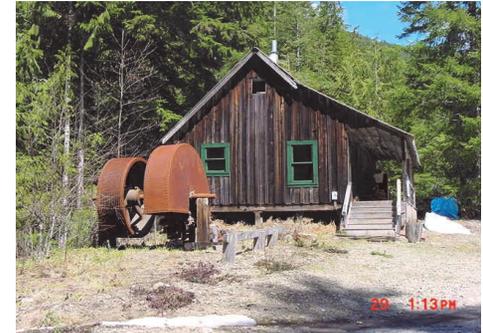


# North Santiam Watershed Council

June 2001 to June 2004

Salem



**Printed with funds from City of Salem**



## North Santiam Watershed Council

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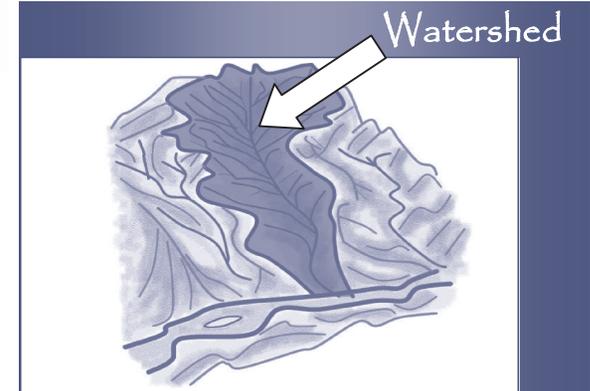
[www.open.org/~nsantiam](http://www.open.org/~nsantiam)

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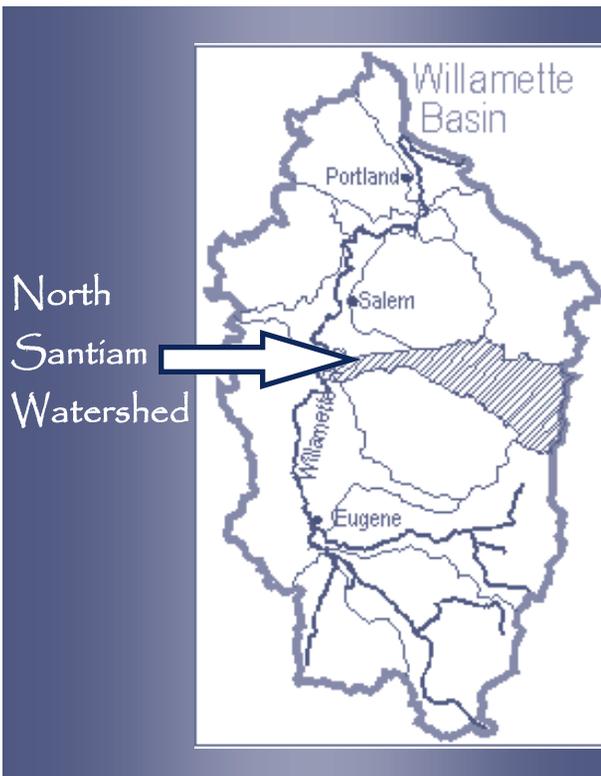
Joint General Member and Steering Committee Meeting occurs on the second Thursday of every month at 7PM in the Stayton Community Center.

## What is a watershed anyway?

- ◆ All land on earth is a watershed, therefore, we all live in a watershed.
- ◆ Watersheds are often called drainage basins because they are the area of land that drains or catches rain or snow and directs it by a network of channels (i.e. tributaries) downslope to the lowest point in the landscape, into a larger stream, an inland lake, a wetland, an estuary or the ocean.
- ◆ Large watersheds, such as the Mississippi and Columbia Rivers, are made up of many smaller watersheds across many states.



