

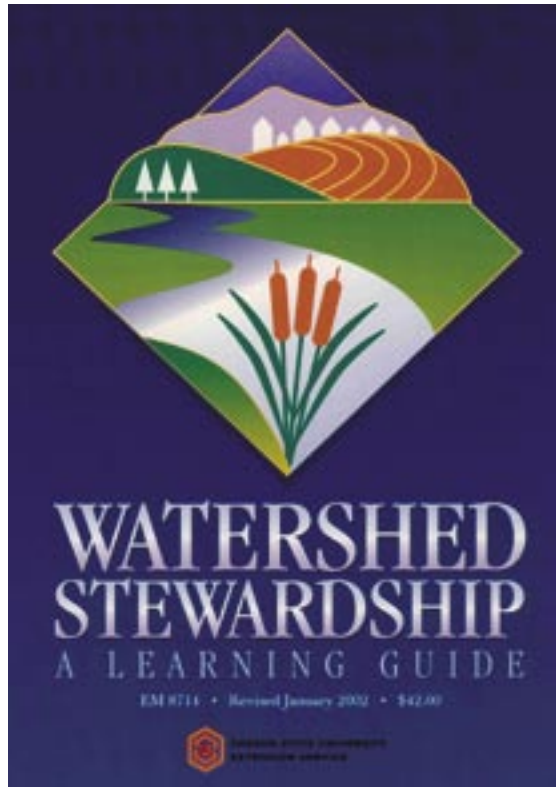
Watershed Extension program helps citizens implement the Oregon Plan

Oregon Sea Grant's Extension faculty have been at the heart of an increasingly intense effort to understand and reverse the decline of salmon runs in the Pacific Northwest, restoring the endangered species to ecological health and sustainable harvest levels by fostering the restoration of the fish's natural habitat.

Now their work has become a model for similar watershed restoration efforts nationwide.

A decline in salmon numbers was first noted officially in the 1890s. Since the late 1970s, those numbers have dropped sharply, raising the specter of imminent extinction for many native populations. NOAA's National Marine Fisheries Service has declared several population groups of salmon threatened or endangered under the Endangered Species Act.

During the early to middle years of the 20th century, attempts to aid the fish took what might be called a "mechanical" approach. As dams went up on the region's waterways and human development encroached more and more on the land, attempts were made to help fish live with these changes. Fish ladders were installed in dams, and hatcheries were built to supplement natural fish runs. In essence, this approach sought to make the



Watershed Stewardship: A Learning Guide helps local councils form effective partnerships, understand their watersheds, and develop strategies for enhancing or restoring them.

fish adapt to human-made intrusions in nature. The result over the course of the century was a dramatic decline in native fish numbers.

More recent efforts, led by Sea Grant Extension (SGE) faculty, focus on restoring the habitat to one in which the fish can flourish. If salmon cannot adapt to the human world—and indeed it appears they can't—humans

will have to adapt to the salmons' if we want the fish to flourish once again.

Sea Grant's approach has not been to do a lot of rehabilitation—there aren't nearly enough funds in the program to do all that is necessary—but to teach people how to do it in their own communities. In this respect, the program has been a success.

Six Extension faculty affiliated with Oregon Sea Grant have provided a wealth of information, training, and consultation for the watershed councils that are the backbone of the Oregon Plan for Salmon and Watersheds. From early efforts to get organized, through on-the-ground habitat restoration work and landowner education, SGE agents provide a local connection to university resources. Oregon Sea Grant and the Extension Service

created the Watershed Stewardship Education Program, now called OSU Watershed Extension, which helps local citizens and watershed groups implement the Oregon Plan.

Watershed Extension's core program, called the Master Watershed Steward (MWS) program, employs an eight-topic curriculum in tandem with a 17-chapter learning guide that was developed



in collaboration with OSU Extension Forestry and Agriculture staff to help local councils form effective partnerships, understand their watersheds, and create strategies for enhancing or restoring them.

In the past five years 960 people have attended the MWS program, donating 13,120 volunteer hours of restoration projects throughout Oregon. OSU Watershed Extension has delivered many additional educational programs, reaching watershed groups and individuals around the state.

The eight topics of the MWS program focus on different aspects of watershed functions and processes, with an indoor and field portion for each topic. After completing the eight-topic program, participants apply what they have learned by working on actual projects, and their efforts are tracked by SGE once they return to their own areas.

Although members of watershed councils are the primary targets of the MWS program, participants also include teachers, farmers, foresters, urban planners, and individuals interested in aiding the local environment.

"We found that our audience has broadened," Tara Nierenberg, OSU statewide coordinator of watershed education programs, said. "This helps to connect new volunteers to local watershed groups. This is a great, unanticipated outcome. Our challenge now is the limitation of money and institutional structure to hire enough staff to be able to continue as a functional program and to meet the critical needs that are posed to us by stakeholders of the Oregon Plan."

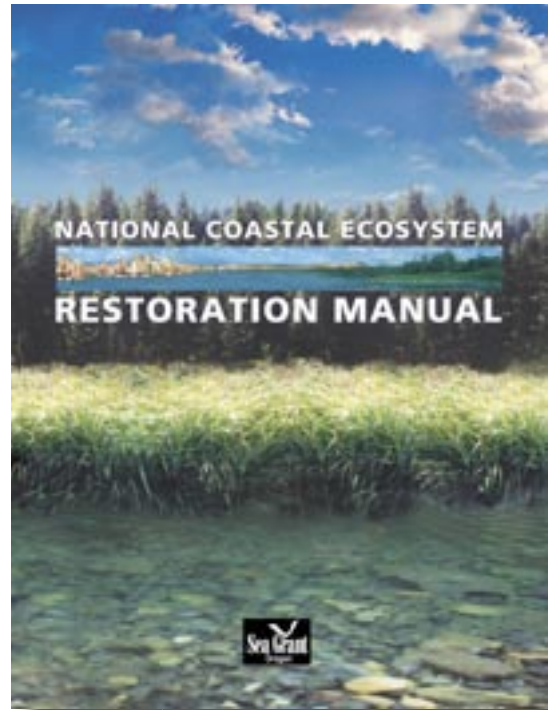
Watershed Stewardship: A Learning Guide is available to the public for \$42 through OSU Extension and Experiment Station Communications (541-737-2513).

The success of the MWS program led to a three-state effort to extend the program's reach nationally. Under National Sea Grant's National Outreach Initiative, the joint project of the Oregon, New York, and Louisiana Sea Grant programs has made the educational material developed for the MWS program available to programs across the country.

Pat Corcoran is an SGE faculty member who helped create the publication, titled *National Coastal Ecosystem Restoration Manual*. The work was published by Oregon Sea Grant in spring 2002.

The manual is not a blueprint or a step-by-step guide to rehabilitating a watershed, Corcoran said. But it will provide the tools for groups to use in creating their own plans. "What this does is provide a watershed perspective and [show] how to apply various scientific tools in that context," he explained.

The book contains three sections. In the first, readers learn how to hold effective meetings and hone their decision-making and communication skills. Part two focuses on watershed ecosystems, explaining how each functions



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and recommending methods of assessment, enhancement, and evaluation. The final section applies best-management practices to many different settings, including farms, forests, cities, and marinas.

The manual takes Oregon's success and broadens it, making it applicable to a national audience. It encourages local groups to use the best available science in their projects and provides plenty of that information, plus a listing of resources where even more information is available.

The 464-page *National Coastal Ecosystem Manual* is available for purchase through Oregon Sea Grant for \$30.

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