



## Clackamas River Basin Council

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**To: Clackamas River Water Providers**  
**From: Cheryl McGinnis, Executive Director, and Morgan Parks, Environmental Outreach and Engagement Coordinator**  
**Date: June 30, 2015**  
**Re: Final Report on Pesticide Reduction Outreach Program**

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### Pesticide Reduction Outreach Program

**Focus:** CRBC pesticide fact sheets have been recognized by a number of organizations such as Oregon Dept. of Agriculture (ODA) and Oregon Dept. of Environmental Quality (DEQ) as attractive and informative resources for targeted groups of pesticide users whether nursery growers, Christmas tree farmers, commercial applicators, or residential users. General-use fact sheets featuring information on label reading, alternatives to pesticides, integrated pest management (IPM), proper pesticide disposal, and most recently – a new pictorial fact sheet for non-English speaking field workers, have also been created and utilized by CRBC and our partners.

Fact sheets are distributed in a number of ways and used as supporting materials during numerous community events and presentations about CRBC and the importance of watershed health to groups such as homeowners' associations and grange members. They are also taken with staff during pesticide use reduction consultations. The distribution of Christmas Tree Grower, Commercial Applicator, Residential, Nursery, Label Reading, and IPM fact sheets this year was performed by partners Clackamas Soil and Water Conservation District (at public events, during workshops for industry professionals interested in educational opportunities, and during on-site consultations) and North Willamette Research and Extension Service (at workshops for industry professionals seeking educational opportunities). The IPM, Alternatives, Proper Pesticide Disposal, and Label Reading sheets are used as supplemental materials during consultations with landowners, and distributed through the CRBC newsletter and during public events as well.

CRBC continues to provide detailed information to landowners through consultations which emphasize the wise use of pesticides. Consultation guidelines focus on non-biased, professional resources when making recommendations. Consultations are driven by the questions asked by the participating landowner, and are respectful of the landowner's knowledge of his/her own property and land management experience. Discussions with landowners focus on what positive actions a landowner is already taking prior to exploring alternative options for improvement. Guidelines also stress offering least-toxic options for control prior to recommending pesticides. Focus is placed on first correctly diagnosing a plant problem, and learning more about the invasive species to be treated, then following the principles of Integrated Pest Management – seeking out mechanical controls first, then biological, and then chemical as a last resort. Consultations also provide information on general pesticide use, such as label reading and pesticide alternatives.

CRBC is pleased to be able to offer pesticide reduction information to a larger base of interested landowners through the Shade Our Streams program, which has attracted over 100 streamside properties throughout the watershed. The Shade Our Streams project will be reaching out to and engaging landowners along five miles of stream each year for a total of 30 miles through the year 2020, which provides a great opportunity for the program to make a landscape-scale impact. Many of the landowners who receive consultations are enrolled in the Shade Our Streams program, and establish multi-year relationships with CRBC staff who can answer their questions and concerns about pesticide use for years to come.

**Status:**

**1) New Fact Sheet:** A pictorial fact sheet for non-English speaking field workers was developed (see attached) and reviewed by the North Willamette Research and Extension Service (NWRES) and members of the Clackamas Technical Working Group. Fact sheet distribution occurs through our partners with two hundred hard copies shared with both the Clackamas Soil & Water Conservation District (CSWCD) and NWRES. It is also available on our website for electronic download at <http://clackamasriver.org/community/fact-sheets>.

**2) Promotion and Messaging:** Pesticide reduction messaging has been promoted in our Spring 2015 E-blast and the Integrated Pest Management fact sheet was distributed with our Winter 2014 Newsletter.

**3) Distribution of Fact Sheets:** Approximately 2,230 total pesticide fact sheets were distributed through pesticide consultations, community events, workshops, volunteer work parties, and public meetings, as well as through the CRBC newsletter and e-blast.

**Distribution by sheet type (excluding e-blast):**

Commercial Applicators	Nursery Growers	Xmas Tree Growers	Pesticide Disposal	Residential Homeowners	IPM	Label Reading	Alternatives to Pesticides	Pictorial
75	25	25	230	25	275	100	75	400

**4) Consultations:** Pesticide reduction consultations were conducted through site visits in the Clear, Deep, and Eagle Creek sub-watersheds, as well as along the mainstem and lower tributaries through the Shade Our Streams program. Approximately 34 in-person consultations occurred between July 2014 and June 2015, with many phone consultations also occurring. In order to gauge the magnitude of our program, we measured the acreage of properties owned by individuals that received consultations. We also tabulated total number of stream miles owned by these individuals. Due to an adjustment in timing for CRBC’s outreach season, most consultations in 2015 will take place after June 2015 and accounts for a smaller number of consultations compared to last year’s high of 85 consultations.

**Acreage owned by individuals receiving consultations and outreach materials in 2014-2015:**

Clear	Deep	Eagle	Mainstem	Lower Tribs
79	132	22	33	38

With a total of 304 acres impacted.

Streamside feet owned by individuals receiving consultations and outreach materials in 2014-2015:

Clear	Deep	Eagle	Mainstem	Lower Tribs
2048	5783	276	1825	4452

With a total of 2.72 miles of streamside miles owned by landowners.

**5) Partners:** The CSWCD, NWRES, and others helped distribute messaging which included our suite of 9 pesticide fact sheets (see attached) through the Clackamas Nursery Growers Workshop - IPM and Pesticide Risk Mgmt (Clackamas Pesticide Stewardship Partners), Science Pub Talk in Boring (Johnson Creek Watershed Council), Streambank Erosion Workshop (Clackamas SWCD), as well as other events. A later date in fall of 2015 has been targeted by OSU/NWRES for a beneficial biological control workshop.

CRBC also partnered with the Clackamas County Government Channel on a video highlighting water quality issues, the importance of native vegetation in the Clackamas River Basin, the work CRBC is doing to improve waterways, and the beneficial actions landowners can take to help. Below are links to video segments:

- Clackamas River Basin Council Overview:  
<https://www.youtube.com/watch?v=sZJ2chWGxsA>
- Challenges Facing the Clackamas Watershed:  
<https://www.youtube.com/watch?v=lwvwHlgAyBQ>
- Shade Our Streams Program:  
<https://www.youtube.com/watch?v=Ud5ddK4SHUU>
- Shade Our Streams Sites:  
[https://www.youtube.com/watch?v=h09FRS\\_AsR0](https://www.youtube.com/watch?v=h09FRS_AsR0)
- The Impact of Invasive Species:  
<https://www.youtube.com/watch?v=WTWMme3SCVM>

**6) Drinking Water Protection Plan:** The Drinking Water Protection Plan continues to serve as a reference for public education and outreach efforts in the Clackamas watershed. CRBC's Pesticide Reduction Program as well as riparian plantings through the Shade Our Streams program help achieve goals of the plan.

### Pilot Pledge Program

**Focus:** CRBC investigated pesticide reduction pledges currently in place throughout the region which included a review of Metro's Healthy Lawn and Garden Pledge, the National Coalition for Pesticide Free Lawns, and the OSU Urban Pesticide Reduction Program in order to develop a plan for a pilot pledge program targeted towards residential landowners in the Clackamas watershed.

**Status:** See attached report: *Parting with Pesticides – A Pilot Pledge Program for the Clackamas Watershed*. This pilot pledge program is aimed at parting with pesticides through the elimination of pesticides used by residential landowners in their yards or through the wise use of these chemicals to reduce concentrations and protect water quality. Our intent is to make landowners aware of the effect of pesticides on water quality, encourage them to adopt a commitment to pledge to eliminate pesticides or reduce use, and promote the program in their community through the display of a "Pesticide Free" or "Pesticide Wise" yard sign. Implementation of Phase 1 of the plan would begin July 2015 – June 2016.

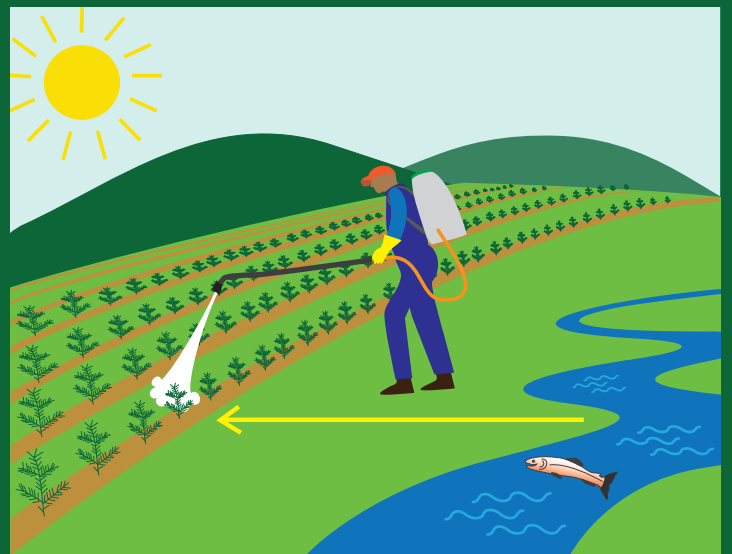
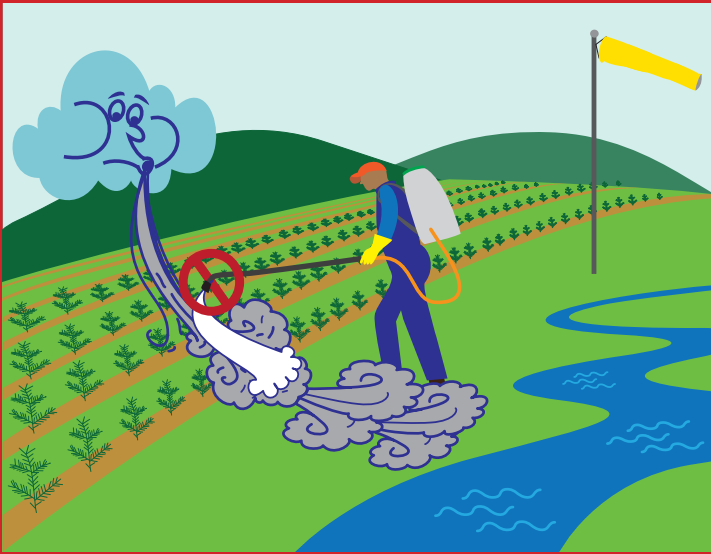
## **Residential Pesticide Roundup**

**Focus:** CRBC encouraged the safe disposal of household hazardous waste including pesticides, herbicides, and fertilizers through a Metro Neighborhood Collection Event on July 18, 2015 and distribution of our Proper Pesticide Disposal fact sheet developed last year.

