Annual Report
For Fiscal Year 2012-13

September 2013
Annual Report

For Fiscal Year 2012-13

Background

The Clackamas River Water Providers (CRWP) is a coalition of water providers that get their drinking water from the Clackamas River. The organization is made up of representatives from the City of Estacada, City of Tigard, City of Lake Oswego, Clackamas River Water, the North Clackamas County Water Commission (Oak Lodge Water District, City of Gladstone), South Fork Water Board (City of Oregon City, City of West Linn), and Sunrise Water Authority (City of Happy Valley, City of Damascus) and includes two staff people, a Water Resource Manager and a Public Outreach & Education Coordinator. The purpose of the organization is to fund and coordinate efforts regarding source water protection and public outreach and education around watershed issues, drinking water, and water conservation so that we can ensure that the Clackamas River is used in the most sustainable way. The following is a look at the year in review.

CRWP Governance Documents

Updated CRWP By-Laws were formally adopted by the group in August. In December, the CRWP adopted its own CRWP Personnel Policy replacing North Clackamas County Water Commission Policy of which the organization had been deferring to.

CRWP and the City of Tigard

In July CRWP members approved the City of Tigard’s request to become a CRWP member. As a stipulation of membership, the City of Tigard submitted a letter to the group which outlined their monetary contributions and participation level in the CRWP prior to Lake Oswego/Tigard Water Partnership project completion in 2016 when they will become fully participating financial CRWP member.
CRWP Website

The CRWP website continues to be updated on a regular basis. It includes information about CRWP members, our source water protection programs, and public outreach and water conservation programs, and is used as a tool for the Conservation Rebate Program and for the Water Conservation Calendar Contest.

Source Water Protection Programs

In 2010 the CRWP completed the development of a Drinking Water Protection Plan for the Clackamas River watershed. This Plan acts as a road map of potential strategies and programs to implement over the next decade and beyond to preserve the Clackamas River as a high quality drinking water source and to minimize future drinking water treatment costs. The CRWP continues to work on implementing elements of the Plan. The descriptions below describe the CRWP efforts for FY 2012-13.

Basin Analysis: Studies, GIS, Modeling and Water Quality Monitoring

Monitoring Contract with USGS

In October of 2011 the CRWP renewed its Joint Funding Agreement with USGS for an additional two years for the operation and maintenance of three water quality monitoring stations on the Clackamas River at Carter Bridge, Estacada, and Oregon
City. These stations are strategically placed in the basin to provide a holistic view of water quality as water flows through the watershed. Although each station provides important information on their own, when used in combination the WQ monitors, can pinpoint where turbidity sources originate (upper basin, middle basin, lower basin), can help pinpoint changes in water quality based on land use in different part of the basin, or could help identify where to start looking if a spill occurs.

These monitoring stations continuously log pH, specific conductivity, dissolved oxygen, temperature, and turbidity. The Oregon City gauge also records chlorophyll and streamflow. In addition to the monitoring contract, the CRWP paid for replacement probes, solutions and cables, as well as the utility fees for the real time data signals associated with the USGS monitoring sites. The water quality data can be accessed via the web at http://or.water.usgs.gov/clackamas/monitors/.

**Macroinvertebrate Study**
In December the CRWP entered into a contract with ABR, Inc.—Environmental Research & Services to conduct a Macroinvertebrate Study. The purpose of ABRs work was to summarize all of the existing Clackamas Macroinvertebrate data, to conduct a gap analysis, to map of current and proposed monitoring sites, and to develop a Long-term Macroinvertebrate Monitoring Plan for the lower Clackamas River. This Plan will help the CRWP to establish a baseline for tracking pollution changes over time in the Clackamas River watershed, and will give the CRWP a tool to leverage the work of other Basin stakeholders in macroinvertebrate efforts. The final report on the Lower Clackamas River Basin Macroinvertebrate Monitoring Plan can be found on the CRWP website at http://www.clackamasproviders.org/images/stories/13-626_FINAL_Clack_Mon_Plan_6-17-13.pdf

**Pollutant Load Modeling**
In May of 2013 the CRWP hired Geosyntec Consultants to conduct pollutant load modeling and to develop an assessment tool to predict pollution load calculations, contaminant transport scenarios, and to analyze watershed data in a way that provides graphic results that demonstrate watershed health. The modeling and tool will also allow the CRWP to run “what if” scenarios associated with land use changes and their potential impact on drinking water, and evaluate the effectiveness of specific source protection projects. Work on this project should be completed in early 2014.
Cyanobacteria (BGA) Toxic Testing
The state of Oregon recently developed Best Management Practices for Cyanobacteria (blue green algal) Toxins for municipal water providers. These BMPs provide guidance on how water providers should test both raw and finished water at their intakes if they are downstream of a toxic algal bloom. Based on the new BMPs the CRWP BGA Response Plan was updated, and the City of Estacada and the City of Lake Oswego were identified as the CRWP member agencies where toxic testing would occur. Although, there was a small blue green algae bloom at North Fork Reservoir in September of 2013 no toxins were detected, so funding the CRWP had set aside to conduct toxic testing was not utilized.

Education and Research Assistance
Clackamas Community College Interns
In December the CRWP and staff from CRW began working with the Clackamas Community College’s Water & Environmental Technology Program to develop internship opportunities for CCC students to support CRWP related projects. This year the CRWP provided stipends to one intern winter term, and to two interns spring term. The purpose of the internships was to design a sampling program so that the CRWP can understand the potential contribution of aging and failing septic systems to microbial contamination in the Clackamas River.

Point Source Evaluation and Mitigation
Tracking, evaluating, and monitoring point sources (water quality and other permits)
The CRWP continues to review water quality permits that have come up for renewal over the past year to see if there could be an impact on drinking water quality, and has provided public comment on a number of these permits. The CRWP comments generally looked at ways to enhance permit requirements, and ways to better notify CRWP members of spills, overflows, or contamination events. In addition this is another tool to help educate and remind permittees that the Clackamas River is an important drinking water source.
EcoBiz Certification Support
The CRWP continues to work with the Pollution Prevention Outreach Team which is a group of pollution prevention experts in the Portland metro area which developed and administers the EcoBiz certification program. This certification program recognizes businesses that go beyond compliance with local environmental requirements and implement pollution prevention efforts in their work sites. Businesses are certified through an intensive application and evaluation process.

In April of 2013 the CRWP partnered with Water Environment Services, a Department of Clackamas County, to purchase an ad in the Portland Business Journal to recognize EcoBiz certified landscape firms’ in Clackamas County and to promote the EcoBiz program in general.

Portland General Electric (PGE) Blue Green Algae Team/Mitigation Fund Committee
The Clackamas River Water Providers continue to be an active participant in PGE’s Blue Green Algae Team which oversees PGE’s Blue Green Algae Monitoring Program and PGE’s Mitigation Fund Committee. This year the Blue-Green Algae Team reviewed the 2012 Annual Blue Green Algal Report, which included information on PGE’s BGA Bloom Formation Study, as well as the results from the yearly monitoring program. The Blue Green Algae Team proposed a number of revisions to the Blue-Green Algae Monitoring Plan. These changes were filed with FERC.

In November of 2012 the Clackamas Fund Committee selected the projects for 2012 Mitigations funds ($500,000). Below are the projects that were approved for funding by the committee:

- Bob’s Pond Annex Side Channel - $10,500
- Winslow Fish and Flow Culvert - $79,450
- Carli Creek Fish Habitat Restoration Project - $378,936
- Clackamas Bull Trout Reintroduction - $96,114
Nonpoint Source Evaluation and Mitigation
SRF 2012 Drinking Water Source Protection Grant Implementation

In September of 2012 the CRWP signed the grant paperwork with the Infrastructure Finance Authority for the 2012 SRF Drinking Water Source Protection Grant that the CRWP received. The purpose of the grant was to address the potential risk that pharmaceuticals have for drinking water by using a two pronged approach. The first included the purchase and installation of Drug Drop Off Boxes around Clackamas County. The second included conducting septic system workshops and outreach because septic systems are also a potential pathway for pharmaceutical and personal care products to get into drinking water source water.

