

Indoor Water Conservation

Guideline #1

Did you know: Efficient water use can save you money on water & utility bills, and reduce the costs for sewer and septic services. Use the following household tips in the bathroom, kitchen and laundry to help protect the environment and save your family money!

Bathroom



Each flush wastes water. Don't use the toilet as a wastebasket.

Check toilets for leaks. Use food coloring or a leak detection tablet in the toilet tank. If color appears in the bowl without flushing, there is a leak that requires immediate attention.

Reduce the water level per flush by installing an ultra low-flow toilet or a toilet displacement device. Use a plastic bottle weighted with pebbles and water.

Never use a brick.

Check faucets and pipes for leaks. A small drip can waste 20 or more gallons of water per day.



Don't let the bathroom sink run while wetting your toothbrush, brushing your teeth or when shaving. Use a glass of water to rinse or clean your razor in a small pool of water.

Install water-efficient showerheads and take shorter showers.



Kitchen



Only wash dishes when necessary. Turn the dishwasher on only when it is full.

Use both sides of the sink when washing dishes by hand. Use one side to wash and the other side to rinse. Do not wash dishes under a running faucet.

Install low-flow fixtures, then buy and install aerators for every faucet in the house.



Keep a bottle or pitcher of drinking water in the refrigerator. This eliminates letting the tap run while waiting for the water to get cold.



Clean vegetables in a pan of water and not under a running faucet. Water used to clean vegetables can also be used to water houseplants.

In-sink garbage disposal devices use roughly 11.5 gallons of water each day. Try composting organic wastes instead of throwing them away.

Laundry

Pre-rinse clothes only when absolutely necessary.

Use the proper water level, load size selection and water temperature when washing clothes. Consider installing a water efficient washing machine.



More Information:

www.doh.ehp/dw



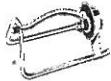
Outdoor Water Conservation

Guideline #2

Did you know: Efficient water use is critical to a healthy and clean environment. Fish, trees and animals depend on wise use of our limited water supplies. Use the following tips to save water (and money) outdoors.

Lawn & Garden

The lawn is getting dry when footprints remain after walking on it. (see Guideline #3 - Lawn Watering Guide).



Water in short repeated intervals for best absorption, especially on slopes or compacted soils. Prevent water runoff from your sprinkler system.

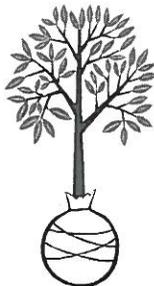


To reduce evaporation, water the lawn in the early morning or evening. Avoid watering during the heat of the day or when it is windy.

Install a trickle or drip irrigation system for a slow, steady supply of water to the plant roots. (see Guideline #7 - Irrigation & Landscaping).

Water only when needed. Frequency depends on plant and soil type.

Water root areas of your plants to establish hardiness. (see Guideline #6 - Soil Preparation & Planning).



(Lawn and garden continued)

Low or non-water landscaping require minimal amounts of water, fertilizer and pesticides. This can save you money and will protect the environment.

Place a 2" to 4" layer of mulch around plants and trees to avoid excess evaporation.

Use native and adapted plants when landscaping your yard. These plants usually require less care and water. Consider installing plants that don't require water once they are established for some or all of your yard.

If your lawn is healthy, consider letting your lawn go dormant in the summer. It will turn green again when it rains.

cleaning



Use a broom to clean walkways and driveways. Do not use the hose. Watering the sidewalk, gutter and street wastes water.

Clean gutters and downspouts manually instead of hosing them down.

Use a hose with a shut-off nozzle along with a bucket of soapy water to wash the car.



More Information:

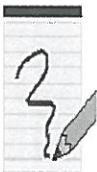
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Lawn Watering

Guideline #3

Did you know: During the summer, water use can more than double due to lawn and garden watering. Preserve the environment, save money, save fish and save water by following these simple steps when watering your lawn.

1.  Place three or more flat bottom cans or mugs randomly around your lawn. Inexpensive rainguages may also be used.
2.  Turn on your sprinkler(s) for 15 minutes.
3.  Measure and record the depth of water in each can (mug) with a ruler. Determine the average depth of water for all of the cans combined. Notice the uniformity of your water application.
4.  Refer to the example & chart on the back to determine the number of minutes you should water each week. Record the times for future reference. (See guideline #6 - Soil Preparation & Planning for additional information.)