**Status:** As agreed with CRWP, CRBC coordinated with Metro to plan a Neighborhood Collection Event in the Clackamas watershed targeted for 200+ customers. This event was identified as an opportunity to broaden pesticide collections from past events focused solely on agricultural property owners to include residential property owners. CRBC initiated discussions with Metro in the fall of 2014 to assure a location in the Clackamas River Basin was included in the 2015 Neighborhood Collection Event schedule. Planning continued through the winter and spring of 2015 and included site selection and a requested date to be chosen by June 30, 2014. An event was implemented on July 18<sup>th</sup> at Rock Creek Middle School in Happy Valley. Day of event logistics included consultations with landowners, distribution of pesticide reduction fact sheets, promotion of CRWP, and outreach of CRBC and partner resources such as the Shade Our Streams program (see attached photos). Results from the residential pesticide roundup can be seen in the attached results provided by Metro. Total customers reported was 170 with CRBC engaging with 164 of those, as some vehicles were motioned through the line before we could initiate a discussion. At least 3 vehicles were duplicate cars which had returned for a second disposal trip. Of the 170 customers, 41 of those brought in yard chemicals (pesticides, herbicides, fertilizers) which totaled 1,129 lbs. and another 30 brought in household chemicals (cleaners, etc.). These customers had multiple reasons for bringing in materials, though the most common reason was the desire to get rid of them as they had no further use and for proper disposal. Refer to the survey responses attached.

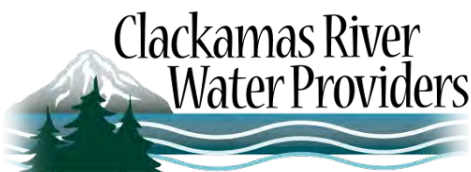
### **Attachments:**

- Nine pesticide fact sheets
- Spring 2015 E-Blast
- Report: *Parting with Pesticides – A Pilot Pledge Program for the Clackamas Watershed*
- Residential Collection Event Results, Survey Responses, and Photos



Clackamas River Basin Council

This pictorial fact sheet was developed by the Clackamas River Basin Council and was made possible through funding from the Clackamas River Water Providers.



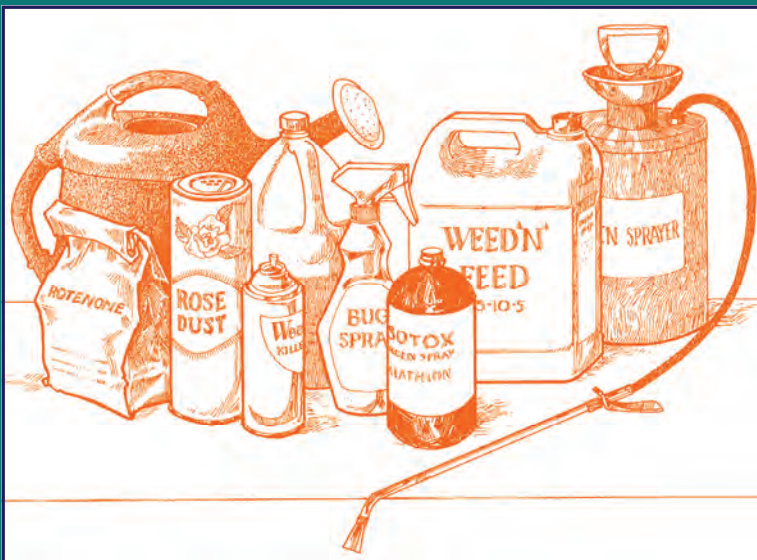
Clackamas River Basin Council: [www.clackamasriver.org/community/fact-sheets](http://www.clackamasriver.org/community/fact-sheets)

Clackamas Basin Pesticide Stewardship Partnership: [www.oregon.gov/ODA/shared/Documents/Publications/PesticidesPARC/ClackamasPSPFactSheet112614.pdf](http://www.oregon.gov/ODA/shared/Documents/Publications/PesticidesPARC/ClackamasPSPFactSheet112614.pdf)



# Think Smart About Pesticides

*How to dispose of unwanted and outdated pesticides, herbicides, & fertilizers*



Wondering what to do with those old and unused pesticides?

## Chemicals in the Clackamas

Keep em' out! Pesticides are a concern in the Clackamas watershed. Water samples collected by the United States Geological Survey (USGS) between 2000-2005 and water quality monitoring by the Department of Environmental Quality (DEQ) since 2005 in the Clackamas River and its tributaries, have found pesticides present with some exceedances of water quality standards.

Pesticides enter and pollute our waterways through soil leaching, flooding, surface and groundwater runoff. These chemicals not only contaminate our drinking water but can also hurt non-target organisms such as plants, birds, beneficial insects, fish and other aquatic life. In addition, these substances can also interfere with the operation of our wastewater treatment systems.

Proper use, handling, storage, and disposal of pesticides can reduce risks of contamination of our rivers, lakes, and even the air. Choosing safer alternative products whenever you can will help protect the health and safety of you, your family, and our natural areas.

One of the easiest ways to safely dispose of pesticides is to use them up according to label instructions. Also, check your inventory before buying more to avoid excess product. If you have any leftovers, share them with friends, neighbors, or charitable groups. And don't keep pesticides more than two years old. For other ways to get rid of unwanted or outdated pesticides, **see reverse side for disposal resources.**

## Hazardous Waste

We're all guilty of it — all those household products that pile up year to year under our sinks, in the garden shed, basement or garage. Yet these common products used in our homes and yards can harm people, pets, fish, wildlife and the health of our waterways. Many of these materials are considered **Household Hazardous Waste (HHW)** because they contain potentially dangerous chemicals that when disposed of improperly, can pose significant hazards to human health and the environment. These products will contain "signal words" on their labels such as: danger, corrosive, flammable, toxic, poisonous, combustible, or explosive. Reading labels before purchasing and using a product is essential.

### **Common hazardous products include:**

- ◆ Pesticides, herbicides, fertilizers, and poisons
- ◆ Paints and stains
- ◆ Solvents and thinners
- ◆ Corrosives
- ◆ Fuels and propane tanks
- ◆ Automotive fluids and antifreeze
- ◆ Mercury-containing products (fluorescent light bulbs)
- ◆ Batteries
- ◆ Fire extinguishers
- ◆ Household cleaners and disinfectants
- ◆ Aerosol spray products
- ◆ Pool and spa chemicals
- ◆ Art and hobby chemicals
- ◆ Sharps (medical needle syringes)

All of the above types of hazardous materials and others should never be poured or dumped down the sink, into the toilet, on the ground, down a sewer or street drain, or put in your garbage can. Do not burn, bury, or mix.





Do not dispose of HHW at curbside!

## Where to safely dispose of hazardous waste

Metro hosts free Household Hazardous Waste (HHW) collection events from March through November across the Portland metropolitan area which includes communities in Clackamas, Multnomah, and Washington counties. Though there is no charge to bring toxic trash, there is a 35-gallon limit per load and no containers should be larger than 5 gallons. Materials should be prepared and transported properly (see below) to minimize risks to you and others from accidental spills or mixing of dangerous materials. More information, including a schedule of **Neighborhood Collection Events** can be viewed online at [www.oregonmetro.gov/tools-living/garbage-and-recycling/neighborhood-collection-events](http://www.oregonmetro.gov/tools-living/garbage-and-recycling/neighborhood-collection-events)

Garbage, recycling, hazardous waste or organics can be taken to Metro's hazardous waste facilities located at:

- ◆ **Metro South Transfer Station — 2001 Washington St., Oregon City**
- ◆ **Metro Central Transfer Station — 6161 NW 61st Ave., Portland**

For questions, call **Metro Recycling Information** at 503-234-3000 and refer to "The Hazardless Home Handbook" at [http://library.oregonmetro.gov/files/hazardless\\_home\\_handbook\\_2006.pdf](http://library.oregonmetro.gov/files/hazardless_home_handbook_2006.pdf)

If you live outside the Metro tri-county area, call **1-800-RECYCLE (1-800-732-9253)** about HHW collection events in your community. Contact your local garbage hauler, local government solid waste department, or DEQ.

## How to prepare hazardous materials

Keep products in original containers with labels intact or label contents yourself to ensure that materials are safely and correctly disposed of by staff. Products should never be mixed as dangerous reactions can occur between materials. Prevent leaks and spills by sealing all containers. To properly seal, use a secondary leak-proof container to secure a leaking container. Do not use plastic bags. When transporting, store materials away from the driver, passengers, or pets. Use sturdy boxes to pack containers in the trunk of your vehicle. (Note: containers, boxes, and gasoline cans will not be returned to you)



Round up those pesticides & fertilizers for proper disposal!

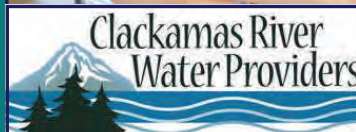
## Disposal of household pesticides and fertilizers

**Pesticides (insect, rodent and weed killers, and fungicides):** If not banned, expired, or restricted (check with OSU County Extension Office), the best way to dispose of pesticides is to use them up or give away to a responsible party. Empty pesticide containers can be triple-rinsed with water (if made of plastic or glass or with plastic foil liners). Use the rinse water that now includes pesticide residue as regular strength pesticide and refer to label directions. After wrapping the empty container in newspaper, dispose of in the garbage. Unwanted pesticides should be taken to a hazardous waste facility or collection event.

**Fertilizers (chemical):** It's best to use up or give away. If a fertilizer does not contain pesticides (does not say "weed" or "weed killer" anywhere), empty containers or packaging can be disposed of in the garbage. Leftover fertilizers can be placed in a heavy-duty plastic bag before disposal. Follow pesticide directions above for fertilizers that contain pesticides.



This fact sheet was developed by CRBC and was made possible through funding from the Clackamas River Water Providers.



### Resources and References

- Clackamas County**  
<http://www.clackamas.us/recycling/>
- Clackamas County Soil and Water Conservation District (SWCD)**  
[www.conservationsdistrict.org](http://www.conservationsdistrict.org)
- Clackamas River Basin Council**  
[www.clackamasriver.org](http://www.clackamasriver.org)
- Environmental Protection Agency (EPA)**  
<http://www.epa.gov/pesticides/>
- Metro**  
<http://www.oregonmetro.gov/tools-living/garbage-and-recycling>  
<http://www.oregonmetro.gov/tools-living/healthy-home/household-hazardous-products>
- National Pesticide Information Center at Oregon State University**  
<http://npic.orst.edu/>
- Oregon Department of Agriculture**  
<http://www.oregon.gov/ODA/PEST/pages/disposal.aspx>
- Oregon Department of Environmental Quality (DEQ)**  
<http://www.deq.state.or.us/lq/sw/hhw/index.htm>
- Oregon State University County Extension Office**  
<http://extension.oregonstate.edu/>



# Think Smart About Pesticides

*Reading a label can save you time and money, and protect water quality*



*Original artwork courtesy Chuck Groenink*

## Are there pesticides in the Clackamas?

Yes, pesticides have been found in water samples collected from the Clackamas River and its tributaries. The United States Geological Survey (USGS) evaluated pesticides in the mainstem of the Clackamas River and eight tributaries from 2000 through 2005. In all, 119 water samples were analyzed, detecting the presence of 63 different pesticide compounds. Results revealed that 97% of all samples had 2 or more types of pesticides present. Since 2005, water quality monitoring performed by the Oregon Department of Environmental Quality (DEQ) has also shown exceedances in water quality standards for certain pesticides in Clackamas River tributaries. Although the levels of pesticides did not exceed human health benchmarks, it is a warning sign that the health of our waterways is threatened. To read the full report, you can visit <http://pub.usgs.gov/sir/2008/5027>.

