

La Mesa Water Cooperative

Owned and Operated By and For All Sundance Mesa and La Mesa Homeowners

Placitas, New Mexico



Member Handbook

January 2022

Fundamental Rules of Plumbing

- Water goes on the inside of the pipes.
- It's always trying to get out.
- Water is patient, persistent, relentless and in the long run, will always win.

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Resident Actions

We ask you to do several things, to help yourself, and the community:

Receive monthly water bills by email

water-bill@lamesawatercoop.org

Monitor water use with EyeOnWater

- See your water use on website or smartphone app
- Sign up with [EyeOnWater.com](https://www.eyeonwater.com)
 - Enter 3-digit account number
 - Provide email address
 - Can delegate to a family member or friend, who does not have to be in Placitas
- Set EyeOnWater alert to get an email or text message if there is a steady leak
- Regularly check EyeOnWater to make sure water use is what is intended

Sign up to receive alerts about water outages

alerts@lamesawatercoop.org

Watch for leaks in the neighborhood

- Water lines are either under roads or to the side.
- A leak may show up as a damp spot or more plant growth than in the surrounding area.

Mission Statement

To provide a safe, reliable, long-lasting water supply to Members.

Water quality is very important to us. The results of our water sampling and analysis by certified laboratories is reported each year in the Consumer Confidence Report (CCR). Links to the current and past reports are on the home page of the La Mesa Water Cooperative website, lamesawatercoop.org.

Overview of La Mesa Water Cooperative

The La Mesa Water Cooperative is a non-profit corporation, created and operated to provide water service to the La Mesa and Sundance Mesa subdivisions of Placitas. Membership goes along with property ownership, so the Cooperative is owned by the property owners of the two subdivisions.

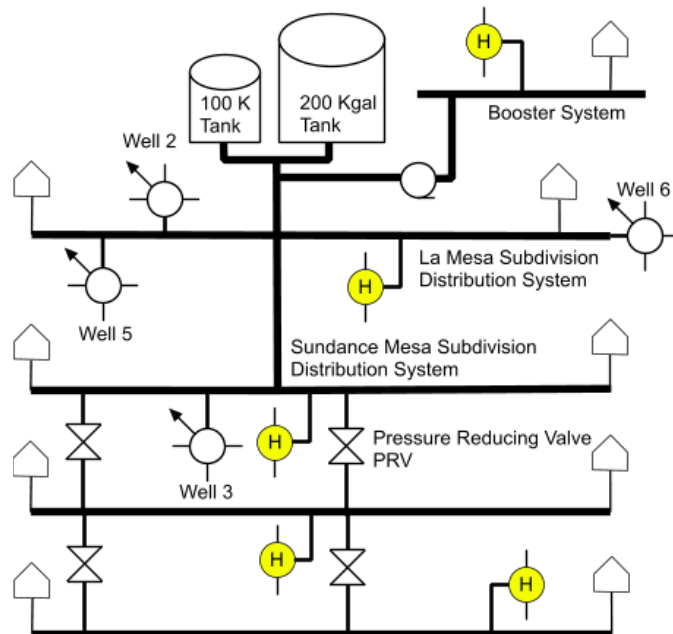
- There are four wells.
 - Well #5 (about 100 Gallons Per Minute, GPM) located on Calle Cienga
 - Well #6 (about 50 GPM) located on Calle Flores East
 - Well #3 (about 60 GPM) located on Camino Manzano is only for emergency backup purposes
 - Well #2 (about 17 GPM) located on Camino Barranca is not used
- Work is underway to build an arsenic treatment facility and upgrade Well #3 with new well equipment. This should begin service in 2023 and will approximately double the total pumping capacity.
- The water distribution system also provides fire protection.
 - The two water storage tanks on Camino Barranca typically have about 300,000 gallons.
 - The Cooperative maintains 53 fire hydrants throughout the two subdivisions.
- Planning estimate is about one new house will be added per year until full build-out. See Table 1.

	La Mesa	Sundance Mesa	Total
Houses	149	186	335
Undeveloped Lots¹	12	16	28
Total	161	202	363

Table 1 – Numbers of Houses and Lots as of December 2021

- As of May 2018, all houses have "smart" water meters.

La Mesa Water Cooperative - "Floating" Design



Each well is connected to the closest distribution system water line. As water is pumped from a well, it is chlorinated at the well site, then goes to houses and fire hydrants. What water is not immediately used makes it way to the storage tanks. When the well pumps are not running, gravity provides pressure, so water is delivered even during a power outage.

Houses and fire hydrants above the tanks are served by booster pumps at the tank site.

To avoid high water pressure in Sundance Mesa, there are two pairs of pressure reducing valves (PRVs).

¹ Does not include seven La Mesa lots that are not members of the La Mesa Water Cooperative.

