



*Working together to protect and conserve our drinking water.*



# Annual Report

*For Fiscal Year 2016-17*



August 2017

# Annual Report

*For Fiscal Year 2016-17*

## *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 Lake Oswego, City of Tigard, Clackamas River Water, the North Clackamas County Water Commission (Oak Lodge Water Services, City of Gladstone), South Fork Water Board (City of Oregon City, City of West Linn), and Sunrise Water Authority (City of Happy Valley, Damascus area). It 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 Website

---

The Clackamas River Water Providers website continues to be updated on a regular basis. The site 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. The Resources and Documents page contains CRWP outreach material, plans, and reports that can be downloaded. Go to [www.clackamasproviders.org](http://www.clackamasproviders.org) to visit the site.

# CRWP Website Homepage



Working together to protect and conserve our drinking water.

- [Home](#)
- [About](#)
- [Watershed Protection](#)
- [Water Conservation](#)
- [News and Resources](#)
- [Contact](#)



### Get a FREE Landscape Water Audit

NEW this summer season participating Clackamas River Water Providers members are offering FREE landscape water audits.

### Help Save Water and Money!

Saving water and saving money is what a landscape water audit is all about. Our landscape Auditor will assess your lawn and garden areas, irrigation system and more. When the audit is complete you will receive a detailed report with recommendations.

Not all CRWP members are eligible, view our [brochure](#) for more information and customer eligibility. You may contact Christine at [christine@clackamasproviders.org](mailto:christine@clackamasproviders.org) or call 503 723 3511 for more information.

### New [The 2016 CRWP Drinking Water Customer Survey – On Source Water Protection](#)



### Water Conservation

Except for the air we breath, water is the single most important element of our lives. It is too precious to waste. Regardless of the availability of water now and in the future, we must get the most for our [current supply](#)



### Our Programs

The Clackamas River Water Providers are implementing a [variety of programs](#) to protect and conserve our water resources. These include water conservation programs, watershed programs, and water quality programs.



### Watershed Protection

Sustaining a precious resource a top priority. By preserving the Clackamas River as a high quality drinking water source we can help minimize future drinking water treatment costs, while being good stewards of the river.

- [Newsletter Signup](#)
- [Newsletter](#)
- [Annual Report](#)
- [How Water Systems Work](#)
- [Interactive Map](#)

- [Home](#)
- [About Us](#)
- [Watershed Protection](#)
- [Water Conservation](#)
- [CRWP News](#)
- [Contact Us](#)

© ClackamasProviders.org

---

## 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 the 2016-17 fiscal year.

### Basin Analysis: Studies, GIS, Modeling and Water Quality Monitoring Monitoring Contract with USGS

In August of 2016 the CRWP signed a Joint Funding Agreement with USGS to continue the data-collection program and provide the funding mechanism for the USGS to: (1) operate three continuous water-quality monitors in the Clackamas River (at Oregon City, Estacada, and Carter Bridge), and (2) operate a streamflow gage in the Clackamas River at Oregon City for a five-year period from October 2016 through September 2021.

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), help pinpoint changes in water quality based on land use in different parts of the basin, and can 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 <https://or.water.usgs.gov/clackamas/monitors/>

### Macroinvertebrate Study

In 2016 the CRWP worked with Cole Ecological, Inc. to gather, review, and synthesize all known macroinvertebrate monitoring data and results from the lower Clackamas River basin since the late 1990s to the present (winter 2016/2017). The purpose of this study was to help ensure that limited resources are most effectively utilized to help fill information gaps, inform longer-term trends, and avoid duplicitous sampling, particularly if



assessment efforts are performed in accordance with the monitoring plan developed for the CRWP in 2013 (Cole 2013). To read this report or to look at the Long-Term Macroinvertebrate Monitoring Plan or other macro reports associated with CRWP monitoring visit our Resources and Documents Page at [www.clackamasproviders.org/resource/](http://www.clackamasproviders.org/resource/)

## Cyanobacteria (BGA) Toxic Testing

The State of Oregon's Best Management Practices for Cyanobacteria (blue green algal) Toxins provide guidance for municipal water providers on how to test both raw and finished water at their intakes if they are downstream of a toxic algal bloom. Due to new EPA guidance for algal toxins the CRWP BGA Response Plan and Flow Chart were updated in 2016 to reflect these new guidelines. The CRWP coordinates efforts between the water providers and PGE and pays for the toxin testing costs if water providers are required to do any toxin testing. During the summer of 2016 North Fork reservoir experienced one blue green algae bloom at the very end of the summer, no toxins were detected.

## Education and Research Assistance

### Clackamas Community College and Portland State University Interns

Staff from the CRWP continue to work with the Clackamas Community College's Water & Environmental Technology Program and Portland State University to provide internship opportunities for students to support CRWP related projects. This year the CRWP provided stipends to two interns from Clackamas Community College. One intern worked with the source water protection program on blue green algae monitoring efforts and the second worked with CRWP Public Outreach & Education Coordinator on public outreach and education efforts.

In 2015-16 the CRWP worked with a Portland State University intern to conduct a survey on CRWP member customer's views of their desire to participate in ongoing drinking water source protection efforts. The purpose of this survey was to characterize the perspectives of consumers who rely on the Clackamas River for their drinking water, and how their perspectives influence their willingness to support source water protection efforts in the Clackamas River Watershed, including their willingness to pay for such programs. The final report was completed in June of 2017 and the results can be found here [http://www.clackamasproviders.org/wp-content/uploads/2013/12/Clackamas\\_River\\_Report\\_final\\_07.20.17.pdf](http://www.clackamasproviders.org/wp-content/uploads/2013/12/Clackamas_River_Report_final_07.20.17.pdf)

## 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 come up for renewal to see if there could be an impact on drinking water quality, and if there is an opportunity to provide public comment on these permits. The CRWP comments generally look 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.

## Portland General Electric (PGE) Blue Green Algae Team/Mitigation Fund Committee

The CRWP continues 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 2016 Annual Blue-Green Algae Report, which included results from the yearly monitoring program. Monitoring was conducted from May 23rd through October 18th of 2016. No changes were recommended for 2017. In 2015 PGE's Mitigation Fund Committee approved full or partial funding for 11 restoration projects for \$3.5 million dollars available in the 2015 funding cycle. The Committee met once in 2016 to receive a status update on projects funded as part of the 2015 Fund cycle.

## Nonpoint Source Evaluation and Mitigation

### Eco Biz 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 that 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 <http://ecobiz.org/>.

## Septic System Workshops and Presentations

Two *Know Your Septic System Check it, Fix it, Maintain it!* workshops supported by the CRWP was offered in the 2016-17 fiscal year. The workshop was held in the Damascus area and had almost 20 people in attendance. The workshop scheduled in Estacada was canceled due to low registration. The workshop presented information on how septic systems work, and why they need to be maintained, along with information on the

financial assistance the CRWP provides for septic system owners in the Clackamas River watershed. The CRWP continues to work with the County and the Clackamas Soil and Water Conservation district to get septic system outreach materials out to Clackamas County citizens. *See [Appendix A](#).*

### Septic System Financial Assistance Program

The CRWP continued to offer septic system owners that live within the Clackamas River watershed financial assistance for septic system inspections and repairs. To be eligible for the program septic system owners had to live in the watershed upstream from CRWP drinking water intakes and use a DEQ Oregon Septic Smart certified business/contractor. A total of one \$200 septic system inspection rebate was processed and seven applications for the repair cost share program for over \$6,000 were processed.

### Down the River Clean Up Sponsorship

For the seventh year in a row the CRWP has provided funding to We Love Clean Rivers, Inc to support the Annual Clackamas Down the River Clean Up which took place in September of 2016. The 14th Annual Down the River Clean Up included 200+ volunteers and cleaned up 1.8 TONS (3,600 lbs.) of trash from the Clackamas River. As an event sponsor the CRWP's logo is placed on event marketing and outreach material. *See [Appendix B](#).*

### 2016 SRF Drinking Water Source Protection Grant for Hazardous Material Spill Response

In the Fall of 2016 the CRWP received a \$30,000 Drinking Water Source Protection Grant. The purpose of this grant is to build off of existing hazardous material spill prevention efforts and to accomplish four key things. 1) Develop outreach/educational materials about spill prevention, reporting and clean up, best management practices, and the need for spill response plans for our commercial and industrial customers in the Clackamas Industrial area. 2) Develop training and/or technical assistance that will provide commercial and industrial businesses information on how to enhance their spill prevention and response efforts. 3) Identify facilities/businesses that could be targeted as candidates for implementation of enhanced BMPs and/or secondary containment for above ground storage tanks. 4) Develop and *pilot* a financial assistance cost share program to help incentivize proper spill prevention techniques. The grant project is expected to be completed in the fall of 2018.