REMEMBER: Your watering practices should be influenced by the weather. Decrease watering time during cool or humid conditions and skip a scheduled watering after a moderate rainfall. This brochure is only a guide. Consult your local nursery, garden center or county extension office for more information.

Example (Season is Spring)

CAN # 1	1/2 inch	12.7 mm
CAN # 2	1/4 inch	6.35 mm
CAN # 3	1/2 inch	12.7 mm
CAN # 4	1/4 inch	6.35 mm

TOTAL 1.5 inches 38.10 mm

AVERAGE * $1.50 / 4 =$ 38.10 / 4 =
3/8 inch (approx.) 9.52 mm

WATERING TIME: 20 minutes

* Average equals total amount of water in all cans divided by the total number of cans.

* One inch of water a week, including rainfall, is all your lawn needs.

Lawn watering depth chart

Average Depth in Test Can		Minutes to Water Once Each Week In		
Inches	Millimeters	Spring	Summer	Fall
1/8	3.2	60	120	48
1/4	6.3	30	60	24
3/8	9.5	20	40	16
1/2	12.7	15	30	12
5/8	15.9	12	24	9.5
3/4	19.1	10	20	8
1.0	25.4	8	16	6.5
1-1/8	28.6	6	13	5

More Information:



Indoor Water Audit

Guideline #4

Did you know: Every time you flush the toilet unnecessarily or leave the sink running, you are wasting water. Find out how many gallons of water your house uses, then save water and money by following these simple steps.

1. Read your water meter before using any water (see guideline #5 - Meter Reading & Leak Repair).
2. Keep track of all indoor water using activities for one day (24 hours). See example on back.
3. Determine the number of gallons each water using activity uses from the chart below.
4. Read your water meter after one day (24 hours) and verify your calculations. (For water meters measuring in cubic feet - 1 cubic foot of water = 7.5 gallons.)
5. Calculate the per-person consumption rate. (Total gallons of water used divided by total people living in home.)
6. Use DOH Water Saving Guidelines 1 through 8 to reduce your water use by 10% (or more) and save money at the same time.

Water Use Activity Chart

(gallons per use)

Toilet:

Conventional	5.0
Low-Flow	3.5
Ultra Low-Flow	1.6

Washing Machine:

Conventional	37.0
Wash Recycle	26.0
Front Load	21.0
X-Axis	17.5

Faucets:

Conventional	3.0
Low-Flow	2.5

Showerheads:

Conventional	5.0
Low-Flow	2.5

Example

Beginning Meter Reading 1000

Bathroom:

Toilet	18 flushes	X 5 gal/flush	= 90 gal.
Sink	6 minutes	X 3 gal/min	= 18 gal.
Shower	25 minutes	X 5 gal/min	= 125 gal.

Kitchen:

Sink	6 minutes	X 3 gal/min	= 18 gal.
Dishwasher	1 cycle	X 15 gal/use	= 15 gal.

Other:

Laundry	1 cycle	X 37 gal/use	= 37 gal.
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TOTAL USE

303 gal.

Per-person Rate –

303 gal / 3 people =
101 gallons per-person

Final Meter Reading *

1303

* If the beginning meter reading plus total use do not equal the final meter reading, you either used water outdoors and/or you may have a leak.

Worksheet

Beginning Meter Reading _____

Bathroom:

Toilet	___ flshs	X ___ gal/flsh	= ___ gal.
Sink	___ min	X ___ gal/min	= ___ gal.
Shower	___ min	X ___ gal/min	= ___ gal.

Kitchen:

Sink	___ min	X ___ gal/min	= ___ gal.
Dishwasher	___ cycle	X ___ gal/use	= ___ gal.

Other:

Laundry	___ cycle	X ___ gal/use	= ___ gal.
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TOTAL USE

_____ gal.

Per-person Rate – _____ gals / _____ people =
_____ gals per-person

Final Meter Reading *

More Information:

