

This is a historical timeline of the Crestline-Lake Arrowhead Water Agency (Agency). The timeline encompasses the local forces driving the need for supplemental water in the San Bernardino Mountains, the legislation creating the Agency and the public perception of the Agency at that time, and bringing the Agency's history to present. The timeline will be followed by a brief look at the benefits the Agency currently provides to its customers (both wholesale and retail), as well as the mountain residents in general.

CLAWA was formed in large part due to the remarkable foresight of several local people that realized the lack of adequate ground water in a booming area. This foresight was namely due to two local Fire Chiefs, Francis Newcombe of Crestline and Bruce Horning of Running Springs, along with two Fire Commissioners, H. Fay Smith of Twin Peaks and Loyal Klopfenstein of Cedar Glen. These fears of inadequate local ground water were confirmed when an initial feasibility study confirmed that local well water supplies were deficient within the area. These men spread the word along with the managers of the local existing water companies, and in March 1962 they held a public meeting at Rim of the World High School regarding the legal and practical aspects of securing Feather River Water for the mountain community areas. At this meeting there were representatives from the Department of Water Resources, local water districts, fire departments, the County Surveyor, the U.S. Forest Service and California Division of Forestry, and the Registrar of Voters to answer questions.

The Crestline-Lake Arrowhead Water Agency (CLAWA), a governmental public agency, was created in 1962 by the California State Legislature Act 9099a of the California Water Code to provide supplemental water across the San Bernardino Mountains. CLAWA's boundaries span more than 50,000 acres and its revenues come from water sales, connection fees, standby charges and taxes. CLAWA provides both wholesale and retail treated water from

Silverwood Lake across the mountain to Green Valley. Within this area there are more than twenty water districts and camps depending on wholesale supplemental water from CLAWA, along with approximately 1,200 retail customers within lettered improvement districts, with a direct connection to CLAWA.

CLAWA is a State Water Contractor that provides water from the State Water Project (SWP) to its customers; this water is delivered from the Sacramento Bay-Delta via the California Aqueduct to Silverwood Lake and then pumped up approximately 3,000 feet to serve the San Bernardino Mountains. CLAWA treats the water at Silverwood Lake and then pumps it up the mountain through various booster stations and into several tanks for storage. Once the water is treated and pumped up the mountain, it can then be delivered to its wholesale purveyors and retail customers.

CLAWA is governed by an elected Board of Directors, which is comprised of five directorial divisions, within the Agency boundaries, for four year terms. The Board meets the first Thursday of each month, unless special meetings are necessary. A CLAWA employee is usually designated as the appointed Secretary of the Board. The General Manager is directly accountable to the Board of Directors. The Board sets CLAWA's policy, rules and regulations, and operating procedures, as well as approving the Annual Budget, Audit and Quarterly Statements, progress payments on contracts, and special adjustments of water bills.

CLAWA retains the services of an engineering firm (Albert A. Webb and Associates), legal counsel (Best, Best and Krieger), and a certified public accounting firm (Rogers, Anderson, Malody & Scott, LLP), along with other specialty consultants to help the staff comply with various regulations imposed by the California Department of Health Services, South Coast Air Quality Management District, and several other governmental agencies.

As one of the smallest State Water Contractors, CLAWA has successfully developed a state of the art water treatment plant, solid office staff, and exceedingly knowledgeable field staff, with relatively few job changes and loss of staff. This can be seen in the fact that

CLAWA:

- Was one of the first to use remote/radio read water meters and computerized billing;
- Uses Granular Activated Carbon (GAC) to treat the water and remove Trihalomethanes (THMS) formed by naturally occurring organics with chlorine used for disinfection, along with other contaminants;
- Recently purchased and has put into use a state of the art Total Organic Chemicals (TOC) monitor;
- Is constantly contacted for the status of emerging data from the two above programs;

TIMELINE

1950s – Water was trucked up the mountain due to water shortages in wells, especially in the Valley of Enchantment area.

1957 – DWR releases the California Water Plan

1959 – The State legislature passed the Burns-Porter Act, authorizing \$1.75 billion in bonds to construct an aqueduct from Sacramento to the Perris Reservoir in northern Riverside County.

1959 – The Feather River Project, later to be known as the State Water Project, establishes a 444-mile conveyance system to deliver State water to Southern California.

1960 – The California Water Resources Development Bond Act passed by the Legislature to finance the construction of the California Aqueduct.

In November an election was held to authorize the State Water Project and the \$1.75 billion bond to build the State Water Project. The measure was approved by the State's electorate, and in the mountain areas voters approved by a count of 1,831 in favor of the project and bonds, 416 against.

1961 – A preliminary investigation of the Crestline-Lake Arrowhead Water Agency area was conducted by the Department of Water Resources and the results were published. This published report was titled: Feasibility of Serving the Crestline-Lake Arrowhead Water Agency Area from the State Water Facilities.