## What is the North Santiam Watershed?



- ◆ The North Santiam Watershed lies within the Willamette River Watershed. The North Santiam River meets the South Santiam River, forming the Santiam River, a tributary of the Willamette River.
- ◆ The North Santiam River drains approximately 766 square miles (approximately 500,000 acres) of land from Mount Jefferson to the Willamette River.
- ◆ The watershed is characterized by steep forested uplands and flat alluvial lowlands.
- ◆ The climate includes an extended cool, rainy winter season following a warm, dry summer season.
- ◆ Human population within the watershed is concentrated in several small communities situated along the mainstem North Santiam River, including: Jefferson, Stayton, Lyons, Mehama, Mill City, Gates, Detroit and Idanha.
- ◆ The land and water uses in the North Santiam Watershed are diverse, including: agriculture, timber, rural residential, recreation, urban and public lands.
- ◆ The watershed is made up of approximately 36% private lands, and 64% public lands (most of which lie above Detroit Dam).
- ◆ The watershed provides home to important fish species such as Chinook and Steelhead.
- ◆ The North Santiam provides drinking water to the City of Salem in addition to the communities within the North Santiam Watershed.
- ◆ The watershed provides habitat to a variety of endangered and threatened species, has a federally protected old growth forest, has a segment of Wild and Scenic river, is part of the Three-Basin Rule and is listed on the federal Clean Water Act 303(d) list for summer water temperatures higher than the water quality standard.

## What is a watershed council?

- ◆ Watershed councils are locally organized, voluntary, non-regulatory groups established as a result of House Bill 3441 to improve the condition of the watershed in their local area.
- ◆ A watershed council is “a voluntary local organization designated by a local government group convened by a county governing body to address the goal of sustaining natural resources and watershed protection and enhancement within a watershed.” (from ORS 541.350)
- ◆ Councils are a group of people who all have an interest in the sustainable management of the natural resources and water conditions coming out of the watershed in which they live and do business.
- ◆ Councils provide local people a voice in natural resource management and can significantly affect decisions in the local area.
- ◆ Watershed councils bring together citizens with local knowledge and community ties that represent various interests of the watershed to implement the Oregon Plan for Salmon and Watersheds in a non-regulatory, collaborative process.
- ◆ Oregon’s approach to natural resource management includes: partnerships, sound science, local action...results!



## What is the North Santiam Watershed Council?

**Mission:** The North Santiam Watershed Council will provide opportunities for stakeholders to cooperate in promoting and sustaining the health of the watershed and its communities.

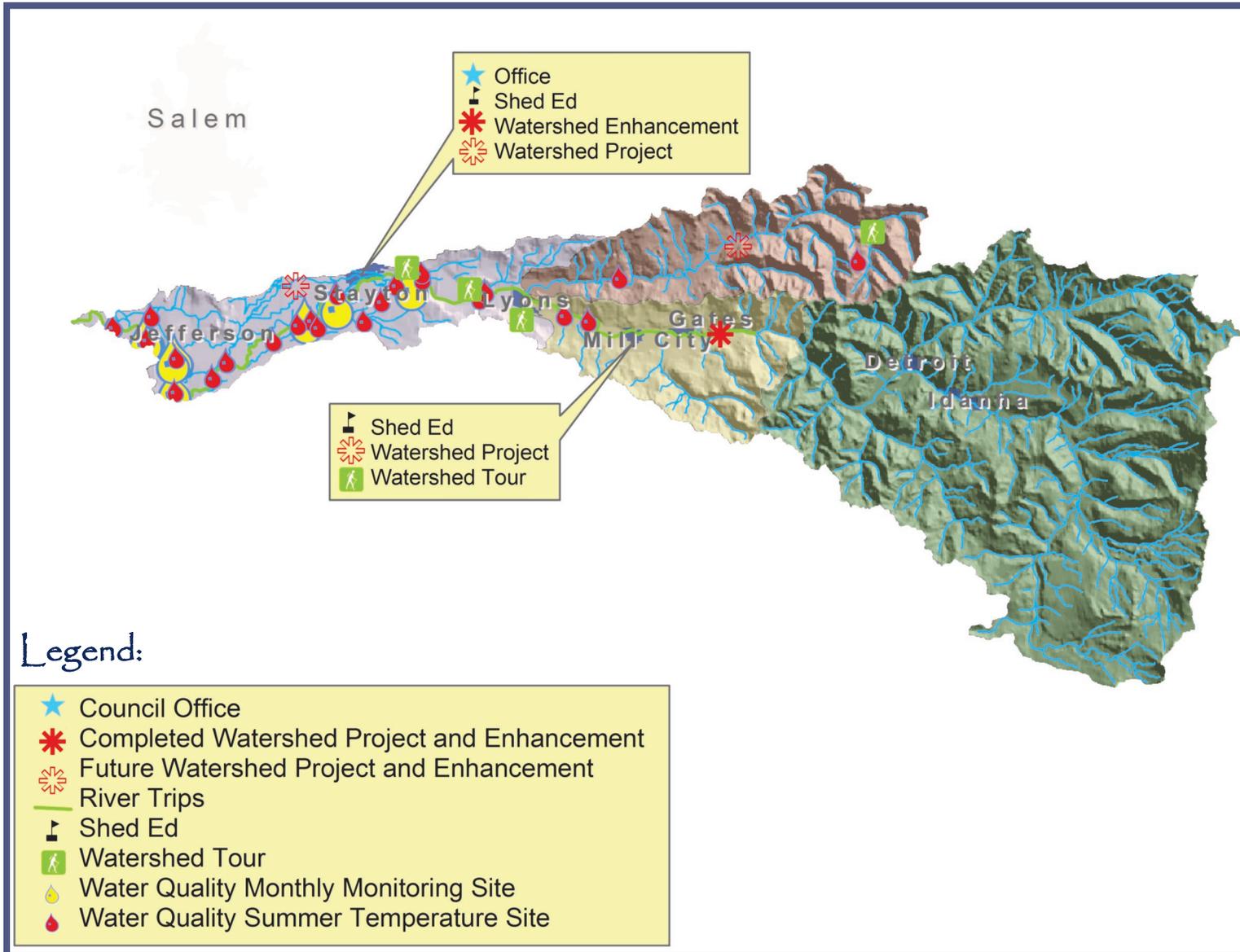
**Values, for this and future generations:**