## Pesticide Reduction Efforts with the Clackamas Soil and Water Conservation District

The CRWP continued to work with the CSWCD to leverage funding for pesticide reduction through the Windsock Program and the Pesticide Sprayer Efficiency Cost Share Program as well as looking at ways to conduct better outreach to farmers and growers. In addition this year we held two small pesticide collection events that collected 13,587 pounds of agricultural pesticides, and produced the Field to Faucet outreach piece which was mailed to over 4,000 agricultural landowners within the watershed. *See [Appendix C](#).*

### Examples of Pesticides Collected



## Pesticide Reduction Efforts with the Clackamas River Basin Council

For the ninth year in a row the CRWP has worked with Clackamas River Basin Council to support an outreach program for voluntary pesticide reduction through two mechanisms. One, was the distribution of educational fact sheets. These fact sheets were distributed by CRBC at landowner site visits, at community tabling events, as well as at Shade Our Streams graduated landowner site visits. Second, was through the implementation of a Pesticide Pledge Program. This program is designed to educate property owners about the wise use of pesticides and to empower them to use alternatives to pesticides. Pledge participants then have the opportunity to display a basin-specific yard sign that acts as a reminder of the steps they are taking to promote and enhance watershed health. To date 27 households have signed on to the Pledge Program. *See [Appendix D](#).*

### 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 April of 2017 the CRWP hosted the fifth annual Clackamas River Spill Committee meeting. Staff from DEQ, Clackamas County, ODOT, as well as local hazmat and first responders attended the meeting. The meeting highlighted work that was completed this year which included development of four new geographic response plans for Cow Creek, Carli Creek, the stormwater outfall at Riverside Park and Carver Park, and the refinement of the web-based Geographic Response Plan map for the Clackamas River. This webmap synthesizes the results of the last couple years of workshops and spill response planning efforts into one central web map for emergency spill response and planning.

### Table Top Exercise

In April of 2017 the CRWP facilitated a Table Top Exercise for CRWP members. The primary purpose of this tabletop exercise was to enhance the ability of CRWP member staff and personnel to effectively conduct Initial Damage Assessments post disaster for water system infrastructure, and to accurately fill out Federal Emergency Management Agency (FEMA) Initial Damage Assessment (IDA) forms for possible disaster reimbursement. In addition it provided staff with a better understanding of how the Disaster Declaration Process works, how the FEMA disaster reimbursement process works, how to form damage assessment teams, and what kind of technical help might you need to determine infrastructure damage. Twenty six people from 12 different organization participated in the exercise.

### 3 Gallon Emergency Bottle Water Project

To help our customers *Be Water Ready* and promote a culture of preparedness the CRWP held a one day event during the fall of 2016 to give away Free 3 gallon BPA-free plastic storage containers to store water in the event of an emergency to CRWP member customers.

The purpose of this program was to pilot how the purchase and distribution of 3 gallon emergency water bottles for multiple water providers (CRWP members) could be implemented, how implementation could be refined if the program is implemented again, as well as gauging if this was a good mechanism to increase our customers emergency preparedness awareness. This project was very well received with the public and 1,100 3 gallons bottles were given away to CRWP member customers. *See [Appendix E](#).*



## Clackamas Local Emergency Planning Committee

Under the Federal Emergency Planning and Community Right to Know Act (EPCRA) each County is required to organize a Local Emergency Planning Committee (LEPC). LEPCs are tasked with ensuring the broad issues of planning for response to a chemical incident or other hazardous material disaster. This year the CRWP provided Clackamas County Disaster Management with funding to help kick start the creation of the Clackamas County LEPC and develop the corresponding LEPC Emergency Response Plan. An established LEPC in Clackamas County will help facilitate Hazardous Material Spill planning and response in the Clackamas Industrial area which the CRWP has been targeting for the past number of years.

## Public Outreach and Information Sharing

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

## Source to Tap Brochure

The CRWP designed and printed 1,000 copies of a new outreach piece entitled Source to Tap about how we protect water quality for our water customers from the source to their tap. This information was also added to the CRWP website. See *Appendix F*

## Annual Watershed Tour

The Annual CWRP Watershed Tour was held on Saturday, October 1st, 2016 and focused on the lower portion of the Clackamas Watershed. The tour included a tour of the new Lake Oswego/Tigard Partnership water treatment plant and intake structure, a presentation and tour of the Water Environment Services Carli Creek restoration project, a presentation from the Clackamas Fire District #1 about their Hazardous Material Spill Response truck and equipment, and a stop with the Clackamas River Basin Council where they showcased the Fisher's Bend restoration project along the Clackamas River. The final stop was at the Sycamore Lane Therapeutic Riding Center to see how the Clackamas Soil and Water District has been helping them effectively manage their manure. Twenty five people participated in the tour.

## 2016 Watershed Tour



---

## Other Water Resource Activities

### Stored Water Agreement with PGE

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

### Water Resource Related Committees

The Water Resource Manager continues to represent the interests of the CRWP on a number of different water resource related committees. These include: the Oregon Water Utilities Council, the Consortium Emergency Planning Committee, Clackamas County Homeland Security Task Force, the Clackamas Stewardship Partners, EcoBiz Pollution Prevention Outreach Team, the American Water Resources Association, and the PNWS-AWWA Water Resource Committee.

---

## Public Outreach & Education Program

This program provides public outreach and education, as well as conservation services and programs to CRWP members. Some of the activities described below are not provided for the City of Lake Oswego, the City of Tigard, 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, and 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 past year.

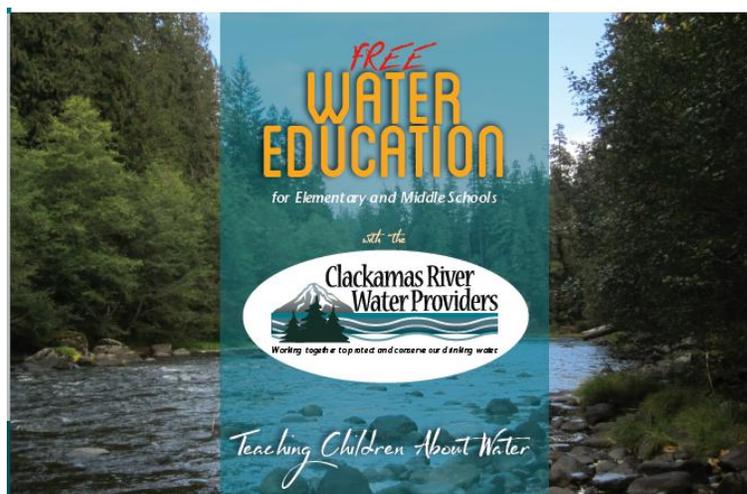
### Youth Education, Presentations, and Assembly Programs

The CRWP youth education program is an integral part of the our 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 73 classroom presentations, assembly programs, and treatment plant tours were completed between July 1, 2016 and June 30, 2017 (these numbers do not include the Children's Clean Water Festival and the CCWET Celebrating Water Event).

This year a new outreach piece about the programs that the CRWP offers schools was created and copies were given to teachers at all of the CRWP schools. See *Appendix G* for a list of all of these schools and to see a copy the full new teacher flyer. See *Appendix H* for a breakout by CRWP member of where these programs were completed.

#### Flyer sent to all CRWP teachers



## New Story Development

Through this multiyear project CRWP staff worked closely with one of our Assembly Show performers, professional story teller Will Hornyak. The first part of the project completed in year 2015-16 was to develop two new stories that are Clackamas River and Clackamas watershed specific for our schools. During fiscal year FY 2016-17 these stories were refined for CD audio recording. Creation of audio CD for CRWP schools is anticipated to be completed during the fall of 2017.

