



LIQUID GOLD OF CALAVERAS COUNTY THE DITCHES OF CALAVERAS COUNTY DURING THE EARLY YEARS OF THE GOLD RUSH

By Charity Maness

We often read of the Gold Rush in Calaveras County with regards to the massive influx of people in search of their fortune in gold. What is often overlooked in this equation of mines, towns, and agriculture is the ever present need for water or “liquid gold”, without which there would be no town, no agriculture, and less gold to be found. Some gold could be found with little to no water, yet the process of removing gold from the earth without water was a very difficult and dirty job.

Thousands of years before the Gold Rush in California, the indigenous people of South and Central America had been extracting gold from the ground using large shallow wooden bowls called bateas. Those same people brought their skills to the gold fields and surrounding areas in search of placer gold. The miners would fill the batea with dirt and toss it into the air, allowing the wind to carry some of the fine dirt away while catching the heavier gold and dirt back in the pan. They would repeat this process again and again until they were able to pick the small gold nuggets from the dirt left in the pan. If billows of dust were seen wafting from an area, the

local miners knew the Mexican miners were working with their bateas.

While a small profit could be made with bateas, the more preferred methods involved the use of water, and sometimes, a lot of it.

During the mid-1800s, Calaveras County swelled in population. Towns sprung up along tributaries and spread out throughout the area, yet the further the miners spread out from the water source, the more creative they had to get in order to have access to water.

With many creeks, streams and lakes in the county, to the untrained eye, water seemed readily available. However, getting the water to a mine not located along a waterway was a bit of an early engineering feat, one that required ingenuity and back-breaking work. Though ditches were dug, and reservoirs filled, many mining communities throughout the county were still dependent on rain.

Daily Alta California, January 24, 1852—
Calaveras Chronicle:

There has not fallen a drop of rain at this place for more than two weeks. The ravines and holes

which had water in them are gradually becoming dry and the miners pray for rain...

At Chilean Flat, nearly the whole flat is at present dug up, and troughs or trenches are cut into which the water is led from the surrounding hills by ditches. Being at high elevation the water soon gives out after a rain...

Another water company just finished their canal from Calaveras to San Andres where are said to be the finest sluicing grounds in the county. Notwithstanding, however, the benefits to be derived from the numerous canals at San Andres, rain is as much needed there as elsewhere.

The early self-taught hydrology engineers created a series of ditches and flumes, a revolutionary advance. Man-moved water was delivered where needed, allowing miners to seek their fortune in areas previously thought inaccessible due to a lack of water. The water delivered by ditches and flumes was measured by a miner's inch; a measure of volume flow rate. This measurement was defined as the amount of water passed through a one-inch square aperture in a box in which a constant water level of six inches above the upper edge of the aperture was maintained. A miner's inch flowing steadily for 24 hours was estimated to equal from 2,230 to 2,274 cubic feet, or 17,000 gallons, of water. It was this ingenuity and hard labor that rearranged nature, creating a series of ditches and flumes that would lead the way to the formation of our current water companies. Many of our modern day water companies were borne on the



Miner's Measure at Ross Reservoir.
Calaveras Historical Society photo.

backs of miners, ditch diggers, and their creation of a network of ditches.

While often water claims were made under the auspices of betterment of the County coffers via development of mineral and agricultural wealth, the sought after wealth was often found in the pockets of the company shareholders, not the County nor the pockets of the miners or ditch laborers.

Maintaining the network of ditches was a job in its own right. Depending upon the length, camps would be set up along the ditch up to 16 miles apart for ditch tenders. This was a difficult job made more difficult by winter weather. If the weather dropped to freezing, the ditches could freeze causing chaos for many of the mining areas receiving water from them. Additional workers were often needed to break the ice and clear the ditch to keep the water flowing. This practice was referred to as 'whomping ice'. If the ice was not broken, water flow could be interrupted to the mines for days or weeks.

Though some miners chose to simply divert water where they wanted, the wise miner would form a company with some trustworthy partners, purchase water rights and then dig their network of ditches.

