

# Entranosa Water News

March 31, 2007

## **Water Leaks and Water Loss A View from the EWWA President of the Board**

In the past few months, there have been numerous reports of leaks in the yard lines between the meter owned by Entranosa Water and Wastewater Association (EWWA) and residences of our members. Leaks are a problem for everyone. They waste precious resources, and can be difficult and expensive to fix. They always happen at the worst possible time and are a tremendous inconvenience for everyone. They can happen to anyone, including five of the seven directors currently serving on the Board.

When a leak occurs, the EWWA staff is often the first to notice it when we read meters, but the consumption profile on your bill helps to determine if there is a problem. As a courtesy service the staff sets a threshold of usage every month – those meter readings that fall outside the threshold get re-read and we check for movement on the meter leak indicator. If the reading was correct, the member is contacted and our field personnel, as a courtesy and as time permits, assist in verifying the presence of the leak. This is exactly what happened to me - before I could identify and repair the leak, 80,000 gallons of water went into the ground six feet from my front door with no visible indication on the surface. I was utterly amazed that all that water could simply disappear – but it did.

Given the sheer number of reports and some specific member concerns that were directed to me, the Board spent several days looking at the issue. During this time, several things came to light that I would like to share with you.

1. The current operating procedure for billing water attributable to leaks was not well known within the membership, but, in sum, it allows the reduction of a bill that is abnormally high because of a leak if the member meets some conditions, such as promptly repairing the leak. As I mentioned, five of the directors had leaks, yet none of us had received billing adjustments since none of us knew the operating procedure existed. The Board has requested that the staff review the current procedure, revise it as needed and present it to the Board for approval as policy. Once approved, the policy will be distributed to all members in our monthly mailing.
2. Several of the problems occurred due to service lines that are too shallow. You as a member have little control over this since very few of you actually installed your line. If you decide to replace your service line, it needs to be installed well below frost line which could vary depending on the terrain and the area in which you live. Consult your local plumbing inspector for direction specific to your area. Bernalillo County Zoning Building & Planning can be reached at 315-0351 and NM Construction Industries can be reached at 476-4700 (in Santa Fe).
3. To protect the water system from residential backflow, we install backflow prevention at the meter. This is a simple check valve that prevents flow back into the main system. Consequently, this creates a separate pressure zone on the member's side of the meter. During the winter, the temperature of the water being delivered to your home can be less than 50 degrees. When that water is heated in your water heater, it expands, creating additional internal pressure. This pressure can be excessive and may cause failures in piping, fixtures, toilets, etc. The Plumbing Code, since 1997, requires that a domestic water expansion tank be installed on all homes to absorb this pressure expansion, keeping your system safe. However, many of our members who experienced failures did not have a domestic water expansion tank.
4. Plastic pipe (PVC) is a great product. It is easy to work with, inexpensive and resists corrosion. It does, however, expand and contract with temperature variations and can eventually break from the fluctuations. During our research, we reviewed the specifications for PVC pipe on a manufacturer's website. A thermal expansion coefficient was listed and indicated that PVC can expand and contract with temperature swings. Given a modest 20 degree change in temperature over a 150-foot service line, PVC can expand and contract over an inch in length. This expansion and contraction creates the distinct possibility of line breakage should there be no place for the expansion to be absorbed. Many of our members who experienced failures had PVC service lines. A newer alternative to PVC is AquaPEX, which is a more flexible but tough plastic much less susceptible to thermal expansion. It is available in lengths up to 300-

feet, minimizing the number of joints made underground. Should you find yourself needing to replace your service line, ask your plumber about AquaPEX tubing.

5. Animals and landscaping can be an important part of our lives. Just like us, they need water to survive. Many water system failures on member properties can be attributed to outdoor hydrants and irrigation systems. We saw some failures caused by inadequate draining of sprinkler systems and outdoor hydrants. Consider installing shutoff valves and vent lines that will allow these systems to be drained during the winter months. Freeze-proof hose bibs can be installed that will allow outdoor access to water during those periods of cold weather.
6. Quality of construction and material failures play an important role. The failure of my system was due to a \$6.00 isolation valve on my sprinkler system that started leaking. The ironic part of this example is that I purchased and installed the valve myself. I have to accept the probability that I overheated the valve body while soldering it, causing premature failure, or that the valve quality was substandard. Either way, it was my problem. Other members have also experienced failures because of poor quality installation or products in their homes.

Our membership agreement and service contract clearly limits EWWA's responsibility at the meter. This is typical for the industry and certainly understandable. We do, however, realize that we are a member-owned service-based organization. Our staff works very hard to provide good service. They often work long hours at the worst possible times and in the worst possible conditions to make sure water is delivered to our homes. It's not uncommon to learn that they have gone the extra mile to help one of our members diagnose a problem, even though the typical industry response would be to turn their backs once the problem was determined to be downstream of the meter.

I hope this explanation is helpful in sharing some of the issues we discovered in tracking down why we had so many leaks this winter. There are many causes, as you can see, but I understand that doesn't make it any easier when it happens to you. On behalf of the Board, I want to thank each and every one of you for your understanding and support of the staff and their efforts to provide excellent service.

Sincerely,

Steve Varley  
President, Board of Directors

## **Regular Newsletter Information**

**Conservation Ordinances.** Both Santa Fe and Bernalillo counties have ordinances dealing with water conservation. The ordinances differ, but they have the same focus – to provide guidelines for domestic conservation. If you live in Bernalillo County, enforcement of the ordinance starts on April 1<sup>st</sup>, and Santa Fe County starts May 1<sup>st</sup>.

**Water Hardness.** We measured about 20 grains of hardness at the office on the evening of March 28<sup>th</sup>. We expect it to remain there until the middle of April and then start to rise as our pumping increases - topping out in late May at an average of 27 grains – but it will vary by pressure and distribution zones on the system (as high as 32 grains, as low as 22 grains).

**Water Use.** Our pumping this past month was less than last year for the same period. It is amazing what a little moisture and cold weather will do! The average residential meter consumed 4,507 gallons. The previous two years, the average residential use for March was 5,890 gallons in 2006, and 4,956 gallons in 2007.

***CALL BEFORE YOU DIG – IT IS THE LAW    260-1990***