## Treatment Plant Tours

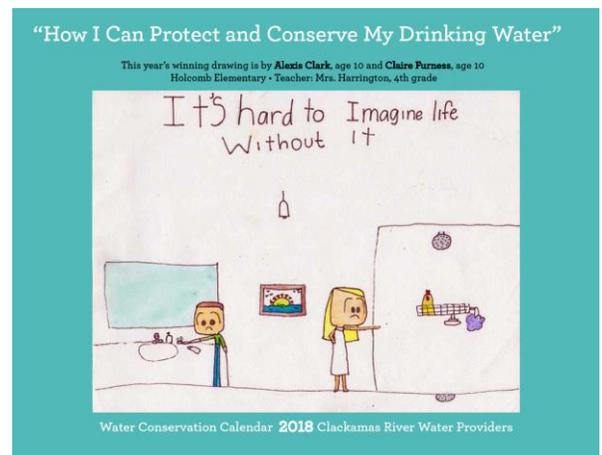
The Public Outreach & Education Program coordinates water treatment plant tours for the general public and CRWP member area schools. This year 13 tours of the North Clackamas County Water Commission plant were given to schools from the City of Happy Valley, and the Oak Lodge Water Services area. Many of these tours were also paired with tours of the Tri-City wastewater treatment plant and the Oak Lodge Water Services water reclamation facility so that students could see the whole human part of the water cycle.

## Mini Water Education Grants for Teachers

The youth education program offers Mini Water Education Grants to teachers. These grants of up to \$250 are intended to provide supplemental funding for water related projects or field trips to encourage water education in the schools. We processed 12 grants for 23 teachers this past year. See *Appendix I* for more detailed information.

## Water Conservation Calendar

The Annual Water Calendar is a collaborative project with CRWP grade schools where local students participate in a coloring contest with a water education theme. Thirteen pictures were chosen from all the entries submitted and used to create a Water Conservation Calendar. The theme for the 2018 calendar was “How I Can Protect and Conserve My Drinking Water”. Students were encouraged to create pictures depicting what they had learned about their water and what they can do to both conserve and protect it.



Twenty one classes from twelve different elementary schools participated in the contest and over 600 pictures were submitted. The thirteen pictures chosen were posted on the CRWP website so the community could vote for which one of the thirteen pictures would be on the cover. Each school that had at least one class participate in the contest will

receive a box (125) of 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 CRWP members City Halls, Libraries and offices. See *Appendix J* for a list of the schools that participated in the project.

## 12th Annual Clackamas County Water Education Team (CCWET) Celebrating Water Festival

CRWP staff continues to Chair the CCWET. The main focus of this group is to organize the Annual Celebrating Water Festival. The 12th Annual Festival took place March 21st, 2017 at Clackamas Community College. The festival played host to 15 classes, from five schools, with approximately 450 4th and 5th grade students from the Clackamas County area. The festival included 18 exhibits and two stage shows performed by Will Hornyak and Recycleman & the Dumpster Divers, along with 40 high school volunteers from Clackamas High School.

**2017 Festival at Clackamas Community College**



## Support of Clackamas County Recycle at Work Program

The CRWP continues to partner with Clackamas County to support the Resource Conservation and Solid Waste Business Outreach Team by providing the County with bathroom/kitchen faucet aerators and a number of water conservation brochures to help business owners within the CRWP service areas learn how to be more efficient with their water and earn their Leaders in Sustainability Certification.

The program conducts on-site assessments of current waste, water, energy, recycling and purchasing practices. Companies receive recommendations, tools and ongoing support to help them be more resource-efficient. The Resource Conservation & Solid Waste business

outreach team provided assistance to over 900 businesses throughout the county last fiscal year (16-17). Thirty eight businesses are certified as Leaders in Sustainability and more than 40 additional businesses are actively working toward certification.

## Support of Clackamas Community College Horticultural Department and Water Efficient Landscaping

The CRWP continues to support Clackamas Community College Horticultural Department and Environmental Learning Center. This past year the CRWP put \$2,500 in the Clackamas Community College ELC Restoration account for the addition of a demonstration rain garden at the new ELC site where visitors can learn about the value of this technique for managing stormwater to protect water quality. The garden will have signage that includes Clackamas River Water Providers logo as recognition for our partnership and support in this project.

## Mobile Garden

In 2014, the CRWP entered into a MOU with a number of other water resource organizations in Clackamas County for the maintenance and care of the mobile demonstration garden. The group takes the garden to various events throughout the spring and summer to educate the public about native and water efficient gardening. A few of this year's events included: The Lavender Festival and the Clackamas Master Gardener's Plant Sale.

## Community Events

The CRWP staff participated in a total of 14 community events within the CRWP service areas 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 about water conservation and watershed issues with our customers. See *Appendix K* for the list of events.

### West Linn Old Time Fair July 2016



## Adult Presentations

CRWP staff participated in and/or presented at a total of two public education and water conservation presentations to adult audiences. These presentations gave staff the opportunity to talk to members of our community as well as peers regarding the Clackamas River Water Providers group and how we operate, 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 conserve water and protect our watershed. See *Appendix L* 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 water conservation, indoor conservation, to outdoor conservation tips, watershed and water resource issues, emergency preparedness as well as resources that are available through the CRWP such as the rebate program. In addition the CRWP has a quarterly E-newsletter that it distributes to CRWP members and interested parties, as well as being posted on the CRWP website. See *Appendix M* for an example of our quarterly E newsletter.

## Conservation Outreach Materials

The CRWP continues to develop outreach materials and use a number of promotional items with the CRWP logo and contact information on them such as shower timers, pencils, paper bags, indoor water audit kits and brochures. These were passed out to citizens at events, member offices and city halls, through the school programs, and mailed to customers upon request. A more detailed description of new outreach pieces created this past year are below.

## Clackamas River Watershed Video

In partnership with Lake Oswego and Clackamas River Water, the CRWP created a 20 minute entertaining and educational video about the rich history of the Clackamas River. The purpose of the video to give our customers an opportunity to become more familiar with the source that provides their drinking water. To view the video, click on the link provided here <https://youtu.be/4jn-Q6LPU3s>.

## Water Efficient Landscape Audit Brochure

During the spring of 2017 the CRWP kicked off a new Water Efficient Landscape Audit program. To support this program a brochure was designed to explain the importance of water management in yards and gardens, provide details of what an audit included along with information on how to request an audit. The brochures were taken to participating CRWP Public Education and Outreach member offices, city halls and libraries, and provided to customers at local summer events. The brochure is also available to download on the CRWP website. *See Appendix N.*

## Youth Activity Booklet

The CRWP has been working with a graphic designer to create a Clackamas basin specific youth education activity booklet. The target audience for the activity booklet is 3rd - 5th graders and will cover education on the watershed and watershed protection, water quality, the hydrologic cycle, water conservation, and how public water systems work. The project is being completed two stages covering two fiscal years. This year the design and development of the activities was completed. The booklet will be finalized and printed during the fall of 2017.

## Watershed Map for Website

In 2015-16 the CRWP started the development of an interactive Clackamas River watershed map for the CRWP web site. The map allows the public to see the whole watershed and zoom in for a close up of all of the CRWP member service areas. Different points of interest are highlighted on the map such as land use, PGE dams, major parks, fish hatcheries, water treatment plants and areas they serve. Each point of interest gives the viewer an option to click for information and/or web site links. Development of the map was completed in during the summer of 2016 and the map went live on the CRWP website in the fall of 2016. The map can be found by going to <http://www.clackamasproviders.org/interactive-watershed-map/>

## Technical and Financial Assistance Programs

---

### Water Efficient Landscape Audit Program

In May of 2017 the CRWP kicked off a Residential Landscape Water Audit program for CRWP members who support the Outreach and Public Education program. The CRWP contracted with a landscape and irrigation professional to perform the audits. The Audits consist of a complete onsite overview of the customer's landscape starting with the location of the customer's meter, checking for leaks, an inspection of the customer's irrigation system, and a full walk through of the customer's yard, garden, and lawn areas.

The customers are invited to use this time with the Auditor to answer any questions and address any landscape and watering concerns they might have. When the onsite audit is complete the customer receives a full written report with water efficient recommendations. The program is marketed through the distribution of a brochure at CRWP member's offices, at summer events, as well as through the CRWP website. Fourteen customers took advantage of the audits. See *Appendix N* for more details.

### Water Conservation Rebate Program

The CRWP public outreach and education program completed its eighth year of 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 applicability to our vast range of customers. It consists of a up to \$100 rebate for replacing old toilets with new High Efficiency Toilets (HET), a \$75 rebate when customers purchase a new Energy Star certified residential clothes washer, a \$50 rebate for hose bib timers and/or irrigation rain switch, and up to \$60 (20 per account at \$3 each) if customers replaced their old inefficient irrigation spray nozzles with efficient water conserving models. New this year a \$200 rebate for the purchase and installation of a EPA Watersense Certified Smart Irrigation Controller was added to the program.

The program is marketed through the distribution of a brochure at CRWP member's offices, and at local Home Depots and Lowes, and to the public at summer events as well as through the CRWP website. A total of 130 customers took advantage of the program this part year. See *Appendix O*.