Drug Drop Off Boxes – A total of five Drug Drop Off Boxes have been purchased and installed at the following police departments: West Linn, Molalla, Sandy, Happy Valley, and Clackamas County’s Sunnybrook office. In addition a brochure, poster, and two event banners were created to communicate why proper pharmaceutical disposal is important, and where these boxes can be found around Clackamas County. 25,000 brochures were printed, 20,000 of which were dedicated for a Clackamas County Water Environment Services utility bill insert, and 250 posters were printed for distribution to pharmacy’s, retirement centers, libraries, and senior centers. See Appendix A.

Septic System Workshops – Postcards announcing the first septic system workshop were sent to over 1300 septic system owners in the Clackamas River watershed that been identified as high risk systems through the GIS Risk Analysis completed by the CRWP under a previous SRF grant. The workshop held in April of 2013 was attended by 18 septic system owners. The workshop covered what a septic system is, how to operate and maintain septic systems, Clackamas County septic system codes and permits, technical and funding assistance that is available to septic system owners, and information on where to find Drug Drop Off Boxes. In addition, EPA’s SepticSmart Homeowners Guide was adapted “Clackamized” to make it more relevant to septic system owners in the Clackamas River watershed. 3,000 copies of the Homeowners guide were printed along with 2,000 copies a of a Septic System Maintenance brochure for distribution to Clackamas River watershed septic system owners. See Appendix B.

Septic System Assistance Program
The CRWP worked with both the Clackamas County Soil & Water Conservation District and Water Environment Services to acquire funding from both of those organizations to
implement a Septic System Assistance Program. The program consists of a septic system inspection and pump out rebate, and a costs share repair program. Implementation of the program will begin during the summer of 2013.

**Pesticide Round Up Event**

On June 1, 2013, twenty-five producers took advantage of an opportunity to get rid of their old agricultural pesticides at no charge to them. The event, held at Clean Harbors Environmental in Clackamas, collected 18,627 pounds of chemicals for safe disposal. The CRWP supported the event by paying for postage and printing of advertising materials for the event. See Appendix C.

**Down the River Clean Up Sponsorship**

For the third year in the a row the CRWP has provided funding to We Love Clean Rivers, Inc to hire an event coordinator for the Annual Clackamas Down the River Clean Up which took place in September of 2012. This year’s event, the 10th annual, attracted 365 volunteers and an array of local sponsors and donors. These annual events typically remove 2-3 tons of trash from the river. As an event sponsor the CRWP’s logo is placed on event marketing and outreach material. In addition the CRWP had an educational booth at the after float BBQ and auction. See Appendix D.

**Ripple Sculpture Project**

The CRWP provided funding support for the We Love Clean Rivers Ripple Sculpture project. The Ripple Sculpture was created out of cable and metal that was pulled out of the Clackamas and Willamette Rivers and will be installed at the entrance to Clackamette Park in Oregon City. The CRWP’s contribution to the project will be acknowledged on both the interpretative panels and on a plaque.

**Pesticide Outreach Program**

For a sixth year the Clackamas River Basin Council (CRBC) has implemented a Pesticide Reduction Program on behalf of the CRWP. This year’s program included four components: 1) Snapshot Water Quality Monitoring Program with Portland State University Capstone Program, 2) Riparian Restoration Program, 3) Organic Farm
Certification Feasibility Study, 4) Pesticide Reduction Consultations and Fact Sheet Distribution. To read a summary of CRBC's Final accomplishment for the year go to http://clackamasproviders.org/water-resources/pesticide-reduction-efforts.html

Stash the Trash Bags
The CRWP provided funding support for the Stash the Trash program. The Stash the Trash campaign implemented by the Clackamas River Basin Council has helped achieve significant reductions in the amount of trash seen along and in the Clackamas River. Bags are distributed twice-weekly at a number of locations in the watershed between Memorial Day and Labor Day each year. Sponsorship of this project includes having the Clackamas River Water Providers logo on the bag. See Appendix E.

CRBC Financial Support
The CRWP continues to provide funding for operational support for the Clackamas River Basin Council. The Clackamas River Basin Council is working to protect and improve water quality, and fish and wildlife habitat in the Clackamas River basin.

Disaster Preparedness and Response
The Clackamas Watershed Spill Committee
In December the CRWP and staff from Water Environment Services, hosted the second Clackamas River Spill Committee meeting. Over 20 people attended from EPA, DEQ, Clackamas County, ODOT, Union Pacific Railroad, as well as local hazmat and first responders. The purpose of this committee and these meetings is to look at ways to prevent and respond to hazardous spills within the watershed. Two smaller workgroup meetings were held in the spring of 2013 to talk 1) about better notification procedures (call down list, the need for PIO plans for spills), and 2) to talk more about training and response resources that Clackamas responders might need to ensure proper response to a hazardous spill in the Clackamas watershed.

CRWP Emergency Table Top Exercise
In June of 2013 the CRWP hosted an Emergency Table Top Exercise. 41 people from CRWP member organizations, Clackamas County Emergency Management, Public Health, and Public Information staff, the State of Oregon Drinking
Water Program, and the Cities of Portland, Tigard, and Boring Water District participated in the exercise. The primary purpose of the tabletop exercise was to enhance the ability of CRWP member staff and personnel, stakeholders, and local and state agencies to effectively prepare for, manage, and respond to a water contamination incident and boil water event.

**UASI 2011 Grant - Mobile Water Treatment System**

In 2011 Clackamas River Water (District) received an Urban Area Security Initiative grant to purchase a mobile water treatment system. The CRWP is the project manager for this project and has been navigating the UASI grant process. This mobile water treatment system is designed for rapid deployment in a disaster to provide supplemental drinking water. This System supports the the Portland Urban Area strategic goal of Restoration of Lifelines as well as equipment that will be available for regional emergencies. It is anticipated that the system will be completed and delivered to Clackamas River Water (District) by October of 2013.

**Public Outreach and Information Sharing**

See the Public Outreach & Education Program section for additional information.

**US Water Prize Nomination**

The Association of State Drinking Water Administrators nominated the Clackamas River Water Providers for the United States Water Prize. This Prize, created, sponsored, and administered by the U.S. Water Alliance is the first of its kind to recognize successful efforts in protecting and improving the health of watersheds in this country. The Prize honors individuals, institutions, and organizations that have made an outstanding achievement in the advancement of sustainable solutions to our nation’s water challenges. Three prizes are awarded each year. Although, the CRWP did not win it was very pleased to be acknowledged for its source water protection efforts.

**Annual Watershed Tour**

23 people participated in the CRWP Annual Watershed Tour. Participants included elected officials from the Cities of Damascus, Gladstone, Tigard, Clackamas River Water (District), and Oak Lodge Water District, as well as a number of citizens representing Neighborhood Associations and CPOs from CRWP Member areas.
This year’s tour included stops at all for water treatment plants in the lower river. Participants learned how each plant worked, how they are different, how all the water treatment systems are interconnected, as well as about future challenges water providers face.

**Other Water Resource Activities**

**Stored Water Agreement with PGE**
The CRWP continues to implement the Stored Water Agreement with PGE, providing the CRWP the ability to call for water to be release from Timothy Lake at certain times of year for municipal water use.

**Water Resource Related Committees**
The Water Resource Manager continues to represent the CRWP interests on a number of different water resource related committees. These include: the Oregon Water Utilities Council (Vice Chair), the Consortium Emergency Planning Committee, Clackamas County Homeland Security Task Force, UASI Public Works Group, the Clackamas Stewardship Partners, EcoBiz Pollution Prevention Outreach Team, Stormwater Spill Committee, ORAWRA, and the PNWS-AWWS Water Resource Committee.