The following is an excerpt from a water rights claim filed June 9, 1888, by business partners V. B. Smith and Joseph Raggio. The recorded claim reads in part:

Notice is hereby given to all whom it may concern that in the undersigned claim of water flowing in O'Neil's Creek at the point where this notice is posted in Calaveras County, California to the extent of two hundred (200) inches measured with four-inch pressure that we claim said water for mining, milling and irrigation purposes... we intend to divert said water from said creek by means of a dam... and we intend to divert and convey said water by means of a ditch...

With or without water rights in hand, digging ditches and building flumes to transport water to the mines began a new wave of engineering ingenuity that would eventually not only affect Calaveras County, but also the entire state of California.

The Battle Over Water Rights Reaches State Level

The race to get water to the many mining claims created a bit of a water rights frenzy with the devious practice of ditches being dug just upstream from the other ditches, thereby effectively relieving the lower ditch of any water and causing an almost constant

battle in and out of the courts to retain and enforce water rights. By February 1858, the thirty-nine ditches in Calaveras County, valued at \$1,242,300, came under some scrutiny at the state level with a bill submitted questioning if the canals and ditches crisscrossing the mining areas of the state should be comprehended under the term "public use".

Daily Alta California, February 12, 1858:

Mr. Merritt on the Committee on Corporations submitted a report stating that many of our citizens, as well as foreign capitalists, are engaging in building canals and ditches to develop the hidden wealth of our state. Without the means of disembodiment the staple commodity of California, an immense are of the State must remain idle and worthless to her citizens? Nearly \$12,000,000 are invested in these enterprises, and the canals for mining purposes now dug or in the process of completion, extend 4,405 miles in length. Shall this capital be protected by the Legislature? Have the persons engaged in these enterprises a claim upon the State's protection?

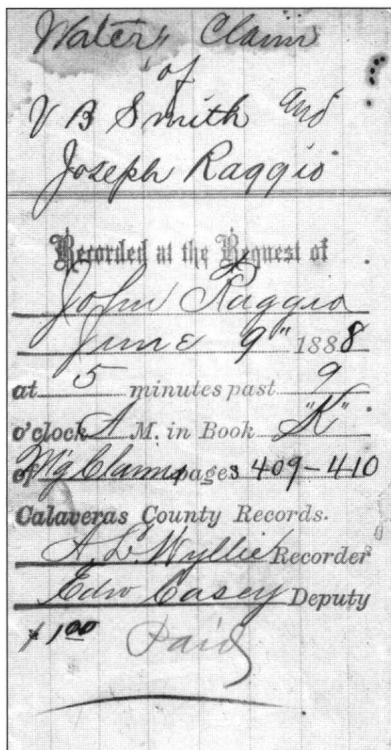
The majority of the committee felt that such a law would be unconstitutional based on the Declaration of Rights, section 8, 'nor shall private property be taken for public use without just compensation'.

Yet the report insists that the Legislature should extend fostering care to the large interest involved in the bill and so intimately connected with the future development of the state.

If the report is a new one of constitutional construction the enterprises are entitled to the benefit of the doubt until the courts pass upon the question.

Ditch Strike

In the fall of 1858, the miners held a ditch strike against the San Antone Ditch Company claiming first rights to water on the San Antone. The miners, many of them Irishmen, tore down flumes, some fighting to the death. The remaining miners marched to the County seat of Mokelumne Hill with a brass



Water Claim of V. B. Smith and Joseph Raggio.
Calaveras Historical Society Document.

band preceding them, demanding the rights to the creek. The court decided against them. Not happy with the verdict, the miners took their fight to the Supreme Court, where once again the court decided against them, claiming that the San Antone Ditch Company had first water rights to 180 inches of water under a four-inch pressure.

Early Calaveras County Ditches

Copperopolis

Knights Ferry Ditch was used by early miners for diverting water from the Stanislaus River six miles upstream from Knights Ferry near Six Mile Bar for placer mining and domestic purposes.

When mining and milling operations began to close down in Knights Ferry, Charles T. Tulloch, son of David

Tulloch whose family name was given to Tulloch Reservoir in Copperopolis, began to exploit the old Knights Ferry Ditch with its valuable water rights, some rights extending back to 1853. He built a hydroelectric power plant which furnished electric energy to the copper mining operations in Copperopolis.