You can prevent more pesticides from reaching the river. Always follow the label's instructions, and dispose of the pesticide properly after it becomes outdated. **Remember to never put a pesticide down a toilet, sink, or storm drain. Keeping a buffer strip of plants between the area you're treating and any nearby water body.** Taking these steps will help keep our drinking water clean!

## Why is it important to read a label?

Pesticides can accumulate in land and run off with water, so it's difficult to pinpoint an exact source. To confound matters further, homeowners, golf course owners, agriculture users, and nurseries may use the same types of pesticides. This means **we all need to make sure that we're using chemicals properly.** Reading the label is absolutely essential to making sure that we keep as many pesticides as possible out of the river that provides us with drinking water, fishing, and recreation opportunities.

Reading a label can tell you a lot of important information, such as which pesticide to buy, how much pesticide to apply, and how to store the pesticide properly. Following these directions can help to keep you safe and save you money. For example, **some pesticides might have the same active ingredients even if they're sold under different brand names** — some companies simply charge more for brand recognition. **You can also avoid buying a product you don't need:** each product label will have a list of crops, intended use sites, and/or pests targeted. **The label will also help you determine how much pesticide to apply — using more than necessary can harm to your health, waste your money, and/or damage the watershed.** It is important to store chemicals properly to help to keep you safe: many pesticides are corrosive, combustible (flammable), or oxidizers (they help other substances to chemically combine with oxygen, often increasing combustibility). Finally, **the label is considered a legal document:** if you don't follow the instructions to the letter, you could be in violation of state and federal law.

## What if the label is missing?

It is not advisable to use any pesticide product if its precautionary language or directions for use are missing or illegible, and especially do not use an unknown product. However, if the product can be clearly identified, instructions for use can be recovered from the National Pesticide Information Retrieval System Web site at <http://ppis.ceris.purdue.edu/htbin/ppisprod.com>. **If you can't find out any of this information, you shouldn't use the pesticide** (this applies to other household chemicals, as well). If the chemical is unknown or **more than two years old**, follow proper disposal procedures. You can contact **Metro at (503) 234-3000 for more information** on the best way to dispose of the pesticide properly.



# How to Decipher a Pesticide Label

The pesticide's **Intended Use**. This portion of the label gives you information about what pests the chemical targets.

The pesticide's **Active Ingredient** names the specific chemical that's effective. Many pesticides have different trade names, but the same active ingredients. The amount of active ingredient is indicated by percentage.

**Other Ingredients** were previously listed as "inert." These ingredients function as carriers for the active ingredients.

The **EPA Registration Number** is the number that is assigned by EPA when that product is registered. Each product registered by EPA undergoes several human health and environmental risk assessment studies.

The **EPA Establishment Number** indicates where the product was packaged. This information will be important in the event of a product recall.

**Trade name:** the "brand" of the product

**No more weeds!**  
Pro formula

KEEP OUT OF REACH OF CHILDREN.

**CAUTION**

**Herbicide**  
Nonselective Foliar Systemic  
Herbicide for Weed Control

**Active Ingredient:**  
Glyphosate,  
N-(phosphonomethyl) glycine 28.3%  
**Other Ingredients** 71.7%  
100.0%

FIRST AID	
If in eyes	Flush eyes with plenty of water. Call a physician if irritation persists.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER For 24-hour medical Emergency Assistance call 1-800-222-1222	

Contains 3 pounds of glyphosate acid in each gallon, in the diammonium salt form. See directions for use in attached booklet.

**Precautionary Statements**

**Hazards to Humans and Domestic Animals**  
Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

**Environmental Hazards**  
Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash water.

**Storage and Disposal**

**Container Disposal**  
Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration.

**AGRICULTURAL USE REQUIREMENTS:**  
Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplement labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 000-0000  
EPA Est. 000-AA-000 AAA  
EPA Est. 000-AA-000 AAA  
Superscript identifies manufacturing site.

WNM 0000A-A0 0000

2.5 gallons  
US Standard Measure

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

**Personal Protective Equipment (PPE)**  
Applicators and Other Handlers Must Wear:  
• Long-sleeved shirts and long pants  
• Chemical-resistant gloves  
• Shoes plus socks

The **Signal Word** indicates how toxic the pesticide is. "Danger Poison" indicates high toxicity, "Danger" indicates a product has a high potential to severely irritate skin and eyes, "warning" signifies moderate toxicity, and products labeled "caution" may be harmful if swallowed or inhaled, and may irritate skin and mucus membranes.

**First aid** information will tell you how to react in case of an emergency. In Oregon, call 1-800-222-1222 24 hours a day, seven days a week. Be sure to keep the pesticide label close by, so that you can answer any questions the medical professionals may have for you.

The **Precautionary Statements** detail possible hazards to humans, pets, and the environment. Most pesticides should not be applied to water. If you do not follow these precautions, you could adversely affect your health, the health of our drinking water, and wildlife habitat.

The **Storage and Disposal** of pesticides is as important as using them properly. Follow the product label for all storage and disposal instructions. Always keep the pesticide in its original container, and **never** reuse a container for food or water. Contact Metro or your local solid waste hauler for information on proper pesticide disposal.

## Resources and References

Clackamas County SWCD  
[www.conservationsdistrict.org](http://www.conservationsdistrict.org)

Clackamas River Basin Council  
[www.clackamasriver.org](http://www.clackamasriver.org)

EPA's Consumer Labeling Initiative  
<http://www.epa.gov/pesticides/regulating/labels/consumer-labeling.htm>

Metro  
<http://www.oregonmetro.gov/>

National Pesticide Information Center at Oregon State University  
<http://npic.orst.edu/>

OR Dept. of Agriculture  
[www.oregon.gov/ODA/PEST](http://www.oregon.gov/ODA/PEST)

OR Dept. of Environmental Quality  
[www.oregon.gov/DEQ/WQ](http://www.oregon.gov/DEQ/WQ)

"Reading a Label." ODA Publication.  
<http://www.oregon.gov/ODA/PEST/docs/pdf/ReadingaLabel.pdf>

"Storing a Pesticide." ODA Publication. <http://www.oregon.gov/ODA/PEST/docs/pdf/StoringPesticides.pdf>



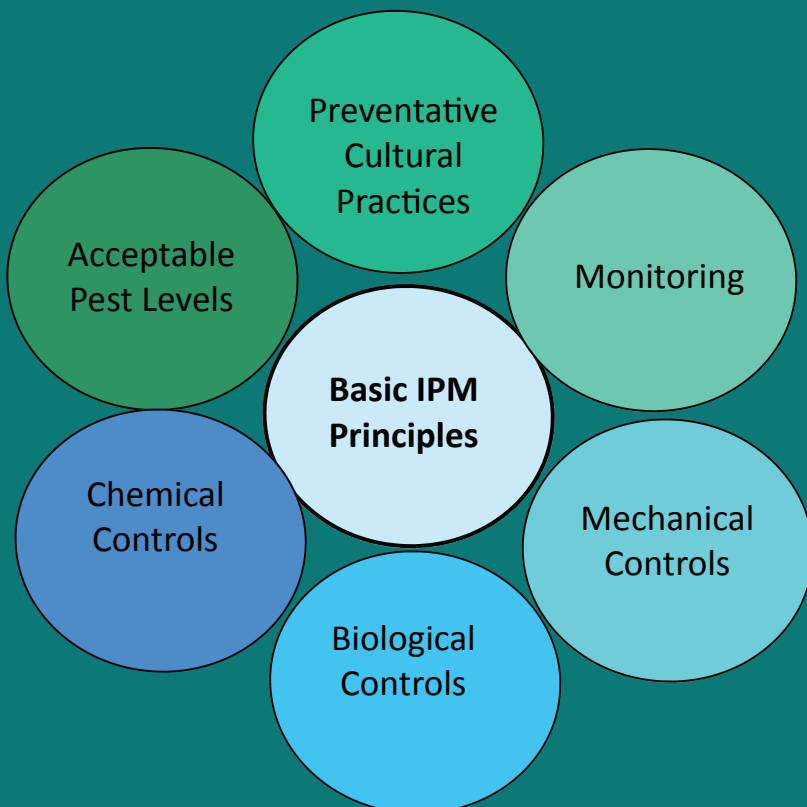
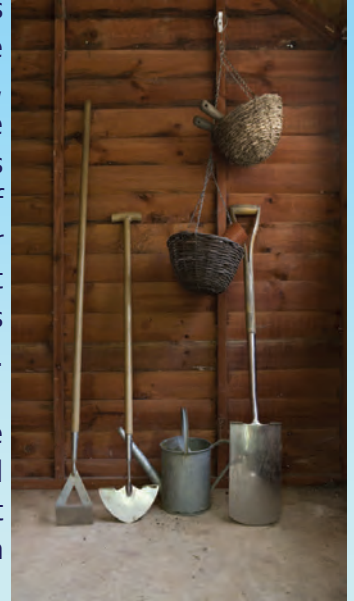
# Integrated Pest Management

*An alternative to pesticide use that can save you time and money*

## Why is integrated pest management important for our watershed?

Pesticides have been found in water samples collected from the Clackamas River and its tributaries. The United States Geological Survey (USGS) evaluated pesticides in the mainstem of the Clackamas River and eight tributaries from 2000 through 2005. In all, 119 water samples were analyzed, detecting the presence of 63 different pesticide compounds. Results revealed that 97% of all samples had 2 or more types of pesticides present. Since 2005, water quality monitoring performed by the Oregon Department of Environmental Quality (DEQ) has also shown exceedances in water quality standards for certain pesticides in Clackamas River tributaries. Although the levels of pesticides did not exceed human health benchmarks, it is a warning sign that the health of our waterways is threatened. To read the full report, you can visit <http://pub.usgs.gov/sir/2008/5027>.

Using Integrated Pest Management (IPM) techniques can be beneficial to you and to the Clackamas watershed, which provides drinking water for nearly 400,000 people and habitat for threatened salmon species. By employing IPM techniques, you can keep pest populations from establishing and getting out of hand, saving yourself time and money in the long run.



## What is Integrated Pest Management?

Integrated pest management (IPM) is a philosophy of land care that stresses preventative care and using the least risky approaches possible. Landowners first decide **what level of damage is acceptable** to them. In some cases, that level might be "none at all." In others, it might be something like "losing 5% of my crop to pests." Determining this level will help you decide when to take action.