**Public Outreach & Education Program**
This program provides public outreach, education, as well as conservation services and programs to all CRWP members with the exception of the City of Lake Oswego and Clackamas River Water. The primary focus of the program is on education and outreach efforts to the public regarding source water protection and watershed issues, drinking water treatment and distribution, indoor and outdoor water use as well as water conservation. This allows us to provide a holistic view of how our water resources are connected and why it is important to protect and conserve the water we get from the Clackamas River. There are a number of individual programs or components that provide awareness, information, motivation and action for our customers. The following is a summary of what the public outreach and education program accomplished this year.
Youth Education, Presentations, and Assembly Programs
The youth education program is an integral part of the CRWP outreach and education efforts. The goal of this program is to educate students about the Clackamas River watershed, the process for treating and distributing public drinking water, and water conservation issues so they develop overall awareness and water changing behaviors. The secondary goal is for students to take this information back to their parents.

The CRWP programs are offered at no cost to the schools and range from classroom presentations done by staff, assembly programs performed by contractors, as well as education resources for teachers. A total of 111 classroom presentations and assembly programs were completed between June 1, 2012 and June 30, 2013 to approximately 11,006 students (these numbers do not include the Children’s Clean Water Festival and the CCWET Celebrating Water Event). See Appendix F for a list of all of the schools that were offered the CRWP programs. See Appendix G for a breakout by CRWP member of where these programs were completed.

Mini Water Education Grants for teachers
The youth education program also offers Mini Water Education Grants to teachers. These $250 grants are intended to provide supplemental funding for water related projects to encourage water education in the schools. We processed 8 grants for 14 teachers this past year. See Appendix H for more detailed information.

Water Conservation Calendar
The Water Conservation Calendar is a collaborative project with CRWP grade schools in which local students participate in a coloring contest with a water education theme. Thirteen pictures were chosen from all the entries submitted and were used to create a Water Conservation Calendar. The theme for the 2014 calendar was “How Do You Conserve Your Drinking Water?” Students were encouraged to create pictures depicting what they had learned about water conservation. Fourteen classes from eleven different elementary schools participated in the contest and approximately 500 pictures were submitted.

Each school that had at least one class participate in the contest will receive 200 calendars to give out to family and friends or to use as fundraisers. Additional calendars are available to teachers, families, and the general public upon request, as well as being distributed throughout Clackamas River Water Provider education and outreach.
program members City Halls, Libraries and offices. See Appendix I for a list of which schools participated in the project.

In addition, the 2013 Water Calendar “What Do You Know About H2O?” won the 2013 PNWS AWWA Excellence in Communication Award for a Large Utility, Print Communication.

Treatment Plant Tours
The Public Outreach & Education Program coordinates water treatment plant tours for the general public and CRWP member area schools. Tour participants are matched with tours of the treatment plant that their water comes from. This year seven tours of the North Clackamas County Water Commission and four of South Fork Water Board treatment plants were given to schools from the City of Happy Valley, Oak Lodge Water District, and City of Oregon City area. Many of these tours were also paired with tours of the Tri-City wastewater treatment plant so that students could see the whole part of the human water cycle.

Partnerships
Partnering with other water related agencies and organizations throughout the County is an important way to expand public outreach and education programs by leveraging funding, resources, and marketing opportunities; by collaborating on evaluating the effectiveness of outreach/community programs; and by coordinating information and programs to avoid duplication. The following is a summary of some of the projects CRWP staff is collaborating on with other water resource agencies.

8th Annual Celebrating Water Event
CRWP Public Education & Outreach staff continued to serve as Co-Chair of the Clackamas Water Education Team (CWET) which hosted the 8th Annual Celebrating Water Event. This event held in April of 2013, had 24 exhibitors, two stage show acts, along with the assistance of 25 high school students who helped exhibitors and acted as classroom guides. Eleven 4th/5th grade classes (385 students), 11 teachers and 55 adult chaperones from around Clackamas County participated in the event. This event provides the opportunity to teach kids about our water resources in a hands-on, fun and engaging environment. This year a video was made by Clackamas County featuring the event. To see the video go to http://vimeo.com/channels/ccgc/65680347.
Support of Clackamas Community College & Water Efficient Landscaping
The CRWP continues to support Clackamas Community College Water Efficient Landscaping efforts in a number of ways. This past year the CRWP provided funding for the purchase of Pesticide Application manuals written in Spanish, along with funding to make a number of upgrades to the Water Efficient Garden (originally built through the efforts of South Fork Water Board). In addition, Staff continues to partner with Clackamas Community College on water efficient landscaping courses being offered through the college’s Horticulture program. This includes a one credit course that is a requirement of the Horticulture Landscape Program, and a two hour workshop which is held in the winter. Both focus on how to incorporate water efficiency into standard landscaping business practices. The 2 hour workshop was canceled this year due to low registration numbers.

Community Events
The CRWP conservation staff participated in a total of 20 community events within the CRWP service area providing conservation, source water protection, drinking water information, and promotional items at these events. This gave staff the opportunity to engage in one on one conversation’s about water conservation and watershed issues with our customers. See Appendix J for the list of events.

Adult Presentations
CRWP conservation staff participated in and/or presented at a total of 9 Public Education and water conservation presentations to adult audiences. These presentations gave staff the opportunity to talk to members of our community regarding
where our water comes from, how we treat the river water for public use and why watershed protection and water conservation are so important. The goal of this program is to continue outreach to neighborhood associations, CPO’s, local garden groups, or other civic groups interested in learning about where our water comes from, and how they can conservation water and protect our watershed. See Appendix K for the list of presentations completed.

Newsletters & Websites
CRWP staff continues to send CRWP public education and outreach member agencies articles and information throughout the year for their newsletters and websites. Topics ranged from general conservation, indoor conservation, to outdoor conservation tips watershed and water resource issues, as well as resources that are available through the CRWP such as the rebate program. In addition this year a new electronic CRWP quarterly newsletter was created. See Appendix L.

Conservation Outreach Materials
CRWP staff continues to develop outreach materials and use a number of promotional items with the CRWP logo and contact information on them such as seed cards, shower timers, indoor water audit kits and brochures. These were passed out to citizens at events, member offices and city halls, libraries, through the school programs, and mailed to people upon request. This past year staff added refrigerator magnets with the CRWP logo and contact information to the promotional items. See Appendix M.

Value of Water Brochure
This past year the CRWP created a new brochure “Do You Know the Value of Your Drinking Water?” to assist in further educating our customers about their drinking water. The brochure includes information about why drinking water is so valuable, what it brings to our communities, and what it takes to provide drinking water to a community. The brochure is being distributed to citizens at events, member offices and city halls, libraries, through the school programs, and mailed to people upon request. See Appendix N.

Value of Water Banner
To help support the new Value of Water brochure CRWP created a new event banner. The banner will be used at public events throughout the CRWP service areas. Two banners were created so that one of them is available for CRWP Outreach members to use. See Appendix O.
CRWP Table Clothes
Table clothes with the CRWP logo and members listed were purchased this year which will be used on the tables at all events. See Appendix P.

Vehicle Wrap
In pursuit of greater customer recognition, the CRWP had the CRWP van wrapped. The wrap included a picture of the Clackamas River, with our logo, tag line, members and web address. See Appendix Q.

Water Conservation Rebate Program
The CRWP public outreach and education program completed its 4th year administering the water conservation rebate program. The Rebate Program continues to be very popular with the CRWP customers. The Program offers a range of rebates to ensure that there is applicable to our vast range of customers. They consisted of a $100 rebate for replacing old toilets with new High Efficiency Toilets (HET), and a $50 rebate for hose bib timers and/or irrigation rain switch. As in past years the program was so successful that all of the funds were depleted by December 2012. A total of 109 customers took advantage of the program. See Appendix R.

Conservation Related Committees
CRWP staff continues to attend meeting and represent the CRWP interests on a number of different public outreach and conservation related committees. These include the Regional Water Provider’s Consortium Conservation Committee, the Children’s Clean Water Festival Planning Committee, acting Co-Chair of the Clackamas County Water Education Team (CCWET), a member of the Clackamas Sustainability Cooperative, acting Chair for the PNWS-AWWA Conservation Committee, a member of the PNWS-AWWA Public information Committee.

