

## Precious Water Leaders Guide

Water is an absolute necessity for life. People, animals, and plants all require water. Nothing can replacement it. Fortunately, Mother Nature replenishes our water supply every year by delivering rain and snow. But for the years that we do not receive the weather necessary to fill our lakes and rivers, and groundwater, we must be prepared. If we are prepared and practice careful water conservation every year, then the drought years will not be so traumatic and costly.

In this presentation, we will discuss ways to reduce our use of tap water, and we will share ideas on how to recycle used water. We will talk about ways to corral rain water. Both rainwater and recycled water can be used to save your yard and garden. And lastly, we will come up with gardening practices and plant choices to make the most of the water that is available. Your garden will survive and perhaps thrive.

### Tap Water

The most important step in water conservation is to reduce the amount of water that comes out of your tap. Don't let water run down the drain. Turn off the tap! You could even save money on your water bill. Wow! Here are some ideas for accomplishing this feat.

1. Have leaky faucets and running toilets repaired. Leaving these problems unrepaired is pouring water down the drain.
2. Replace old toilets. A toilet from 1992 uses 6 gallons of water for every flush. A new toilet uses 1.28 gallons of water.
3. Replace faucets and shower heads with "low flow" faucets and showerheads. A standard shower head uses 2.5 gallons per minute but a "low flow" shower head uses 1.5 gallons per minute.

4. When washing dishes, fill the second sink with water to rinse the Dishes, instead of letting the water run.
5. Turn off water while brushing your teeth. Take shorter showers.
6. Run your dishwasher and clothes washer only when you have a full load.
7. Wash your car on the lawn and use a bucket instead of running water or go to a car wash.

### Recycle Water

When you use tap water, think of ways to recycle the water before it goes down the drain.

1. While waiting for the shower water to warm up, collect the water in a bucket, or plug the bathtub and collect the water.
2. Should the drought get critical, you could save the water from your washing machine to use on your garden. First you need to use biodegradable detergent and no bleach. Then put the drain pipe, ( in the back of the washer) in a large clean trash can or rain barrel. The rinse water will drain into your can.

Recycled water can be stored until your need it to water your garden. Be sure to cover this water to limit evaporation and eliminate any mosquito problems.

### Rain Water

Rain water is a gift that we need to take advantage of. In times of drought, it is liquid gold. It is actually easy to corral rain water.

1. Just put a bucket or clean trash can or rain barrel under your gutter spout which is attached to your roof. If your gutter runs off at ground level, attach a pipe to it and direct the water to your garden or lawn.

2. Collect rain water in whatever you have, a cistern, a pond, a stock tank, buckets, even a kiddie pool. If possible, cover the water to reduce evaporation and mosquito infestation.
3. Redirect water runoff. Don't let it go down the storm drain. Create ditches and banks to direct the rain water to your garden. Run pipes from where the water gathers to your plants.

### A Water Wise Garden

There are some great reasons to have a water wise garden. Your garden will look nice even during a drought. Watering your yard will take less time. Drought tolerant plants will live through the dry times, and won't have to be replaced. And last but not least, you will save money on your water bill.

1. Reduce, or better yet, eliminate the grass in your yard. Grass is a water hog. Lawns use three times as much water, as other plants in your garden.
2. Plant native plants and drought tolerant plants. (I have provided Web sites that list native plants for your areas)
3. Mulch your garden. Mulch keeps your soil cooler, and will conserve up to one inch of water per week. It will reduce weeds. Mulches can include leaves, coffee grounds, pine needles, gravel, straw, wood shavings, bark, and newspaper. Use it liberally.
4. Weed your garden. Weeds drink up water meant for you plants.

### Watering Tips

OK, so we have saved rainwater, recycled laundry water, and planted drought tolerant plants. Now we need to pour that precious water on our plants, in the most efficient manner possible.

1. Water in early morning or in the evening, when the temperature is cool, to keep water evaporation to a minimum.
2. Water only when plants are dry. Use a moisture tester.

3. Water deeply. Let the water soak into the plants, slowly. This will develop deep roots and help the plants become better able to tolerate drought conditions.
4. Control runoff. Make water basins around plants and irrigation ditches between rows of plants.

