

# A Clear Look at West Linn Water Resources

## West Linn's Waterways

"City of hills, trees and rivers," West Linn encompasses eight verdant square miles situated on the Willamette River. Here in West Linn, two important tributaries flow into the bend of the Willamette River. On the City's southwestern tip, the 83-mile long Tualatin River ends its downhill journey from the Tillamook State Forest of the Northern Oregon Coast Range. On the eastern river border with Oregon City by Goat Island, the 83-mile long Clackamas River ends its 83-mile run from the Mount Hood National Forest in the Cascades. Hilly West Linn is also home to 21 neighborhood creeks; 19 of which flow directly down into the Willamette River while the other two flow into the last half-mile stretch of the Tualatin River.

So the water from rain, creeks and rivers touches our lives every day in West Linn. It's all part of the makeup of our watershed, the land under or across which water flows on its way to a larger body of water. Here that large body of water is the 190 mile-long Willamette River, which is the 13th largest river in the United States (by volume) and has the most runoff per square mile of any American river. West Linn is part of the Willamette River Watershed. Our watershed supplies the mighty Columbia River, the fourth largest river in our country. So how we use water can really make a difference across a wide swath of land beyond our homes, neighborhoods, schools and businesses.

Water is a precious, limited resource that we need to protect. By understanding how our water use impacts our land and waterways we can make better choices to ensure a more sustainable quality of life for ourselves; for the plants, fish and wildlife around us; and for future generations across the Pacific Northwest.

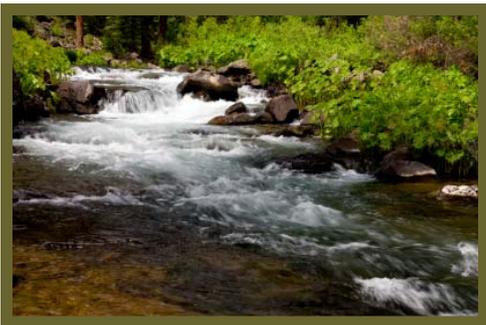
## The Inside Story

The water we use in our homes, gardens, schools and businesses — our **potable** (drinking) water supply — comes from the snowmelt of the Cascade Mountains. Using pumps and pipes, water is drawn from the Clackamas River by the South Fork Water Board, the water wholesale supplier to West Linn. The river water is then processed to drinking water standards at a treatment facility in Oregon City, co-owned by the cities of West Linn and Oregon City. After treatment, West Linn pumps the clean water supply across the Willamette River through a pipe suspended under the I-205 Abernethy Bridge and into one of the City's six covered reservoirs that store up to 5.5 million gallons to meet the daily indoor and outdoor needs of West Linn residents, schools and businesses for drinking, cooking, bathing, dishwashing, laundering, gardening, car washing, etc. The City also has an intertie pipeline with Lake Oswego to meet emergency water supply needs. All 117 miles of the City's pipeline and water distribution system are maintained and operated by the West Linn Public Works Department.

The 2.3 million gallons of **wastewater** (used water) from washing or toilet flushing **inside** our West Linn homes, schools and other buildings each day goes down the drain into the **sanitary sewer system**. Small pipes, called laterals, carry wastewater from those structures into sewer pipes placed under streets. By gravity and a series of increasingly larger pipes, the wastewater flows through a main pipe underneath the Willamette River and into the Tri-City Water Pollution Control Plant, located in Oregon City and operated by the Clackamas County Water Environment Services Department. Using physical, biological and chemical treatment methods that simulates the way nature purifies water, but at a greatly accelerated pace, this wastewater treatment facility processes about 8.4 million gallons of wastewater per day from the cities of West Linn, Oregon City and Gladstone. After treatment, the water is released into the Willamette River as clean water, though not suitable for drinking. Biosolids, the organic by-product removed from the wastewater, is used as a nutrient-rich soil amendment for crops. This reuse saves solid waste from going to landfill and reduces dependence on petroleum-based fertilizers.

