To accomplish these goals, state and federal researchers identified monitoring indicators and designed sampling protocols that build a solid foundation for future corollary studies.

“PNW has been a valuable research partner to WADNR for many years. Our agency has always counted on high quality scientific expertise, and it has invariably been delivered,” said Teodora Minkova, a WADNR employee and research and monitoring manager for the experimental forest. “Two aspects distinguish PNW as a research partner on the current riparian monitoring project: One is a deep understanding and experience in applied science that is relevant to uncertainties faced by a land management organization such as WADNR, and the second is the reputation of an impartial scientific expert, which evokes stakeholders’ confidence and trust.”

WADNR land managers and their stakeholders (forest industry, tribes, private forest land owners, and environmental groups) benefit from the research partnership because it provides the groundwork for examining alternative riparian management strategies relative to threatened Pacific salmon plus other aquatic-riparian species of concern and their habitats.

WADNR is the major timber producer on the peninsula, so management practices that sustainably produce timber while protecting and restoring habitat for threatened Pacific salmon benefit the region’s rural communities, whose economies are tightly linked to natural resource commodity production.