Staff is also involved with the Lane Community College Water and Environmental Technology Advisory Committee, and the Oregon Landscape Contractors Exam Review Committee which is responsible for reviewing exams that Oregon landscape professionals are required to take.
Appendix A – Drug Drop Box Outreach Brochure

Proper Pharmaceutical Disposal

Why this is important.
Research shows that currently many unwanted or expired household and prescription medications are improperly disposed of. We now know that flushing drugs down toilets or putting them into the garbage both have damaging effects on our environment and can contaminate our surface and groundwater supplies.

Both drinking water and wastewater treatment plants are not specifically designed to treat these kinds of chemicals. In addition, unused or expired prescription medications are also a public safety issue, leading to accidental poisoning, overdose, and abuse. Therefore, properly disposing of unwanted pharmaceuticals and drugs will help us keep our rivers and drinking water clean and our communities safe.

Clackamas County has Drug Take Back Boxes located throughout the county! Using these boxes will protect our environment and make room in your cabinets. See the back to find the location near you.

What is accepted and not accepted in the boxes.

Acceptable items for deposit include:
• Prescription medications and samples
• All over-the-counter medications
• Vitamins
• Pet medications
• Medicated inhalant tubes
• Liquid medication in leak-proof containers

Items not acceptable for deposit:
• Thermometers/Thermometers/Syringes
• Bloody or infectious waste
• Hydrogen peroxide
• Aerosol cans
• Tyres
• Inhalers
• Ephedrine

This project was funded through a grant received by the Clackamas River Watershed Foundation from the US Environmental Protection Agency. The EPA grant program was administered by the Water Resources and Finance Authority.

What you can do.
• Take only the proper amount of medicine needed or prescribed. Excess pharmaceuticals pass through the body and end up in our wastewater where they can be difficult to remove.
• Never flush unused prescription or over the counter medication down the toilet to dispose of them.
• Bring unused or old prescriptions to a Drug Drop Off Bin location near you so that the drugs can be properly disposed of in a safe and environmentally friendly manner.

Clackamas County citizens feed the Pacific Northwest in the Drug Enforcement Agency's take-back events. With permanent drug drop boxes, you will not have to wait for special events. Drop off your unwanted, expired drugs on your own schedule.

Disposing of medications properly

Drop-Off Locations & Hours

- Canby Police Department
  222 NE 3rd Ave, Canby, OR 97013
  Mon-Fri 9am-5pm

- Gladstone Police Department
  509 NW 1st Ave, Gladstone, OR 97027
  Mon-Fri 8am-5pm

- Milwaukie Police Department
  325 SW 5th St, Milwaukie, OR 97267
  Mon-Fri 8am-5pm

- Clackamas County Sheriff Main Office
  403 E 3rd St, Oregon City, OR 97045
  Mon-Fri 8am-5pm

- Molalla Police Department
  774 Everett Ave, Molalla, OR 97038
  Mon-Fri 8am-5pm

- Oregon City Police Department
  765 SE College St, Oregon City, OR 97045
  Mon-Fri 8am-5pm

- Sandy Police Department
  88790 Main St, Sandy, OR 97055
  Mon-Fri 8am-5pm

- West Linn Police Department
  2000 Lemon St, West Linn, OR 97068
  Mon-Fri 8am-5pm

How to properly dispose of unwanted or expired medications
Drug Drop Box Outreach Poster

Where to properly DISPOSE of unwanted or expired medications
(Excludes Holidays unless otherwise noted)

- **Canby Police Department**
  1175 NW 3rd Ave, Canby, OR 97013
  Box Available 24/7

- **Gladstone Police Department**
  535 Portland Ave, Gladstone, OR 97027
  Mon-Fri 8:00-5:00pm

- **Milwaukie Police Department**
  3200 SE Harrison, Milwaukie, OR 97222
  Mon-Fri 8:00-5:00pm

- **Clackamas County Sheriff Main Office**
  9101 SE Sunnybrook Blvd, Clackamas, OR 97015
  Mon-Fri 7:00-6:00pm
  Weekends/Holidays 7:00-5:00pm

- **Molalla Police Department**
  117 N Molalla Ave, Molalla, OR 97038
  Mon-Fri 8:30-1:30pm & 2:00-6:00pm

- **Oregon City Police Department**
  320 Warner Mine Road, Oregon City, OR 97045
  Mon-Fri 8:00-5:00pm

- **Sandy Police Department**
  39850 Pleasant Street, Sandy, OR 97055
  Mon-Fri 8:00-1:00pm & 2:00-6:00pm

- **West Linn Police Department**
  22825 Willamette Drive, West Linn, OR 97068
  Mon-Fri 8:00-5:00pm

- **Wilsonville Police Department**
  30000 SW Town Center Lp E, Wilsonville, OR 97070
  Mon-Fri 8:00-4:00pm

Help us keep our water clean by reducing pharmaceuticals entering the sewer systems and waterways, and reduce the opportunity for misuse of prescription drugs. With the permanent drop boxes, you can dispose of unwanted drugs and medications at anytime.

**Acceptable items for deposit include:**
- Prescription medications and samples
- All over-the-counter medications
- Vitamins
- Pet medications
- Medicated ointments
- Liquid medication in leak proof containers

**Items not acceptable for deposit:**
- Thermometers/Sharps/Syringes
- Bloody or infectious waste
- Hydrogen peroxide
- Aerosol cans
- IV bags
- Inhalers
- EpiPens

This project was funded through a grant received by the Clackamas River Water Providers from the US Environmental Protection Agency through the Oregon Safe Drinking Water Program administered by the Infrastructure Finance Authority.
Drug Drop Off Banner
Appendix B - Septic System Workshop Postcard

Get the Poop on Septic Systems
Check it, Fix it, Maintain it!

Tuesday, April 9, 2013
6:00 p.m. to 8:00 p.m.
New Seasons Community Room
15861 SE Happy Valley Town Center Dr., Happy Valley OR.

- FREE Workshop includes nitrate screening of well water.
- Clackamas Watershed attendees are eligible for $100 Septic System Inspection and Pump Out Rebate.
- Class size is limited, so registration is required.

The two hour workshop will cover topics such as: how septic systems work, operation and maintenance, signs of failure, codes and permits, and how to get technical assistance.

To register, contact Rhoda at Clackamas County Soil and Water Conservation District before April 4th at (503) 210-6008 or rgivens@conservationdistrict.org.

Save time and money by maintaining what you have!

Can’t make it? Watch for an October workshop offered in Estacada.

Sponsored by: Clackamas River Water Providers, Clackamas County Soil and Water Conservation District, Clackamas County, and Oregon DEQ through funding provided by Oregon Business Development Department drinking water protection grant.
Septic Smart Homeowners Guide

Do your Part — Be SepticSmart!

A Clackamas County Homeowner’s Guide to Septic Systems

Based on: EPA septicsmart

Sponsored by:

[Logos of various sponsors]
Septic System Maintenance Brochure

Do's:
- Locate the location of your septic system, drainfield and reverse area, and keep a sketch of it with the maintenance records.
- Have your septic tank inspected by a licensed maintenance provider.
- Keep your septic tank cover accessible for inspections and pumping as needed.
- Keep detailed records of repairs, pumping, inspections, permits, and other maintenance activities.
- Conserve water to avoid overloading the system; stagger wash load days and repair any leaks.
- Avoid other sources of water and drain lines, septic field pipes, sump pumps, and signs.
- Contact a professional when you experience problems with your system.
- Obtain a permit from Clackamas NWS for all repairs and alterations.
- Use household drainers in moderation and follow directions on labels.