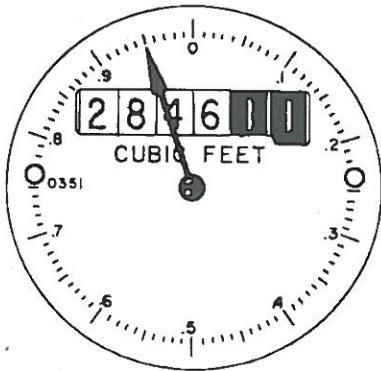
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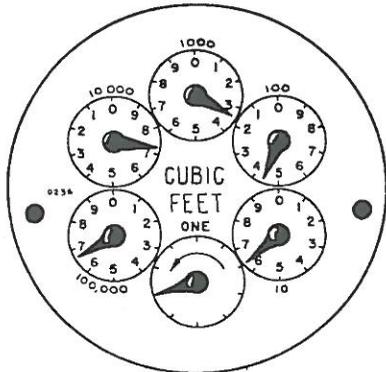
Meter Reading & Leak Repair

Guideline #5

How to read a water meter



Some meters read straight across like the odometer on your car. Remember that your meter is never reset.



Some meters are circular with five or six dials. Read each dial clockwise, starting at the 100,000 dial. If a pointer is between two figures, read the lower number.

Did you know: A single dripping faucet can waste far more water in a single day than one person needs for drinking in an entire week. Conserve water and save money by finding and fixing leaks.

How to use your water meter to check for leaks

1. Locate your water meter. It is usually found in a meter box in a small concrete vault near the street. (Contact your local water utility if you need assistance locating your water meter).
2. Turn off all water using appliances in the home. This includes all indoor and outdoor faucets.
3. Check and record the current meter reading.
4. Wait 15 minutes (minimum) although overnight is better. **Remember, do not use any water while you are waiting!**
5. Read the water meter again. If the reading has changed, then you have a leak that requires immediate attention.

How to fix a leak

Many leaks (dripping faucets or showerheads) are caused by worn washers which are easy to fix. Your local hardware, plumbing supply or home improvement store will have the correct parts and complete do-it-yourself instructions.

If replacing the washer does not work or the problem is more complicated, contact a certified plumber for assistance.

HINT: Locate the master water supply valve and label it. The master supply valve can then be easily turned off in case of a leak or broken pipe.

More Information:

www.doh.ehp/dw

Soil Preparation & Planning

Guideline #6

Did you know: If you take the time to plant native or adapted plants and properly prepare your soil, it will reduce water use, save you money and reduce the time you spend on lawn & garden maintenance.

What kind of soil do you have?

Contact your local conservation district to test your soil or perform the following test for an estimate.

When the soil is moist, pick up a handful and squeeze it tightly in your hand. Next, try to pinch the soil into a ribbon.

1. If the soil forms a ribbon up to 2" long, you have a clay soil.
2. If the soil forms a ribbon only 1" long, you have a loam soil.
3. If the soil falls apart easily and won't make a ribbon, then you have a sandy soil.

Add 1" to 2" organic matter as a surface mulch to improve overall soil quality. Plants will be healthier because the soil holds more nutrients and water. Plants will require less water and you will save water and money.

Organic matter is available in many forms (compost, leaf mold, bark, wood chips, aged manure, shredded leaves, etc.) and may be found at your local nursery or home & garden center.

Seven steps to a water efficient yard & garden

1. **PLAN FIRST, PLANT SECOND** - Draw a scale picture of your home and yard. Consult a professional landscape architect, master gardener or local nursery for advice. This will allow you to implement water efficient yard & garden principles that will save you time and money.
2. **SMALLER LAWNS** - Lawns are the largest water user in most yards. Before planting, contact your local nursery to determine the proper variety of grass to use. Only plant lawns where they are truly needed (i.e., play areas).
3. **SOIL IMPROVEMENT** - Determine your soil type and nutrient needs. Adding organic matter will improve overall soil quality and reduce water and fertilizer needs.
4. **WATER WISELY** - Use efficient watering systems such as sprinklers for grass and drip, spray or bubble delivery systems for shrubs and ground covers. Make sure your irrigation system is adjusted for weather changes and that it is working properly.
5. **USE MULCH** - Placing mulch over the soil will help cool the soil, reduce weed growth, slow erosion and minimize water evaporation.
6. **RIGHT PLANT, RIGHT PLACE** - Contact your local nursery, master gardener, or home improvement center for information on low water using and drought resistant plants appropriate to our climate. Plants with similar water needs should be placed together to maximize water efficiency and to minimize cost. Once established, they will use less water.
7. **MAINTENANCE** - Regularly weed your yard & garden since weeds compete for the same water that your grass & plants use. Regular maintenance will keep your water bill low and also save you time.