- ◆ Promote awareness and education about watershed issues.
- ◆ Preserve and/or improving the water quality and quantity in the river.
- ◆ Maintain healthy, well-functioning natural and human communities within the watershed.
- ◆ Protect natural areas including wildlife habitat and biodiversity.
- ◆ Recognize the social and economic benefits in protecting the health of the watershed.

**Summary:** The North Santiam Watershed Council formed in 1995 and was recognized by the Marion and Linn County Commissioners in 1998. The Council consists of a general membership that is open to any individual and community, business and government group having an interest in the watershed and that supports the mission of the Council. A Steering Committee serves as the decision-making body of the organization and includes representatives from the diverse interests and geographic regions of the watershed. General and Steering members are welcome and encouraged to participate in Council programs and serve on sub-committees or teams addressing the natural resource management concerns of the North Santiam Watershed.



# Where Are North Santiam Watershed Council Projects?



## North Santiam Watershed Council Projects

**The North Santiam Watershed Council thanks all its partners for providing funds, time and in-kind match to make these projects possible!**

### Building Capacity to Serve the Watershed and its Communities

**Summary:** The Council fills the role described by ORS 541.388 entitled “Voluntary Local Watershed Councils”. Its goal is to serve as a resource to the watershed and its communities to help citizens address local natural resource management concerns. The Council recently approved new bylaws that changed the Steering Committee representation and process to adopt a sub-basin strategy to planning and implementing watershed projects. This new strategy is designed to address the diverse interests and geography of the watershed by engaging local landowners and community members to strategically implement watershed improvement projects. The new Steering Committee representation is as follows: 2 economic interest representatives from timber, agriculture, aggregate, recreation and tourism or other business, 1 environment representative, 1 City of Salem representative, 1 small cities representative, 1 water control district representative, 1 general interest representative appointed by the counties and 4 sub-basin representatives. As a result of these changes, the Council hopes to better serve the watershed and its communities and offer people opportunities to learn about natural resource management issues affecting the watershed and work together to address them.

**Partners:** Oregon Watershed Enhancement Board (OWEB), City of Salem, Morse Brothers, Norpac, North Santiam School District, Specialty Office Services, Stayton Gest LLC and Mill City Garden Club.

**Next Steps:** Implement new Steering Committee representation and recruit volunteers interested in different areas of Council work including data collection, education and outreach, fundraising and sub-basin project planning and implementation.

**Needs:** Funds and in-kind donations to match OWEB council support grant so the Council can continue to support the watershed and its communities with natural resource focused projects and education.