Don'ts:
- Enter a septic tank with gas produced in the tank that can be deadly within minutes.
- Drive, park, or do any activity that will compact the soil around the system.
- Plant anything near the drainfield except grass. Water can damage the drain lines, and there may shade the drainfield. Trees in irrigation or near the system may cause damage.
- Dig into the drainfield or enter with any hard surface or building.
- Repair your system without a required permit from Clackamas Water Environmental Services.
- Use a garbage disposal, compost food waste instead.
- Use septic tank additives.
- Use your system as a drain for grease, food, coffee grounds, cigarette butts, diapers, sanitary napkins, tampons, condoms, paper towels, plastics, or litter. (extra paper, periodicals, any household chemicals, or other non-biodegradable substance).

Onsite Wastewater Treatment Systems
Onsite wastewater treatment systems (also known as septic systems) are the most common wastewater treatment systems in rural, uninsured areas of Clackamas County. Septic systems require routine maintenance to keep them functioning properly.

How Septic Systems Work...
A typical septic system contains two major components, a septic tank, and a soil drainfield. Here is how they work:

The septic tank:
- Removes solids, protecting the soil drainfield from clogging and reducing in-potential failure of the onsite system.
- Digests a portion of the solids and stores the remaining portion, up to 50% of the solids that remain in the tank decompose. The remaining 50% accumulate in the bottom of the tank (known as sludge). When the level of sludge exceeds the tank’s holding capacity, the sewage has less time to settle before leaving the tank. Even then, the sludge leaves a “wet” allowing solids to enter the drainfield, causing damage to the field and the need for extensive repair.

The soil drainfield:
- Is located underground in an unsaturated soil area on your property.
- Further treats the effluent through physical, chemical, and biological processes. The field consists of a series of sand and gravel, perforated pipes installed in a stone-deep layer of washed gravel, synthetic media bundles, or a series of plastic chambers.

How Septic Systems Work...continued
- Here is the drainfield, the effluent is distributed, stored, and ultimately applied to the soil for treatment. After filtering through the soil, it is effective and enters the groundwater table.

Operation and Maintenance
Owners of onsite systems must operate and maintain their systems in compliance with all permit and compliance agreements. It is the responsibility of all owners to maintain their systems and to have regular inspections performed.

Recommended Frequency of Inspection

<table>
<thead>
<tr>
<th>TYPE OF SYSTEM</th>
<th>RECOMMENDED FREQUENCY OF INSPECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Septic System with Gravity Distribution</td>
<td>EVERY 3 YEARS</td>
</tr>
<tr>
<td>Septic System with a Pump and Gravity Distribution</td>
<td>EVERY 3 YEARS*</td>
</tr>
<tr>
<td>Effluent filter should be checked every 1-2 years and cleaned as necessary</td>
<td></td>
</tr>
<tr>
<td>Septic System with Pressure Distribution, Including Sand Filters, gravel Filters, and Pressure Racks</td>
<td>ANNUALLY</td>
</tr>
<tr>
<td>Septic Systems using Alternative Treatment Technologies</td>
<td>ALL REQUIRE ANNUAL OR Semi-ANNUAL INSPECTIONS</td>
</tr>
</tbody>
</table>

During the inspection, the licensed maintenance provider will determine if all components of the septic system are properly working, in good working order, including pipes, filters, pressure lines, drainfield, etc. The licensed maintenance provider will verify the need for septic tank pumping. This will be determined by measuring the depth of sludge and scum in the tank.

It is time to pump when:
- The total depth of sludge plus the scum is more than one-third of the total volume of the tank. For example, if the total length of the measuring tool is 60 inches, the tank should be pumped if the dark sludge portion plus the scum portion is over 20 inches.

Why should I maintain my system? Cost of failing sewage systems are expensive to repair or replace. It typically costs between $2,000 to $10,000 or more to repair or replace a failing system with a new, onsite wastewater treatment system.

Do’s and Don’ts of Septic Systems
The performance and life span of your septic system is directly dependent on how the system is operated and maintained. With proper care, a typical system should operate reliably trouble-free for between twenty and thirty years or more. The following do’s and don’ts are vital to the long-term, efficient performance of your onsite wastewater treatment system.
Appendix C - Pesticide Round Up Event Flyer

Agricultural Waste Pesticide and Empty Container Collection Event!

Free Collection Event
Saturday June 1, 2013
8:00 a.m. to Noon
Clackamas, OR

Directions from I-205:
Take exit 12A (south bound) or exit 12 (north bound) merge onto OR 212 E/SE 2nd St/Carver Rd toward Clackamas. Turn right at SE 130th Ave. Cross SE Jennifer St. The Safety Klen building will be on your left.
16400 SE 130th Ave., Clackamas, OR

Sponsored by
Clackamas Soil and Water Conservation District
East Multnomah Soil and Water Conservation District
Clackamas River Water Providers
Oregon Department of Environmental Quality

Do you need to dispose of old pesticides?

- Take advantage of this opportunity to safely and anonymously dispose of old and unneeded pesticides.
- This collection event is for waste agricultural pesticides, focusing on Clackamas and Eastern Multnomah Counties.
- You must pre-register with the disposal service so they are prepared to receive your chemicals. The event is first-come, first-served. Complete and send application by mail, fax or e-mail to Clean Harbors Environmental by May 24, 2015. After that date, call Clean Harbors for any open reservations.

***To Download Application/Registration Forms:***
www.cleanharborsenvironmental.org
or call Clean Harbors Environmental 503-305-2159

Submit Registration Forms to:
Clean Harbors Environmental Services
21402 SE Jennifer St, Clackamas OR 97015
E-mail: Large.3haree@cleanharbors.com FAX (503) 786-7977

For Questions and Technical Assistance contact:
Tom Stiborak at OSU Extension - confidential answers to questions or will assess whether degraded chemical stores can be safely transported.
Call (503) 373-3756. Email tom.stiborak@oregonstate.edu

Sharon Laake of Clean Harbors Environmental can answer questions about pre-registration and disposal.
Call Sharon Laake at (503) 305-2159

If you need to check the status of a pesticide
Call Oregon Department of Agriculture at 503-966-4636
Email: pesticides@state.or.us
Questions on plastic container recycling contact Agri-Plas Inc.
at 503-570-2281 or info@agriplasinc.com

Do you have empty pesticide containers to recycle?

- You can recycle clean, intact and residue-free, triple rinsed plastic containers. For triple rinse procedures see the Container Recycling Council (CRC) web site:
http://www.containerrecycle.org. (Click on container rinsing)
- All size containers up to 56-gallons capacity plastic drums can be accepted. Containers need to be made from high density polyethylene (HDPE) and embossed with recycling symbol #2.
- No pre-registration is needed for dropping off empty, triple-rinsed pesticide containers. There is no service charge for this service.

Working together to keep our rivers blue and our farms green!

Despite everyone’s best efforts at responsibly using pesticides, these chemicals continue to be found in area rivers and their tributaries. For example, studies done on the Clackamas River by the United States Geological Survey (USGS) in 2000 and 2005 revealed that 97% of their samples had 2 or more types of pesticides present. The majority of the pesticides detected in our waterways are applied for multiple uses including agriculture (Christmas tree, horticulture and nursery crops), right-of-ways, golf courses, forestland, and urban applications.

Although the current levels of most pesticides found in local rivers are far below dangerous thresholds, their presence is a warning sign. By bringing your old and unused pesticides to this collection event for proper disposal, you will ensure they won’t get into our waterways! Help protect our drinking water sources and wildlife habitat.

Those who rely on our local rivers for drinking water, recreation and habitat thank you!
Appendix D – Down the River Clean Up

We Love Clean Rivers™ and Clackamas River Basin Council present the 10th Annual Down The River Clean Up

Float and Fill the Boat! All non-motorized waterscrafts invited

Sunday, September 9th @ 9 AM
Meet at Barton Park on the Clackamas River

Event Raft Space
Free BBQ
Libations
Silent Auction
Live Music by TapWater

On-land volunteer positions
Games + Prizes
Booths
Family Friendly

All participants must pre-register online – www.WeLoveCleanRivers.org

Special Thanks to:

[List of sponsors]

Appendix E – Stash the Trash Bag
Appendix F – CRWP Schools

There are 41 schools in the Clackamas River Water Providers combined service area that were offered CRWP youth education programs. Below is a list of these schools.