Much of IPM is also focused on prevention of large-scale outbreaks. Landowners are encouraged to use **preventative practices** such as crop rotation, planting natives, and increasing plant diversity. An integral part of IPM is **monitoring for pests** through visually inspecting plants for damage. Your local Master Gardener or OSU Extension office can often help you determine what's eating your plants.

A **least risk approach** means using pesticides only when necessary. Use **mechanical controls first** (pulling weeds or picking off insects), then **biological controls** (predatory insects, pheromones), and finally **chemical controls**, prioritizing the most specific and least toxic chemicals first. A practitioner of IPM will have identified the specific insect or weed plaguing the property, and can use a chemical targeted for that pest, avoiding a general broadcast spraying of pesticide. This method is seen as a last resort.

# Implementing an IPM Program

There are many easy, cost-effective ways you can implement the principles of IPM. Preventative practices are a keystone of IPM. The best prevention is to make sure that pests don't have a chance to get established in the first place. You can do this by planting **native trees and shrubs**, **improving soil before planting**, and using **disease-resistant** varieties of plants. If there's a certain plant that hasn't done well on your property, consider replacing it, or moving it to a different location. Planting **many different varieties** of plants will help attract beneficial insects to your property, and if you do get a pest, it's less likely to become a full-fledged outbreak. Other keys to preventing pests include **mulching plants**, planting spreading **native groundcovers**, providing a **proper amount of water**, and raking and removing debris frequently. But what do you do if your best laid plans go awry and you identify a pest or weed?

There are many different mechanical controls you can implement that go beyond weeding. If you've got a large infestation, you could try mowing and/or aerating or tilling the soil. You can also consider physical methods such as sticky board traps, or, if you've got a greenhouse, putting in a fan to improve circulation.

Biological controls are gaining in popularity. You can buy insects like ladybugs or praying mantises, or invest in pheromone traps or other biopesticides. Note, however, that it can be more effective to create habitat for beneficial insects, rather than purchasing and releasing individuals. Biopesticides are naturally occurring chemicals, microbes, or plant-produced chemicals that fight pests. Many are regulated by the EPA in the same way that pesticides are, so be sure to follow label instructions.

If you do need to use a chemical control — for example, on a patch of Japanese knotweed — be sure to use one that's approved for the use you intend. Many chemicals cannot be used on or around water. If you have questions about pesticides or best-use practices, contact one of the partners listed below. Always read a pesticide label and follow its instructions before applying any product!



*Prevention is key to keeping ivy off your trees!*

## Resources

- Clackamas River Basin Council (pesticide reduction)  
<http://www.clackamasriver.org>
- Clackamas River Water Providers (drinking water quality)  
<http://www.clackamasproviders.org>
- Clackamas River SWCD (pest ID, land management)  
<http://www.conservationdistrict.org>
- Clackamas County Master Gardeners (pest ID, control)  
<http://clackamascountymastergardeners.org/>
- North Willamette Research and Extension Center (pest ID, control)  
<http://oregonstate.edu/dept/NWREC/resfac.php>
- OR Dept. of Agriculture (general pesticide questions)  
<http://www.oregon.gov/ODA/PEST>
- OR Dept. of Environmental Quality (toxics reduction)  
<http://www.deq.state.or.us/toxics/index.htm>
- OSU Extension (pesticide questions, land management)  
<http://extension.oregonstate.edu/>

## References

- EPA: IPM Principles  
<http://www.epa.gov/opp00001/factsheets/ipm.htm>
- EPA: Pesticides and Food — What IPM Means  
<http://www.epa.gov/pesticides/food/ipm.htm>
- EPA: Biopesticides  
<http://www.epa.gov/pesticides/biopesticides/pips/index.htm>
- City of Portland: Portland Parks & Recreation IPM Program  
<http://www.portlandonline.com/parks/index.cfm?c=38296&a=116237>
- IPM Center: National Roadmap for IPM  
<http://www.ipmcenters.org/Docs/IPMRoadMap.pdf>
- OSU: IPM at OSU  
[http://www.ipmnet.org/IPM\\_at\\_OSU\\_Programs.html](http://www.ipmnet.org/IPM_at_OSU_Programs.html)
- UC Davis: Western Integrated Pest Management Center  
<http://www.wrpmc.ucdavis.edu/>



This fact sheet was developed by the Clackamas River Basin Council. Development was made possible through funding from the Clackamas River Water Providers.





# Think Smart About Pesticides

## Christmas Tree Growers Can Make Our Waterways Healthier

### Are there pesticides in the Clackamas watershed?

Yes, pesticides have been found in water samples collected from the Clackamas River and its tributaries. The United States Geological Survey (USGS) evaluated pesticides in the mainstem of the Clackamas River and eight tributaries from 2000 through 2005. In all, 119 water samples were analyzed, detecting the presence of 63 different pesticide compounds. Results revealed that 97% of all samples had 2 or more types of pesticides present. Pesticides were detected in all of the eight sampled tributaries, with Deep and Rock Creeks containing the highest pesticide amounts. Seven of the eight tributaries had pesticide levels that exceeded benchmarks that have been set to protect fish and invertebrates. To read the full report visit: <http://pubs.usgs.gov/sir/2008/5027>. Since 2005, water quality monitoring performed by the Oregon Department of Environmental Quality (DEQ) has also shown exceedances in water quality standards for certain pesticides in Clackamas River tributaries. Pesticides can accumulate in land and run off with water, so it's difficult to pinpoint an exact source. To confound matters further, homeowners, golf course owners, agriculture users, and nurseries may use the same types of pesticides. Through working together, we can all help to keep our water clean, healthy, and drinkable!



### Understanding Important Statements on Product Labels

One of the most important actions a pesticide user can take is also one of the simplest: **always read and follow the label**. Labels provide important information on how, when, and where to use a particular product. They also keep pesticide users safe, pointing out risks, how to prevent problems, and requirements for using a particular product. Following a label's instructions is required by state and federal law.

Pesticide labels contain **signal words**, which indicate a product's toxicity. DANGER signifies the highest toxicity, followed by WARNING, then CAUTION. Information about how the product can affect the environment is found in the **Environmental Hazards** section of the label. Precautionary Statements often include important information on Personal Protective Equipment (PPE), Hazards to Humans and Domestic Animals and User Safety Recommendations.

The largest part of the label, the **Directions for Use**, includes specific information about topics such as how much pesticide should be mixed and applied, where the pesticide may be used, and how often applications may be made. Specific restrictions may include statements about not applying the pesticide within 25 feet of a water body, not applying the pesticide when rainfall is forecasted to occur within 24 hours, and not allowing the product to drift off-site.

Use the label to guide your decision-making about which pesticide to use, or if another management choice is available to control the pest you're targeting.

### Pesticides of Concern, and Pesticides of Interest

The following pesticides were listed for 2009-10 by the Inter-agency Water Quality Pesticide Management Team (WQPMT, composed of representatives from ODA, DEQ, ODF & OHA) as Oregon "Pesticides of Concern." A Pesticide of Concern (POC) has been evaluated by the WQPMT, which then determines if the pesticide is likely to approach or exceed a human health or environmental standard in a localized area of the State. The active ingredients of these POCs are listed below, along with one or two representative trade names. Always read a pesticide's label to determine the active ingredients.

- Atrazine- Aatrex®
- Azinphosmethyl
- Carbaryl — Sevin®
- Chlorpyrifos—Lorsban®
- Diazanone — Diazinon®
- Diuron
- Simazine — Princep®, Sim-Trol®
- Ethoprop

Pesticides of Interest, which have the **potential** to occur in ground or surface water at concentrations that approach or exceed a human health or ecological reference point currently under evaluation by the WQPMT include 2,4-D, Chlorothalonil, glyphosate, imidacloprid, terbacil, triallate, triclopyr, and trifluralin.



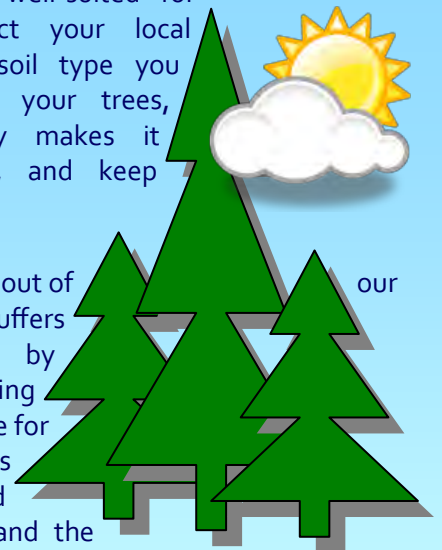
# How to Keep Your Forest Green and the Clackamas Watershed Clean

**Prevention and Monitoring:** It's important to plant tree species that are well-suited for your specific site conditions, especially soil type and drainage. Contact your local Extension Office or SWCD for information on how you can find out what soil type you have, and which trees might be most appropriate. Once you've planted your trees, check them often for pests and disease. Catching an infestation early makes it more likely you'll be able to contain the problem as quickly as possible, and keep damage to a minimum.

**Create or Maintain a Vegetative Buffer:** One of the best ways to keep pesticides out of our waterways is to plant a vegetative buffer strip along the stream. Buffers trap sediments, pesticides, and pollutants carried by runoff. Buffers can also help minimize costs associated with repairing problems caused by stream bank erosion by holding soil in place. For technical assistance for erosion prevention and control, contact your local SWCD and USDA Natural Resources and Conservation Service (NRCS). Both the SWCD and NRCS can help you find conservation programs like the Environmental Quality Incentives Program (EQIP) and the Conservation Reserve Enhancement Program (CREP) that will work for you. Your local OSU Extension is another good resource.

**Pesticide Selection:** Ask your Crop Advisor about new or existing products that may be more effective than what you're currently using. When possible, select a product that has a lower toxicity, lower potential to be carried in runoff, shorter persistence, and lower potential to leach into groundwater.