Connecting Communities  
in the  
North Santiam Watershed



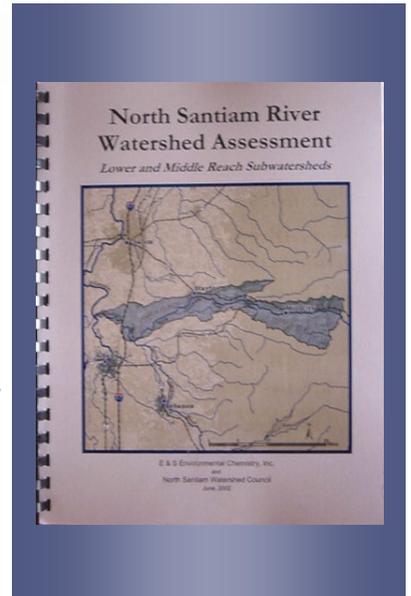
## Watershed Assessment

**Summary:** The Council completed a watershed assessment describing currently available data for the lower and middle reaches of the watershed to better understand the watershed's health and identify areas that need improvement. This document was created by E & S Environmental consultants and Bureau of Land Management (BLM) and includes information on fisheries, aquatic and riparian habitat, hydrology, water use, sediment sources, water quality, upland terrestrial systems and human uses.

**Partners:** Funded by OWEB and BLM. Data and technical advisory from Army Corps of Engineers (USACE), BLM, City of Salem, Division of State Lands, Marion County, Marion Soil and Water Conservation District (Marion SWCD), Oregon Department of Agriculture, Oregon Department of Environmental Quality (ODEQ), Oregon Department of Fish and Wildlife (ODFW), Oregon Department of Forestry (ODF), Oregon Water Resources Department (OWRD), River Guides, Santiam Water Control District, United States Forest Service (USFS) and volunteers, including: Craig Ball, State Police; John Caruso, BLM; Susan LaFontaine, Raptor Center; and Mandy Summer, Friends of Opal Creek and water quality volunteers, including: Carl Brown, Susan LaFontaine, Dave McGourty, Mark Noyes, Pete Schuyler, Jon Sewell, Josh Weathers and Les White.

**Next Steps:** This document, along with documents produced by the USFS and BLM for the upper reaches of the watershed, will be used to identify and prioritize potential projects. The Council will also be working to fill data gaps identified in these documents to continue to improve understanding of the watershed and provide focus to Council efforts.

**Needs:** Volunteers interested in identifying, prioritizing and addressing data gaps. Funds to support coordination of this effort.



## Sub-Basin Planning Strategy



**Summary:** The Council decided to create sub-basin committees based on the watershed's fifth field hydrologic units. Each of these committees will use information from the watershed assessments, consult with technical advisors and utilize their own local knowledge to prioritize and implement projects in partnership with the Council. The Council plans to implement four sub-basin committees in the following areas: (1) the lower reach from Lyons to the Willamette, (2) the middle reach from Detroit Dam to Lyons, (3) the Little North Fork and (4) the upper reach above Detroit Dam.

**Next Steps:** The Council is creating a policy to provide a framework for the relationship between these sub-basin committees and the Council and is recruiting volunteers to participate in these sub-basin committees.

**Needs:** Volunteers in each sub-basin to form committees that will review assessments and other available data, consult technical advisors and citizens to identify, prioritize and implement projects that protect, enhance and restore the watershed. Funds to support coordination of this effort.

# Water Quality Monitoring

## Monthly Ambient Monitoring

**Summary:** Council volunteers have monitored the lower reach of the watershed for four years. Each month they collect data for conductivity, temperature, dissolved oxygen, pH, turbidity and *E. coli* to track water quality trends, determine the health of the watershed, fill in data gaps and help monitor Council projects.

**Partners:** Funded by ODEQ, Mid-Willamette Valley Council of Governments (MWVCOG) and OWEB. Data provided by volunteers, including: Matthew Anderson, John Caruso, Carl Brown, Melissa Fery, Amy Hatten, Hemshorn family, Pat Jones, Susan LaFontaine, Michele McAleer, Ryan McAleer, Dave McGourty, Charles Redon, Leah Sandberg, Pete Schuyler, Les White and Stayton HS Advanced Chemistry Class. River access provided by City of Jefferson, City of Salem, Morse Brothers and private landowner. Supplies and equipment provided by ODEQ.