## Other Public Education and Outreach Activities

---

### Conservation Related Committees

CRWP staff continues to attend meetings 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 and Communicators Network Committees, the Children's Clean Water Festival Planning Committee, Chair of the Clackamas County Water Education Team (CCWET), a member of the Clackamas Sustainability Cooperative, and a member of the PNWS-AWWA Conservation, Public Information, and Northwest Oregon subsection Waterworks School organization committees. Staff is also a member of the Oregon Landscape Contractors Board and Exam Review Committee.

## Appendix A - Septic System Workshop Mailer

***Don't miss out!***  
***You have two chances to attend!***

### **Know Your Septic System** ***Check it, Fix it, Maintain it!***

Thursday, May 4th  
6:00 - 8:00pm  
Estacada Public Library  
825 NW Wade St.  
Estacada, OR 97023

---

Thursday, May 18th  
6:00 - 8:00pm  
Lewis and Clark Charter School  
15600 SE 232nd Dr.  
Damascus, Oregon 97089

- FREE Workshop includes nitrate screening of well water.
- Clackamas Watershed attendees are eligible for \$200 Septic System Inspection Rebate.
- **Class size is limited, so registration is required.**

The workshop will cover:

- how septic systems work
- operation and maintenance
- signs of failure, codes, and permits
- financial and technical assistance

To register, contact Tami at Clackamas Soil and Water Conservation District (503) 210-6000 or [tguttridge@conservationdistrict.org](mailto:tguttridge@conservationdistrict.org).

***Save time and money by  
maintaining what you have!***

Sponsored by: Clackamas River Water Providers, Clackamas Soil and Water Conservation District, Clackamas County, and Oregon Department of Environmental Quality

Appendix B – Down the River Clean Up

**WE LOVE CLEAN RIVERS™**  
AND clackamas river basin council  
PRESENT THE

# DOWN THE RIVER CLEAN UP

on the Clackamas  
Sunday, Sept. 11, 2016

All non-motorized paddle crafts invited to volunteer  
On-land positions and SCUBA divers are invited too!

FREE BBQ for ALL VOLUNTEERS!  
All participants must pre-register at:  
[www.WeLoveCleanRivers.org](http://www.WeLoveCleanRivers.org)

DEQ State of Oregon Department of Environmental Quality

OREGON WATERSHED ENHANCEMENT BOARD

WHOLE FOODS MARKET

Metro

CLACKAMAS COUNTY

NORTHWEST STEELHEADS

OREGON STATE PARKS Nature HISTORY Discovery

OREGON CITY

SOLVE IT'S OUR NATURE TO VOLUNTEER

DRINKING HORSE BREWING COMPANY

HAPPY MOUNTAIN K&MBUCHA

PORTLAND CIDER COMPANY

Joe's Donuts

Clackamas River Water Providers

AMR

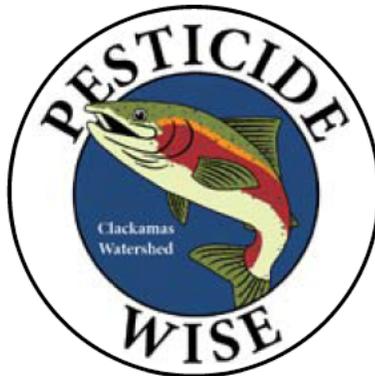
Guys Grilling Grilling Gourmet Sausages



**Appendix D - Pesticide Reduction Outreach Program with CRBC**

# Take the Pledge!

As a resident in the Clackamas Watershed that cares about protecting water quality for people, fish, wildlife, drinking water and pets - here's your chance to take the Parting with Pestides Pledge! Get a FREE yard sign in honor of your committment, letting neighbors know that your yard is healthy and safe.



**I will use pesticides wisely by:**

- Reducing my use of pesticides-including weed and feed
- Choosing safer alternative weed and pest control products when I can
- Always reading and following label instructions
- Making sure I properly sort and dispose of pesticides
- Spraying only in ideal conditions (not in wind or rain)
- Talking to my neighbors about being Pesticide Wise



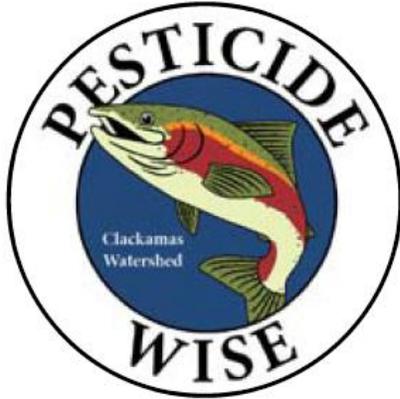
**I will be pesticide free by:**

- Stopping the use of pesticides-including weed and feed
- Using only organic/natural products for garden and lawn care
- Being tolerant of some weeds and pest damage
- Using plants adapted to our area (natives and pest resistant)
- Using Integrated Pest Management (IPM) for pest management
- Talking to my neighbors about being Pesticide Free

-----  
Cut here, place in envelope with stamp and mail

Name _____	<input type="checkbox"/> I pledge to use pesticides wisely. Please send me my free yard sign.  <input type="checkbox"/> I pledge to be pesticide free. Please send me my free yard sign.	Required Information: Address _____ _____ _____ Property Size (Acreage or Square Footage) _____ _____ Phone _____ Email _____
I understand I will receive a subscription to "Current News," the CRBC newsletter. I prefer to receive it: <input type="checkbox"/> As an email <input type="checkbox"/> In the mail		Please mail to: <b>Clackamas River Basin Council</b> <b>PO Box 1869, Clackamas, OR 97015</b> <i>The Clackamas River Basin Council</i> <i>is a 501(c)(3) nonprofit organization.</i>  Have questions? Please contact us at: 503-303-4372 or <a href="mailto:info@clackamasriver.org">info@clackamasriver.org</a>

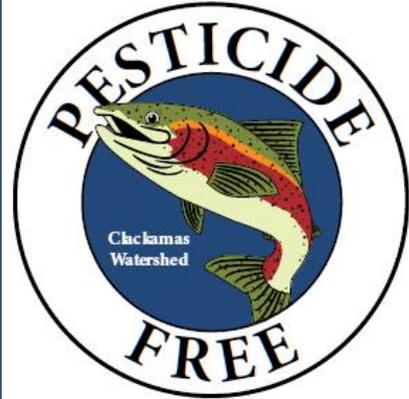
**Pesticide WISE**



**PLEDGE  
TODAY!**

Protect bees, butterflies, and other critters as well as pets, children, and your drinking water when you take the 'Parting with Pesticides' Pledge and receive a FREE yard sign!

**Pesticide FREE**



Clackamas River Basin Council  
PO Box 1869  
Clackamas, OR 97015  
(503) 303-4372  
[www.ClackamasRiver.org](http://www.ClackamasRiver.org)  
[info@clackamasriver.org](mailto:info@clackamasriver.org)

NONPROFIT ORG  
US POSTAGE PAID  
CLACKAMAS, OR  
PERMIT NO. 47

**Free Pesticide WISE or Pesticide FREE Yard Sign!**



## Appendix E- 3 Gallon Emergency Bottle Water Project

# GOT WATER?

In an emergency, you'll need a minimum of **3** for **3**:

**3** gallons per person for **3** days



Emergency preparedness is a shared responsibility.  
**We want to help get you prepared.**

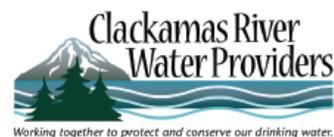
**Get a free 3-gallon emergency water bottle.** This program has a limited budget so pre-orders will be taken while supplies last. Limit four per household.

To pre-order your 3 gallon container go to:  
[www.clackamasproviders.org/emergency-bottled-water-program/](http://www.clackamasproviders.org/emergency-bottled-water-program/)

Once your pre-order information has been verified a confirmation e-mail will be sent with details about when and where to pick up your container(s).

For every emergency water supply container distributed through this program the Clackamas River Water Providers will donate \$1 to the American Red Cross. This gift enables the Red Cross to prepare for, respond to and help people recover from disasters big and small.