**Application Equipment and Weather:** Well-maintained and calibrated application equipment is critical for ensuring that the right amount of pesticide (as specified on the label) is being applied to the crop and that off-site movement is avoided. Do



Ag Container Recycling Council (container disposal procedures)  
[http://www.acrecycle.org/triple\\_rins.html](http://www.acrecycle.org/triple_rins.html)

Clackamas River Basin Council (pesticide reduction)  
<http://www.clackamasriver.org>

Clackamas River Water Providers (drinking water quality)  
<http://www.clackamasproviders.org>

Clackamas River SWCD (pest ID, land management)  
<http://www.conservationdistrict.org>

National Pesticide Information Center (general pesticide questions)  
<http://npic.orst.edu/>

North Willamette Research and Extension Center (pest ID, control)  
<http://oregonstate.edu/dept/NWREC/resfac.php>

OR Dept. of Agriculture (specific pesticide questions, specific water quality questions)  
<http://www.oregon.gov/ODA/PEST> and  
<http://www.oregon.gov/ODA/NRD>

OR Dept. of Environmental Quality (toxics reduction)  
<http://www.deq.state.or.us/toxics/index.htm>

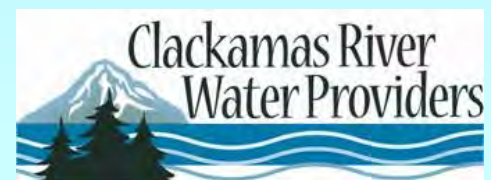
OSU Extension Christmas Tree Program (land management)  
<http://extension.oregonstate.edu/clackamas/xmastrees>

USDA/NRCS (conservation programs, technical assistance)  
<http://www.nrcs.usda.gov>

## Resources



This fact sheet was developed by Clackamas River Basin Council with guidance and feedback from the professionals at the Oregon Department of Agriculture and the OSU Extension Service. Development was made possible through funding from the Clackamas River Water Providers.



# Think Smart About Pesticides

## Commercial Applicators Can Make Our Waterways Healthier

### Are there pesticides in the Clackamas watershed?

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### Understanding Important Statements on Product Labels

One of the most important actions a pesticide user can take is also one of the simplest: **always read and follow the label**. Labels provide important information on how, when, and where to use a particular product. They also keep pesticide users safe, pointing out risks, how to prevent problems, and requirements for using a particular product. Following a label's instructions is required by state and federal law.

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The largest part of the label, the **Directions for Use**, includes specific information about topics such as how much pesticide should be mixed and applied, where the pesticide may be used, and how often applications may be made. Specific restrictions may include statements about not applying the pesticide within 25 feet of a water body, not applying the pesticide when rainfall is forecasted to occur within 24 hours, and not allowing the product to drift off-site.

Use the label to guide your decision-making about which pesticide to use, or if another management choice is available to control the pest you're targeting.

### Pesticides of Concern, and Pesticides of Interest

The following pesticides were listed for 2009-10 by the Inter-agency Water Quality Pesticide Management Team (WQPMT, composed of representatives from ODA, DEQ, ODF & OHA) as Oregon "Pesticides of Concern." A Pesticide of Concern (POC) has been evaluated by the WQPMT, which then determines if the pesticide is likely to approach or exceed a human health or environmental standard in a localized area of the State. The active ingredients of these POCs are listed below, along with one or two representative trade names. Always read a pesticide's label to determine the active ingredients.

- Atrazine- Aatrex®
- Azinphosmethyl—Guthion®
- Carbaryl — Sevin®
- Chlorpyrifos—Lorsban®
- Diazanone — Diazinon®
- Diuron — Direx®, Karmex®
- Simazine — Princep®, Sim-Trol®
- Ethoprop —Mocap®

Pesticides of Interest, which have the **potential** to occur in ground or surface water at concentrations that approach or exceed a human health or ecological reference point currently under evaluation by the WQPMT include 2,4-D, Chlorothalonil, glyphosate, imidacloprid, terbacil, triallate, triclopyr, and trifluralin.

# How to Keep Plants Green and the Clackamas Watershed Clean



**Create a plan:** If pesticide use is unavoidable, be sure to use them wisely and cautiously. Plan your pesticide application so you mix only as much needed for your specific job. Check your sprayer — is it clean, well-maintained and properly calibrated? Make sure to use pesticides that are recognized for treating the specific problem you're combating. Also pay attention to the weather — is it windy outside? Will it rain soon? Rain can wash pesticides away before they have a chance to act, and wind may cause them to drift onto non-target plants. This could lead to a need to re-apply pesticide in the future.

**Pesticide Selection:** Always read the pesticide label for specific product information and proper disposal methods, and research new or existing products that

may be more effective. When possible, select a product that has a lower toxicity, shorter persistence, lower potential to be carried in runoff, and lower potential to leach into groundwater.

**Practice Proper Disposal:** Empty pesticide containers should be triple-rinsed prior to disposal. The Ag Container Recycling Council's website (listed under "Resources" below) contains information on proper container disposal procedures such as triple-rinsing containers, and will help you locate a participating contractor. Do not dispose of leftover products by pouring them down a sink, flushing down the toilet, or dumping down a storm drain.

## Resources

Ag Container Recycling Council (container disposal procedures)  
[http://www.acrecycle.org/triple\\_rins.html](http://www.acrecycle.org/triple_rins.html)

Clackamas River Basin Council (pesticide reduction)  
<http://www.clackamasriver.org>

Clackamas River Water Providers (drinking water quality)  
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Clackamas River SWCD (pest ID, land management)  
<http://www.conservationdistrict.org>

Clackamas County Master Gardeners (pest ID, control)  
<http://clackamascountymastergardeners.org/>

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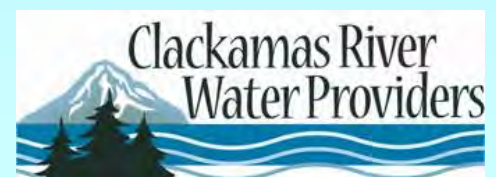
North Willamette Research and Extension Center (pest ID, control)  
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OR Dept. of Agriculture (specific pesticide questions)  
<http://www.oregon.gov/ODA/PEST>

OR Dept. of Environmental Quality (toxics reduction)  
<http://www.deq.state.or.us/toxics/index.htm>



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# Think Smart About Pesticides

## Homeowners Can Make Our Waterways Healthier

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Use the label to guide your decision-making about which pesticide to use, or if another management choice is available to control the pest you're targeting.

### Pesticides of Concern, and Pesticides of Interest

The following pesticides were listed for 2009-10 by the Inter-agency Water Quality Pesticide Management Team (WQPMT, composed of representatives from ODA, DEQ, ODF & OHA) as Oregon "Pesticides of Concern." A Pesticide of Concern (POC) has been evaluated by the WQPMT, which then determines if the pesticide is likely to approach or exceed a human health or environmental standard in a localized area of the State. The active ingredients of these POCs are listed below, along with one or two representative trade names. Always read a pesticide's label to determine the active ingredients.

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# How to Keep Your Yard Green and the Clackamas Watershed Clean

**Prevention Infestations:** It's important to plant native trees and shrubs, which are well-adapted to Oregon's wet winters and hot, dry summers. Mulching trees and shrubs will also help to lock in moisture and prevent establishment of weeds.

**Consider Manual Removal First:** There's a good chance you may be able to deal with your pest problem by hand. Consult the resources listed below to get help determining the best methods for treating the particular problem you're facing.

**Pesticide Selection, Application, and Disposal:** When possible, select a product that has a lower toxicity, shorter persistence, lower potential to be carried in runoff, and lower potential to leach into groundwater. Empty pesticide containers should be triple-rinsed prior to disposal—the Ag Container Recycling Council's website (listed under "Resources" below) contains information on proper container disposal procedures. Homeowners can also contact Metro to dispose of pesticides at (503) 234-3000. Never dispose of a pesticide by pouring into a sink, flushing down a toilet, or emptying into a storm drain.

**Create a Buffer:** One of the best ways to keep pesticides out of our waterways is to plant a vegetative buffer strip along the stream. Buffers act as a sponge to trap sediment, pesticides, and other pollutants carried by runoff, and can also help minimize costs associated with repairing problems caused by stream bank erosion by holding soil in place.

**Application Equipment and Weather:** Well-maintained and calibrated application equipment is critical for ensuring that the right amount of pesticide (as specified on the label) is being applied to the crop and that off-site movement is avoided. Do not spray when weather conditions favor drift and surface runoff, such as during wind or rain.



Image courtesy Brian Pasko

## Resources

Ag Container Recycling Council (container disposal procedures)  
[http://www.acrecycle.org/triple\\_rins.html](http://www.acrecycle.org/triple_rins.html)

Clackamas River Basin Council (pesticide reduction)  
<http://www.clackamasriver.org>

Clackamas River Water Providers (water quality, native plants)  
<http://www.clackamasproviders.org>

Clackamas River SWCD (pest ID, land management)  
<http://www.conservationdistrict.org>

Clackamas County Master Gardeners (pest ID, control)  
<http://clackamascountymastergardeners.org/>

National Pesticide Information Center (**general pesticide questions**)  
<http://npic.orst.edu/>

North Willamette Research and Extension Center (pest ID, control)  
<http://oregonstate.edu/dept/NWREC/resfac.php>

OR Dept. of Agriculture (specific pesticide questions)  
<http://www.oregon.gov/ODA/PEST>

OR Dept. of Environmental Quality (toxics reduction)  
<http://www.deq.state.or.us/toxics/index.htm>



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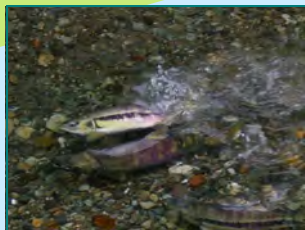


Figuring out the best way to keep your property looking beautiful can be a difficult task. There's so much to plan — what to plant and where to plant it, and maintenance takes just as much, if not more, effort.

At the **Clackamas River Basin Council**, we're committed to helping homeowners find salmon-friendly solutions to their landscape problems.



More than **go different pesticides** have been identified in our watershed. These chemicals can be harmful to people and wildlife that use the river.



Let's keep the Clackamas clean for future generations!

By making use of some of the natural methods described in this brochure, you can become part of the movement to keep the Clackamas clean. Many of these methods are also cheaper than purchasing pesticides, helping you to **keep your hard-earned cash**.

Our pesticide reduction outreach is funded by



Questions? Comments?  
We'd love to hear from you!

Just email [info@clackamasriver.org](mailto:info@clackamasriver.org)  
or call (503) 303-4372.  
You can also visit our website,  
[www.clackamasriver.org](http://www.clackamasriver.org)

### You can also contact our partners

**Clackamas River Water Providers**  
<http://www.clackamasproviders.org>  
(503) 723-3510

**Clackamas Soil & Water Conservation District**  
<http://www.conservationsdistrict.org/>  
503-210-6000

**OR Dept. of Agriculture: Pesticide Division**  
<http://www.oregon.gov/ODA/PEST/index.shtml>

**OSU Extension Office: Master Gardeners**  
<http://extension.oregonstate.edu/>  
(503) 655-8631

**OSU Extension Office: North Willamette Research and Extension Center**  
<http://oregonstate.edu/dept/NWREC/>

## Alternatives to Pesticides



A guide to  
keeping your lawn growing green  
and the Clackamas running clear

*An ounce of prevention...*

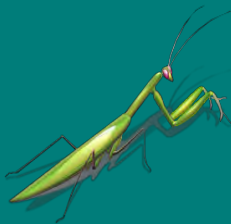
The best way to deal with a noxious species is to stop it before it starts. There are quite a few simple ways you can plan for a weed-free future.