<table>
<thead>
<tr>
<th>City of Estacada Schools</th>
<th>South Fork - West Linn Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Clackamas River Elementary</td>
<td>• Bolton Primary</td>
</tr>
<tr>
<td>• Estacada Jr. High School</td>
<td>• Cedaroak Park Primary</td>
</tr>
<tr>
<td>• Estacada High School</td>
<td>• Sunset Primary</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>City of Gladstone Schools</td>
<td>• Willamette Primary</td>
</tr>
<tr>
<td>• John Wetten Elementary</td>
<td>• Rosemount Ridge Middle School</td>
</tr>
<tr>
<td>• Kraxberger Middle School</td>
<td>• West Linn High School</td>
</tr>
<tr>
<td>• Gladstone High school</td>
<td>• 3 River Charter School</td>
</tr>
<tr>
<td>Oak Lodge Water District Schools</td>
<td></td>
</tr>
<tr>
<td>• Concord Elementary</td>
<td></td>
</tr>
<tr>
<td>• Candy Lane Elementary</td>
<td></td>
</tr>
<tr>
<td>• Jennings Lodge Elementary</td>
<td></td>
</tr>
<tr>
<td>• Oak Grove Elementary</td>
<td></td>
</tr>
<tr>
<td>• Riverside Elementary</td>
<td></td>
</tr>
<tr>
<td>• View Acres Elementary</td>
<td></td>
</tr>
<tr>
<td>• Rex Putnam High School</td>
<td></td>
</tr>
<tr>
<td>South Fork - Oregon City Schools</td>
<td></td>
</tr>
<tr>
<td>• Gaffney Lane Elementary</td>
<td></td>
</tr>
<tr>
<td>• Holcomb Elementary</td>
<td></td>
</tr>
<tr>
<td>• John McLoughlin Elementary</td>
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</tr>
<tr>
<td>• Gardiner Middle School</td>
<td></td>
</tr>
<tr>
<td>• Ogden Middle School</td>
<td></td>
</tr>
<tr>
<td>• Oregon City High School</td>
<td></td>
</tr>
<tr>
<td>• Spring Water Environmental Sciences School</td>
<td></td>
</tr>
<tr>
<td>• Alliance Charter Academy</td>
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<tr>
<td>Sunrise Water Authority Schools</td>
<td></td>
</tr>
<tr>
<td>• Deep Creek Elementary</td>
<td></td>
</tr>
<tr>
<td>• Happy Valley Elementary</td>
<td></td>
</tr>
<tr>
<td>• Mt. Scott Elementary</td>
<td></td>
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<tr>
<td>• Oregon Trail Elementary</td>
<td></td>
</tr>
<tr>
<td>• Spring Mountain Elementary</td>
<td></td>
</tr>
<tr>
<td>• Sunnyside Elementary</td>
<td></td>
</tr>
<tr>
<td>• Verne Duncan Elementary</td>
<td></td>
</tr>
<tr>
<td>• Scouters Mountain Middle School</td>
<td></td>
</tr>
<tr>
<td>• Rock Creek Middle School</td>
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<tr>
<td>• Damascus Middle School</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix G –

Youth Education Program & Presentations

A total of 111 classroom presentations and assembly programs were completed between June 1, 2012 and June 30, 2013 totaling 11,006 students. Below is a breakdown of where these programs and presentations were completed. This number does not include the number of children reached through the Children’s Clean Water Festival and the CCWET Celebrating Water Event; these events are listed at the bottom of the page with number of children reached.

City of Estacada
Total # presentation = 11

City of Gladstone
Total # presentation = 14

Oak Lodge Water District
Total # presentations = 12

South Fork Water
Total # presentations = 37
Oregon City
Total # presentations = 9
West Linn

Sunrise Water Authority
Total # presentations = 28

Children’s Clean Water Festival
52 classes
22 Schools
32 presentations
13 exhibitors
4 stage shows
Total # of students = 1426

Clackamas County Water Education Team Celebrating Water Event
11 classes
55 Adult chaperones
25 high school volunteers
24 exhibitors
2 stage shows
Total # of students = 385
### Youth Education Presentation Tracking