In 1902, Tulloch constructed a diversion dam on the river, which is now referred to as the 'Old Tulloch Dam'. Local lore has it that the cement used to build the dam was shipped from Holland on ships which sailed around Cape Horn to San Francisco and then hauled by freight team to the dam site.

Tulloch was slowly forced out of the power business by larger companies, but utilizing his tenacious resourcefulness, he extended his ditch system down into the valley to the farmers, becoming a pioneer in the irrigation production. In 1909, the Oakdale and San Joaquin Irrigation District was organized, ultimately purchasing the entire Tulloch system and its water rights for \$650,000, yet keeping the name in memory of Tulloch and his entrepreneurial spirit.

Salt Spring Valley Reservoir Ditch

Water from this reservoir ran through a ditch to multiple mines along its way to Jenny Lind. By 1871, a company comprised of "Stocktonians"

purchased several hundred acres in the Whiskey Hill area to mine, yet more water was needed to be successful. The company appointed engineer R. M. Wilson as Superintendent to oversee the reservoir, its ditches, and its anticipated growth.

Daily Alta California, October 7, 1871:

San Joaquin Republican... the ditch from the Salt Spring Valley Reservoir toward South Gulch and Jenny Lind is to be greatly enlarged and improved. The demands for water in the vicinity of Whiskey Hill the coming season will be much increased over any previous demand...

West Point

Bear Creek Ditch was described as “taking water from Bear Creek about two and one-half miles above the village of West Point, thence running in a Southerly direction.” The ditch system was sold at a Sheriff’s sale in 1858 and traded hands many times before being purchased, with water rights included, by the Calaveras County Water District on December 23, 1954.

Consolidated Ditch was located just above West Point and was put on the market in June of 1861.

Daily Alta California, July 1867—“Rare Chance for Investment”:

FOR SALE CHEAP

All the Consolidated ditch property in West Point, Calaveras County. A saw mill and water power, 2 miles above West Point, together with the stock, wagons, lumber and logs on hand.

3 Quartz Mills one mile above West Point, doing a good business in crushing quartz from the vicinity.

All the above named property will be sold cheap as the owner intends to go to Europe. Inquire of Louis Levinson, 83 Battery Street, or Mentzel & Fisher, West Point, Calaveras County.

Mokelumne Hill and Campo Seco

During the mid-1800s, a short-lived company by the name of Boston & Plymouth Damming Company was created to bring water to Mokelumne Hill miners. It was limited, however, bringing water only to mines adjacent to the river, leaving a need for water to the other miners of the area.

On November 16, 1852, the Mokelumne Hill Canal and Mining Company began construction

on a ditch system that would ultimately consist of a large mountain reservoir, with smaller reservoirs where needed and a line of ditches and branches that would eventually extend to Mokelumne Hill, Campo Seco, Camanche, Grain Mine, Pine Peak, Central Hill, Chili Gulch, Old Women Gulch, Poverty Ridge, Cat Camp and more, which would allow residents, businesses and miners along the line to wash quartz or placer mine, irrigate their lands and run machinery.

The first of the network of ditches was the Mokelumne Ditch, which brought water from the South Fork of the Mokelumne River. The ditch, measuring two feet wide and three feet deep, was constructed with an estimated Chinese labor force of 500 and had multiple siphon pipes and wooden flumes. This was so successful that the company opted to expand yet another sixteen miles to the Campo Seco area. The Mokelumne Ditch went to Wallace and over Flumehouse Ridge to Paloma where it separated, with half the water going to Valley Springs and the other half flowing to Campo Seco. Within a year, the fledgling company was supplying water to the entire district with fees of up to \$7.00 per day for enough water to work a claim with lesser charges downstream where the flowing water was filled with mud and debris from use upstream. In 1854, the company changed hands and began an expansion under the new name Mokelumne and Campo Seco Canal Company. The company was reorganized in the 1860s and extensions were completed to Chili Camp, Valley Springs and Burson. In the 1870s, the company was the largest water supplier to the Gwin Mine owned by Senator Gwin, thus assuring the company some success. The Mokelumne Ditch was finally abandoned in 1973.