**Go Native!** Plants from Oregon are well-adapted to the region's climate, with our hot, dry summers and cool, wet winters. Choosing the proper plants and planting them in the right places will insure they've got a fighting chance against any weeds or insects that might "pest"-er them. Try to plant a variety of plants, and rotate them if possible. This will make it more difficult for pests to establish long-term populations.



**Be vigilant.** It's easier to spot and stop an infestation if you're in your garden often. If you notice just a few weeds or rodents, take proactive steps to be rid of them as soon as you can. It's much easier to remove one Himalayan blackberry than an entire field full.

**Attract beneficial insects.** You may already do this if you plant a variety of different species. You can also purchase critters online (or possibly from your Soil and Water Conservation District). Good insects to invest in include ladybugs, praying mantis, nematodes, lacewings, and beneficial wasps.



*...and a pound of cure.*

If you do happen to run into a pest problem, don't fret—you're not alone! We've compiled some tried and true methods for ridding yourself of unwanted plants and animals.

**Enlist professional help.** The Clackamas County Master Gardeners program operates a free service out of the OSU Extension office in Oregon City. Just take in a sample of whatever is impacting your garden, or the damage it has caused (gnawed leaves, damaged bark, rotten roots, etc).



**Black plastic and tarps** can be helpful in killing off large infestations of weeds. Leave your barrier of choice on top of the weeds for one growing season, and you'll have plenty of room created for planting the next season. Be eco-friendly and recycle or reuse the plastic.



**Boiling water** can be used against weeds that are clustered together in smaller spaces such as sidewalks and driveways. Be careful when using boiling water, as it could damage desirable plants (or the pourer!).

**Collars and netting** are good barriers against insects. Place fine mesh around taller plants to keep flies out, or create a stiff paper collar and bury an inch deep in the soil around plants plagued by worms or burrowing insects.

**Copper sheets** placed around the borders of where your plants are growing will discourage snail and slug activity. Just be sure the area is free of slugs and snails before the copper is installed, as the animals could get trapped inside.



**Lasagna gardening** If the weeds you've got are plaguing a patch of land, consider creating a raised bed through lasagna gardening, which uses layers of material to simultaneously kill weeds and create new soil. Create a two- to three-foot thick raised bed of layers, alternating "green" materials (vegetables, grass, and trimmings) with "brown" (cardboard, newspaper, or fall leaves). Keep your casserole moist as it decomposes, and you'll have a plantable area, no digging required!



**Soil Amendments** can help improve the quality of your soil, and by extension, the health of your plants, keeping them strong enough to ward off pests. Contact the Master Gardeners or the Soil & Water Conservation District to get a test kit to find out what your soil quality is.



# Think Smart About Pesticides

## Nurseries Can Make Our Waterways Healthier

### Are there pesticides in the Clackamas watershed?

Yes, pesticides have been found in water samples collected from the Clackamas River and its tributaries. The United States Geological Survey (USGS) evaluated pesticides in the mainstem of the Clackamas River and eight tributaries from 2000 through 2005. In all, 119 water samples were analyzed, detecting the presence of 63 different pesticide compounds. Results revealed that 97% of all samples had 2 or more types of pesticides present. Pesticides were detected in all of the eight sampled tributaries, with Deep and Rock Creeks containing the highest pesticide amounts. Seven of the eight tributaries had pesticide levels that exceeded benchmarks that have been set to protect fish and invertebrates. To read the full report visit: <http://pubs.usgs.gov/sir/2008/5027>. Since 2005, water quality monitoring performed by the Oregon Department of Environmental Quality (DEQ) has also shown exceedances in water quality standards for certain pesticides in Clackamas River tributaries. Pesticides can accumulate in land and run off with water, so it's difficult to pinpoint an exact source. To confound matters further, homeowners, golf course owners, agriculture users, and nurseries may use the same types of pesticides. Through working together, we can all help to keep our water clean, healthy, and drinkable!



### Understanding Important Statements on Product Labels

One of the most important actions a pesticide user can take is also one of the simplest: **always read and follow the label**. Labels provide important information on how, when, and where to use a particular product. They also keep pesticide users safe, pointing out risks, how to prevent problems, and requirements for using a particular product. Following a label's instructions is required by state and federal law.

Pesticide labels contain **signal words**, which indicate a product's toxicity. DANGER signifies the highest toxicity, followed by WARNING, then CAUTION. Information about how the product can affect the environment is found in the **Environmental Hazards** section of the label. Precautionary Statements often include important information on Personal Protective Equipment (PPE), Hazards to Humans and Domestic Animals and User Safety Recommendations.

The largest part of the label, the **Directions for Use**, includes specific information about topics such as how much pesticide should be mixed and applied, where the pesticide may be used, and how often applications may be made. Specific restrictions may include statements about not applying the pesticide within 25 feet of a water body, not applying the pesticide when rainfall is forecasted to occur within 24 hours, and not allowing the product to drift off-site.

Use the label to guide your decision-making about which pesticide to use, or if another management choice is available to control the pest you're targeting.

### Pesticides of Concern, and Pesticides of Interest

The following pesticides were listed for 2009-10 by the Inter-agency Water Quality Pesticide Management Team (WQPMT, composed of representatives from ODA, DEQ, ODF & OHA) as Oregon "Pesticides of Concern." A Pesticide of Concern (POC) has been evaluated by the WQPMT, which then determines if the pesticide is likely to approach or exceed a human health or environmental standard in a localized area of the State. The active ingredients of these POCs are listed below, along with one or two representative trade names. Always read a pesticide's label to determine the active ingredients.

- Atrazine- Aatrex®
- Azinphosmethyl—Guthion®
- Carbaryl — Sevin®
- Chlorpyrifos—Lorsban®
- Diazanone — Diazinon®
- Diuron — Direx®, Karmex®
- Simazine — Princep®, Sim-Trol®
- Ethoprop — Mocap®

Pesticides of Interest, which have the **potential** to occur in ground or surface water at concentrations that approach or exceed a human health or ecological reference point currently under evaluation by the WQPMT include 2,4-D, Chlorothalonil, glyphosate, imidacloprid, terbacil, triallate, triclopyr, and trifluralin.



## How to Keep Plants Green and the Clackamas Watershed Clean

**Prevention and Pest Monitoring:** Check plants often for pests and disease, using items such as sticky traps as well as visual monitoring cues. Catching an infestation early makes it more likely you'll be able to contain the problem as quickly as possible, and keep damage to a minimum. Time spent scouting should ultimately pay off in less chemical needed to clear up an infestation of pests or disease, which means your operation will be more cost-effective.

**Create a Vegetative Buffer:** One of the best ways to keep pesticides out of our waterways is to plant a vegetative buffer strip along the stream. Buffers act as a sponge trapping sediments, pesticides, and other pollutants carried by runoff. Buffers can also help minimize costs associated with repairing problems caused by stream bank erosion by holding soil in place. The establishment and implementation of retention ponds can also be effective tools for minimizing water contamination by pesticides.

**Pesticide Selection:** Always read the pesticide label for specific product information and proper disposal methods, and ask your local OSU Extension Office about new or existing products that may be more effective. When possible, select a product that has a lower toxicity, lower potential to be carried in runoff, and lower potential to leach into groundwater.



### Resources

Ag Container Recycling Council (container disposal procedures)  
[http://www.acrecycle.org/triple\\_rins.html](http://www.acrecycle.org/triple_rins.html)

Clackamas River Basin Council (pesticide reduction)  
<http://www.clackamasriver.org>

Clackamas River Water Providers (drinking water quality)  
<http://www.clackamasproviders.org>

Clackamas River SWCD (pest ID, land management)  
<http://www.conservationdistrict.org>

Clackamas County Master Gardeners (pest ID, control)  
<http://clackamascountymastergardeners.org/>

National Pesticide Information Center (general pesticide questions)  
<http://npic.orst.edu/>

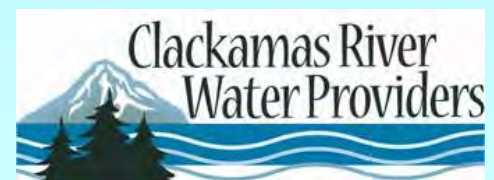
North Willamette Research and Extension Center (pest ID, control)  
<http://oregonstate.edu/dept/NWREC/resfac.php>

OR Dept. of Agriculture (specific pesticide questions)  
<http://www.oregon.gov/ODA/PEST>

OR Dept. of Environmental Quality (toxics reduction)  
<http://www.deq.state.or.us/toxics/index.htm>



This fact sheet was developed by Clackamas River Basin Council with guidance and feedback from the professionals at the Oregon Department of Agriculture and OSU Extension Service. Development was made possible through funding from the Clackamas River Water Providers.



### March 2015 Current News

[View this email in your browser](#)



#### In this issue:

- ~ Staff & Pet Photos
- ~ Shade Our Streams
- ~ Habitat at Milo McIver
- ~ Partner Projects
- ~ Signs in the Ground
- ~ Water Wise
- ~ Upcoming Events
- ~ Save the Date
- ~ News from our Friends
- ~ Support Our Work
- ~ Council Meetings

#### **CRBC Staff** at Stone Cliff Inn overlooking the Clackamas River.

Top, left: Chelsea White-Brainard, Mary Meier, Zach Bergen, Cheryl McGinnis. Bottom, left: Jenny Dezso, Morgan Parks.

#### Contact us:

503-303-4372  
[info@clackamasriver.org](mailto:info@clackamasriver.org)  
PO Box 1869



#### **Cats & Canines of the Clackamas**

Just for fun, we wanted to share a few photos of our **furry friends**. They love nature too! Check em' out on [facebook](#).

#### **Shade Our Streams at Halfway Mark**



Clackamas, OR 97015  
[www.clackamasriver.org](http://www.clackamasriver.org)

**Quote of the month:**

"Eventually, all things merge into one, and a river runs through it."

~Norman Maclean

Donate today

We're 1/2 way to our goal of planting 30 stream miles! Shade Our Streams planted over **76,000 native trees and shrubs** this winter along 5 stream miles, furthering our total mileage planted to **16.5 miles**. And this spring, we'll begin **enrolling new properties**. Streamside landowners along **Deep, Eagle, and Clear Creek**, as well as their tributaries, are encouraged to give CRBC a call to find out how they can **get involved** and take advantage of this **'no cost'** opportunity. Benefits include invasive weed removal and native plantings along streams. To [learn more](#), contact [chelsea@clackamasriver.org](mailto:chelsea@clackamasriver.org).