Billing

The La Mesa Water Cooperative uses monthly billing. You are billed for all water that goes through your meter, using a tiered rate structure. This means the more water used, the higher the price, to promote water conservation. The price for the top tier is twenty times the bottom tier. This can be very significant if you use a lot of water, such as extensive landscape watering, or from a leak, running toilet, etc. Water rates are shown on each water bill, and all charges are listed on the [La Mesa Water Cooperative website](#).

Water bills by email

We strongly encourage you to get your monthly water bill through email by sending a request to:

water-bill@lamesawatercoop.org

Smart Water Meters and EyeOnWater

"Smart" water meters have now been installed on all La Mesa Water Cooperative houses. The main reason is to help homeowners quickly identify water leaks or other problems that could cause a large water bill. Everybody can see their water use, down to the hour, on a website called EyeOnWater or a smartphone app.

This is very easy to set up and use:

- Go to EyeOnWater.com
- Click on "Create Account"
- Enter our zip code (87043) and the three-digit account number from your water bill
- You'll have to provide an email address and a password
- You'll get an email from EyeOnWater with a link that you'll have to click on

We recommend that everyone set EyeOnWater alert to get an email or text message if there is a steady leak.

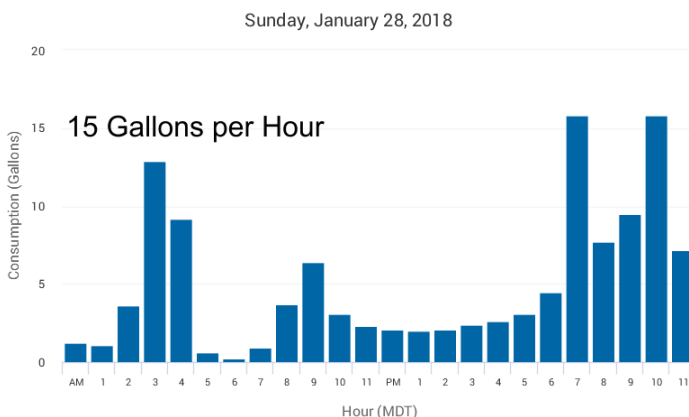
And then regularly (at least every few days) check EyeOnWater to make sure that your water use is what you intend.

If you don't use a computer or smart phone, you can ask someone else. Some people have their adult child watch their EyeOnWater, even from California or Illinois.

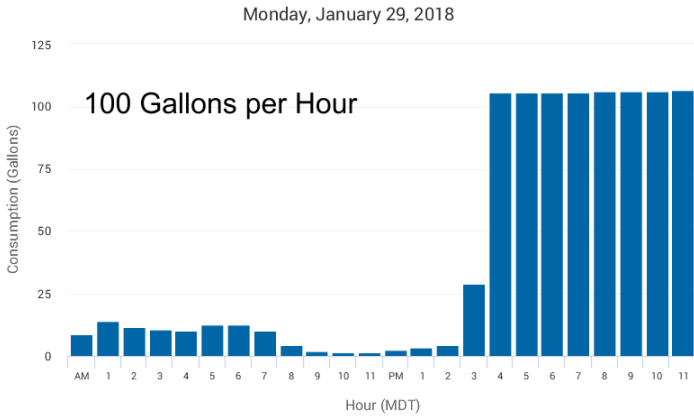
The part of the smart meter that handles communications, called a cellular endpoint, uses the local cellular network. Cell service in this area is fair to poor, so sometimes these endpoints miss sending in data for several days, and occasionally have to be reset by Cooperative staff or volunteers.

EyeOnWater Example

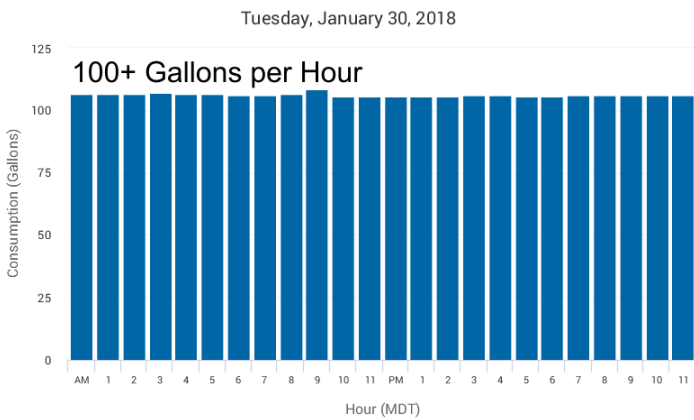
Here are charts of hourly water use for one house (which was unoccupied at the time), starting on January 28, 2018. This shows how a problem was identified in a few days, rather when the monthly water bill came.



This looks like a typical day, with some water use at different times. The significant point is that the highest water use was about 15 gallons for two different hours.