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Program</th>
<th># of Students</th>
<th>District/Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/25/2012</td>
<td>Clackamas River Elem.</td>
<td>Mad Science</td>
<td>90</td>
<td>Estacada</td>
</tr>
<tr>
<td>10/2/2012</td>
<td>Concord Elem.</td>
<td>Will Hornyak (2 shows)</td>
<td>375</td>
<td>Oak Lodge</td>
</tr>
<tr>
<td>10/5/2012</td>
<td>Clackamas River Elem.</td>
<td>Will Hornyak (2 Shows)</td>
<td>530</td>
<td>Estacada</td>
</tr>
<tr>
<td>10/17/2012</td>
<td>Clackamas River Elem.</td>
<td>Water cycle Play (3 presentations)</td>
<td>90</td>
<td>Estacada</td>
</tr>
<tr>
<td>10/17/2012</td>
<td>Clackamas River Elem.</td>
<td>Raven Story (3 Presentations)</td>
<td>90</td>
<td>Estacada</td>
</tr>
<tr>
<td>10/25/2012</td>
<td>River side Elem.</td>
<td>Will Hornyak (2 Shows)</td>
<td>350</td>
<td>Estacada</td>
</tr>
<tr>
<td>10/25/2012</td>
<td>Oregon Trail Elem.</td>
<td>Watershed Model (2 presentations)</td>
<td>75</td>
<td>Sunrise</td>
</tr>
<tr>
<td>10/30/2012</td>
<td>Spring Mt. Elem.</td>
<td>“Where’s Rosie?” (2 shows)</td>
<td>134</td>
<td>Sunrise</td>
</tr>
<tr>
<td>11/2/2012</td>
<td>Candy Ln Elem.</td>
<td>Will Hornyak</td>
<td>250</td>
<td>Oak Lodge</td>
</tr>
<tr>
<td>11/2/2012</td>
<td>Gardiner Midd.</td>
<td>Watershed Model (8 presentations)</td>
<td>280</td>
<td>SF Oregon City</td>
</tr>
<tr>
<td>11/6/2012</td>
<td>John McLoughlin Elem.</td>
<td>Will Hornyak (2 Shows)</td>
<td>280</td>
<td>SF Oregon City</td>
</tr>
<tr>
<td>11/7/2012</td>
<td>Oregon Trail</td>
<td>Rain Stick (2 presentations)</td>
<td>75</td>
<td>Sunrise</td>
</tr>
<tr>
<td>11/8/2012</td>
<td>Jennings Lodge Elem.</td>
<td>Will Hornyak (2 Shows)</td>
<td>300</td>
<td>Oak Lodge</td>
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<tr>
<td>11/26/2012</td>
<td>Gardiner Midd.</td>
<td>Drinking/waste water Model (8 presentations)</td>
<td>280</td>
<td>SF Oregon City</td>
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<tr>
<td>11/28/2012</td>
<td>Oregon Trail</td>
<td>Salmon Game (2 presentations)</td>
<td>75</td>
<td>Sunrise</td>
</tr>
<tr>
<td>11/29/2012</td>
<td>Concord Elem.</td>
<td>Mad Science</td>
<td>180</td>
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<tr>
<td>12/3/2012</td>
<td>Gardiner Midd.</td>
<td>Salmon Game (8 presentations)</td>
<td>280</td>
<td>SF Oregon City</td>
</tr>
<tr>
<td>12/13/2012</td>
<td>John McLoughlin Elem.</td>
<td>Incredible Journey (3 presentations)</td>
<td>105</td>
<td>SF Oregon City</td>
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<tr>
<td>12/17/2012</td>
<td>Mt. Scott Elem.</td>
<td>Recycleman</td>
<td>500</td>
<td>Sunrise</td>
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<tr>
<td>1/15/2013</td>
<td>Kraxberger</td>
<td>Source to Tap (4 presentations)</td>
<td>160</td>
<td>Gladstone</td>
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<tr>
<td>1/17/2013</td>
<td>John McLoughlin Elem.</td>
<td>Source to Tap (3 presentations)</td>
<td>105</td>
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<td>1/29/2013</td>
<td>Kraxberger</td>
<td>Taste-imony to Tap Water (4 presentations)</td>
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<tr>
<td>2/1/2013</td>
<td>Oak Grove Elem.</td>
<td>Will Hornyak (2 shows)</td>
<td>410</td>
<td>Oak Lodge</td>
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<tr>
<td>Date</td>
<td>Location</td>
<td>Event Description</td>
<td>Location</td>
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<td>------------</td>
<td>-------------------</td>
<td>--------------------------------------------------------</td>
<td>----------------</td>
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<tr>
<td>2/5/2013</td>
<td>Oregon Trail</td>
<td>“Where’s Rosie?”</td>
<td>Sunrise</td>
<td></td>
</tr>
<tr>
<td>2/6/2013</td>
<td>Kraxberger</td>
<td>Mad Science (2 shows)</td>
<td>Gladstone</td>
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<tr>
<td>2/12/2013</td>
<td>Cedar Oak Prim.</td>
<td>“Where’s Rosie?”</td>
<td>SF West Linn</td>
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<tr>
<td>2/20/2013</td>
<td>Spring Mt. Elem.</td>
<td>Incredible Journey (3 presentations)</td>
<td>Sunrise</td>
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<tr>
<td>2/21/2013</td>
<td>John Wetten Elem.</td>
<td>Mad Science</td>
<td>Gladstone</td>
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<tr>
<td>3/7/2013</td>
<td>John McLoughlin Elem.</td>
<td>Water Cycle Play (2 presentations)</td>
<td>SF Oregon City</td>
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<tr>
<td>3/19/2013</td>
<td>View Acres Elem.</td>
<td>Will Hornyak (2 shows)</td>
<td>Oak Lodge</td>
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<tr>
<td>3/21/2013</td>
<td>John Wetten Elem.</td>
<td>Mad Science</td>
<td>Gladstone</td>
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<td>4/4/2013</td>
<td>Spring Mt. Elem.</td>
<td>Will Hornyak (2 shows)</td>
<td>Sunrise</td>
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<tr>
<td>4/10/2013</td>
<td>Willamette Prim.</td>
<td>Will Hornyak (1 show)</td>
<td>SF West Linn</td>
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<td>4/16/2013</td>
<td>Trillium Creek Elem.</td>
<td>“Where’s Rosie?”</td>
<td>SF West Linn</td>
<td></td>
</tr>
<tr>
<td>4/17/2013</td>
<td>Oregon Trail Elem.</td>
<td>Watershed Model</td>
<td>Sunrise</td>
<td></td>
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<tr>
<td>4/17/2013</td>
<td>Oregon Trail Elem.</td>
<td>Build Own Watershed</td>
<td>Sunrise</td>
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<tr>
<td>4/22/2013</td>
<td>Vern Duncan Elem.</td>
<td>Drinking/waste Water Model (8 presentations)</td>
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<td>4/29/2013</td>
<td>Riverside Elem.</td>
<td>Mad Science</td>
<td>Oak Lodge</td>
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<tr>
<td>5/13/2013</td>
<td>Rosemont Midd.</td>
<td>Water Talk (3 presentations)</td>
<td>SF West Linn</td>
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<td>5/13/2013</td>
<td>Rosemont Midd.</td>
<td>Water Talk</td>
<td>SF West Linn</td>
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<tr>
<td>5/14/2013</td>
<td>Spring Water</td>
<td>Mad Science (RWPC)</td>
<td>SF Oregon City</td>
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<tr>
<td>5/15/2013</td>
<td>Spring Water</td>
<td>Watershed Model</td>
<td>SF Oregon City</td>
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<td>5/24/2013</td>
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<td>Mad Science</td>
<td>SF West Linn</td>
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<td>5/29/2013</td>
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<td>Recycleman</td>
<td>Sunrise</td>
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</tr>
<tr>
<td>6/11/2013</td>
<td>Vern Duncan Elem.</td>
<td>Rainstick</td>
<td>Sunrise</td>
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<td>5/16/2013</td>
<td>Spring Water</td>
<td>Water/Waste water Model</td>
<td>SF Oregon City</td>
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<tr>
<td>6/20/2013</td>
<td>Gladstone Library</td>
<td>Mad Science</td>
<td>Gladstone</td>
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<td>7/9/2013</td>
<td>Oak Grove Summer Program</td>
<td>Mad Science</td>
<td>Oak Lodge</td>
<td></td>
</tr>
</tbody>
</table>
Appendix H - Mini Water Education Grants

Grants were issued to the following schools.

**South Fork:**
Willamette Primary, West Linn – (3) 4th/5th Teachers
Bolton Primary, West Linn - 3rd grade
Bolton Primary, West Linn – 3rd grade
Gardiner Middle School, Oregon City – 6th grade

**Oak Lodge Water District:**
Rex Putnam High School
Concord Elementary – (2) 4th Grade Teachers
Candy Lane – (3) 4th grade Teachers

**Sunrise Water Authority:**
Spring Mountain Elementary (2) 5th Grade Teachers
Appendix I – Water Conservation Calendar

11 schools and 14 classes participated in the 2014 Water Conservation Calendar coloring contest. A total of 500 pictures were submitted. The following is a breakdown of which CRWP members schools participated in the calendar project.

**South Fork Water Board**
Holcomb Elementary (Oregon City)
John Mcloughlin Elementary (Oregon City)

**Sunrise Water Authority**
Spring Mountain (Happy Valley)
Sunnyside Elementary (Happy Valley)
Happy Valley Elementary (Happy Valley)
Oregon Trail Elementary (Happy Valley)
Scouters Mountain (Happy Valley)
Vern Duncan Elementary (Happy Valley)
Deep Creek Elementary (Damascus)

**Oak Lodge Water District**
View Acres Elementary
Concord Elementary
Appendix J – Community Events

CRWP staff participated in 20 Community Events throughout CRWP service areas between July 1, 2012 and June 30, 2013.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/4/2012</td>
<td>Happy Valley 4th of July Event</td>
<td>CRWP</td>
</tr>
<tr>
<td>7/14/2012</td>
<td>Al’s Garden Center in Gresham</td>
<td>RWPC</td>
</tr>
<tr>
<td>7/12/2012</td>
<td>West Linn Old Time Fair</td>
<td>CRWP</td>
</tr>
<tr>
<td>7/25/2012</td>
<td>West Linn Farmers Market</td>
<td>CRWP</td>
</tr>
<tr>
<td>7/28/2012</td>
<td>Damascus Days</td>
<td>CRWP</td>
</tr>
<tr>
<td>8/2/2012</td>
<td>Damascus Farmers Market</td>
<td>CRWP</td>
</tr>
<tr>
<td>8/4/2012</td>
<td>Gladstone Festival</td>
<td>CRWP</td>
</tr>
<tr>
<td>8/14-19/2012</td>
<td>Clackamas County Fair</td>
<td>CRWP</td>
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<tr>
<td>8/25/2012</td>
<td>Estacada Farmers Market</td>
<td>CRWP</td>
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<tr>
<td>9/9/2012</td>
<td>CRBC Down the River Clean Up</td>
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<tr>
<td>9/18/2012</td>
<td>Clackamas Count Soil and Water Conservation District Dinner</td>
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<tr>
<td>9/22/2012</td>
<td>CRWP Watershed Tour</td>
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<tr>
<td>9/27/2012</td>
<td>Community Association Institute “Greening your Association”</td>
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<tr>
<td>9/29/2012</td>
<td>CRBC Shade Your Stream Event</td>
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<tr>
<td>10/27/2012</td>
<td>Oak Lodge Sanitary Water Shed Event</td>
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<tr>
<td>2/9/2013</td>
<td>Yard Garden and Patio Show, Regional Water Providers booth</td>
<td>RWPC</td>
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<tr>
<td>3/23/2013</td>
<td>Exhibitor at the Annual Tree School, Clackamas Community College</td>
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<tr>
<td>4/9/2013</td>
<td>Clackamas Water Education Team, Water Festival</td>
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<td>5/4/2013</td>
<td>Oregon City Pioneer Family Festival</td>
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<tr>
<td>6/30/2013</td>
<td>CRBC Tour the Clackamas</td>
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</tbody>
</table>
Appendix K – Adult Presentations