## The Outside Story

In nature, rainwater or surface water that flows across land or goes underground stays fairly clean due to natural processes of aeration, absorption and filtering. But in urban and agricultural environments, like West Linn, the ground is not able to absorb all the water from rainfall, sprinklers and other outdoor uses. For flood control purposes, rainwater is channeled from street surfaces into catchment basins and storm drains that flow directly into our neighborhood creeks and rivers. In addition to the 71 miles of pipes, this **stormwater system** has 40 ponds and 54 underground detention tanks designed to slow down rushes of water from overwhelming our streams. The stormwater system is designed to handle rain water only and goes **untreated** into our creeks and rivers. Unfortunately, as water flows off driveways, streets, sidewalks and lawns, it picks up pesticides, fertilizers, lawn clippings, leaves, soil, soapy water, auto fluids, etc., which disturb and harm the waterways and the plants, fish and wildlife that depend upon them.



# Help Protect our Waterways:

## Water Conservation

Even though we live in a rainfall rich area (about 47 inches per year), water conservation needs to become part our lifestyle, especially during summer months. As West Linn grows, so does our water use. To make sure that we have water when we need it, to save on water bills and reduce the cost of developing new supplies and to have enough water in the rivers for fish and recreation, we all need to use water wisely. For water-saving tips:

- See the South Fork Water Board web site at <http://www.sfwb.org/conservation.html> for conservation tips.
- Take a self-guided tour of the Water-Efficient Demonstration Garden at Clackamas Community College, 19600 South Molalla Avenue, Oregon City to learn about bringing low water use landscaping practices to your own yard.
- Learn about WaterSense product labels and other EPA water-saving tips at <http://www.epa.gov/watersense>
- Have fun and get more water saving ideas by playing the Tip Tank game on <http://www.wateruseitwisely.com>
- Learn more about recent Oregon legislation that will regulate the use of **graywater** collected from household baths, showers, sinks and washing machines for safe reuse in flushing toilet and landscaping at <http://www.deq.state.or.us/wq/reuse/graywater.htm#Intro>

## Pollution Prevention

The Water Pollution Control Plant is designed to remove only organic matter from the water. It cannot remove pollutants such as plastics, paints, auto fluids, garden chemicals, heavy metals (mercury, zinc, lead, cadmium, etc.) or other toxic materials. So it's important to flush only toilet paper down toilets, recycle plastics at curbside (or elsewhere) and bring household hazardous waste materials to the Metro South Station in Oregon City for safe disposal. Learn more about wastewater treatment for West Linn at <http://www.tri-cityservicedistrict.org>.

**Preventing stormwater pollution** is everyone's job. That's why it's important to scoop up after pets, take leftover household hazardous wastes to South Metro Station for safe disposal, prevent soil erosion, use debris boxes for remodeling projects, and manage gardens and lawns with non-toxic methods. For more eco-friendly tips:

- Turn your yard into a rain garden so that stormwater runoff can seek into the ground naturally and reduce the amount pollutants that flow into neighborhood streams. The illustrated OSU guide on rain garden setup, **Oregon Rain Garden Guide: Landscaping for Clean Water and Healthy Streams**, is downloadable at <http://seagrant.oregonstate.edu/sgpsubs/onlinepubs/h10001.pdf> or call OSU Sea Grant Communications at 541-737-4849 for a booklet, which costs \$4.95 each, plus shipping and handling. For other rain garden resources, see the Metro web site at <http://www.oregonmetro.gov/index.cfm/go/by.web/id=25102>.
- Check Metro's Sustainable Living section for information on green cleaners, natural gardening and composting at <http://www.oregonmetro.gov>.
- Visit <http://www.cleanwaterservices.org/Residents> for guidelines on roof treatment, pressure washing, lawn and garden care, stream care, and making mulch.
- Get involved in volunteer activities to protect and educate others about the health of our local rivers. Visit <http://www.willamette-riverkeeper.org> and <http://www.tualatinriverkeepers.org> for details.

## About the West Linn Sustainability Advisory Board:

Sustainability Advisory Board members advise regarding the implementation and subsequent reviews of the approved City of West Linn Sustainability Plan and its updates; stay current on sustainability and environmental issues, make recommendations, and assist the City in promoting sustainability and environmental improvement to the West Linn community, individuals, City Council, and staff; and make recommendations to the City Council as requested by the City Council. Contact the Sustainability Advisory Board members by e-mailing [sshroyer@westlinnoregon.gov](mailto:sshroyer@westlinnoregon.gov) or calling 503-657-0331. Sustainability Advisory Board meetings are noticed on the City of West Linn web site at <http://westlinnoregon.gov>.