

Water Conservation Effort Implemented Throughout Stonebridge Ranch

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Among homeowner associations in the US, the Stonebridge Ranch Community Association (SRCA) is at the forefront when it comes to finding water saving solutions. In May of this year, Board President Jon Dell'Antonia and Director of Operations Greg Herbst were interviewed by a Joe Cantlupe, a reporter for Common Ground magazine, which is published by Community Associations Institute (CAI) to "provide volunteer community association board members, professional community managers, and homeowners with the information they need to improve their associations." After hearing about the installation of water-saving technologies in our common areas, Joe was excited to learn more. "It's really interesting what Stonebridge Ranch is doing," he says.

To understand why we are leading the pack in water conservation, let's look back to October 2011. That's when the North Texas Municipal Water District (NTMWD) initiated Stage 3 of their *Conservation and Drought Contingency and Water Emergency Response Plan* in response to drought conditions across much of state. The NTMWD wanted to reduce water use in our region by 10% and increase awareness of water conservation efforts. Residents of Stonebridge Ranch who lived here in 2011 may recall the Stage 3 restrictions. They included reducing residential watering with sprinklers to once every two weeks, and eliminating watering between the hours of 10 a.m. to 6 p.m. For a large community known for its landscaping both in common areas and in residents' yards, we certainly felt the effect of these requirements.

Though the drought and the restrictions eased in the years that followed (McKinney residents may currently water their lawns once a week on a designated watering day, and as needed, three days later), the experience sparked the SRCA Board of Directors to look for new irrigation solutions. In 2015, they wrote a new priority into their annual Strategic Plan regarding water conservation: "to develop an ongoing plan to reduce the consumption of water used to irrigate the association common area landscape, and upgrade the irrigation system infrastructure, technology and management to improve distribution and efficiency." Because our community's common area irrigation system was aging, this priority couldn't have come at a better time.

In 2016, the Board of Directors turned to the irrigation water management experts at Smart Outdoor Services (SOS) to analyze new ways our association could save water—and consequently, save money, too. Said Tom George, who was the Board Vice President and liaison to the Landscape & Grounds Committee at the time: "We know water rates are going to go up each year, and unless we want to increase annual dues every year to pay for this rising cost, we need a focused plan to improve the efficiency of the irrigation system in common areas."

That same year, the Board approved SOS' first recommendation, the Top 10 Meters Project. The program aimed to lower water usage at the ten SRCA irrigation meters using the most water. It included updating the irrigation technology, as well as implementing best practices to help reduce water consumption: pressure regulating each meter (resulting in heavier droplets throughout a zone, less mist, and therefore less evaporation); adding flow meters to allow for quicker leak detection; adding soil

moisture sensors to immediately detect when soil is wet enough (signaling sprinkler shut-off); and upgrading the sprinkler controllers to allow for remote monitoring.

In the first year, these upgrades resulted in 29% less water usage at those meters. With proof of the program's efficacy, the Board approved updates to the next top twenty meters in 2017. The collective result was a 54% reduction in water usage and a 42.5% reduction in water cost in the upgraded areas, showing a payback of the program cost in less than two years (even better than initially projected).

The Board then began looking into whether similar updates made sense for our entire common area irrigation system, a much larger project. The accounting team from the association's management company, CMA, performed an audit of SOS reports and confirmed the savings. As a result, early this year, the Board of Directors and management staff teamed up with SOS and a new partner, Weathermatic (a Texas company which manufactures smart controllers and monitoring systems), to update all common area irrigation systems throughout Stonebridge Ranch: and total of more than 250 meters connected to many miles of irrigation pipe. SOS estimates conservatively that SRCA will experience at least a 34% reduction in our rate of water gallon usage at a time when the cost of water is going up 11% per year. Over time, the irrigation upgrades will result in enough dollar savings that they will essentially pay for themselves.

Says Greg, "We're all learning from SOS through this process. There is a lot of thought and interpretation of data that goes into programming smart controllers. Just because you have the technology doesn't mean you are getting the most use out of it." Adds Brock Whestone, Landscape & Grounds manager, "With our landscaping vendors, we've asked them to take a close look at each area to help SOS determine the correct programming. For example, if it's a turf zone, a color bed, or a shrubbery zone, the controller will need to be programmed differently."

Once all the new controllers have been installed and programmed, association staff and our landscaping vendor partners will need to conduct spot checks to verify everything's working properly. Says Greg, "This is a time-consuming process because it requires work in the field at each site, and we're talking about literally thousands of sprinkler heads." Along with these spot checks, in the coming months residents may also notice a new pattern of watering in the common areas they frequent. Depending on what the new smart system determines is most efficient, zones which are side-by-side may no longer be watered consecutively, or they may be switched to be watered on a different day. These changes are allowed by permit of the City of McKinney, which recognizes the efficacy of and encourages the use of new water saving technologies by exempting ET-controlled systems from water-day restrictions. (For more information, see <https://www.mckinneytexas.org/511/Outdoor-Water-Use>.)

"What's most exciting to me," says Greg, "is that the money saved over time on irrigation can go back into serving homeowners. We know Stonebridge Ranch has an aging infrastructure, and the costs of materials continue to rise. As the savings increase, funds which would have once been earmarked for the water bill can be used to invest in other things, like amenity maintenance and upkeep." Stay tuned to upcoming issues of *Stonebridge Ranch News* for other articles related to our collective water conservation efforts!