CRWP staff participated in and/or presented at, 9 adult presentations between July 1, 2012 and June 30, 2013.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tr>
<td>7/23/2012</td>
<td>AIT Environmental Science class</td>
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<td>7/26/2012</td>
<td>AIT Environmental Science class</td>
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<td>10/15/2012</td>
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<td>10/18/2012</td>
<td>AIT Environmental Science class</td>
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<tr>
<td>11/8/2012</td>
<td>South Fork Water Board</td>
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<td>1/28/2013</td>
<td>AIT Environmental Science class</td>
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<tr>
<td>1/29/2013</td>
<td>AIT Environmental Science class</td>
<td>CRWP</td>
</tr>
<tr>
<td>4/18/2013</td>
<td>AIT Environmental Science class</td>
<td>CRWP</td>
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<tr>
<td>4/23/2013</td>
<td>Clackamas Community College Water and Environmental Technology class</td>
<td>CRWP</td>
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</tbody>
</table>
Appendix L – E Newsletter

Conservation Even When it is Raining...

Yes, summer is finally gone and the rains are back. So you might thinking, we don’t need to worry about water conservation right?

Well, using water wisely all year round is an important part of our long term strategy to ensure that we have enough water to meet future water needs while helping to reduce the cost of developing new supplies.

Here are five easy things you can do at home:

1) Check faucets and pipes for leaks. Even the smallest drip from a worn washer can waste 20 or more gallons a day. Larger leaks can waste hundreds.

2) Check your toilet for leaks. Put a little food coloring in your toilet tank. If, without flushing, the color begins to appear in the bowl, you have a leak that should be repaired immediately.

3) Take shorter showers. You can save from 12 to 25 gallons of water by taking a five-minute shower rather than a ten-minute shower.

4) Turn off the water while brushing your teeth. Just wet your brush and fill a glass for mouth rinsing.

5) Install water-saving shower heads or flow restrictors.

To make conserving water even easier the Clackamas River Water Providers have free indoor and outdoor Water Conservation information, booklets, calendars and tools.

To learn more, visit the Clackamas River Water Providers website at http://www.clackamaspipeline.org or contact the Water Conservation Program Coordinator at christine@clackamaspipeline.org or (503) 723-3511.

2013 Conservation Calendars are Available!

Each year the Clackamas River Water Providers holds a coloring contest with local elementary schools in our service area to create our annual Water Conservation Calendar. This year we had 18 classes at 12 different schools participate in the contest with close to 540 entries for our 2013 Calendar.

Thirteen pictures were chosen from all the entries submitted and were used to create the calendar. Students were encouraged to create pictures depicting what they had learned about water. The theme for the 2013 calendar was "What Do You Know About H2O?"
Appendix M – CRWP Refrigerator Magnets
Appendix N – Value of Water Brochure

How often do you think about your tap water?

Probably not often. Out of sight out of mind, service on demand, 24/7/365 days per year and it’s as easy as turning on your tap. But did you know that this service is as risk?

Much of today’s public water systems were built more than 50 years ago and little has been done to rebuild or replace these pipes, pumps, and reservoirs that ensure water safely reaches your tap.

We now face a large problem of figuring out how to pay for these systems before they fail. Therefore, our choice is to either adopt strategies to renew our water infrastructure, or accept the end of over time of reliable water service.

In Clackamas County water remains relatively inexpensive, delivered to you all under a penny per gallon. The future of water requires us to think smart, use water wisely, move towards rate structures and financing plans that reflect the full cost of public water service, and recognize the limits of this valuable resource.

The Value of Public Drinking Water

We are all beneficiaries of this magnificent network of treatment plants, pump stations, pipes and water reservoirs that were handed down to us by generations before. Year to year deference of utility infrastructure renewal is the major financial challenge facing our water utilities.

Protecting Public Health

The first obligation of the Clackamas River Water Providers members is to provide water that is safe for consumption. In a world where 2 billion people die each year from preventable waterborne diseases, our water systems allow you to drink from any public tap with a high assurance of safety.

A safe water supply is critical to protecting our public health.

Our community water supplies are tested every day. Tap water undergoes more frequent testing than bottled water.

Clackamas River Water Providers monitors member for more than 100 contaminants and must meet strict federal regulations for water safety and quality.

The water standards that we must meet are among the world’s most stringent.

Without our modern water systems, diseases such as cholera and dysentery would be part of everyday life.

Supporting Our Economy

A safe, reliable water supply is critical to the economic success of our community.

Public drinking water is critical to the day-to-day operations of businesses in Clackamas County, and to the stability of our commercial enterprises or residential developments.

Businesses take into consideration the availability and quality of water when determining where to locate their offices or manufacturing facilities.

A scarcity of water resources can hold up development – commercial or residential – placing a strain on our communities.

Quality of Life

Here in Clackamas County tap water is more than a convenience. It is central to our daily lives. It is used in making decisions about where to live and where to work and where to raise our families. It is a measure of a successful society and is in some way related to the success of clean water. Otherwise...

How would we brush our teeth, drink or wash our hands?

How would we wash our produce, dishes, clothes, water plants and landscapes, or wash our cars?

Fire Protection

Well maintained water systems are critical in protecting our communities from the threat of fire.

In our communities, water flowing to the hydrants and home basins connects the same system of water mains, pumps and storage tanks.

A water system that provides reliable water at high pressures and volumes can be the difference between a manageable fire and an all out disaster.

Firefighters are the primary users of the hydrants, but your public water provider is responsible for maintaining the hydrants. Hydrant maintenance is supported by the money generated through your meter bills.

Public drinking water will always be a tremendous value. You simply cannot put a price on a service that delivers public health, quality of life, fire protection, and economic development.
Appendix O – Value of Water Banner

Much of today's public water systems were built more than 50 years ago and little has been done to rebuild or replace these pipes, pumps, and reservoirs that ensure water safely reaches your tap. We now face a large problem of figuring out how to pay to fix these systems before they fail. Therefore, our choice is to either adopt strategies to renew our water infrastructure, or accept the erosion of over time of reliable water service.

In Clackamas County water remains relatively inexpensive, delivered to you at a penny per gallon. The future of water requires us to think smart, use water wisely, move towards rate structures and financing plans that reflect the full cost of public water service, and recognize the limits of this valuable resource.

You simply cannot put a price on a service that delivers:
- **Public Health** 3 million people die each year from preventable water borne diseases. Our water systems allow you to drink from any tap with a high assurance of safety.
- **Quality of Life** Tap water is more than a convenience, it is central to our everyday lives. How would we brush our teeth, shower or flush our toilets?
- **Fire Protection** Well maintained water systems are critical in protecting our communities from the threat of fire. Water flowing to fire hydrants and home faucets comes from the same system.
- **Economy Development** A safe, reliable water supply is central to the economic success of our communities.

When you consider the critical needs addressed by our water systems, public drinking water will always be a tremendous value.
Appendix P – CRWP Tablecloths
Appendix Q – CRWP Vehicle Wrap
Appendix R – Water Conservation Rebate Program

The CRWP water conservation rebate program consists of two rebates. One for up to $100 rebate for replacing old toilets with new HET toilets, two, up to a $50 rebate for hose bib timers and/or rain sensors. 109 CRWP customers participated in the program.

City of Estacada
Total rebates = 2

City of Gladstone
Total rebates = 7

Oak Lodge Water District
Total rebates = 17

South Fork Water
Oregon City = 11
West Linn = 21

Sunrise Water Authority
Damascus = 4
Happy Valley = 47