The Agency's boundaries originally included Lake Arrowhead. Due to a last minute change in the legislation requested by the developer of Lake Arrowhead that area was excluded from the Agency boundaries.

1962 – April – The bill authorizing creation of the Agency, upon approval by local voters, was signed by Governor Edmund "Pat" Brown. The legislation was effective 90 days later and the election was scheduled to follow 75 days after the legislation became effective. The legislation denoted one director for each division (there are five divisions).

During special session of the State legislature the Agency was set up and functioning before the December 1963 contract deadline with the Department of Water Resources.

According to the Crestline Courier Article dated 1962:

“Since existing local water agencies in the mountains are unable alone to develop an adequate water supply, and are unable legally and financially to contract with the State for imported water, it is the responsibility and function of the Crestline-Lake Arrowhead Water Agency to negotiate a contract with the State. It is essential that the contract be consummated prior to December 1963 as this is the deadline date set by the State, so that they may know the water requirements of all areas prior to construction of their facilities.”

The Crestline-Lake Arrowhead Water Agency was one of the last three southern California agencies to join the State Water Project.

1963 – January 8th – A special election was conducted to activate the Crestline-Lake Arrowhead Water Agency and to authorize execution of a contract to participate in the State Water Project. This was also an election to elect the first Agency Board of Directors. The mountain voted: 917 for the activation of the Agency, and 39 against. The winning margin was 96.3%.

This election indebted all taxpayers within Agency boundaries for all financial burdens of the State Water Project in proportion to the annual allotment of water and the reach of the Project where water is withdrawn. Annually the Agency’s Board of Directors sets a tax rate to be collected by the County on the tax bills. This rate is determined by the necessary indebtedness as billed by the Department of Water Resources.

The original Directors were:

Division 1 – Stanley Ziegler, 1963-1967

Division 2 – Frances D. Newcombe, 1963-1993

Division 3 – H. Fay Smith, 1963-1984

Division 4 – Loyal D. Klopfenstein, 1963-1988

Division 5 – Bruce Horning, 1963-1991

Sections 1.5 and 4 of the Agency’s act (9099a), state that the representation is based on the number of registered voters and the Act specifies the boundaries of each district. Remember there are five divisions represented on the Agency’s Board of Directors.

April 12th – The San Bernardino County Board of Supervisor’s certified the election results for the Agency’s Board of Directors.

June 22nd – The contract with the State and the Crestline-Lake Arrowhead Water Agency was signed. The contract called for the first water delivery to the Agency in 1972; however, the first delivery actually occurred in 1971.

This year also saw the condemnation of the town of Cedar Springs, which was located on the dam site. The town consisted of 45 residents, and had 24 registered voters. The town was condemned and bought out according to eminent domain, by the Department of Water Resources, to make way for the Cedar Springs Dam and Silverwood Lake.

1964 – July 16th – A letter from the Crestline-Lake Arrowhead Water Agency General Manager, Herman Diech, was published in ‘The Timberline’ newspaper. The letter was to local residents in the Arrowhead Woods, informing them of potential future regrets that access to supplemental water had been lost due to the decision by the Arrowhead Development Company to exclude Lake Arrowhead from the Agency’s boundaries.

The letter stated the following:

“Because the governing board of the Agency does not wish to have you subsequently say, ‘Why didn’t we know about this?’ or ‘Why didn’t you tell us?’”

This was seen as fair warning for the residents of the Arrowhead Woods. The response from Arrowhead Woods Property Owner’s Association stated that they had not made a decision, but that they felt as follows: “However, we do not feel that it is equitable to have our district support a major portion of the cost while being represented on the Board in minor proportion; surely proportion of cost participation should be equal to proportion of Board representation!” Some residents of the Lake Arrowhead area also feared erroneously that their lake would become public if they opted to be included in the Crestline-Lake Arrowhead Water Agency boundaries.

1965 – February – Bulletin #119-19 was issued by the State of California, the Resources Agency, and the Department of Water Resources. The Bulletin was titled: The Feasibility of Serving the Crestline-Lake Arrowhead Water Agency Area from the State Water Project.

March 16th – An election was held to authorize a \$7.5 million bond to acquire right of way, finance the treatment plant, the intake tower, and other supplemental water transmission infrastructure. This bond required a two-thirds majority to pass, it failed by two votes. Several newspaper articles and interviews stated that people were so sure it would pass that they didn’t bother to vote in favor of the funding. The vote was: 820 for the bond, and 413 against. There was only a 30% turnout.

June 15th – A second election was held to authorize the \$7.5 million bond. This time it passed by the required two-thirds majority. In fact it passed with 61 votes more than needed in favor. The return was: 1064 for the bond, and 501 against.

Some residents dissatisfied with the bond results sued to withdraw from the Agency. This was especially seen in the San Moritz area of Crestline, which has since been taken over by another water district and currently receives supplemental water from the Agency.