Clearly, something went wrong the afternoon of January 29, when about 100 gallons an hour began to be used, every hour.



The 100 gallons an hour use continued for the next day. If that had gone on for a month, the water bill would have been a shock. (This was a running toilet, corrected by a neighbor who had a key to the house.)

There is a page on the La Mesa Water Cooperative website that explains more about [smart water meters](#).

Water Leaks

With water leaks, it is not a question of IF, it is a question of WHEN. An example of a running toilet at 100 gallons per hour adds up to 48,000 gallons in 20 days and 72,000 gallons in 30 days. (Remember our top tier of over 17,000 gallons is \$34.50 per thousand gallons.) All members are responsible for all of the water that goes through their water meter. In 2017, large water leaks accounted for about 1% of the total pumped and billed water.

Procrastinating fixing a water leak may result in a water bill that is so large (thousands of dollars) that the resident has to be put on a payment plan. So please sign up for and regularly review your EyeOnWater account. The sooner you detect that you have a leak and fix it the better off everyone is!

Problem Areas

In order of frequency, here are the things that cause continuous water flow, or unexpected high water use:

- **Toilets** – particularly one in an unused bathroom or casita
 - A mis-adjusted fill valve may cause water to constantly flow.
 - A leaking flapper or flush valve may cause the toilet tank to periodically refill. You may hear this, sounding like the toilet has just been flushed.
 - A flapper or flush valve stuck open can use several hundred gallons an hour (see EyeOnWater examples above.)

This page has several short videos about fixing toilets:

<http://www.home-water-works.org/indoor-use/leaks>

One way to see if a toilet is the problem:

- Check the water flow at the meter (This takes several minutes as the meter cycles through several displays. See Finding problem(s), below, and http://lamesawatercoop.org/?page_id=630)
- Close the shutoff valve on one toilet at a time.
- Go back and check the water flow at the meter to see if that fixed the problem.
- **Hose bibs (outside faucets) and hydrants**
If there is a hose attached, you probably will not notice if a hose bib has a small leak.
If you have any, pay attention to any frost-free hydrants that have the valve underground, since a leak in that valve will not be apparent.
- **Drip and irrigation systems**
A number of things can go wrong with these, such as:
 - Broken or critter-chewed 1/4" tubing ("spaghetti")
 - Broken or missing emitters
 - Split or cracked distribution (1") tubing or fittings
 - Broken underground piping, such as from tree roots
 - Leaking valves – water in the valve box is a good clue
 - Sticky valves – when signaled by the controller, a valve may open properly, but (sometimes) may not close completely or at all, so the water runs for hours or even continuously
 - Leaking vacuum breaker – device(s) above ground, usually close to the valve box, will only show a leak while the drip system is active
 - Improper controller programming – such as, rather than set to run once a week, it's set to run once a day
 - Failed controller
 Strategies for dealing with these kinds of problems:
 - When you turn your system on in the spring, and have it working properly, use EyeOnWater to see the amount of water used. Then if there is a problem later with high water use, you can check again to see which zone is using too much.
 - On a regular basis, **walk around and look and listen** when each zone is running.
 The City of Scottsdale, Arizona has an excellent video, [Looking for Water Leaks Outside Your Home](http://www.youtube.com/watch?v=cY0oVR-w_YI)
http://www.youtube.com/watch?v=cY0oVR-w_YI.
- **Evaporative Air Conditioner (Swamp cooler)**
Typical failures include:
 - Improperly adjusted float valve will cause the cooler to overflow. Look for water running off a canale or standing water on the roof.
 - Leaking supply line or fitting will also cause water on the roof and may be enough to drain off a canale.
 - Leaking supply line shutoff valve – these are typically in the utility room(s) where the water heater and/or heating system is.
- **Inside faucets, showers, and valves**
Even a small continuous leak can add up over a month. Check the non-obvious valves, such as washing machine shutoff, toilet shutoff, etc.
- **Water softener**
A failed or mis-programmed controller could cause it to cycle or regenerate either too often, or even constantly. A leaking valve could cause water to constantly flow into the sewer system.
- **Fountain, spa, hot tub, swimming pool etc.**
Anything with an automatic fill valve can cause a problem and needs careful attention.
- **Reverse Osmosis (RO) system**
Pay attention if it seems to be running continuously or more often than you expect. A leaking or malfunctioning valve could cause it to continuously send water down the drain.
- **Icemaker**
Note that some refrigerators and icemakers are designed to have some continuous water flow, which EyeOnWater may consider a leak.
- **Pressure relief valve on water heater**
Look at the drain tube for dripping water, which would indicate the valve is leaking.

