



Applying knowledge to improve water quality

# Pacific Northwest

## Regional Water Program

A Partnership of USDA CSREES  
& Land Grant Colleges and Universities

Summer 2008  
PNWATER 135

### 2009 Satellite Conference:

# Watershed Issues Video Stream Workshop: Stormwater Management: One Backyard at a Time

It is summer 2008, the Pacific Northwest rivers are returning to normal flows after the excellent snow year just passed. Many places across the three states have experienced flooding and been left with eroded stream banks and washed out roads. Were there better ways to manage the high waters than throwing down sand bags and hoping for the best? This year's Watershed Issues Workshop will look at strategies that mitigate damage and save public and private property.



The northwest is growing rapidly, places that were formerly considered 'resorts' are now sprouting housing developments filling with active retirees and second-home buyers. Wastewater treatment facilities and sewer infrastructure construction can't keep up with demand. The camera crew visits three areas that epitomize problems faced and records efforts by local governments and private citizens to manage rainwater and snowmelt onsite and not allowing it to become stormwater. We will take a look at backyard rain gardens in arid climates, Low Impact Development approaches to new house construction, and businesses that take an active role in preserving local ecosystems.

In Idaho's Wood River Valley, the four seasons are distinct, yielding the grand snows for world class skiing, watering blue ribbon trout streams, and then extreme summer heat sears forests making them prone to raging fires. The video team visits the City of Ketchum and the Sun Valley Resort to find how stormwater is managed during spring snowmelt and fierce mountain rain storms.

Citizens of the area are joining the local governments in efforts to retain rain and snow runoff on their property using it as a resource rather than allowing the water to flow through streets and parking lots and end up as pollution in the river. Sun Valley Resort has set a moratorium on developing more of their vast property in order to leave a more natural landscape to help with infiltration of snowmelt. Remodeling and renovations are planned with sustainability in mind.



Even though Bend, Oregon receives only 12 inches of rain a year, the city is urbanizing at an amazing rate exacerbating runoff volumes and amounts of stormwater to the Deschutes River. Bend instituted a stormwater utility in summer of 2007. Residents are given the opportunity to decrease the fee by reducing impervious surfaces or using other methods of on-site management that exceeds the city's requirements. Even more important for stormwater management is the inclusion of the stakeholders in decision-making.

A committee of local residents joined a private enterprise multidisciplinary engineering firm to draw up plans to bring the city into compliance with federal and state water quality regulations. Stormwater detention facilities play an important role in collecting the runoff and slowly releasing it to prevent flood damage to homes and the river.



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University Publications:

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

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University Publications:

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

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Water and Environmental Research  
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Idaho Water Resources  
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Institute for Water and  
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<http://water.oregonstate.edu/>

State of Washington  
Water Research Center

<http://www.swwrc.wsu.edu/>

**Environmental Protection Agency**

EPA, Region 10

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<http://www.epa.gov/r10earth/>

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Our camera will peek into residents' backyards to see the homegrown stormwater management techniques that people have installed to save their beautiful ecosystem. The public/private partnerships in Deschutes County Oregon are protecting the quality of surface and groundwater with the Stormwater Management Plan.

Leaving the mountains, the cameras will turn their eyes to Island County, Washington. This is another area of the Pacific Northwest that is experiencing rapid growth from tourism, second-home ownership, and newly retired people building their dream homes. With construction comes removal of trees and grasses resulting in increased potential for erosion and sedimentation in streams.

Driveways, roads, and parking lots create more stormwater runoff and flooding and prevent surface water from filtering into the ground to replenish the aquifers that provide drinking water. The Island County governments and their agencies are convening citizens, holding educational meetings, and laying out zoning regulations that help to stem the damage of stormwater. Beachwatchers are community members around Puget Sound who



are dedicated to learning about its creatures, landscape, and natural resources so that they can better protect this priceless heritage. Shore Stewards are shore and streamside homeowners who practice habitat-friendly concepts that protect and maintain healthy wildlife corridors. Many homeowners are installing rain gardens and bioswales to slow and infiltrate runoff.

The growing interest in green infrastructure and building sustainable communities around the Pacific Northwest has piqued the imaginations of architects, engineers, ecologists, policy-makers, and most importantly homeowners. Five years ago the mention of LID (low impact development) would evoke an academic explanation from advocates; today the concepts are much more widespread. Gardeners shop at nurseries that stock native and drought resistant plants regularly. Stormwater Management: One Backyard at a Time is much closer to a realization than a far-off dream.

The Pacific Northwest Regional Water Program in conjunction with their partners will air this video stream conference in early 2009. The traditional late fall airing of the Watershed Issues Workshop has been delayed so the cameras can catch the backyard stormwater retention techniques at work during fall rains. For more information please contact Jan Seago at (206) 335-0038 or by email at [seago.jan@epa.gov](mailto:seago.jan@epa.gov).

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**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 Cooperative State Research, Education, and Extension System.

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

*CSREES is the Cooperative States Research, Education, and Extension Service, a sub-agency of the United States Department of Agriculture, and is the federal partner in this water quality program.*