Marin Water

Do it Yourself Water Survey

This DIY Home Water Survey will guide you through activities to find out how to save water at your home. Follow the steps to check for indoor and outdoor leaks and to measure flow rates of your indoor plumbing fixtures.

Fill out the enclosed Survey Form as you work through the activities to track your findings. Mail the completed form to Marin Water and receive a Thank You gift.

Thank you for your interest in water efficiency!

Call us at 415.945.1520 if you have any questions on the Home Water Survey.



Step 1: Check the Meter for Leaks

To check if you have any leaks, you will need to check your water meter's low flow indicator, while all water using devices are off. (This means showers, clothes washer, dishwasher, and things that cycle on and off like ice-makers and water softeners are all turned off).

Use the enclosed brochure How to Read Your Meter as a guide to check your meter for movement.

How to



If the low flow indicator is moving when all your water using fixtures are turned off, there is a leak. Go to Step 2: Isolate the Leak.



If the low flow indicator (usually a triangle shape) is not moving this means there is no continuous leak. Go to Step 3: Check toilet for leaks.



Step 2: Isolate the Leak



First, turn off the main water shut off valves for the house and for the irrigation. The main shutoff valve is usually located outside the front of the house in line with the water meter. The main irrigation shutoff can either be in the same location, on the "T" off the supply line as shown in the picture or may be located elsewhere on your irrigation system. Note: Plumbing fixtures can be damaged. You may want to contact a licensed plumber for assistance when turning valves on or off.





Next, check the low flow indicator on the water meter again.

If the low flow indicator is still moving, there is a leak in the supply line from the meter to the house. Try to find the leak by identifying a puddle or wet area, and call a plumber to fix the leak. If you are unable to find the leak, you may need to hire a leak detection service.



If the low flow indicator stopped moving, the leak is either in the house or in the irrigation system.



To check if the leak is in the house: Turn **ON** the main shutoff valve to the house and leave the irrigation main valve **OFF**. Check the low flow indicator on the meter again and **if it has started moving again, the leak is in the house. Go to Step 3: Check for Toilet Leaks.**



To check if the leak is in the irrigation: Turn **OFF** the main house shutoff valve and turn **ON** the main irrigation valve. Check the low flow indicator on the meter again. **If it has started moving again, the leak is in the irrigation system.** Find and repair the leak or call a landscape professional.

If you found a leak, make sure the leak is fixed promptly. Leaks waste water and cost money. Once the leak has been repaired, you may be eligible for a leak rate adjustment on your water bill. Please contact Marin Water Customer Service at **415.945.1400**.

Step 3: Check the Toilet for Leaks

Toilets are the most common place for an indoor leak.

First, use the "Practical Plumbing Guide", starting on page 30 to learn how to check your toilets for leaks. Put the enclosed toilet dye tablet in the toilet tank and wait 10 minutes for it to dissolve. If there is dye in the toilet bowl, there is a leak. It could be



either the water level that needs adjustment or the flapper that needs to be replaced.

The water level in the tank should be at the manufacturer's line labeled "water level" but never closer than one inch below the open top end of the overflow tube. If the water level is correct and dye is in the bowl, then most likely the flapper (flush valve) is the cause of the leak. The fill valve is the other likely leak location.

Next, if you find and fix a toilet leak, confirm the fix by performing another dye test and then repeat **Step I**: **Check the Meter for Leaks,** to make sure there are no other leaks. If the low flow indicator continues to move with the house valve open and all fixtures and appliances turned off, go to **Step 4**: **Check for Other Leaks.** If the low flow indicator on the meter stops moving once the toilet leak is fixed, go to **Step 5**: **Indoor Water Use.**



Step 4: Check for Other Leaks

What else could be leaking?



Look for dripping faucets inside and outside



Check for standing water or signs of moisture damage around the water heater, dishwasher, under sinks, the clothes washer, and the ice-maker hose behind the refrigerator.



Look for standing water on the surface of the ground or areas that are brighter green than the rest of the landscape due to excess water. See **Step 6: Outdoor Water Use, for irrigation system evaluation.**



Check for breaks in the irrigation system by turning on the sprinklers or drip lines one station at a time and observing the system in operation.

Check the irrigation valve boxes for standing water from a leaking valve.

If you cannot find the leak - call a plumber, landscape professional, or leak detection service

Estimated faucet leakage rates

Drips...

60 drops per minute = 192 gallons per month 90 drops per minute = 310 gallons per month 120 drops per minute = 429 gallons per month

Once you have determined that water is **not** being lost to leaks, you can evaluate how much water is used in your household and determine where and how water use can be reduced.







Step 5: Indoor Water Use

Measure showerhead and sink flow rates

Use the enclosed plastic flow rate bag to check the flow rates of all showers and sink faucets. Follow the instructions printed on the bag



and record your findings on the survey form.

If your showerheads have a flow rate of more than 2.5 gallons per minute (gpm)

or if your faucet aerators have a flow rate of more than 2.2 gpm, then they are considered high water use fixtures.



