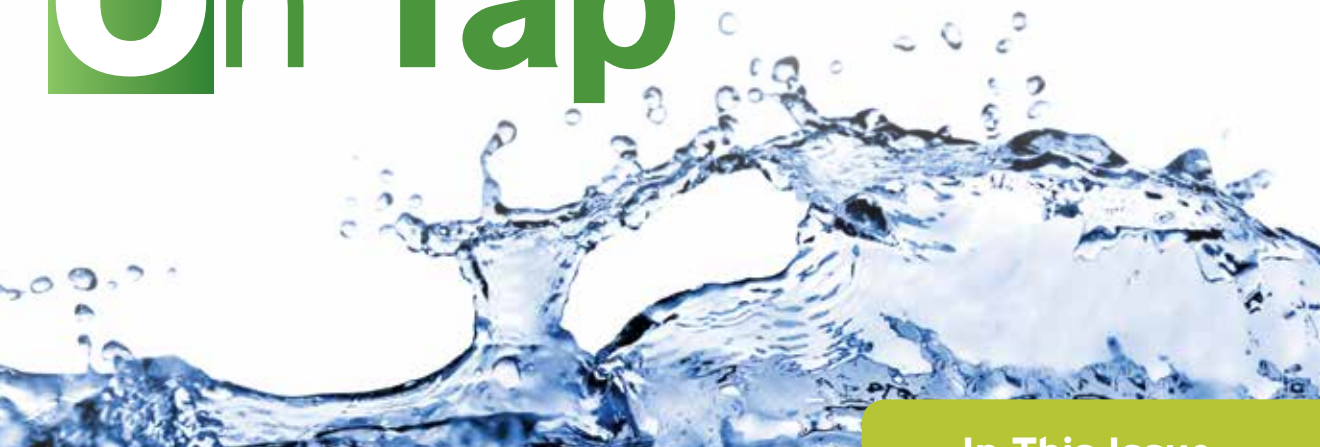


# On Tap



## Ditch Outage Scheduled for October - Please Conserve!



The Pacific Gas and Electric Company (PG&E) Tuolumne Main Canal that conveys 95% of Tuolumne Utilities District's water supply will be shut down for PG&E's regular maintenance from **Monday, October 9th through Monday, October 16th, 2017**. With this in mind, the District asks that you limit your water use during this timeframe while PG&E undertakes repairs and improvements.

Without water flowing in the ditches, the only water available is what remains in storage tanks and from groundwater wells. Conservation during this period will help provide adequate water supply for drinking, sanitary usage and fire protection.

### Here's how you can help:

- ✓ Limit outside watering
- ✓ Do not wash vehicles
- ✓ Turn off automatic lawn and drip sprinkler timers
- ✓ Repair water leaks

Please continue to conserve one week after the outage in order for water storage to recover. For irrigation/ agricultural ditch customers, periodic outages will continue from October through December for annual maintenance. For complete ditch outage information, visit our website, [www.tudwater.com](http://www.tudwater.com).

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## A Summary of Water History, *excerpts from the TUD Ditch Sustainability Project Historic Resource Evaluation Report by Foothill Resources, Ltd., and Francis Heritage, LLC (2012).*

Many sections of the TUD ditch system today were originally constructed during the era of the Gold Rush in the 1850's. Here's a look at the historical impact that the ditch system has assumed in Tuolumne County.

Gold was discovered in the streams and drainages of the Stanislaus and Tuolumne

ivers and their tributaries as early as 1848. A few springs provided enough water for eating and bathing purposes, and when dammed, a small pond for panning the gold, but by 1850 the horde of miners who had poured into the area began to look for additional sources to provide a year-round supply of water. The original Tuolumne County Water Company was organized on June 24, 1851, in Columbia, as an employee owned and controlled entity, to develop and conserve the water of the Stanislaus River and convey it to the various miners in Tuolumne County. English engineer John Wallace was hired to survey the South Fork Stanislaus River to find a line for the canal. Digging began in early July 1851 and by the autumn of 1852, the company was \$75,000 in debt, but had nearly completed a canal and flume system between Lyons Ranch and Columbia.