## BE PREPARED.



## 3 Gallon Bottle Label

### Disinfect this container and fill with 3-gallons of delicious tap water

Use this container to store a three day emergency water supply for one person or pet in your household

If water has been stored for more than 5 days, follow these steps to disinfect water before drinking, cooking, making prepared drinks and/or brushing teeth:

**Boil for one minute - or - add 1/8 teaspoon of unscented liquid chlorine bleach per gallon and then let stand for 30 minutes before use.**

#### Prepare for a prolonged or widespread electric outage

- Store an emergency supply of water because pumping water to your home requires electricity.
- If you get water from a well and have a septic system, make sure you store enough water to flush toilets.
- In urban areas buy a 5-gallon bucket with lid. During a widespread electric outage sewage pumps may not be operational because they require electricity. Use a 5-gallon bucket lined with a kitchen trash bag for personal sewage disposal until service is restored. Cover the 5-gallon bucket with lid when not in use.
- Purchase a hand crank or battery-powered flash light and radio. Store extra batteries if needed. Do not use candles due to extreme risk of fire.

#### If the lights do go out:

- Check your electrical panel first for tripped breakers or fuses.
- If a breaker or fuse is not tripped, call your electric utility.

#### Disinfect this container before use. Here's how:

The Red Cross recommends that each household store a three-day supply of water (one gallon of water per person or pet, per day) for drinking and sanitation in case of a water outage.

Once the integrity of the water system is secure, mobile drinking water distribution may be deployed. After you have used your emergency water supply, bring this disinfected container when visiting a water distribution site. To disinfect this container:

1. **Bleach** – Mix ¼ teaspoon of unscented liquid chlorine bleach with one cup water.
2. **Cover** – Cover the container and shake well so the bleach mixture touches all inside surfaces of the container.
3. **Wait** – Wait at least 30 seconds and then pour the mixture out of the container.
4. **Air dry** – Let the empty disinfected container air dry. Re-fill with water in case of emergency.

#### Community Emergency Notification System

Register today for 'PublicAlerts'!

What if you could learn about an emergency occurring near your home no matter where you are? If you carry a cell phone, now you can.

Public safety agencies in Clackamas County have a new communications tool called "Public Alerts" – emergency notifications are sent to cell phones by text message or voice. To receive these messages you must register your mobile number on the Public Alerts website.

To register, go to [www.PublicAlerts.org](http://www.PublicAlerts.org)

 PublicAlerts

### A Partnership to Cultivate a Culture of Preparedness



You can donate today at [www.redcross.org](http://www.redcross.org) or 1-800-RED-CROSS

The Clackamas River Water Providers have donated \$1 to the Red Cross for every Emergency Water Supply Container distributed through this program.

6/16

### Appendix F - Source to Tap Brochure



Our Members:

[www.clackamasproviders.org](http://www.clackamasproviders.org)

or go to

[kims@clackamasproviders.org](mailto:kims@clackamasproviders.org)

Call or email 503-723-3510 or

for more information

Working together to protect and conserve our drinking water.



## Protecting Water Quality

# SOURCE to TAP

**SOURCE**

**FILTRATION & MORE**

**STORAGE & WATER LINES**

**TAP**

*Safe drinking water is our top priority.  
Your drinking water is monitored and protected, from source to tap.*

Infographic concept courtesy of Willamette Water Supply Program.



A safe reliable water supply is critical to the success of any community. It creates jobs, attracts industry and investment, and provides for the health and welfare of citizens in ways ranging from disease prevention to fire suppression.

As Clackamas County continues to grow, so does the demand for high quality water. Conserving and protecting the Clackamas River and investing in our water infrastructure will play a key role in making the best use of this precious resource we share.

Safe drinking water is our top priority and we are here to monitor and protect it from its source to your tap.



**SOURCE:** Our drinking water source comes from the Clackamas River. This river supplies high-quality drinking water to over 300,000 people in Clackamas and Washington Counties. The Clackamas River Water Providers are working hard to identify, prevent, minimize, and mitigate activities that have known or potentially harmful impacts on drinking water quality. This enables us to preserve the Clackamas River as a high-quality drinking water source, and to meet the needs of an increasing human population into the future.



**FILTRATION & TREATMENT:** We have five water treatment plants on the Clackamas River where water is taken out of the river and treated before it is used as drinking water. Water treatment is the process of removing undesirable chemicals, biological contaminants, suspended solids and gases from the raw water. The result is water fit for human consumption, or drinking water.



**STORAGE & WATER LINES:** Our water systems have hundreds of miles of transmission, distribution and service lines, hundreds of valves and fire hydrants, reservoirs and pumping stations which move water from our treatment plants to home, offices and industries in our service areas. These systems allow us to provide an uninterrupted supply of pressurized safe drinking water to our consumers.



**TAP WATER:** Clackamas River Water Providers member's drinking water is closely regulated by both the Environmental Protection Agency (EPA) and the Oregon Health Authority (OHA). Our staff and testing experts conduct more than a thousand tests every month in our source water, drinking water treatment plants, and in our distribution systems. This continuous monitoring of quality and safety, ensures that our drinking water more than meets strict federal and state drinking water standards.

**From source to tap, your water is protected, filtered, and monitored.**

## Appendix G - 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.

### City of Estacada Schools

- Clackamas River Elementary
- River Mill Elementary
- Estacada Jr. High School
- Estacada High School

### City of Gladstone Schools

- John Wetten Elementary
- Kraxberger Middle School
- Gladstone High school

### Oak Lodge Water Services Schools

- Candy Lane Elementary
- Jennings Lodge Elementary
- Oak Grove Elementary
- Riverside Elementary
- View Acres Elementary
- Rex Putnam High School

### South Fork - Oregon City Schools

- Gaffney Lane Elementary
- Holcomb Elementary
- John McLoughlin Elementary
- Gardiner Middle School
- Oregon City High School
- Spring Water Environmental Sciences School
- Alliance Charter Academy

### South Fork - West Linn Schools

- Bolton Primary
- Cedaroak Park Primary
- Sunset Primary
- Trillium Creek Primary
- Willamette Primary
- Rosemount Ridge Middle School
- West Linn High School
- 3 River Charter School

### Sunrise Water Authority Schools

- Deep Creek Damascus K-8
- Lewis and Clark Montessori Public Charter School
- Happy Valley Elementary
- Mt. Scott Elementary
- Oregon Trail Elementary
- Spring Mountain Elementary
- Sunnyside Elementary
- Verne Duncan Elementary
- Scouters Mountain Middle School
- Rock Creek Middle School
- Happy Valley Middle School
- Damascus Middle School
- Clackamas High School

## Appendix G - Flyer sent to teachers at all CRWP schools



14275 S Clackamas River Drive  
Oregon City, OR 97045  
503-723-3511

### Contact us!

Clackamas River Water Providers have many free programs and services to offer teachers and schools to increase awareness of water quality, conservation, and treatment.

**PLUS!** We offer funding for mini-water grants of up to **\$250** per teacher each year for water related projects.

### Water Education

For a full list of water education programs and resources, to schedule a classroom presentation, assembly programs, or field trip, please call 503-723-3511, or email [christine@clackamasproviders.org](mailto:christine@clackamasproviders.org), or visit our website at: [www.clackamasproviders.org](http://www.clackamasproviders.org)

### WHO ARE WE?

#### The Clackamas River Water Providers (CRWP)

is a group of the public water providers that get their drinking water from the Clackamas River. The purpose of the organization is to fund and coordinate efforts regarding source water protection and public education and outreach around watershed issues, drinking water, and water conservation, so that we can preserve the Clackamas River as a high quality drinking water source, while being good stewards of the river.

We have a number of free water programs available to schools and teachers to teach students about water. These include classroom presentations, assembly programs performed by local artist, videos and water curriculum that can be checked out, water education grants, and other water related resources.

All of this is offered at no cost to the schools, and some of the presentations include curriculum packets and promotional items, such as shower timers, pencils, posters and brochures for the class room and students to share with their families.



### FREE CLASSROOM PRESENTATIONS

#### Class room Presentations:

We offer many different water related class room presentations from the water cycle, water quality sampling, the importance of conserving water, and the life cycle of salmon. Presentations can be tailored to fit your specific curriculum.

#### A COUPLE OF TEACHER FAVORITES:

**• From the Source to the Tap**  
Grades: 1st - adult, Program length: 30- 45 minutes. Where does our drinking water come from? How does the water get to the house? How do we keep it safe to drink? Why is conservation so important? Learn where your drinking water comes from, why water conservation is important and easy everyday things we can do to help.

**• So You Want to Be a Salmon?**  
Grades: 3rd - 6th, Program length: 45 minutes. Role-play the life-cycle of local salmon and steelhead in order to understand the difficulties that they encounter during their migration.



### RESOURCES: VIDEOS/MODELS/BOOKS/CURRICULUM

#### Models:

We have a collection of water education models to help students learn and understand more about water and its relationship with our earth, what humans do to impact water sources and how we collect, treat, and store water for our own use.