### Watering Techniques

There are various ways to water. Some are more efficient than others. Some are more expensive than others. You need to find the system that works for you.

1. Sprinklers are the least efficient means of watering. Water is wasted through evaporation, runoff and the wind blowing water to unintended targets. It also increases the possibility of leaf diseases.

2. Drip Systems are very efficient.

Underground systems, using PVC pipes, risers, nozzles and timers are usually installed by professional landscapers. The systems require high water pressure and are expensive to install. Once installed, the system automatically takes care of the watering.

The low volume drip system can be installed by anyone. It is a set of pipes and drip nozzles that can be placed under each plant, for specific watering. The pipe is attached to a garden hose. The garden hose is turned on when watering is needed and the drip nozzles can be adjusted to needed volume. The system can also be placed on a timer.

3. Soaker hoses are good for closely spaced plants. You can make your own soaker hose by punching holes in an old water hose and capping off the male end.
  
4. Hand watering places just the right amount of water in exactly the place you want it. Water slowly and you control runoff. Hand watering is time consuming, but relaxing. It also gives you an opportunity to inspect your plants for diseases, bugs and gophers.

Life depends on water. We have reviewed ways to conserve our water, to recycle used water, and save rain water. We have learned how to make changes to our yards, so we can enjoy our gardens, come rain or drought. By incorporating these water saving ideas into our lives, we will survive a drought and preserve our PRECIOUS WATER.

Written by Kerry Mauk/2015

## Bibliography

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Sunset Backyard Style Magazine June 2015

Regional Water Providers Consortium [www.conserveh2o.org](http://www.conserveh2o.org)

Backyardlivingmagazine.com

Sunset Publication "How to Water Your Garden"

Oregon State University Extension Service/Fire Resistant Plants for Oregon Home Landscape

Energy.gov/...reduce-hot-water-use

Dig irrigation products [www.digcorp.com](http://www.digcorp.com)

Western Oregon Native Plants, [plantnative.org/rpl-orwa.htm](http://plantnative.org/rpl-orwa.htm)

Eastern Oregon Native Plants, [plantnative.org/rpl-imw.htm](http://plantnative.org/rpl-imw.htm)

## Precious Water Student Handout

### Reduce Water Usage

1. Fix leaky faucets and running toilets
2. Go with low flow shower heads and water saving toilets
3. Use less water, fill sink and don't let water run down the drain
4. Take shorter showers
5. Run dish and clothes washers only when full

### Recycle Water

1. Find ways to recycle tap water before it goes down the drain
2. Save bath and shower, save clothes washer water

### Rain Water

1. Save rain water in garbage cans, rain barrels, cisterns, whatever
2. Redirect rain water to garden using ditches, pipes, etc.

### A Waterwise Garden

1. Reduce amount of grass in yard
2. Plant native plants and drought tolerant plants
3. Mulch garden and weed garden

### Water Tips

1. Water in Morning or Evening
2. Water deeply, let water soak in, and only when plants are dry
3. Control run off, make basins and ditches around plants

### Watering Techniques

1. Sprinklers-least efficient way to water
2. Drip system-very efficient, waters deeply and time saver
3. Soaker hose-good for closely spaced plants
4. Hand watering-precise, relaxing, time consuming

**Student Handout**  
**List of Native and Drought Resistant Plants**  
**by Region in Oregon**

Western Oregon: [plantnative.org/rpl-orwa.htm](http://plantnative.org/rpl-orwa.htm)

Eastern Oregon: [plantnative.org/rpl-imw.htm](http://plantnative.org/rpl-imw.htm)

Oregon Coast: [www.garlandnursery.com](http://www.garlandnursery.com)

Multnomah County: <http://emswcd.org/native-plants-database>

Marion County: [www.marionswcd.net/resources/plants/native-plants](http://www.marionswcd.net/resources/plants/native-plants)

Lincoln County: [lincolnswcd.org](http://lincolnswcd.org)

Central Oregon: <http://extension.oregonstate.edu/deschutes/horticulture/gardenpublication>

Drought Tolerant Plants: [epa.gov/watersense/outdoor/whattoplant](http://epa.gov/watersense/outdoor/whattoplant)  
(click on Oregon)