The Clark Ditch, built in 1856, began on the Little Mokelumne River, which fed into the South Fork. This ditch went from Blue Mountain to Rich Gulch. Clark Ditch eventually began taking so much water that the Mokelumne Ditch was lacking adequate water supply. A court battle ensued over the water rights, with the Mokelumne Hill Canal and Mining Company winning, as they had the previous water rights.

Lancha Plana and Poverty Bar

The Lancha Plana and Poverty Bar Ditch took its water from the main branch of the Mokelumne

River at Italian Bar. The demand for water in the area taxed the canal system as the population of the town founded in 1848 blossomed to 1,000 by 1858. Waters that were not used continued on to serve area in Amador and San Joaquin counties. Lancha Plana is now but a memory as she lay beneath the waters of Lake Camanche.

Murphys

In January of 1851, a group of men including Captain William H. Hanford, Dr. William Jones and W. H. Coddington organized a small water company to bring water from an upper tributary in the Stanislaus River to the mines around Murphys. The route for the ditch was surveyed by T. J. Matteson, owner of a local stage line. Within a year, J. Curtis, Volney Shearer, William Griffith, N. L. Fidler, E. C. Stone and Louis Robinson began digging a ditch which would bring water from Angels Creek two miles above Murphys to placer mines in the area.

On January 29, 1852, the two groups joined forces as the Union Water Company with a capital stock of \$150,000. The newly formed company was able to complete a fifteen-mile ditch in less than a year; rumored to have been completed with Chinese labor using picks and shovels as well as a mule and plow. In January 1853, through a series of ditches, flumes and reservoirs, water was finally delivered the fifteen miles to Murphys.

The Union Water Company began to absorb small water companies and within a few years became the major water supplier for Murphys, Douglas Flat, Vallecito, Carson Hill, Albany Flat, Angels Camp and other mining areas.

The growing company was not immune to the constant battle for water rights. After the company had built sawmills and cut lumber for flumes, had several miles of ditch and flumes constructed, and was often referred to as one of the finest ditches in the county, they began to lose flow on their Angels Creek Ditch. Apparently, Mark Torrey, of French Gulch, had built a dam across Angels Creek above the ditch the Union Water Company had dug to take water to Angels Camp. A lawsuit commenced as described by Captain Leonard Noyes in his diary:

Captain Leonard W. Noyes of Murphys recorded the event in his diary:

The suit was commenced in 1854, before Judge Alexander H. Putney, Justice of the Peace at Murphys camp. The court was held in a big tent say seventy to one hundred and sixty feet kept by Bob Patterson in which he had a bar of choice liquors, a billiard table, two monte tables, and a Rolet table, all of them in full blast. The Union Water Company had three lawyers as also had the Torrey Company...

The Court was held in the south end of the tent, right in front of the bar where sat Judge Putney, his left hand to the bar and facing the door between which the judge and the judge was table say ten by twenty-five feet. Along the south end and against the side of the tent was a bench for the 12 jurors, front of the judge. At his back and close to him was the billiard table, extending to the end of the bar, at the north end of the tent were two Monte tables and between the Billiard table and the front of the tent was the Rolet table. The lawyers occupying the side of the table on which the judge sat and the end highest to the door, leaving the end of the table next to the bar empty, so that customers could get up to the bar to drink.

The first thing in order was the selection of a jury of 12 honest miners, no others would do, who the law allowed \$5.00 per day for their service and they had to pay a man \$8.00 to work in their place in the claim, making \$3.00 per day out of pocket. Of course the jury must be kept good natured, so one party to the suit suggested that it was not right that the miners should serve at \$5.00 and pay \$8.00 per day and proposed that they be allowed \$8.00 cash per day. The other party not wishing to have a march stole on them in that way raised them to \$12.00, they saw him and went \$3.00 better finally they settled down at \$16.00 per day for each juror and they selected 12 to try the case...

The jury selected, an adjournment was had for the purpose of allowing the Court to get his wind, and a drink.

