



Las Campanas Water Cooperative

SANTA FE, NEW MEXICO

2021 | SPRING

# Las Campanas Spring Newsletter

President's Report | 2nd Quarter | Stephen Raab, Board President

Each and every year the Water Co-op strives to achieve continuous improvement in all of the major programs and processes and 2021 is no different.

As we move into Q2 I am pleased to report that, thanks to Kim Visser and the staff of the Las Campanas Water Co-op ("Water Co-op"), we are on schedule for meeting our 2021 goals & objectives. Each and every year the Water Co-op strives to achieve continuous improvement in all of the major programs and processes and 2021 is no different. Kim Visser and the Board defines continuous improvement as improving the effectiveness of a program or process while reducing the cost of a program if possible. Providing great service at the lowest possible cost is the primary goal of the Water Co-op.

In late March, Heather Roybal, the Water Co-op's Customer Service Manager, sent out a reminder concerning the importance of starting up our irrigation systems in Spring. Heather's reminder discussed the need to have your system inspected for leaks noting that even a small leak can result in a significant loss of water. In the Spring of 2020 when I started up my irrigation system, a system that was replaced in the Fall of 2019, it quickly became apparent that the Winter's freezing temperature had taken its toll on my system, even after a thorough shutdown prior to the onset of Winter! Within minutes I found myself repairing two massive leaks.

In support of the need to properly start-up your irrigation systems I would like to remind the community that despite some precipitation over this past winter the drought conditions persist over the Intermountain West which includes New Mexico. New Mexico is now placed into the Extreme - Exceptional Drought category by the National Drought Mitigation Center, a division of the National Oceanic and Atmospheric Administration or "NOAA". In 2020 New Mexico's average rainfall was 8.42 inches, 5.88 inches below normal which is the fourth driest ever recorded.

As we all face this challenge of the ongoing drought, please note that the Co-op will be supporting your conservation efforts through online classes and literature available through our website. I urge you to please utilize the Eye-on-Water monitoring program so that you can identify a leak as soon as possible. Work with you landscape architects and landscaping staff to minimize the amount of water you are using. Nearly 2/3 of our water usage is used for irrigation.

You have our commitment that the Water Co-op's staff, and the Board will continue to dedicate ourselves to managing this vital service in the most efficient and cost-effective manner possible.

Stephen Raab

*Board President*



## Operations Committee Report | 2nd Quarter | Shawn McCoy, Chair of Operations

### 2021 Operations Goals & Objectives:

Thanks to Kim Visser, the staff at the Water Co-op, and the Operations Committee we continue to move forward to meet our 2021 Goals and Objectives. We are working closely with the Finance Committee to meet one of our major goals - developing an enhanced proactive, risk-based operations program which will allow us to continue to address potential risks/threats and assure operational readiness for the water and sewer infrastructure. This combined effort will result in these outcomes by the end of next quarter:

- Completion of a comprehensive, integrated Asset Management Program that will allow better insight into the status of all our assets, maintenance requirements and status, and risk-based assessments on asset repair or replacement needs.
- Finalizing our 2021 capital spending plan as well as a multi-year Capital Improvement Plan. This will be reviewed annually based on the Asset Condition Assessment that is part of the Asset Management Program.
- Provide the Finance Committee with a Capital Investment Plan to allow them to assess the Capital Reserves Budget for 2021 and beyond.
- Completion of the SCADA assessment to inform CIP recommendations.

As an update to the sewer line inspection and cleaning for Estates 1, the sewer lines were cleaned and inspected. The video tapes were reviewed and showed the following:

- There were no noteworthy structural issues or defects with the pipes or manholes.
- The sewer lines had no bellies/sags that hold water indicating the lines were installed correctly and soil compaction was adequately performed during the backfilling of pipes since there was no settling of the pipes.
- There was no significant root intrusion into the sewer lines. Roots generally enter the sewer from either the joints or service lines.
- All pipe joints were fully seated.