Water Treatment/Collection/Distribution



The Water Cycle



Watershed Non-Point Source Pollution

#### Videos/Books:

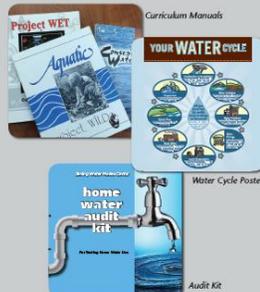
We have a full library of water videos and books for all grade levels on everything from the water cycle, properties of water, and how drinking water is made, all available for teachers to borrow.



Elementary School Colorful Video and Book Samples

#### Curriculum & Other Water Resources:

Take advantage of our vast collection of well known water and environmental manuals as well as home water audit kits, games, and posters for your classrooms.



Curriculum Manuals

Water Cycle Poster

Audit Kit

### MINI WATER EDUCATION GRANTS

Clackamas River Water Providers has funding to offer mini-water grants of up to \$250 per teacher each year for water related projects, materials, and education.

The funding can be used for:

- buying materials for water related activities
- bussing for water related field trips
- funding for water related training or courses for teachers and/or students
- and much, much more!

**\$250.**  
Per Teacher

For Water Education

### WATER TREATMENT PLANT TOURS

#### Come see how your drinking water is made.

Bring your students on a free tour of the treatment plant where their drinking water is made. See firsthand how we take water from the Clackamas River, clean it, and treat it so it's ready to be used at the tap.



Water Quality

### ASSEMBLY PROGRAMS



We are excited to be working with local performers to bring these exciting and educational assembly programs that engage and educate students through music, storytelling, and interactive learning performances.

### CALENDAR PROJECT

for elementary school teachers and students

Every February the Clackamas River Water Providers invite our elementary teachers and their students to join us in creating our Annual Water Calendar.

Teachers are encouraged to have students create pictures that are their interpretation of the current year's water theme. 13 pictures are selected to be in the calendar. Teachers, students and the community are invited to visit our website and vote for one of the 13 pictures to be placed on the cover.

Each school that has at least one class participate in the contest will receive a box (about 25) of calendars. In addition, the Calendars are distributed throughout our Clackamas River Water Providers' main offices, city halls, and libraries.

Watch for an email invitation every February to participate in the contest. Visit our website for more information.



For a full list of water education programs and resources, to schedule a classroom presentation, assembly programs, or field trip, call 503-723-3511, or email [christine@clackamasproviders.org](mailto:christine@clackamasproviders.org), or visit our website at: [www.clackamasproviders.org](http://www.clackamasproviders.org).

## **Appendix H - Youth Education Program & Presentation**

A total of 73 classroom presentations and assembly programs were completed between September 24, 2016 and June 30, 2017. 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 Gladstone**

Total # presentation = 16

### **Oak Lodge Water Services**

Total # presentations = 9

### **South Fork Water Board**

Oregon City = 16

West Linn = 8

Total # presentations = 24

### **Sunrise Water Authority**

Total # presentations = 24

### **24th Annual Children's Clean Water Festival**

52 classes

22 Schools

10 Districts

Total # of students = #1344

33 presentations

13 exhibitors 3 stage shows

57 Volunteers

CRWP schools in attendance this year were 4 classes from John Wetten Elementary, 1 class from Sunnyside Elementary, and 1 from View Acres Elementary.

### **12th Annual Clackamas County Water Education Team Celebrating Water Event**

15 Classes

5 Schools

16 Teachers

115 Adult chaperones

40 High school volunteers

18 Exhibits

2 Stage shows

Total # of students = #450

### Appendix H - continued

Youth Education Presentation Tracking				
Date	Location	Program	# of Students	District/Area
<b>Year 2016-17</b>				
7/7/2016	Learning Tree Day Care	Where's Water Watson?		Oak Lodge
8/22/2016	K Club Rosemont Ridge West Linn	Where's the Water Watson?		SF West Linn
9/22/2016	West Linn Public Library	Mad Science "What DO You Know?"	50	SF West Linn
9/27/2016	Bolton Elem	Fred The Fish	90	SF West Linn
9/27/2016	West Linn Public Library	Where's the Water Watson?	50	SF West Linn
11/2/2016	Deep Creek Damascus K-12	Mad Science "What Do You Know?"	150	Sunrise
11/29/2016	Deep Creek Damascus K-12	Mad Science "What Do You Know?"	150	Sunrise
12/6/2016	Kraxberger Middle School	Forest to the Tap	70	Gladstone
12/7/2016	Kraxberger Middle School	Forest to the Tap	70	Gladstone
12/8/2016	Kraxberger Middle School	Forest to the Tap	70	Gladstone
1/3/2017	Kraxberger Middle School	Tasteamony to Tap Water	70	Gladstone
1/4/2017	Kraxberger Middle School	Tasteamony to Tap Water	70	Gladstone
1/5/2017	Kraxberger Middle School	Tasteamony to Tap Water	70	Gladstone
1/19/2017	Candy Lane	Mad Science "What Do You Know?"	180	Oak Lodge
1/19/2017		Watershed Model		Sunrise
3/9/2017	NCCWC	Treatment plant tour	35	Oak Lodge
3/23/2017	Riverside Elem.	Mad Science "Watson?"	270	Oak Lodge
4/4/2017	Spring Water	Mad Science "What Do You Know?"	50	South Fork OC
4/4/2017	Sunnyside Elem.	Will Hornyak	540	Sunrise
4/5/2017	NCCWC	Treatment plant tour	70	Sunrise
4/6/2017	NCCWC	Treatment plant tour	140	Sunrise

4/10/2017	J. McLoughlin	"Where's the Water Watson?"	90	
4/11/2017	NCCWC	Treatment plant tour	105	Sunrise
4/18/2017	Sonshine Preschool	Water Cycle Play	28	Gladstone
4/21/2017	Riverside Elem.	Will Hornyak	448	Oak Lodge
4/26/2017	NCCWC	Treatment plant tour	35	Oak Lodge
4/28/2017	J. Wetten	Mad Science "Where's the Water Watson?"		Gladstone
5/1/2017	spring MT.	Incredible Journey	90	Sunrise
5/8/2017	Springwater Environmental	Non-point Source	42	SF OC
5/9/2017	Gardner Middle	non-point source model	140	SF OC
5/10/2017	Gardner Middle	non-point source model	112	SF OC
5/11/2017	NCCWC	Treatment plant our	40	Oak Lodge
5/12/2017	Oregon Trail	Mad Science "What Do You Know?"	100	Sunrise
5/24/2017	Gladstone Public Works	On site	125	Gladstone
5/25/2017	Sunnyside	Tap Water Tour / Water Jeopardy	27	Sunrise
5/30/2017	Spring Mt.	"What Do You Know?"	10	Sunrise
6/1/2017	Springwater Environmental	Common Water	42	SF OC
6/13/2017	Gaffney Lane	Mad Science "What Do You Know?"	240	SF OC
6/15/2017	Vern Duncan	Rainstick	125	Sunrise
6/16/2017	Spring Mountain Elementary	Mad Science "What Do You Know?"	275	Sunrise
6/23/2017	Gladstone Library	Mad Science "What Do You Know?"	100	Gladstone
6/30/2017	Cedaroak Primary	Mad Science	35	South Fork WL
6/30/2017	Cedaroak Primary	Mad Science	35	South Fork WL

## **Appendix I - Mini Water Education Grants**

Grants were issued to the following schools.

### **City of Estacada**

Clackamas River Elementary - (3) 4th grade Teachers

Clackamas River Elementary - (4) 5th grade teachers

### **Oak Lodge Water Services**

Oak Grove Elementary - (2) Teachers

### **South Fork Water Board**

Bolton Elementary - West Linn - (3) 3rd grade Teachers

Willamette Primary - West Linn - (3) 5th grade Teachers

Spring Water Environmental - Oregon City - (4) 6th grade Teachers

### **Sunrise Water Authority**

Sunnyside Elementary - (1) 4th Teacher

Rock Creek Middle School - (3) 8th grade Teachers

## **Appendix J –2018 CRWP Children's Calendar**

12 schools and 21 classes participated in the 2018 CRWP Children's Calendar coloring contest. More than 600 pictures were submitted. The following is a breakdown of which CRWP members schools participated in the calendar project.