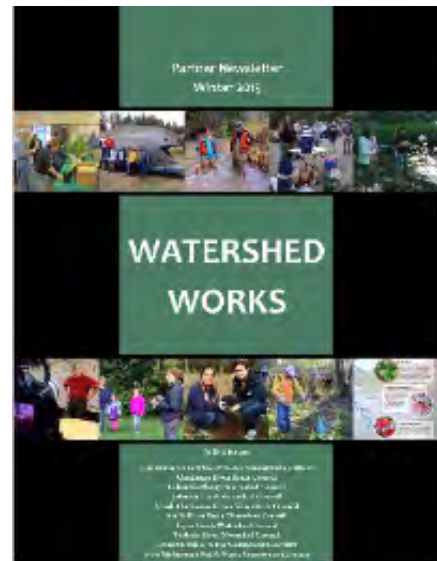


**New Habitat at Milo McIver**

Over 10,000 native trees and shrubs were recently planted at Milo McIver State Park's new habitat project through the **Shade Our Streams** program. **PGE** re-established two side channels last summer, adding hundreds of logs and boulders to enhance fish habitat. Read the [full story](#) and [view photos](#).

**Partner Projects**

Read highlights from local **Watershed Councils** and **Soil & Water Conservation Districts** within the Portland Metro region in this winter's [Watershed Works](#) edition. Outreach staff meet to discuss challenges and successes in community engagement, potential areas of collaboration, and innovative ideas. Project updates are compiled each quarter to showcase work and demonstrate the strength of our network.



**Signs in the Ground**

Next time you're out hiking or fishing at





Eagle Fern Park, Metzler Park, or Carver Boat Ramp, check out the [new interpretive signs](#) designed by CRBC and recently installed by **Clackamas County Parks** staff. Barton Park's sign is also coming soon.

## Water Wise

While the spring weather is wonderful, the warm temperatures can be worrisome. Lack of precipitation and limited snowpack can be of concern especially as we approach the dry summer and fire fighting season. This is why it becomes more important than ever to protect the water we do have and use it wisely. **Are you doing your part?**

Here are some **fact sheets** to help you plant smart, tackle weeds, reduce pesticides, conserve water, and much more:

[Why plant natives?](#)

[Why remove invasive plants?](#)

[Stop erosion before it starts](#)

[What is thermal pollution?](#)

[How to dispose of unwanted and outdated pesticides, herbicides, & fertilizers](#)

[Integrated pest management \(IPM\)](#)

[Reading a label](#)

[Alternatives to pesticides](#)

Think smart about pesticides: [homeowners](#), [Christmas tree growers](#), [nurseries](#), and [commercial applicators](#)

## Upcoming Events

**March 12 - Estacada Library Lecture: A River Runs Through It** 

This Thursday evening presentation by **CRBC** is part of a lecture series brought to you by the **Friends of Estacada Library**. Learn about the Clackamas River, CRBC's latest activities in the Estacada area, and how you can get involved. Free and open to the public. Starts at **7 pm at the Estacada Library** (825 NW Wade Street). Refreshments provided. For questions, contact [chelsea@clackamasriver.org](mailto:chelsea@clackamasriver.org).

**April 18 - SOLVE IT at Sandy Bluff Park** 

Help spruce up Sandy Bluff Park! Join CRBC for a volunteer work party, as part of **SOLVE IT** for Sandy, a community Earth Day and restoration event with the **City of Sandy**. Please convene at the **Sandy Community/Senior Center at 9 am** for

registration, breakfast treats, and free giveaways before heading over to the park for some good times cleaning up trash and mulching around native trees and shrubs planted through the **Shade Our Streams** program. [For more details](#) and to RSVP contact, [morgan@clackamasriver.org](mailto:morgan@clackamasriver.org) or 503-303-4372 x101.




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## Save the Date

**May 21** - Annual Watershed Celebration



**September 13** - Down the River Clean Up



**September 19, 20** - Cascading Rivers Scenic Bikeride



Contact [morgan@clackamasriver.org](mailto:morgan@clackamasriver.org) for more info about these events.

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## News from our Friends



### Plant

Where can you buy native wildflowers, shrubs, and trees to plant in your yard or along your stream? Here are some upcoming native plant sales and resources:

- [Tualatin Hills Park & Recreation District Native Plant Sale](#): April 25, 10 am - 2 pm, at 15655 SW Millikan Way in Beaverton.
- [Audubon Society Native Plant Sale](#): April 11-12, 10 am - 4 pm, at 5151 NW Cornell Rd. in Portland.
- [Friends of Baltimore Woods Native Plant Sale](#): March 28, 10 am - 3 pm, at St. John's Plaza in Portland.
- Other [local sources](#) of native plants provided by the **East Multnomah Soil & Water Conservation District**.

To be added to our notification list for plant sales and availability within the Clackamas watershed, [contact CRBC](#).



### [Learn](#)

[Soil School 2015](#): April 4, 8 am - 2:30 pm, at **PCC Rock Creek Event Center**. Learn about soil structure, texture, composition, and analyze your own soil sample. Sponsored by **East and West Multnomah Soil & Water Conservation Districts, Tualatin Soil & Water Conservation District, Natural Resource Conservation Service, Oregon Tilth, OSU Small Farms Program and OSU Master Gardeners**.



### [Recreate](#)

[Vortex Half Marathon & 10K Trail Run](#): March 28, 9 am, at **Milo McIver State Park**. Run wild at this gem of a state park in our very own Clackamas watershed!



### [Volunteer](#)

[Crystal Springs Creek - 2015 International Day of Rivers](#): March 14, 9 am, at SE 21st and Spokane Street in the Sellwood. The **Johnson Creek Watershed Council** and Spokane Street neighbors will be removing invasives, planting natives, cleaning up trash, and painting a salmon mural. To register, contact [robin@jcwcc.org](mailto:robin@jcwcc.org).

[SOLVE Spring Oregon Beach Cleanup](#): March 28, 10 am, at coastal sites statewide. Help clear Oregon's beaches of litter and marine debris harmful to wildlife, water quality, and coastal communities. Be a part of the **SOLVE** solution!

## Shop and Support our Work

**Fred Meyer Rewards**: Help CRBC earn donations just by shopping with your Fred Meyer Rewards Card. [Link your card to us](#). Search by name or nonprofit #89223.

**AmazonSmile**: Online shoppers can go to [smile.amazon.com](http://smile.amazon.com), click on your account - select CRBC as your charity of choice and we'll receive donations at no cost to you.

Visit our [donation page](#) for more ways you can contribute.

Thank you for your generosity!

## Council Meetings

CRBC hosts monthly Council Meetings the third Thursday of every month from 6 - 8



pm at the Mt. Scott Fire Station in Happy Valley (9339 SW Causey Ave.). These meetings are open to the public and community members are encouraged to attend. Please RSVP to [cheryl@clackamasriver.org](mailto:cheryl@clackamasriver.org) or 503-303-4372 x100. Meeting agendas and minutes are available upon request or can be found on our [website](#).

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Facebook



Twitter



Website

Sign up to receive CRBC's hard copy [newsletter](#) (sent twice per year) by emailing [morgan@clackamasriver.org](mailto:morgan@clackamasriver.org).

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The MailChimp logo, featuring the word "MailChimp" in a white, cursive script font, set against a dark grey rectangular background.



## PARTING WITH PESTICIDES

### A Pilot Pledge Program for the Clackamas Watershed

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#### **Background/Relevance**

Pesticides are wreaking havoc on the landscape and in our homes, poisoning our waterways and drinking water sources, and exposing unnecessary risks to families, children, neighbors, pets, and fish and wildlife species. In recent years, public concern over these environmental and health hazards have increased as more studies and stories come to light. The recent bee die offs across the country are a tragic example and much attention has been directed towards improving and preserving the habitat of these beneficial pollinators.

Unfortunately, suburban lawns and gardens often receive heavier chemical applications per acre than other land area in the US, including agriculture fields, because landowners lack the basic knowledge to assess their current use of pesticides, apply properly, and know the risks involved. These hazardous chemicals are even making it into our homes — carried in by wind, shoes, and pets, and contaminating indoor air and surfaces.

According to the National Coalition for Pesticide Free Lawns, of the 30 commonly detected lawn pesticides in the US:

- 17 are detected in groundwater
- 23 have the ability to leach into drinking water sources
- 24 are toxic to fish and other aquatic organisms vital to our ecosystem
- 11 are toxic to bees
- and 16 are toxic to birds

This just goes to show how wide-spread the effect of pesticide use can be, trickling downstream, from our yards to our creeks, from bears to bugs, and everything in between.

The same 30 chemicals mentioned above are toxic to human health and have been linked with cancer or carcinogenicity, birth defects, reproductive effects, liver or kidney damage, neurotoxicity, and disruption of the endocrine (hormonal) system in humans.

In the Clackamas watershed, between 25 and 30 pesticides have typically been detected since 2009 across 4 stream monitoring sites sampled by the Pesticide Stewardship Program, with 19 exceeding water quality benchmarks or having frequent multi-year

detections. Two of the monitoring sites are located within the urban areas of Rock and Sieben Creek. Notably, of the 25-30 herbicides found, 10 of the most detected are herbicides, indicating that landowner are after weeds.

What can we do to prevent contamination in our streams? Educate the public to reduce pesticides!

This pilot pledge program is aimed at parting with pesticides through the elimination of pesticides used by residential landowners in their yards or through the wise use of these chemicals to reduce concentrations. The remainder of this report details the Clackamas River Basin Council's proposal of activities to implement this program with funding from the Clackamas River Water Providers.

## **Program Design and Implementation Strategies**

CRBC will investigate pledge programs and develop a plan, described in this report, to implement in the Clackamas watershed:

- As part of Phase 1 (see Table 1) of our pilot pledge program, CRBC investigated pledges currently in place throughout the region which included a review of Metro's Healthy Lawn and Garden Pledge, the National Coalition for Pesticide Free Lawns, and the OSU Urban Pesticide Reduction Program. CRBC's pledge will mirror these programs but will focus on a smaller geographic area — the Clackamas River Basin — with pledge language focusing on water quality and signs that bring attention to landowners within the watershed doing the right thing. Our intent is to make landowners aware of the effect of pesticides on water quality, encourage them to adopt a commitment to pledge to eliminate pesticides or reduce use, and promote the program in their community.

CRBC will create a pilot pledge targeting residential landowners:

- Pledge language will emphasize the protection of our streams and drinking water through a declaration to reduce or eliminate the use of pesticides on lawns and yards, minimizing harms to humans, pets, wildlife, and waterways.
- Participating pledgers will receive a free yard sign in honor of their commitment, making them a model for their community and inspiring neighbors to do the same.
- Contact information collected from pledgers will include lot size to measure pesticide free (organic) and pesticide wise acreage to help determine reach and impact.
- The pledge will be promoted on CRBC's website and encouraged to be shared on partner sites as well.



- Approval of pledge language will be sought from the Clackamas River Water Providers prior to implementation.