Work commenced at Summit Pass about noon on July 1, 1851. The flume was to be 15 miles long, 4 feet wide, 2 feet deep, and made of boards 2 inches thick, with 5 miles in ditch. The company purchased a saw mill and steam boat, from which they removed the engine and boilers, in San Francisco, erected it at the Pass, and soon began work cutting timber for the flumes (John Wallace Letters, in Eastman 1969:297-299).

Water was first brought through Five Mile Creek, using its bed as a ditch, but when it was found that there was not sufficient water to run the proposed water-powered saw mill, the company borrowed from



Tuolumne County Water Company's flume near Donnell's Flat. (Kuchel & Dresel) lithograph, drawn by F. Holtzmann, courtesy of Columbia State Historic Park

\$6,000 to \$8,000 from Mills & Co., of Sacramento, to purchase a steam engine and boilers in San Francisco, also purchasing a small steam boat to get them to the mill site. (Eastman Notes: n.d.).

In March of 1852, engineer Wallace described the work as having cost \$15,000 up to that time, with two-thirds of the system dug and the rest flumed and trestled (three miles, two over ravines and one over grading and timbering). Water was taken from the South Fork Stanislaus River near Lyons Ranch, flumed and ditched to Five Mile Creek, taken down the bed of the creek to the company flume, where another sawmill was erected.

By May 1852, the system had reached Summit Pass and the company was getting \$500 a day from water sales. Many more side ditches were required to distribute the water regularly to the different mining regions. By the end of 1852 the company's water system was complete, consisting of about 18 miles of flume, 30 miles of earthen ditch, and four small reservoirs (Eastman 1970:310), as well as a diversion dam at Lyon's Flat. Ditches were dug by hand or with scrapers drawn by horse or mule, while wooden flumes, which used thousands of board feet of lumber, were required to carry the water around the steep cliffs and over the canyons. This system engineered by John Wallace is the early Gold Rush year is still in use today, although Lyons Reservoir has been enlarged and Five Mile Creek is not used.

## Improvements to the Columbia Water Treatment Plant Facility



Current Columbia Clearwell Tank

The Tuolumne Utilities District continues to undertake capital improvements in support of upgrading the District's drinking water infrastructure and sewer infrastructure. In this coming fiscal year, which started July 2017, the District has planned to complete over \$4 million dollars in Capital Improvement Projects, \$2,876,500 in water projects and \$1,195,500 in sewer projects. One of the projects that will start this fall is the 500,000 Gallon Columbia Clearwell Rehabilitation Project. The current welded steel tank in use is over forty years old, and is an integral part to the water treatment process at the Columbia Water Treatment Plant. This tank controls the chlorination contact time of treated water before it is distributed to the approximately 4,250 customers that it serves in the Columbia and Big Hill service areas.

The project includes the removal and disposal of the current coating and lining systems on the tank, and the application of new coating and lining systems that are to current standards and are suitable for the treatment process. Repairs and improvements include rafter reinforcement, the replacement of a roof access hatch and interior ladder, and the addition of adequate ventilation to reduce the current corrosive atmosphere.

The project was circulated for bids and on August, 17th, 2017, the District received three bids ranging from \$386,925 to \$258,403. The Board of Directors approved the contract to the lowest bidder at its Board meeting held on August 22, 2017 to West Coast Industrial Coatings Inc. of Hemet, California, in the amount of \$258,403. The Columbia Clearwell Rehabilitation Project is expected to start early September. Once completed, this new clearwell tank should have a lifespan of up to 25 years.

## The ABC's for Fast Composting,

*By UCCE Master Gardener, Wendy Weidenman of Tuolumne County*

One of my most favorite things to do in the garden is compost. I must be honest, I am not always diligent about turning my compost, but I get great satisfaction when I finally achieve fruitful compost all from materials found in my yard or home, or from my neighbor's lawn.

First you want to start with equal parts of greens and browns. Let's do a quick overview of what these specific groups are. Greens are nitrogen rich materials such as scraps from the kitchen such as fruit and vegetable peels, leaves and trimmings, eggs shells (crushed), and coffee grounds. Do not include any animal products such as meats and dairy. I have an attractive little stainless steel compost can on my counter that I purchased on my favorite online shopping website. It has charcoal filters in it that prevent any smells that accumulate between my trips to my compost pile in the garden. I look at it as one more thing I can recycle to keep my garbage accumulation down each week. Greens can also include fresh grass clippings, freshly cut perennials or weeds (no Bermuda grass) and seasoned manure from vegetarian animals. Browns are carbon rich materials that include wood chips, dried leaves, dried grass, straw, and newspaper. Try to

break all these products down as small as possible for fast decomposition.