### **City of Gladstone**

John Wetten Elementary

### **Oak Lodge Water Services**

View Acres Elementary

Oak Grove Elementary

### **South Fork Water Board**

John Mcloughlin Elementary (Oregon City)

Gaffney Lane Elementary (Oregon City)

Springwater Environmental School ( Oregon City)

Holcomb Elementary (Oregon City)

Trillium Creek Elementary (West Linn)

### **Sunrise Water Authority**

Sunnyside Elementary (Happy Valley)

Happy Valley Elementary (Happy Valley)

Deep Creek Damascus K-8 (Damascus)

Oregon Trail Elementary (Happy Valley)

## Appendix L – Community Events

CRWP staff participated in 14 Community Events throughout CRWP service areas between July 1, 2016 and June 30, 2017

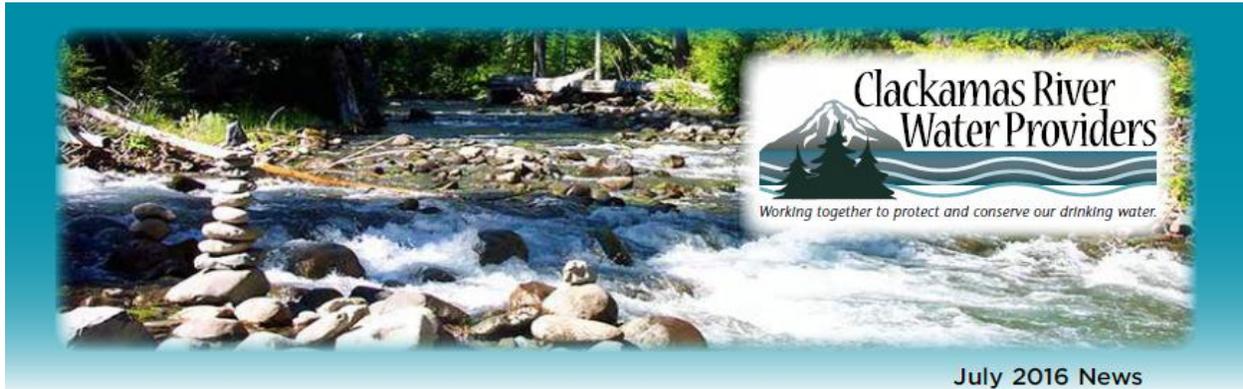
July 4th, 2016	Happy valley 4th of July Festival	Sunrise Water Authority
July 16th, 2016	West Linn Old Time Fair	South Fork Water Board
July 30th, 2016	Day in Damascus	Sunrise Water Authority
August 6th, 2016	Gladstone Community Festival	City of Gladstone
August 16th, 17th, 20th, 2016	Clackamas County Fair	CRWP Members
August 24th, 2016	CCC Environmental Learning Center Summer Celebration	South Fork Water Board
September 11th, 2016	Down The River Clean Up	CRWP Members
February 17th, 2017	Home and Garden Show	Regional Water Providers Consortium
March 25th, 2017	Tree School	CRWP Members
April 22nd, 2017	CCC Environmental learning Center Earth Day Event	CRWP Members
April 29th, 2017	City of Gladstone Arbor Day Walk	City of Gladstone
May 20th, 2017	Oregon City Pioneer Festival	South Fork Water Board
June 3rd, 2017	School Yard Farms at Candy Lane Elementary	Oak Lodge Water Services
June 17th, 2017	Garden Walk	Regional Water Providers Consortium

**Appendix L – Adult Presentations**

CRWP staff participated in and/or presented at, 2 adult presentations between July 1, 2016 and June 30, 2017

March 27th, 2017	Milwaukie Garden Club	Oak Lodge Water Services
June 13th, 2017	Posie Pickers Garden Club	South Fork Water Board Oregon City

## Appendix M – Quarterly E Newsletter



July 2016 News

### Water Supply Update Summer 2016

During the summer months we think about water. Lots of water... like, swimming in pools, washing our cars, watering our gardens and running our sprinklers. But, did you ever stop to think that summer is a time when our region's water supply is most strained and resources are limited? This winter, snow packs reached their peak in April but early warm temperatures resulted in early snow melt and warmer than usual temperatures are expected to continue through September. Though it has been a bit cooler and we've had some rain, let's not forget conditions can change. As much as we all love summer, it's important that we use water wisely during these warm, dry months.

Conserving our precious water source, the Clackamas River is a big job, but easily accomplished when we all help. Visit the CRWP website at [www.clackamasproviders.org](http://www.clackamasproviders.org) and find helpful outdoor and indoor water saving tips and take advantage of our rebate program and receive up to \$485 in rebates.

#### What's Inside:

Water Supply	P1
Landscapes	P1
Quality/Lead	P2
Water Smart Rebates	P3
Summer Quiz	P3
Interview	P4
Water Protection	P5

### Water Efficient Landscaping

Planning a low water use, low maintenance landscape begins with an analysis of your landscape conditions. This can be done by you or a landscape professional that can provide advice and/or do the entire landscape plan for you. There are also a number of books on how to develop a landscape plan.

**Site Analysis.** To begin a site analysis start by creating a base map of your property using graph paper to position your house, property lines, walks, patios, trees, fences, etc. Highlight everything that could affect privacy, view, outdoor activities, sun, shade etc. Look at solar patterns, wind patterns, topography and orientation, existing vegetation, soil types, precipitation, water data, landscape purpose, and irrigation needs.

With tracing paper over the base map, take into consideration all the needs you determined earlier (play area, patio) and show positive and negative factors that play a role in the existing landscape. This will help you select and group plants in the right place.

**Getting into the Zone.** Use of landscape and watering zones are important because different plants have different watering needs and yards have

different micro-climates. Zoning your landscape: low-water use zones: irrigation is only used here when new plants are added so they can get established. Moderate water use zone: plants in this area require a little more water than nature can provide. High water use zones: are where thirsty plants such as turf, vegetable gardens, and annuals are planted.

**Evaluate your turf area.** How much turf do you want in your yard and what is its function? A) Choose the new turf grass carefully; there are many new water efficient varieties. B) Place the turf areas where they will be the most useful, such as play and picnic areas. C) Avoid planting trees or shrubs inside turf areas. D) Keep the physical layout of the turf in easy to irrigate shapes such as circles or rounded edges. E) Don't put turf areas on steep slopes. F) Consider placing thirsty plants near turf areas where they can get more water. G) Consider alternatives to turf - ground covers and hardscapes.

**CRWP is offering Landscape Audits.** CRWP is offering free Landscape Audits to help customers find ways to conserve water. During a visit to your home or business, CRWP staff will assess your yard and irrigation system identifying areas where water can be used more efficiently and provide a summary to help get you started. Email Christine at [christine@clackamasproviders.org](mailto:christine@clackamasproviders.org) or call **503-723-3511** for more information.

Christine Hollenbeck Public Education and Conservation Program Coordinator (503) 723-3511, [christine@clackamasproviders.org](mailto:christine@clackamasproviders.org)  
Kim Swan Water Resource Manager (503) 723-3510, [kims@clackamasproviders.org](mailto:kims@clackamasproviders.org)

## Appendix N – Audit Brochure

**Do you need help saving water outside this summer?**

The CRWP is now offering **FREE Residential Landscape Water Audits** to the following member's service area: City of Estacada, City of Gladstone, Oak Lodge Water Services, and South Fork Water Board (Oregon City and West Linn), and Sunrise Water Authority (Happy Valley and Damascus).



Water use in our communities more than doubles during the summer months due to outdoor watering.

**AUDIT**

The Clackamas River Water Providers is a coalition of the municipal water providers that get their drinking water from the Clackamas River who are working together on water resource issues. 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. By preserving the Clackamas River as a high quality drinking water source we are able to minimize future drinking water treatment costs, while being good stewards of the river.



For more information about the CRWP, our watershed, and conservation programs visit our website:

[www.clackamasproviders.org](http://www.clackamasproviders.org)

Or contact us at:

**Clackamas River Water Providers**  
14275 S Clackamas River Drive  
Oregon City, Oregon 97045  
[christine@clackamasproviders.org](mailto:christine@clackamasproviders.org)  
(503) 723-3511

Clackamas River Water Providers

offering

**FREE Residential Landscape Water Audits**



Assess your lawn, garden and irrigation systems



**A Landscape Water Audit...**

Is an assessment of your lawn, garden areas, irrigation system and more.

Our landscape auditor will assess your lawn and garden areas, irrigation system and more. Upon completion of the audit you will be provided written recommendations to help you manage your outdoor water use for a more water efficient landscape and irrigation system.

**RESIDENTIAL AUDITS** will begin in May and be performed during the spring and summer months only (during the watering season).

The audits will be approximately 1.5 hours long. Please be available to walk through the audit process with the Audit Specialist.