## Operations Committee Report | 2nd Quarter | Shawn McCoy, Chair of Operations

### **Our additional focus items in 2021 will be as follows:**

- Establishment of electrical boundary protection for Lift Station #4.
- Completion and submission of our “discharge permit” DP944 permit application to (NMED) New Mexico Environmental Department by June 1. Current permit expires 6/1/2022.
- 100% Fire Hydrant Inspection funded by Santa Fe County - will begin in July.
- Based on the good results of the Estates I sewer line inspection, we will focus this year on manhole inspection, with emphasis on larger and low-slope lines that are more prone to sediment and blockages. Over 100 manholes will be inspected.
- Kim Visser along with staff & the Executive Committee continue to review monthly the 2021 Goals & Objectives to make the Co-op is on track to meet all of our initiatives for the year.

My thanks to Kim Visser, the staff of the Water Co-op and the Operations Committee for their hard work and dedication.

### **Las Campanas Water Co-op Operations Committee:**

James Lightfoot

Shawn McCoy (Chair)

Steven Miller

Stephen Raab

Mike Walsh

### **Staff Members:**

Kim Visser

Bryan Romero





Finance Committee Report | 2nd Quarter | Barbara Shoemaker, Chair

Our new auditing firm, Porch & Associates brings a wealth of expertise both in auditing non-profits and also representing a number of other water utilities here in New Mexico.

The Finance Committee has continued to work closely with our Controller and General Manager to develop reporting formats that will better allow us to track any variances to our budgets for both Water and Sewer lines of our business.

We are in the midst of our 2020 audit. Our new auditing firm, Porch & Associates brings a wealth of expertise both in auditing non-profits and also representing a number of other water utilities here in New Mexico. We look forward to a collaborative relationship as we continue to develop replicable financial models for rates and reserves that will ensure the long-term financial viability of the Water Co-op. Our new auditor noted that General Manager, Kim Visser's comprehensive record retention and her long history with the Co-op has greatly facilitated accessing what he needs to effect a comprehensive audit.

The Finance Committee has continued to work closely with the Operations Committee to more clearly define our immediate and longer-term capital requirements in close consultation with Jacobs, our system operator. While the process of assessing asset condition, lifecycle, and replacement costs for all parts of our system has taken a bit longer than anticipated due to Covid, this information will allow us to plan reserve levels appropriately for the future, with annual updates reflecting any changes to our requirements.

We welcome the recent appointment of James Lightfoot to the Finance Committee. He brings a wealth of business experience that supports our focus on continued enhancement of our financial budgeting and reporting management processes.





Sustainability Committee Report | 2nd Quarter | James Lightfoot, Chair of Sustainability

## Currently the water-use forecasts and water treatment capacity remain in-line with original design requirements.

As part of the Las Campanas Water Co-op's commitment to sustainable best practices, we scheduled two classes this spring via Zoom tele-conferences. The first was to provide an overview of "How Best to Landscape for Today and Tomorrow" followed by "Plants for Las Campanas" providing information to choosing plants that are likely to grow successfully in Las Campanas.

The classes were to be taught by Tracy Neal, a well-known horticulturalist in Santa Fe who was generous enough to provide this training. Unfortunately, we did not meet the minimum number of participants to hold the class. The information has been posted on our website for reference material.

Currently the water-use forecasts and water treatment capacity remain in-line with original design requirements.

A meeting between board members and Seth Fullerton, the Co-op water rights attorney, provided a better understanding of risks associated with the Co-op water rights. A specific risk mitigation plan is not required at this time.

We had the opportunity to meet with Anna Hansen, our Santa Fe County Commissioner. This allowed us to hear Anna's thoughts on sustainability and how Las Campanas might fit into the larger picture of the greater Santa Fe area.

The Eye-On-Water program continues with 87% of members participating. The water abatement program has had four (4) requests in Q1 2021 with all requests being approved.





## Drip Irrigation for Efficient Watering

Saving water in the landscape will become increasingly important as we move into a hotter and potentially drier future.