Measure toilet flush rates

To find out the flush rate of your toilet, follow the instructions on the enclosed sheet: "'How to Check Your Toilet's Flush Volume" If your toilet's flush rate is 1.6 gallons per flush (GFP) or higher, consider replacing it with a 1.28 GPF WaterSense labeled toilet. Please see Marin Water's website www.MarinWater.org or call 415.945.1520 for toilet rebate information.

Clothes Washer

If your clothes washer is not a high efficiency washer, please consider purchasing one. A standard clothes washer uses about 40 to 45 gallons per wash load. A high efficiency washer uses about 15 to 25 gallons per wash load. Marin Water offers a High Efficiency Clothes Washer rebate. Current rebate information can be found on the Marin Water website: www.MarinWater.org or call 415.945.1520 for information and application.



Dishwasher

A standard dishwasher uses 8 to 12 gallons per wash cycle. A high efficiency dishwasher uses 5 to 7 gallons per wash cycle. Check with PG & E for applicable rebates.

How much water do you use?

To find out how much water you use per day, read the water meter and record the

readings at the same time on two consecutive days. Use the *"How to Read Your Meter"* brochure to convert the meter's cubic feet to gallons.



How to

Step 6: Outdoor Water Use

Watering Schedule

Water your landscape only when needed. By knowing how much water your plants need, you can apply the right amount, have healthier plants and save money.

A weekly watering schedule, based on the current weather conditions, is posted on **www.MarinWater.org** every Friday. Sign up to receive the weekly watering schedule via email by sending your email address with a request for the weekly watering schedule to **Conservation@MarinWater.org**, or write your email address on the survey form you return to Marin Water.

IRRIGATION CHECKLIST

Do your sprinklers overspray onto the sidewalks, patio, driveway or street? Adjust spray pattern, relocate sprinkler heads, or change spray nozzles.

Are your sprinkler heads misting? This indicates a high water pressure problem. Adjust or install a new pressure regulator. Set pressure as per recommendation of sprinkler manufacturer, usually between 40 and 50 psi.

Are spray patterns blocked? Trim back vegetation or raise the sprinkler heads as needed, this will increase the uniformity of application.

Do you have broken sprinkler heads? Replace as soon as possible or install a temporary cap. Replace sprinkler and nozzle with one that matches those on the existing circuit.

Do you have mismatched sprinkler nozzles or heads? Precipitation rates and performance vary greatly between manufacturers. Replacement must match sprinkler heads on the same circuit. Mixing types or brands wastes water.

Are separate irrigation circuits provided for drip, spray, rotor heads and micro-misters? Provide separate circuits for different irrigation types, this will save water and make for healthier plants.

Does the sprinkler spray pattern (for lawns) reach the adjacent head? Adjust spray pattern, replace nozzle or relocate sprinkler head.

Do you find moss or mushrooms growing around your plants? Your plants are being overwatered. Reduce your watering time a few minutes each week until your plants

start to show signs of stress. Then increase your watering time slightly until the stress is eliminated.

Are your high and low-water-use plants mixed together on the same irrigation circuits? Group plants with similar water needs on the same circuit.

Do you have mulch around your shrubs, trees, and flowers? Providing a 2 inch layer of mulch will substantially reduce water use and weeds. Mulch also increases water infiltration into soil.

Do you have excessive thatch buildup in your lawn? This condition inhibits water infiltration into the soil and is usually caused by overwatering or over fertilization.

Is your soil saturated after only watering for a few minutes? Does water run off your slopes? You probably have a clay soil and water is absorbed very slowly. Shorten your watering times and use multiple start times to allow the water to soak in to avoid runoff.

Are the stations at your irrigation controller labeled? Label each station in controller appropriately. For example: drip for groundcover, spray for lawn, micromisters for flowers. A site map is a helpful tool in determining watering schedules for each station.

Do you have basins around your newly planted trees and shrubs? Basins help direct water to the root ball, if drip irrigation is not used.

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Swimming Pools

For information on checking pools for leaks, and pool maintenance, see *Practical Plumbing Guide*, page 25.

Watershed Approach to Landscaping



Provides more than 110 water-wise plants, landscape design tips, gardening how-to, nurseries and other resources for Marin Water customers.

Principles of the Watershed Approach:

I. Build healthy living soil by adding organic matter

2. Plant climate appropriate plants, preferably local natives

3. Use highly-efficient irrigation, only when necessary

Guidebooks are available as PDF downloads from MarinWater.org/WAL or hardcopies may be requested at Conservation@MarinWater.org

Marin Water Resources

At Marin Water, we offer a variety of resources to help you learn more about our water district, and how we deliver fresh, high-quality drinking water for more than 191,000 people in our service area. We also offer resources to help you learn more about water conservation, including our rebates and incentives to save water, and save money.

Our work and our mission includes sustainably managing our natural resources, including 22,00 acres on Mt. Tamalpais. Our Mt. Tam watershed includes a network of trails, and lakes, with volunteer and school programs to promote sustainable land management.

All of these resources are free, and available to you. Questions? Contact our Water Efficiency team at **Conservation@MarinWater.org**, or give us a call at **415.945.1520**.