Interested customers can contact the CRWP at **503-723-3511** or email [christine@clackamasproviders.org](mailto:christine@clackamasproviders.org) to schedule an audit.

Audits are booked on a first come first serve basis. Audits will be performed at each site one time only.

*your* **AUDIT**

**Landscape water audits will include but are not limited to:**

- A walk through the yard and garden area including all lawn areas.
- Making note of soil types, plant material, naturally available water, and sun exposure.
- Locating the water meter, noting any existing leaks from the meter throughout the irrigation system.
- Making note of existing backflow protection; type, size, make and model number.
- Locating the irrigation system controller, making note of the make/model as well as the current schedule. Each zone will be ran separately, recording gallons per minute used for each zone.



When the audit is complete, all recommendations will be recorded. This includes irrigation controller schedule adjustments, irrigation head adjustments/replacements, maintenance of existing plant material, and the addition of soil amendments to reduce weeds, promote soil moisture, and reduce the use of fertilizers.



## **Appendix N - Water Efficient Landscape Audit Program**

Since May 2017 when it began, a total of 14 CRWP member customers participated in the new Water Efficient Landscape Audit Program. Below is a breakdown of where the audits were performed.

### **South Fork Water Board**

Total audits =11

Oregon City =7

West Linn = 4

### **Sunrise Water Authority**

Total audits = 3

Happy Valley =3

## Appendix O - Rebate Brochure

### Clackamas River Water Providers rebate APPLICATION

**CUSTOMER INFORMATION**

Name \_\_\_\_\_

Installation Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_ Zip \_\_\_\_\_

Mailing Address (if different) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_ Zip \_\_\_\_\_

Home Phone \_\_\_\_\_ Daytime Phone \_\_\_\_\_

Email \_\_\_\_\_

PLEASE PROVIDE YOUR ACCOUNT # \_\_\_\_\_

AND CIRCLE YOUR WATER PROVIDER BELOW

City of Estacada	City of Gladstone	Oak Lodge Water District
South Fork Water Board (Oregon City and West Linn)	Sunrise Water Authority (Happy Valley and Damascus)	

I certify the information I have provided is true and correct, and I have purchased the goods for use at the location indicated. I grant permission to Clackamas River Water Providers, with notification, to enter upon the property to inspect the installation of rebate goods to assure program requirements are met. I understand rebates are distributed on a first-come first-served basis until funds are exhausted.

---

### rebate INFORMATION

Customers can take advantage of each rebate one time per account per fiscal year per account.

**INDOOR REBATES**

Toilet Rebate – up to \$85 + \$15 additional for recycling your old toilet Manufacturer and Model # \_\_\_\_\_

Washing Machine Rebate – up to \$75 maximum Manufacturer and Model # \_\_\_\_\_

**OUTDOOR REBATES**

Rain Sensor/Switch – up to \$25 maximum

Irrigation Controller – up to \$200 maximum

Multi-stream Rotating Nozzles – up to \$60 (or 20 nozzles at \$3 each)

Manual Hose Bib Timer – up to \$25 maximum

Customer Signature \_\_\_\_\_ Date \_\_\_\_\_

The following are required, please check all that apply. Do not send until application is complete. Incomplete and unsigned application may be returned.

<input type="checkbox"/> Water provider account number	<input type="checkbox"/> Manufacturer and or model number (if required)
<input type="checkbox"/> Name and address	<input type="checkbox"/> Toilet recycling receipt for additional \$15
<input type="checkbox"/> Proof of purchase	<input type="checkbox"/> Signed and dated application

# UP TO \$485 IN REBATES!

## Clackamas River Water Providers

### are offering 6 water conservation rebates\*

\* Up to \$485 in rebates available!

Working Together to Protect and Conserve our Drinking Water

14275 S. Clackamas River Drive  
Oregon City, OR 97045

For More Information  
www.clackamasproviders.org  
E-mail: Christine@clackamasproviders.org  
Phone: (503) 723-3511

6/2016

## SAVING WATER = SAVING MONEY!

Up to \$485 in savings each year!

### 1 WASHING MACHINE

Up to \$75 rebate – Model # required. Machines being replaced must be Energy Star certified residential clothes washers.

### 2 TOILET REBATE

Up to \$85 rebate – Model # required. When you replace a toilet that uses 1.6 gallons per flush (gpf) or more with a new WaterSense® certified high efficiency toilet (HET). Get an additional \$15 if you recycle your toilet.

### 3 RAIN SENSOR/SWITCH:

Up to \$25 rebate – Temporarily shuts off your automatic irrigation system when it rains.

### 5 MULTI-STREAM ROTATING NOZZLE RETOFIT:

Up to \$60 rebate – or 20 nozzles per account at \$3 each. Model # required. Replace inefficient pop-up spray nozzles with efficient water conserving models. See our website for specific models.

### 4 WATER-SENSE WEATHER-BASED IRRIGATION CONTROLLERS:

Up to \$200 rebate when you purchase and install a WaterSense, weather-based controller: "Smart" irrigation control technology that uses local weather data to determine when and how much to water. WaterSense® labeled irrigation controllers can save you water, time, and money when compared to standard models.

### 6 MANUAL HOSE BIB TIMER:

Up to \$25 rebate. Never forget to turn off your water! Automatically turn off sprinklers at pre-set times.

### REBATE ELIGIBILITY REQUIREMENTS

Applicant must meet the following criteria

You must receive water from one of the following water provider members:

City of Estacada   City of Gladstone   Oak Lodge Water District  
South Fork Water Board (Oregon City and West Linn)  
Sunrise Water Authority (Happy Valley and Damascus)

- You must be a single-family residential customer or a small business (50 employees or less) which owns its own site and your account must be active and in good standing.
- The application must be received within 3 months of purchase.
- One rebate each, per account, per fiscal year (July 1–June 30).
- A copy or original of the dated sales receipt (or invoice) that specifies the brand/model must be included with the rebate form. The brand/model purchased must match the item exactly.
- The high efficiency toilet and weather-based controller you purchase must be EPA WaterSense® labeled. For a complete list of eligible products, visit: [http://www.epa.gov/watersense/product\\_search.html](http://www.epa.gov/watersense/product_search.html)
- For toilet rebates, the toilet brand/model must match the eligible model list exactly. Tank and bowl numbers cannot be mixed and matched from different models.
- Receive an additional \$15 for recycling your old toilet. Visit our website at <http://clackamasproviders.org/water-conservation/conservation-rebates/toilet-recycling-fac.html> for a recycling site near you. A copy of the recycling receipt is required to be eligible.
- For a complete list of eligible washing machines, visit: [www.energystar.gov/productfinder/product/certified-clotheswasher](http://www.energystar.gov/productfinder/product/certified-clotheswasher).
- Rebate items must be installed at the property associated with your water account.
- Rebates are available on a first-come, first-served basis. The program will end when funds are depleted. The total rebate per item will not exceed the receipt amount.
- Prior to approval, an on-site inspection may be required by Clackamas River Water Providers.

39 •

### **Appendix O - Conservation Rebate Program**

The CRWP Rebate Program consists of a up to \$100 rebate for replacing old toilets with new High Efficiency Toilets (HET), a \$75 rebate when customers purchase a new Energy Star certified residential clothes washer, a \$50 rebate for hose bib timers and/or irrigation rain switch, and up to \$60 (20 per account at \$3 each) if customers replaced their old inefficient irrigation spray nozzles with efficient water conserving models. New this year a \$200 rebate for the purchase and installation of a EPA Watersense Certified Smart Irrigation Controller was added to the program. A total of 130 rebates were processed this year.

<p><b>City of Gladstone</b>                      Total rebates = 7                      Toilets = 3                      Irr. Controllers = 2                      Clothes Washer = 2</p> <p><b>Oak Lodge Water Services</b>                      Total rebates = 19                      Toilets = 14                      Clothes Washers = 3                      Irr. Controllers = 1                      Nozzle = 1</p> <p><b>South Fork Water Board</b>                      Total rebates = 60  <u>Oregon City</u> = 30                      Toilets = 21                      Clothes Washers = 2                      Irr. Controllers = 5                      Nozzle = 2  <u>West Linn</u> = 30                      Toilet rebates = 21                      Clothes Washer = 1                      Irr. Controllers = 7                      Hose Timer = 1</p>	<p><b>Sunrise Water Authority</b>                      Total rebates = 44  <u>Damascus</u> = 2                      Toilet rebates = 2  <u>Happy Valley</u> = 42                      Toilet rebates = 23                      Washing machine = 5                      Irr. Controllers = 14</p>
--	---