As soon as the adjournment was had the plaintiffs invited all the jurors up to drink, then to take cigars; as soon as the Plaintiff had got them all right, Defendant not wishing to be beat in generosity, also asked all the Jurors up to drink and take cigars; the Judge and Lawyers doing likewise. Finally the examination of witnesses began; for the first day every one was attentive, the next day it began to be tedious. Jim Pearson who was Constable, would lose

his dinner any time to play billiards. He kept up one continual game all the time the case was going on; every few moments Judge Putneys head would be in the way of Jims cue, when he would call out, "move your head Judge so I can make this lick"; shortely a witness was wanted, Judge Putney would say; "Mr. Pearson call Mr. So and So", Jim would say, "hold on a minute Judge until I play this string out"; the court would wait to accommodate him...

Shortly an objection to something would be raised and some law point discussed... the Judge would slowly open his big eyes, half laughing and looking at the 12 jurors would say "Gentlemen the Jury looks dry, suppose we adjourn for a few moments", as soon as said one of the lawyers would snatch Judge Putney by the arm walk him up and down the street a few moments, then take the Judge up to the bar and treat him.

The Judge immediately shaking him and allow himself to be buzzed by another lawyer; shaking him as soon as he got his drink and picking up another lawyer; until the whole had buzzed and treated Judge Putney.

Meantime the jury were not neglected for the same old game of treating them first by plaintiff and then defendant was always attended to by the proper persons both to drink and cigars...

Add to this a hundred miners and gamblers around the gambling tables cursing their luck and

as many more passing in and out of the door... all having on old ragged clothes, broadrimmed hats, pistols and knives slung to them cursing and talking aloud, as many as can stand in front of the bar two deep 5 or 6 barkeepers waiting upon them and you have some idea of what kind of a place this was to hold a court...

The case lasted about a week costing them an enormous sum. Finely the case went to the jury who were taken to Sperrys first hotel (then unfinished) to deliberate, after being left to ourselves, someone proposed that each put a P or D on a piece of paper and drop them in a hat to see how we stood, those putting a P gave verdict for plaintiff and those D for defendant. If fell to my lot to take these papers from the hat and open them. After reading our decision all hands went on a spree. Judge, Lawyers, Constable, Jurors, Plaintiff and Defendants, all but a few were on their high horses that night."

In 1888, the Utica Mining Company acquired controlling interest in the financially failing Union Water Company, utilizing the water for its mills and hoists.

A north ditch and south ditch were also constructed. The South Ditch furnished water to the mines in Missouri Gulch and Pennsylvania Gulch, as well as to some of the gravel mines in Douglas Flat and Vallecito. The North Ditch furnished water for the Owlsboro District, which was the gulch extending north from Murphys to the Oro Plata Mine, and the Central Hill Mine District just south of Murphys.

Within a few years, the massive amount of water produced by the ditches caused a problem for the miners, flooding many of the mines. In September 1857, the ever resourceful Murphys miners created the Murphys Flat Fluming Company to etch a deep cut in the limestone underlying the bedrock to drain the excess water from the mines. The Deep Cut or Bedrock Flume, as it was often referred to, measured 4,000 feet and was completed in 1859 with extensions continuing into 1860.

Douglas Flat and Vallecito

Though some water was brought to the area by the Union Water Company Ditch, other ditches were constructed to



Water ditch near Murphys c. 1905.
Calaveras Historical Society photo.

reach even farther. The Placer Mining Ditch headed southwesterly from Coyote Creek carrying water to the nearby placer mines, and near Wild Goose Gulch to the mines of Wild Goose, Missouri, Dolly Varden, Texas and others.

The Hitchcock/Davis Ditch was approximately one-half mile long and took water from Coyote Creek through the Hitchcock Estate Ranch to irrigate the estate orchard. The property and water rights to the ditch were purchased by Ansil Davis in 1880.

The Malespina Ditches were a series of ditches taking water from Peppermint Creek around the northwest-facing hillsides below Table Mountain to placer mines in the area.



Flume at Table Mountain Ditch c. 1904.
Calaveras Historical Society photo.

San Andreas and Calaveritas Ditches

There were many ditches bringing water to the San Andreas area in the 1850s, yet they all had one thing in common; they often would see a reduction of water, some to less than a trickle, some completely dried out, during the hot summer months. This forced a large portion of the town to rely on wells for domestic water and fire protection.