**Next Steps:** Now that volunteers have collected baseline data for four years, it is time to analyze that data and update the monitoring program with help from technical advisors to best address the Council's and watershed community's needs.

**Needs:** Volunteers to collect data and update program. Funds to support successful coordination of this effort.

## Host-A-Probe

**Summary:** Since the North Santiam River is listed on the Clean Water Act 303(d) list of impaired water bodies for summer water temperatures above the water quality standard, the Council has collected summer water temperature data since Summer 2000. The "Host-A-Probe" program was created to facilitate installing and checking temperature probes in partnership with local landowners.

**Partners:** Funded by ODEQ, MWVCOG and OWEB. Data provided by City of Salem. River access provided by City of Jefferson, Friends of Opal Creek, Heritage Seedling Inc., Morse Brothers and 9 private landowners. Supplies and equipment provided by ODEQ and Norpac.



**Next Steps:** Continue to collect temperature data and recruit new landowners to provide access to the North Santiam River and its tributaries. Analyze existing data and consult technical advisors to update monitoring strategy and sites to better meet Council's data needs.

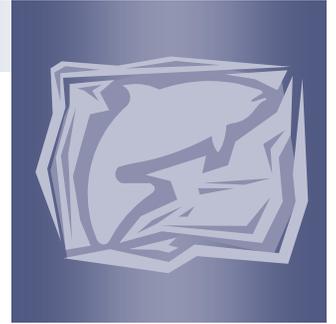
**Needs:** Landowner "hosts" to provide access to sites along the North Santiam River and its tributaries for Council to install and check probes from June to October. Funds to support successful coordination of this effort.

Council volunteer takes a dissolved oxygen sample.



## Watershed Protection, Enhancement and Restoration

**Summary:** Improving the health of the watershed through protection, enhancement and restoration is a high priority for the Council. The Council hopes to serve as a resource to landowners interested in pursuing projects that achieve this goal. The new Sub-Basin planning process is designed to connect with more local landowners in a grassroots effort to put projects on the ground that benefit fish, water quality, the watershed, the communities and the people.



### Upcoming Projects:

1. **Hatch Airport**– This partnership with four landowners in the lower reach of the North Santiam Watershed includes replacing a culvert to improve water flow and fish passage to off-channel and backwater habitat, removing invasive plant species and restoring wetlands and riparian forests.
1. **Snake-Deford**– This project with seven landowner partners will improve fish habitat and water quality, resolve flooding and erosion problems, remove noxious weeds and establish native riparian plants.
2. **Stayton Riverfront**– The Council will work with City of Stayton to plan and implement educational opportunities in the newly acquired riverfront property.
3. **North Fork Fall Clean-Up**– The Council is working with the North Santiam Economic Development Corporation and Friends of Opal Creek to start an annual trash pick up along the Little North Santiam River in response to the increasing litter problems each summer. The first event occurred in September 2004.

**Next Steps:** Recruit interested landowners to help plan and implement projects through the sub-basin strategy.

**Needs:** Landowner and citizen volunteers, project ideas and technical advisors. Funds to support successful coordination of this effort.

Stayton High School Key Club members removing invasive plants and replanting area with natives.



### Wilderness Park Invasive Plant Removal

**Summary:** The Council has coordinated three events at Stayton's Wilderness Park to remove invasive weeds, primarily English Ivy and Himalayan Blackberry, and replace these areas with native plants. Thirty to fifty volunteers attended each event and pulled over two tons of invasive plants. These efforts have been in connection with the Stayton trail project and are important to maintaining habitat diversity.

**Partners:** SOLV, OWEB, Heritage Seedling Inc., Stayton/Sublimity Garden Club, City of Stayton, Santiam Disposal, Figaro's Pizza, Safeway, Roth's, Lion's Club, Stayton area volunteers, Northwest Service Academy, Ace Hardware, Daylight Donuts, BLM and Marion SWCD.