- **Pressure relief valve on heating system boiler**
Look at the drain tube for dripping water, which would indicate the valve is leaking.
- **Supply line between meter and house**
This may be very hard to identify and locate. If your house has a water shutoff valve in the house, try turning that off. Then check the meter to see if it shows any flow at all, which it should not. Many houses in this area do not have a shutoff valve (in which case the only way to turn off the water is the valve that is present at every meter). Or if there is a shutoff valve, it may be very well hidden, such as behind a water heater, inside a closet, etc. Ironic note: Turning a shutoff valve that has not been used may cause it to leak, so be prepared.
- **Leak inside a wall**
A small leak inside a wall may be hard to see directly. This could be caused by a poor pipe joint, a screw or nail into a water line, etc. that may have been present since the house was built or remodeled. Look for unexplained dampness, mold, etc.
- **Leak under a floor or slab**
This could be in the radiant floor system, in which case, makeup water has to be regularly added to the radiant system. An underfloor leak in a hot or cold water supply line will result in a small but constant flow. Most likely, a professional leak detection company will have to be engaged. They inject pressurized gas, which they can detect.

Finding problem(s)

Finding a leak or cause of unexpected water use can be a real challenge. It may take a bit of patience and persistence.

The smart water meter collects usage on an hourly basis, and reports once a day. So, a fix you make may take a day or two to be reflected in EyeOnWater. For more immediate feedback, you can look at the water meter itself to see current flow. The meter and display are in an underground pit (called a meter can), frequently close to the gas meter, phone terminal, or electric transformer.

- **Check meter:** When you think you have all the water turned off (not running dishwasher, etc.), look at your water meter. The grey unit (called an encoder or register) on top of the brass meter body has an LCD display. You'll have to lift the round black plastic meter lid (careful about the wires when you put it back); the encoder has a hinged cover that you may need to flip open. Please close the cover when you're done. The LCD cycles through four modes:
 - - reading (stays the longest) is the number of gallons, since the meter was new
 - - reading divided by 10
 - - static meter/encoder model id
 - - current water flow, in gallons per minute
 The reading and flow numbers show down to hundredths of a gallon, so you can see small amounts. Note that EyeOnWater shows in gallons per hour, and the display on the meter encoder is gallons per minute.
- **Inspect:** Just walking around, looking and listening can frequently find a problem.
- **Isolate:** Try shutting off potential problem areas. For example, you can turn off a water softener controller for a few days; some softeners may have a bypass valve that takes the softener out of the plumbing loop. You may be able to shut off water to a casita.
- **Test:** Try things like running one particular irrigation zone, carefully looking at it, and watching for how much water it uses. Or flushing a toilet and verify that the fill valve shuts off completely.

Water Conservation

Our tiered water usage rate structure is intended to promote conservation. We accomplish this by charging progressively higher rates per thousand gallons as your usage increases.

Most houses are using twice as much (or more) water in June (for summer landscape irrigation) than they use in January. Winter use for most houses (85%) is within the first billing tier of 5,000 gallons per month, and summer use is within the third billing tier of 14,000 gallons a month. A few houses (1%) within the La Mesa Water Cooperative reach the top billing tier of over 17,000 gallons a month.

Suggestion:

If the only time you walk on your lawn is to mow it, it is time to replace it with a low water use xeriscape.

The [Albuquerque Bernalillo County Water Utility Authority](#) sponsors a comprehensive website, [505 Outside](#), that has lists of plants appropriate to our area, landscaping tips with photos, watering tips for healthy plant and tree growth, etc. The [New Mexico Office of the State Engineer](#) also has excellent material on water conservation.

[Xeriscape 101](#)**[A Waterwise Guide to Trees](#)****[Xeriscaping: The Complete How-To Guide](#)****[Don't Waste a Drop: Finding, Fixing and Preventing Indoor Water Leaks](#)****Drought**

As we all know, New Mexico (and most of the Western United States) is experiencing a sustained drought. According to the National Integrated Drought Information System (NDIS, [Drought.gov](#)):

The most intense period of drought occurred the week of January 19, 2021, where D4 [Exceptional Drought] affected 54.27% of New Mexico land.

Since we do not rely on surface water (Rio Grande, streams, springs, etc.), the drought does not immediately (weeks to months to years) affect our water supply, but is a major determinate of demand. Our two producing wells (#5 and #6) can meet current and projected demand. Bringing well #3 back into service in 2023 will provide additional capacity and resilience.

Our wells draw fairly old water (hundreds to thousands of years), which is replenished very slowly (decades to centuries), if at all. Think of our water as a non-renewable resource, like natural gas or oil.

The drought is a significant factor in our water demand. The volume of water provided each day is directly correlated with how hot and dry it is, since most of the water used in our community goes for landscaping. In the long term, we can all help adapt to drought by replacing plants with those that can thrive in the "new normal".

During these drought conditions, we can extend the life of the aquifer for the foreseeable future with reasonable water use and conservation.