#### CRBC will design yard sign(s):

- Options for landowners
  - Pesticide Free – Targeted towards the environmentally conscious (organic, eco-friendly, sustainable, etc.) and of most benefit to the health of the watershed.
  - Pesticide Wise – Targeted towards landowners that may be working with CRBC through programs such as Shade Our Streams or engaged with our partners (i.e. Rock Creek Partnership, WES) in which responsible use of pesticides may be utilized to treat invasive species (i.e. Japanese Knotweed) where manual removal is ineffective. Partners would be notified of this pledge program.
- Sign design and fabrication
  - An attractive graphic will be designed that tugs at landowner heartstrings (i.e. clean water, kids, pets, ladybugs, butterflies, bees, birds, fish etc.).
  - Signs will be differentiated by “Pesticide Free” or “Pesticide Wise”.
  - Sign materials will be chosen based on cost, outdoor lifespan, and appeal to landowners.
  - Approval of sign design will be sought from the Clackamas River Water Providers prior to ordering.
  - An initial order will be dependent on pledges (number of pesticide free vs. pesticide wise).
- Distribution
  - Signs can be picked up from the CRBC office or at public community events we may be attending. Water providers may also elect to have signs on-hand to distribute.
  - Pledgers will receive a one-page flyer with tips on how to eliminate pesticides or use them wisely.

#### CRBC will create an outreach mailer with pledge and sign information:

- To be sent to streamside landowners in Rock Creek and Sieben Creek subbasins
  - These are the most urbanized subbasins upstream of CRWP intakes.
  - For Phase 2, we recommend starting small with outreach as we pilot this program. Mailer will be sent to approximately 600 streamside landowners at a cost of \$6,500.00 (see Table 2).

- Streamside landowners are directly adjacent to waterways and therefore have much influence on pesticides entering waterways not only due to their pesticide use but also through the presence or lack of vegetative buffers.
- Additional mailers (400) will be distributed to community members through events and partner distribution - see Marketing and Promotion section.
- In Phase 3 of the program, the mailer could be sent to all taxlots in Rock/Sieben watersheds, approximately 5,000 households for an additional cost, or could be sent to landowners in other subbasins (Clear, Deep, Eagle), perhaps reaching out to one new subbasin in each successive year of the program.

#### CRBC will contact partners for future collaboration and promotion:

- Initial contact with OSU Extension has indicated an interest in assisting with our pledge program as there is an active group of 300 Master Gardeners across Clackamas County. Further discussion in 2015-16 will identify ways to collaborate such as pledge recruitments from Master Gardener contacts.
- Homeowner Associations will also be investigated as a valuable avenue for further outreach.
- By reaching out to new partners, we will engage them in the program while helping to connect pledge participants to resources in their community.
- Feasibility of coordinating a workshop with partners will be determined. During Phase 3, the workshop would provide an educational opportunity for residential landowners to learn how they can be pesticide free or pesticide wise in their yards.

#### CRBC will evaluate pilot program effectiveness:

- Number of pledge adopters will be tracked to help assess the success of the pilot program.
- Lessons learned from Phase 2 will inform future plans for Phase 3.

## **Marketing and Promotion**

#### CRBC will utilize outreach and communication tools to promote pledge:

- A webpage will be created with the pledge, sign example, and links to educational resources from Beyond Pesticides (National Coalition for Pesticide-Free Lawns): <http://www.beyondpesticides.org/pesticidefreelawns/resources/>.
- The outreach mailer will be directly mailed to landowners and could also be used as a flyer for general distribution at community events/work parties/workshops (i.e. Rock Creek Partnership Watershed Wide Event, Discover Rock Creek, etc.).

- The pledge program will be promoted in our newsletter, e-blast, social media, and through a press release.
- In addition, the program will be shared with partners such as Clackamas County Water Environment Services, Clackamas Soil & Water Conservation District, Rock Creek Partnership, and others.
- Students within the WES Clackamas County Service District #1 and those involved with educational programs of the Clackamas River Water Providers may provide additional outreach avenues by taking home the pesticide reduction message to parents.
- In conjunction with Shade Our Streams site visits and consultations, the pledge program may be appropriate for interested landowners.

## Timeline of Activities

Table 1

<b>Calendar Month/Year</b>	<b>Deliverable</b>
<b>PHASE 1</b>	
July 2014 – July 2015	Investigate pledge programs and develop plan for implementing in Clackamas watershed (completed)
<b>PHASE 2</b>	
July – December 2015	Write pledge Design signs Create outreach mailer
January – April 2016	Order signs Mail outreach mailer Promote through communication tools (listed above)
May – June 2016	Distribute signs and tips flyer Create contacts with Master Gardeners Consider workshop feasibility
June 2016	Shade Our Streams site visits and consultations begin
<b>PHASE 3</b>	
July 2016 – July 2017	Infiltrate pledge program into Master Gardener activities Identify HOA's to contact If workshop is feasible – plan, promote, implement Mail outreach mailer (expand to include all households in Rock/Sieben Creek or other watersheds) Order additional signs if needed



## Target Expenses

Table 2

Budget Item	Expense
Printing for outreach mailer - streamside landowners (600), general community (400)	\$750.00
Postage for outreach mailer	\$150.00
Sign fabrication (50)	\$2,000.00
Staff time for coordination/planning	\$3,600.00
<b>Total</b>	<b>\$6,500.00</b>

## References

Beyond Pesticides – National Coalition for Pesticide Free Lawns:

<http://www.beyondpesticides.org/pesticidefreelawns/>

<http://www.beyondpesticides.org/lawn/factsheets/30health.pdf>

Metro Healthy Lawn and Garden Pledge:

<http://www.oregonmetro.gov/tools-living/yard-and-garden/garden-pledge>

Oregon State University Master Gardeners:

<http://extension.oregonstate.edu/mg/urban-pesticide-reduction-program>

Clackamas Basin Pesticide Stewardship Partnership Fact Sheet:

<http://www.oregon.gov/ODA/programs/Pesticides/Water/Pages/PesticideStewardship.aspx>

**ROCK CREEK MIDDLE SCHOOL 7-18-2015**  
**CUSTOMER COUNT 170**

Waste Stream	Container	
Latex - 1 gallon containers	Cage	3.25
Latex - 5 gallon containers	Pallet	1.666
Latex - quart containers	Cage	0.3
Pour off - Pallet	Bulking Pallet	1.25
Pour off - Skid	Skid	2
Paintcare	Skid	2
N2 - Toxic Liquid NOS	Drum	4.3
N2 - Toxic Solid NOS	Drum	2.2
N5 Toxic Solid	Drum	1
N1 - Toxic Liquid Flam. NOS	Drum	0
L - Caustic Alkali Liquid NOS	Drum	1
L - Caustic Alkali Solid NOS	Drum	0
K3 - Corrosive Liquids NOS	Drum	0.7
M - Oxidizers Liquid NOS	Drum	0
M - Oxidizers Solid NOS	Drum	0
G - Nonregulated	Drum	0.5
A-Fuel Loosepack	Drum	0.4
Q2/3 - Poison/Corr. Aerosols	Drum	0.7
I3 - Alkaline batteries	Drum	0.4
Motor Oil	Drum	0.6
Antifreeze	Drum	0.6
Q1 - Aerosols	Pallet	0.533
Reuse	Skid	0.7
Lead Acid Batteries	Skid	0.2
Propane (20 lb)	Cylinders	0
Propane (1 lb)	Cylinders	70
Fire extinguishers	Cylinders	10
M - Oxidizers NOS Bucket	10 Gallon	0
N1 - Flammable Liquid, toxic	5 Gallon	0.1
N3 - Toxic liquid, corrosive	5 Gallon	0
N4 - PG 1 Poisons	5 Gallon	0.1
K1 - Flammable liquids, corrosive	5 Gallon	0
K2 - Organic Acids	10 Gallon	1.2
Rechargeable Batteries	5 Gallon	1
Misc batteries	5 Gallon	0.1
R1 - Organic Peroxides	1 Gallon	0.1
R2 - Water Reactive	5 Gallon	0.2
Mercury	5 Gallon	0.1
Explosives	5 Gallon	0
Flares	5 Gallon	0
Ballasts	5 Gallon	0.1
V - Lab Waste	5 Gallon	0.3
Unknowns	5 gallon	0
Sharps - 40 pounds per bin	Bin	2
Compact Fluorescents	Small Drum	1
4' Fluorescent tubes	Drum	0.1
8' Fluorescent tubes	Box	0.1
Asbestos	Pounds	40

<b>TOTALS</b>		
pounds		10179
latex (gallons)		354
oil-based paint & other flam (gallons)		334
pesticides (lbs)		1129
antifreeze & motor oil (gallons)		68
aerosols (pounds)		396
misc.* (lbs)		1907
customers		170
<i>Per customer:</i>		
pounds		59.9
latex (gallons)		2.1
oil-based paint & other flam (gallons)		2
pesticides (lbs)		6.6
antifreeze & motor oil (gallons)		0.4
aerosols (pounds)		2.3
misc.* (lbs)		11.2



## Residential Collection Event Survey Results - July 18, 2015

### 1. Have you participated in a pesticide collection event before?

Yes	50
No	114

### 2. How did you hear about the event?

Received postcard	97
Metro website	25
Word of mouth	8
Drive by/walk by	9
Called Metro	11
Fire/Police	2

Other: \_\_\_\_\_

### 3. What are you bringing in today?

Batteries	53
Paint (paint cans, spray paint)	102
Thinners, Solvents, Stains	23
Computer/Electronics	4
Yard Pesticides (herbicides, fungicides, insecticides, fertilizers)	41
Other Chemicals (acid, mercury, etc.)	4
Medical (sharps, pills, etc.)	35
Fuel (gas, propane, hobby fuel)	19
Automotive (motor oil, hydraulic fluid, etc.)	36
Light Bulbs	33
Household Chemicals (cleaners, adhesives, pool/spa chemicals)	30
Construction Materials	1
Fire Extinguisher	2
Unknown Fluid	2

Other: \_\_\_\_\_

### 3 b. If Pesticides, what type?

Weed n' Feed	2
Round up	7
Raid	2
Miracle-Gro	1
DDT	1
Durisban	1
Spectra	1
Ortho	3

Asulox	1
Diazinon	2
Preen	2
Malathion	2
Sulfur dust	2
Moss powder	1
Unknown insecticides (dormant sprays, repellants, etc.)	13
Unknown fungicides	2
Unknown herbicides	10
Unknown fertilizers	7
Unknown chemicals	6

Other:

---

### 3 c. What is the main reason for bringing in the materials?

Contaminated/expired	9
Intend to be chemical free/organic	1
Left by previous owner	9
Don't use/want to get rid of/cleaning	84
Empty container	2
Properly disposing of (safety)	52
Avoid fee	1
Convenient	17
Moving	8

Other:

---

### 4. Would you participate in this type of event again?

Yes	161
No	0

### Comments:

Would be more helpful if it was regularly scheduled.

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Neighbors got together and went in together on load.

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Too long of wait.

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**Metro Household Hazardous Waste Collection Event**  
July 18th, Happy Valley