When properly designed, utilized, and maintained, a drip irrigation system is the most efficient way to water most plants in our gardens. Drip systems apply water directly to the soil in discrete spots in the landscape, versus sprinklers that are designed to throw water out over larger areas.

Water is applied through emitters, which have openings of various sizes to determine how much water each emitter will apply for a given time span. Common emitter sizes are 1/2, 1, 2, and 4 gph (gallons per hour). The number and sizes of emitters used determine how much water is applied to each plant.

The area of coverage for each emitter (how far the water will spread out) is determined by the soil make-up; water goes down in a narrower column in a sandy soil than it does in a clay soil. It also goes down faster through a sandy soil than it does through a clay soil. How closely emitters are spaced and how long the system is run each time should be correlated to the soil texture and the way water moves through the soil, as well as to the types and sizes of the plants.





## Drip Irrigation for Efficient Watering *continued*

Drip systems are controlled by valves that open to allow water to flow through; these valves are often referred to as zones. When the valves are opened and for how long are variables controlled by a timer. Plants that need the same frequency of irrigation when they are established should be watered by the same zone, whenever possible. For example, most of the trees we use, plus drought tolerant native and adapted shrubs, need to be watered less frequently than most of the perennials and non-native shrubs (such as roses) that we use; thus, trees and drought tolerant shrubs should be irrigated on the same zone. Many of the non-native shrubs and perennials we use need to be watered more frequently and can be grouped in the same zone. The numbers and sizes of emitters used insure that each plant gets the right amount of water each time that zone is run. Grouping plants that need irrigation at different frequencies on the same zone usually means some will be overwatered or some will be underwatered. A landscape that includes plants with a variety of irrigation needs should have different zones tailored to those needs.

The combination of numbers and sizes of emitters, plus the length of time the valve is open, determine how much water is applied to that zone at each irrigation.

For example, a zone with 100 emitters rated at 2 gph will use 200 gallons of water in an hour. Typical designs are more complex than this; Eye on Water can be used to check actual output after a zone has been run.

The main lines that bring water to each zone along with the small tubing that takes water to each emitter should be covered with an inch or so of mulch or soil; exposure to sunlight can degrade the plastic these are made of. Emitters can be left just above ground or under the mulch, as long as they are placed correctly in regard to the root system. If drip lines are buried too deep it may be impossible to detect leaks until a lot of water has been lost. It is very important to expand coverage of drip systems as plants grow, as root systems spread further out. Emitters placed at the base of a new plant will not water the expanding root system adequately after a couple of years. Expanding the irrigation once will work for many perennials, while irrigation may need to be expanded twice for shrubs and possibly more than that for trees.



## Drip Irrigation for Efficient Watering *continued*

Irrigation frequency should be keyed to the changes in seasonal conditions. A system that waters every three days in the hottest part of summer might only need to be run every 5-7 days in the spring (April/May) and in the fall (September/October). A system that is keyed to watering plants during the hottest summer days is likely overwatering plants in the spring and fall. Daily weather variables also affect the frequency of irrigation needed. Knowing how to turn the system off for a while after a heavy rain, as well as how to program it to match seasonal needs, keeps water use more efficient.

A variation on the typical drip set-up is the use of micro-sprinklers, small plastic sprinkler heads that throw out a fine mist. These are very inefficient and not recommended for most applications. For large areas of groundcovers or densely planted beds, drip lines with emitters included inside the hose (in-line emitters) at intervals of 6" or 12" can water all the plants in that area more efficiently.

Since typical drip systems don't throw water up in the air, it doesn't matter what time of day they are run. Some people like to run the system in early morning so they can see if there are any leaks or abnormally wet areas before the heat evaporates the surface water. The potential for leaks also makes it important to know how to turn the system off as soon as they are detected.

Matching a drip irrigation system to the characteristics of the site, the plants being irrigated, and the seasonal weather conditions is the most efficient way to water your garden and insure that all your plants remain healthy.