More Information:

www.doh.ehp/dw

Irrigation & Landscaping

Guideline #7

Did you know: Gardening professionals agree that most lawns and yards receive more water than they need. Over-watering creates run-off that carries toxic fertilizers and pesticides into our streams. This is not only harmful to wildlife and your plants, it wastes water and money too! The following tips will help protect the environment, keep your yard healthy, and save you money on your water bill.

General

1. Apply water only as fast as the soil can absorb it.
2. Water in the evening or early morning when evaporation is least likely to occur. Drip irrigation may be used during the day with little water lost from evaporation. Do not water when it is windy.
3. Water only once a week. Weekly watering should be sufficient. Water less often if your plants need less moisture (see Guideline #3 - Lawn Watering Guide).

Irrigation and Sprinklers

1. When landscaping, a properly designed and installed irrigation system can be included as a water conservation tool. Automated irrigation systems offer the ultimate in both control and distribution of water over other watering systems.
2. Keep your sprinkler system in good repair. Fix leaks and adjust the sprinkler heads to eliminate over-spray onto paved areas or buildings. Investigate any source of unusual runoff or puddling.

(Irrigation continued)

3. Turn off your sprinkler system at the first sign of saturation or runoff to allow the water to soak in. Water again in an hour or two if needed.
4. Make sure the controller of your automated sprinkler system is properly set to achieve minimum watering levels.

Landscaping

1. Consider alternate landscaping practices. Reduce turf area or use groundcovers and/or mulches instead of turf. Generally, groundcovers use less water than turf areas.
2. Use low water using turf varieties. Consult your county extension office or local nursery to identify low water using turf varieties for your area.
3. Aerate to reduce thatch (dead leaf buildup) in spring or fall. Thatch restricts penetration of water, air and nutrients. Aeration will also increase water penetration in compacted soils.
4. Consider using organic fertilizer. Consult a nursery or landscape professional for a well balanced fertilizer program.
5. Spot spray weeds as needed and consider an integrated pest management program to control bugs and/or disease.
6. Use mulches such as bark compost to help planting beds retain moisture.
7. Consider water consumption when selecting plants. Some plants use more water than others. Consult a good gardening book or your local nursery to determine which low water using plants are correct for your area.
8. Plant placement is important. Remember, right plant, right place! Shade loving plants don't do well if placed in the sun and will require excessive watering to survive. Place plants with similar water needs in common areas so all can benefit from the same application of water.

More Information:

www.doh.ehp/dw

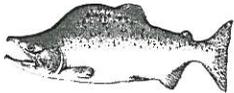
Salmon Recovery

Guideline #8

Did you know: The water people use indoors and outdoors to drink, cook, clean, wash and landscape with is the same water salmon need in rivers and streams to survive. Now that 16 salmon stocks have been listed under the Endangered Species Act (ESA) as threatened or endangered, the need to conserve water is greater than ever.



Chinook



Pink



Steelhead



Coho

What is ESA? The Endangered Species Act is a federal law passed in 1973 that makes it illegal for anyone to possess, harm or kill a protected species. It applies not only to federal and state agencies, but also to individual persons.

How can water conservation help save fish? The more water people use or waste, the less there is for fish in rivers and streams. Conserving water will help increase the instream flow of water in rivers and streams, especially during the dry summer months and other low flow periods. Increasing the instream flow helps fish swim up and downstream, improves spawning habitat, and protects other wildlife and our future water resources.

Remember, saving salmon safeguards public health and protects our environment too. We can save salmon while also maintaining a healthy economy. This means a brighter future for the people of Washington State. To learn more about salmon recovery, contact the Governors Salmon Recovery Office or the Salmon Information Center.

Governor's Salmon Recovery Office

P.O. Box 43113 • Olympia, WA 98504-3113
PHONE: (360) 902-2231 • FAX: (360) 902-2215

<http://www.wa.gov/esa>

OR

Salmon Information Center

Tri-County ESA Response Effort

1-800-SALMON-9

<http://www.salmon.gen.wa.us>



Sockeye

How can I help? Understanding water conservation practices and applying water conservation techniques will help you save money and water. Proper application of fertilizers and pesticides, or the use of natural pest control measures, will also help keep water clean. Conserving water and minimizing the use of harmful chemicals will not only save salmon, but protects the environment for all of us. To learn more about how you can conserve water, contact the Washington State Department of Health or your local water utility for more information.

More Information:

www.doh/ehp/dw