## Watershed Protection, Enhancement and Restoration

### Mad Creek Fish Passage

**Summary:** Two undersized culverts on Mad Creek, a North Santiam River tributary, were replaced with a bridge allowing for a more natural stream bed, facilitating large debris passage downstream and connecting the stream with its floodplain. Mad Creek flows near the town of Gates and is a steep gradient, high energy stream that is habitat to Winter Steelhead, Cutthroat Trout and Coho. The Oregon Department of Fish and Wildlife determined that this reach of Mad Creek has one of the highest Steelhead spawning densities in the North Santiam Basin. This project has allowed juvenile and adult fish to move upstream into four miles of habitat once blocked by the culverts and minimized the risk of road failure that could overwhelm Salem's water filtration facility with silt during high flows.

**Partners:** OWEB, City of Salem, USFS, For Sake of the Salmon, Linn County, ODFW, ODF and volunteers, including: Al White, Pat Smith, Chip Andrus and Dale Carter.



Left: Culverts on Mad Creek that prevented fish passage and had high risk for blow out.

Right: New bridge at Mad Creek allows for fish passage and stream connection to its flood plain.



# Education and Outreach

## Your Watershed, Your Community

**Summary:** An important component to protecting the watershed is educating people about what a watershed is, why should we care and what we all can do to help. Therefore, the Council has developed and implements a comprehensive education and outreach strategy called “Your Watershed, Your Community”. To implement this strategy the Council provides a variety of opportunities for citizens to learn about the watershed, including: tours, presentations, demonstrations, website, seminars, float trips, articles and more. Information is provided on issues, including: water quality, water conservation, invasive plants, habitat restoration, endangered and threatened species, fish passage, land uses and more. The goal of this effort is to provide citizens with experiences to help them see the watershed as their community and proactively preserve that community.

**Partners:** Funded by OWEB, MWVCOG and ODEQ. Volunteer time contributed by BLM, City of Salem, Freres Timber, Friends of Opal Creek, Heritage Seedling Inc., Marion SWCD, North Santiam River Guides, ODF, Oregon Garden and Willamette Restoration Initiative.

**Next Steps:** Continue to implement “Your Watershed, Your Community” by providing opportunities for citizens to learn about the watershed.

**Needs:** Volunteers and funds to support Council capacity to continue coordinating and offering educational opportunities.

Council members and guests tour City of Salem drinking water treatment facility.



Council AmeriCorps Intern gives water quality demonstration at Stayton's Fall Marketplace.

Riverguides prepare boats to take Council and guests on “Learn The River” trips.



# Education and Outreach

## Shed Ed

**Summary:** Shed Ed, short for Watershed Education, was a three year pilot program collaboration between the Council, educators and natural resource professionals to bring hands-on, real world educational experiences to students to help them achieve the Natural Resources Certificate of Initial Mastery (CIM) and Certificate of Advanced Mastery (CAM). The Council completed this pilot program in June and has generated a comprehensive report that is available to anyone interested in creating a similar program.

**Goal of Shed Ed:** Link Natural Resource professionals with local high school students by leading field and classroom exercises to:

- ◆ Help students learn and apply natural resource principles to real world problems, research and management.
- ◆ Expose students to the variety of career opportunities in natural resources.
- ◆ Build on currently available curriculum to help students achieve state natural resources CIM and CAM benchmarks.

**Partners:** OWEB, Santiam Canyon School District, North Santiam School District, OSU Extension, USFS and speakers/instructors from various businesses, organizations and agencies, including: USFS, OSU Extension, ODF, ODFW, OWRD, Marion County, City of Salem, USACE, Stayton Fire Department, Santiam Raptor Center, United States Geological Service, Marion SWCD, Keep Oregon Green, Oregon Forest Resource Institute, Heritage Seedling Inc., Freres Lumber, local ski patrol, United States Department of Agriculture, Oregon State Police, Oregon State Parks, OWRD, City of Stayton, City of Silverton, Mill City Museum, Friends of Opal Creek, City of Mill City, Office of the Governor, local tribe member, Oregon Garden, 21st Century Schools, OSU, Hatfield Marine Science Center, river guide, American Wildlife Foundation and local citizens.

**Next Steps:** The Council is currently evaluating this program to determine direction for future watershed education efforts.

Shed Ed students get hands-on experience collecting data, trying on fire equipment and exploring an old growth forest in their backyard.

