

AUGUST 2019

PINERY PIPELINE



From your board of directors

There are two types of water that could be in your home: hard water and soft water. What is the difference?



Hard water is water that contains an appreciable quantity of dissolved minerals like calcium and magnesium. Hard water is not a health hazard and may even contribute towards the total calcium and magnesium human dietary needs. Dealing with hard water in your household, though,

can be a nuisance and may cause complications in laundering, dishwashing, bathing and personal grooming.

Soft water is treated water that is low in calcium and magnesium ions but high in sodium ion. Rainwater is naturally soft, tastes salty and is sometimes not suitable for drinking. Soft water is less abrasive on your skin, hair and washed clothing. If you have soft water, you will have a difficult time removing soap from your skin and shampoo from your hair, but your hair and skin will look and feel healthier. You may also use more water when you bathe with soft water. To achieve soft water a water softener can be installed in the house which will remove minerals such as calcium and magnesium and replace them with a softer mineral like sodium or potassium.

Do we have hard water in the Pinery? As a District, our hardness is generally 210 ppm (parts per million). By looking at the water harness scale (left), our District hardness is very hard. This is due to the main source of our water supply being Cherry Creek and the Denver Basin Aquifers.

There are ways to soften water or deal with its side effects.

- Buy a small ion exchange filter – You can find these in models that attach to a kitchen faucet or in a pitcher for you to store drinking water. Remember these “filters” don’t remove contaminants unless the device has a secondary carbon filter or reverse osmosis process.
- Treat hard water spots with white vinegar.
- Consider whole house water softener.

Water Hardness Scale		
Grains/Gal	mg/L & ppm	Classification
Less than 1	Less than 17.1	Soft
1 – 3.5	17.1 - 60	Slightly Hard
3.5 - 7	60 - 120	Moderately Hard
7 - 10	120 - 180	Hard
Over 10	Over 180	Very Hard

Russ Hokanson,
Board Member, Pinery Water and
Wastewater District Board of Directors



Please join us at our District Office for our regularly held Board Meetings at 6:30pm on the 3rd Wednesday of each month.

Upcoming Board Meetings will be held at 6:30 pm on Wednesday, August 21, 2019 September’s board meeting is TBD

Pinery Water and Wastewater District Contact Information:

5242 Old Schoolhouse Road
Parker, Colorado 80134
(303) 841-2797

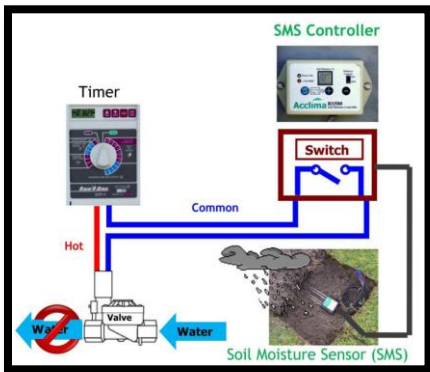
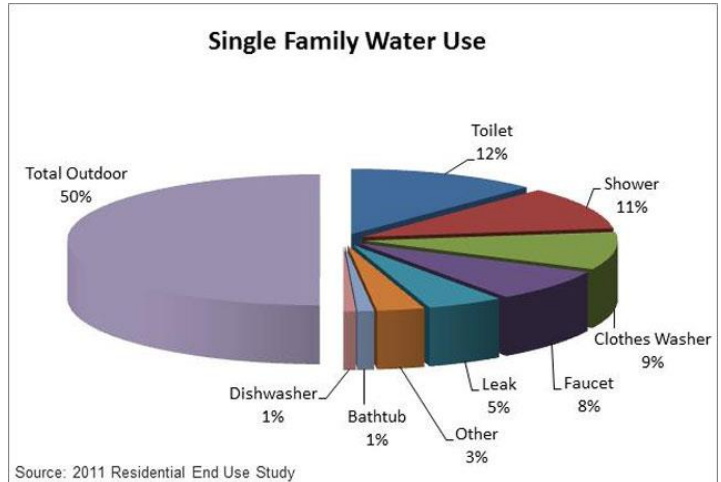
www.pinerywater.com
information@pinerywater.com

For after-hours emergencies,
(303) 841-2797 EXT 299

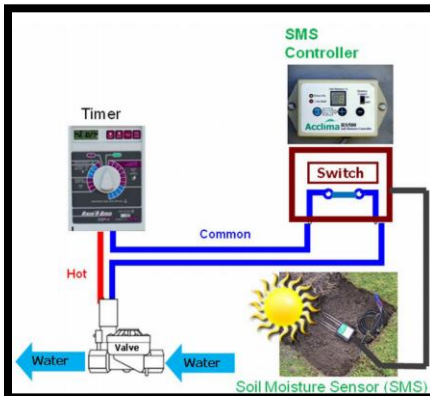
Moisture Sensor for Irrigation Systems

Water conservation is an on-going effort in our state. One major area that has the most potential for reducing water consumption is residential outdoor water use. Outdoor watering accounts for about half of typical Colorado household water use. Most of the time that water is getting wasted and costing you more money in the long run. The most innovative approach to help you conserve water and save money is moisture sensors. Unlike traditional irrigation controllers that operate on a preset programmed schedule and timers, smart irrigation controllers monitor weather, soil conditions, evaporation and plant water use to automatically adjust the watering schedule to actual conditions of the site.

For example, as outdoor temperatures increase or rainfall decreases, smart irrigation controllers consider on site-specific variables, such as soil type, sprinklers' application rate, etc. to adjust the watering run times or schedules. There are two types of controllers that can be installed on old and new irrigation systems: weather-based and on-site soil moisture sensors.



(Rainy day,
<https://edis.ifas.ufl.edu/pdffiles/AE/AE43700.pdf>)



(Sunny day,
<https://edis.ifas.ufl.edu/pdffiles/AE/AE43700.pdf>)

“Weather-based controllers use local weather data to adjust irrigation schedules. These controllers gather local weather information and make irrigation run-time adjustments, so the landscape receives the appropriate amount of water. Weather-based sensors use four weather parameters: temperature, wind, solar radiation and humidity. It’s the most accurate way to calculate landscape water needs”

(<https://www.hydropoint.com/what-is-smart-irrigation/>).

“Soil moisture sensor-based smart irrigation controllers use one of several well-established technologies to measure soil moisture content. When buried in the root zone of turf, trees or shrubs, the sensors accurately determine the moisture level in the soil and transmit this reading to the controller”

(<https://www.hydropoint.com/what-is-smart-irrigation/>).

Irrigation systems are difficult to manage, and you are constantly having to change your schedules and times. The use of soil moisture monitoring can give you, the homeowner, very useful and cost-effective information in your irrigation practices. These monitors take most of the work away from you so that you can sit back and enjoy your summer time instead of playing around with an irrigation control constantly.



Examples of weather monitors,
<http://www.ladwp.cafriendlylandscaping.com/Garden-Resources/SmartControllers.php>

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