The greens and browns should be layered in a pile approximately 3' wide, 3' tall and 3' deep at the smallest, but no larger than 5 feet square for ease of turning. I don't like to use any type of enclosure or wire to contain the pile as that simply makes it harder to turn. Take care to cover any food scraps with other nonfood scrap material to discourage unwanted critters. Soak the pile with water to a dampness of a wrung out sponge. Turn the pile every 3 – 10 days to prevent overheating. The temperature of the pile should stay between 135 and 150 degrees. Over 160 degrees will cause the decomposition microorganisms to die and the pile will become anaerobic. The first sign of an anaerobic pile will be odor. Not all is lost; you can recover the aerobic conditions of the pile by turning which will bring air into the pile. Assuring the constant moisture and temperature could most likely give you a finish compost product in 4 – 6 weeks. If you turn it every day, you just might accomplish this in 3 weeks. *Happy composting.*



## Capital Project Progress

The provision of water and wastewater services is based on fairly simple principals of what needs to be done, what works best and what is safe. The process of bringing all that about can be more complex and, unfortunately, expensive. The Tuolumne Utilities District ("TUD") is committed to delivering top quality services at the most efficient cost. We seek to preserve our customer rate dollar as best we can. Each year TUD undertakes improvement projects that respond to changing federal and state regulations, age of infrastructure, or the need for more efficient systems.

The Board of Directors adopted a five-year Capital Improvement Plan, or CIP, in November 2015 to set a course to accomplish much needed water and sewer projects. A CIP identifies capital projects and equipment purchases, provides a planning schedule each year and identifies options for financing the plan. The Board approves the CIP with the adoption of the budget. As our rate payers and customers, it is important for us to communicate to you the status of these CIP projects and the investment of your infrastructure dollars. Although a monthly status report for our capital program can be found on the TUD website at <http://www.tudwater.com/projects-development/tud-partnerships-projects/>, some of the projects completed or are in progress include:

**The Gold Springs Sewer Force Main and Gravity Sewer Replacement Projects:** These two projects were completed May 2017 and were a high priority to improve efficiency in our collection sewer system in the community of Columbia. The project included replacing approximately 5,510 linear feet of existing 4-inch sewer force main with a 6-inch force main and 963 linear feet of existing 6-inch sewer gravity main with 8-inch gravity main along the northbound lane of Parrotts Ferry Road in Columbia. The Gold Springs gravity main was replaced to accommodate greater flows in the future and prevent possible future sanitary sewer overflows.

**Phoenix Lake Preservation and Restoration Plan:** In July of this year, the District released the Initial Study/Mitigated Negative Declaration (IS/MND) for the Phoenix Lake Preservation and Restoration Plan for public review. The project goal is to improve Phoenix Lake's water quality and restore water storage capacity by implementing sediment removal, wetland enhancements, sediment reuse and disposal, and tributary improvements. Once complete, the project will increase water supply reliability and improve water quality for TUD's largest water system, serving more than 10,000 people. The District has received over \$5 million dollars in grant funding for the project. The District anticipates construction to begin in the summer of 2018.

**Cuesta Heights Water Storage and Distribution Improvement Project:** The Cuesta Heights Water Storage and Distribution Improvement Project is a multi-year, multi-phase project to improve water service in the Sonora area. In August, the Board held a public hearing and approved the California Environmental Quality Act (CEQA) Mitigated Negative Declaration for the Cuesta Heights Water Storage and Distribution Improvements Project.

This Project involves consolidating and replacing aging and deteriorating water storage facilities. The District's 420k Tank, Gopher Tank, and Saratoga Tank need replacement and will be abandoned and replaced with a new 600,000 gallon water storage tank located off of Shaws Flat Road in Sonora. The Saratoga pump station and the Shaw's Flat pump station are also to be abandoned. A new 10-inch dedicated water supply pipeline will be constructed to connect the existing Columbia Water System to the Pedro Y Tank to improve the operation of the Pedro Y Tank. Fire flow and reliability will be improved throughout the Gibbs and Saratoga areas.