



Applying knowledge to improve water quality

Pacific Northwest

Regional Water Program

A Partnership of USDA NIFA
& Land Grant Colleges and Universities

Summer 2010
PNWWATER 185

10 Years of Regional Progress:

Animal Manure Management

It was a decade of changing regulations for Confined Animal Feeding Operations (CAFOs) and other livestock owners. New national rules for CAFOs were released in 2003 and modifications continue today. The PNW Water Quality Team provided coordination and education to help producers comply with the new rules. Face-to-face meetings, printed materials, and newer electronic technologies were used to get the latest information to livestock producers and their advisors.

The Team sponsored a summit near Seattle to identify needs, assess current capabilities, and plan programs that would help producers use manure effectively as a fertilizer while avoiding surface and groundwater pollution. The summit was attended by federal and state regulators along with university educators who connect with producers. Each state has a slightly different regulatory program so rules would not be the topic of meetings held in the region. The summit identified the need for more uniform nutrient management planning across the states, with special emphasis on phosphorus application and plant uptake.



An animal manure management expertise directory for Region 10 universities was developed. The factsheet listed the 25 current Extension publications available for use in manure management and planning.

With more public attention and regulation of animal feeding operations, a national team with members from the Northwest went to work producing the Livestock and Poultry Environmental Stewardship (LPES) curriculum. This team produced 26 lessons related to manure management as short factsheets and ready-to-use slide sets for educators on an easy-to-use CD. The curriculum could be presented by any Extension educator with any size of livestock group. Topics covered manure management for all commercial livestock species on any size of farm. The Team held an orientation session on the curriculum to introduce it to users in the Pacific Northwest.

Later the LPES effort went more or less live on an eXtension website. All the curriculum materials are available along with many more factsheets and special articles related to manure management. Several years ago the site began producing live webcasts by experts to anyone on the internet that wanted to link in. The webcasts have covered a variety of topics and have been popular with farm advisors and producers alike. The PNW Team took advantage of this expertise and sponsored a webcast live from the 2010 National Water Quality Conference. Information on poultry and horse manure management and farm composting was broadcast to 59 sites around the country. A program evaluation showed that the attendees intended to reach about 8,100 producers with the information.

Another team effort, led by Washington State University faculty, dealt with a new cost-sharing standard through the Natural Resources Conservation Service (NRCS). The standard would help pay the cost of a livestock producer using feed management to reduce excretion of nitrogen and phosphorus in manure. This team was funded by a multi-year grant from NRCS. The project started with the development of tools to be used by NRCS personnel and advisors to determine the possibility of using feed management and to identify the best management practices to reduce nutrient excretion. Then educational materials were developed and trainings were held throughout the Northwest and the U.S. Cost-sharing has begun and the tools developed by the team are in use by nutritionists and NRCS personnel all over the U.S.



Pacific Northwest Regional Water Quality Coordination Project Partners

Land Grant Universities

Alaska

Cooperative Extension Service
Contact Fred Sorensen:
907-786-6311

<http://www.uaf.edu/ces/water/>

University Publications:

<http://www.alaska.edu/uaf/ces/publications/>

Idaho

University of Idaho
Cooperative Extension System
Contact Bob Mahler: 208-885-7025

<http://www.uidaho.edu/wq/wqhome.html>

University Publications:

<http://info.ag.uidaho.edu/Catalog/catalog.htm>

Oregon

Oregon State University
Extension Service
Contact Mike Gamroth: 541-737-3316

<http://extension.oregonstate.edu/>

University Publications:

<http://extension.oregonstate.edu/catalog/>

Washington

Washington State University
WSU Extension
Contact Bob Simmons:

360-427-9670 ext. 690

<http://wawater.wsu.edu/>

University Publications:

<http://pubs.wsu.edu/>

Northwest Indian College
Contact Charlotte Clausing:
360-392-4319

cclausing@nwic.edu or

<http://www.nwic.edu/>

Water Resource Research Institutes

Water and Environmental Research
Center (Alaska)