The ditches that did supply some water to miners in the area were: The Cap Pope Ditch, Silver Ditch, Cold Spring Ditch, Green Mountain Ditch, Table Mountain Ditch, Old Gulch Ditch, Yaqui Ditch, Georgia Ditch, Dan Pillsbury Ditch, Old Box Ditch and more. These ditches were dug to extract water from O'Neil's Creek, Willow Creek, and San Antone Creek.

Table Mountain Ditch, owned by the Table Mountain Water Company, was cut in 1856 and 1857 with a flume just higher than the Scott Flume across Upper Calaveritas Road. It was also known as the Old Gulch Ditch and the Cold Spring Ditch. The ditch brought water from the San Antone Creek to Cave City and San Andreas. It was not without water right infringement issues, as the

Georgia Ditch Company, with a ditch located just downstream of Table Mountain Ditch, brought suit against the Table Mountain Water Company. The Georgia Ditch Company was victorious in establishing their right to 180 inches of water.

The Cap Pope Ditch (Silver Ditch), named after Captain Robert Pope, was dug in 1852, bringing water from the east side of Willow Creek to Gold Hill. While in 1856, Scott Ditch was dug on the west side of Willow Creek, diverting much of the water originally used by the Cap Pope Ditch. A water right lawsuit ensued, with Pope being the victor.

Today, three primary water districts serve most of Calaveras County. The oldest, the Utica Water and Power Authority, was established in 1852 as the Union Water Company, with the powerhouse built above Murphys in 1895, supplying the mines, mills and residences of Angels Camp and Calaveras County with their first electricity. The Calaveras Public Utility District was established in 1934, primarily serving San Andreas, Mokelumne Hill and the outlying area. In 1946, the Calaveras County Water District was established, serving the water needs for over 12,000 residents and business throughout the district.

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Calaveras County Historical Society

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The Calaveras County Historical Society is a non-profit corporation. It meets on the fourth Thursday of each month in various communities throughout the County. Locations and scheduled programs are announced in advance. Some meetings include a dinner program, and visitors are always welcome.

The Society operates the Calaveras County Museum which is open daily from 10:00 to 4:00 in the historic County courthouse located at 30 Main Street in San Andreas; and the historic Red Barn Museum at 891 Mountain Ranch Road, also in San Andreas, which is open Thursday to Sunday, 10:00 to 4:00.

The Society's office is located in historic San Andreas, the Calaveras County seat. Visitors are always welcome to stop by the office for assistance with research, and are encouraged to visit the museums while in the area. The office is open Monday through Friday from 8:30 to 4:00, and the telephone number is (209) 754-1058, or contact us at: CCHS@goldrush.com; Red Barn Museum (209) 754-0800.

April-June 2017

New Members:

Tim & Elaine McCraney—Valley Springs
Ellington & Betty Peek—Cottonwood
John Mitchler—San Jose
Charles & Cheryl Patmon—Stockton
Barbara Lundy—San Andreas
Ken James—San Andreas
Mick & Judy Serra—Converted to Lifetime Membership
Johnny Blanco—Mokelumne Hill

Donations:

Steve Caffery—Items belonging to Joe Zwinge, including miners lanterns, forms, and various mining items, badges (2), an arrowhead, a blade that was alleged to be a murder weapon, two sets of spurs, one allegedly belonging to Joaquin Murietta, and miscellaneous other items.

Rich & Kelly Panzarino—Cash donation

DanaDee Carragher—Cash donation

Herd's Machine & Welding—Custom Calaveras County Museums sign, posts for marble plaques for Downtown Museum Jail Yard

Ken James—Labor and materials for repairing Jail Yard railings

Chester Murphy—Cash donation

Bill & Carolyn Edwards—Cash donation

Jacqueline Heintz—"Crackin Pine Nuts in Historic Angels Camp After the Gold Rush" book she authored

Charles P. Maher—Cash donation

Phil & Chris Castelluccio—Cash donation

Linda Harty—Four Calaveras High School Yearbooks 1932-1935 belonging to Roy Stewart