<http://www.uaf.edu/water/>

Idaho Water Resources
Research Institute
<http://www.boise.uidaho.edu/>

Institute for Water and
Watersheds (Oregon)
<http://water.oregonstate.edu/>

State of Washington
Water Research Center
<http://www.swwrc.wsu.edu/>

Environmental Protection Agency

EPA, Region 10
The Pacific Northwest
<http://www.epa.gov/r10earth/>

Office of Research and Development,
Corvallis Laboratory
<http://www.epa.gov/wed/>

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The Project

Land Grant Universities, Water Research Institutes, and EPA Region 10 have formed a partnership to provide research and education to communities about protecting or restoring the quality of water resources. This partnership is being supported in part by the USDA's National Institute of Food and Agriculture (NIFA).

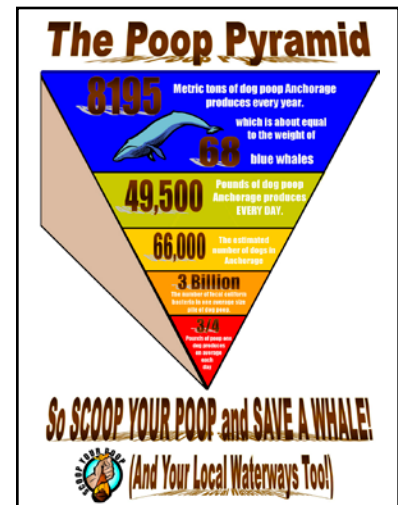
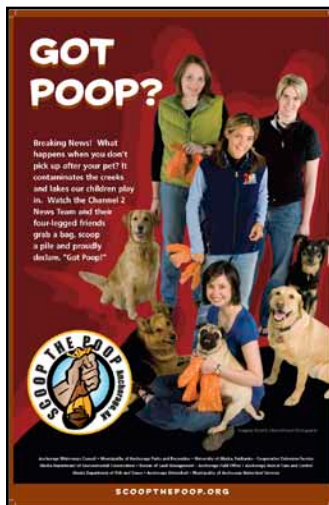
Our Goal and Approach

The goal of this Project is to provide leadership for water resources research, education, and outreach to help people, industry, and governments to prevent and solve current and emerging water quality and quantity problems. The approach to achieving this goal is for the Partners to develop a coordinated water quality effort based on, and strengthening, individual state programs.

Our Strengths

The Project promotes regional collaboration by acknowledging existing programs and successful efforts; assisting program gaps; identifying potential issues for cross-agency and private sector collaboration; and developing a clearinghouse of expertise and programs. In addition, the Project establishes or enhances partnerships with federal, state, and local environmental and water resource management agencies, such as by placing a University Liaison within the offices of EPA Region 10.

A very successful local program that can be applied in many watersheds is the Alaska "Scoop the Poop" program. Anchorage has one household dog for each five people. The University of Alaska coordinated a large group of agencies in an effort to reduce pet waste in public areas, especially those bordering surface water. This group attacked the issues with posters using well-known people promoting "scooping." The posters were used in veterinarian offices, public buildings, and local stores. Additionally the group used public service announcements on local media stations, collection stations, clean-up events, direct mail pieces to households, and surveys to create awareness. As a result of this all-out attack on "poop" in public places, Cheney Lake was removed from the water quality-impaired list due to acceptable coliform bacteria levels and a law banning dogs from play areas was avoided.



National Water Quality Program Areas

The four land grant universities in the Pacific Northwest have aligned our water resource Extension and research efforts with eight themes of the USDA's National Institute of Food and Agriculture.

1. Animal Waste Management
2. Drinking Water and Human Health
3. Environmental Restoration
4. Nutrient and Pesticide Management
5. Pollution Assessment and Prevention
6. Watershed Management
7. Water Conservation and Management
8. Water Policy and Economics

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