Also in this year, the State relocated Highway 2 to run west of the Cedar Springs Dam site. This is the current Highway 138. This was necessary as construction of the dam was scheduled to begin in 1968.

Along with the scheduled dam construction was the construction of a tunnel leading directly from Silverwood Lake, south under Job's Peak to Devils Canyon in San Bernardino (north-west of the CSUSB campus). This tunnel was scheduled to be 15 feet in diameter, and to be completed in 1966. The purpose of the tunnel was to accommodate facilities to move imported water further south.

1967 – Oroville Dam was completed, with a capacity of 3.5 million acre feet. Oroville Lake is the first storage reservoir in the State Water Project system.

Also in this year work began on the north portal of the tunnel to San Bernardino.

Prior to supplemental water being available in Silverwood Lake, the Agency negotiated an agreement with the Department of Water Resources to provide desert well water to the mountain in conjunction with the Department's drilling of the tunnel. Also by means of the State of California participation, the Agency built a Phase 1 Regulating Reservoir, water transmission mains, and valves. Additionally, the Department of Water Resources paid the interest on the early sale of the Agency's bonds, facilitating the early construction of portions of the Agency's permanent transmission system facilities. This early construction allowed for replacement of possible local water lost due to State tunnel drilling in the Crestline area, and provided early use of Agency pipelines and a storage reservoir in the Running Springs area to store local water before imported water from the State Water Project was ever available to the Agency.

1968 – Prior to water arriving to the Agency, the 2.0 million gallon Nob Hill Storage Reservoir and the 0.5 million gallon Green Valley Storage Reservoir were constructed.

November 9th – Groundbreaking ceremony held at the Cedar Springs Dam site, commencing the construction of the dam and Silverwood Lake.

1969 – February 9th – The northern portal of the tunnel flooded, causing a delay in construction, but the project did proceed on schedule.

This year also saw the construction of the Crestline-Lake Arrowhead Water Agency's high-pressure test facility for the development of special pressure-reduction equipment and high-pressure valves.

1971 – March 5th – The last load of rock was placed on the Cedar Springs Dam, an earthen dam.

June 1st – The boat ramp, for the recreation portion of Silverwood Lake, was completed.

August 29th – The Department of Water Resources accepted the completed Cedar Springs Dam.

This was also the year that the Agency's initial transmission system construction was completed, at which time the Agency began delivering water from Silverwood Lake. The Intake Tower and Bridge, as well as the Treatment Plant Complex were completed.

1972 – In this year the first State Project water was delivered over the Tehachapi's to Pearblossom. The Project was expected to reach Lake Perris in 1973 and the San Bernardino Valley Municipal Water District around August of 1972.

January 21st – The first northern water from the State Water Project was delivered into Silverwood Lake.

May 9th – Silverwood Lake is filled to operating level.

May 25th – Dedication of the Cedar Springs Dam and Silverwood Lake; following the dedication of the dam, the interim recreational facilities opened.

July 1st – Fishing season is opened for its inaugural year at Silverwood Lake.

In this year the State Water Project was more than 99% completed including: 18 reservoirs, 15 pumping plants, and 580 miles of aqueducts. Portions of the Project had been in operation since 1962.

- 1978 – The Crestline-Lake Arrowhead Water Agency submitted an application to the State Water Resources Control Board to appropriate local water from Houston Creek. Houston Creek is a tributary to Silverwood Lake.
- 1980 – November – The Panorama Fire was fought with approximately 4 million gallons of water provided by the Agency transmission lines.
- 1991 – The State Water Resources Control Board issued two diversion permits which allow the Agency appropriations of up to 1,302 acre feet per year from Houston Creek.
- 1999 – The Department of Water Resources completed construction of a new intake structure in Silverwood Lake. The Crestline-Lake Arrowhead Water Agency installed two 100 horse-power pumps in the Department of Water Resources new lake-outlet structure.
- 2003 – January – The Agency began installing Granular Activated Carbon (GAC) vessels, and brought them into service at its treatment plant to reduce THM (trihalomethane) levels. Trihalomethanes are disinfection by-products created by organics' reaction to chlorine used for disinfection purposes.
- October 25th – The Old Fire (fought into November) was fought with approximately 20 million gallons of Agency water.
- 2007 – October 22nd – The Grass Valley and the Slide Fires were fought with approximately 12 million gallons of Agency water.

Benefits of the Crestline-Lake Arrowhead Water Agency

Fire Fighting

The Crestline-Lake Arrowhead Water Agency has approximately 250 fire hydrants across its boundaries. Many of the hydrants are on land otherwise inaccessible by water (USFS land, etc...). As a result of these hydrants the Agency provides the mountain communities with an added source of fire protection. As mentioned, in 1980 the Panorama Fire consumed the San Bernardino Mountains from Northpark in San Bernardino to Horseshoe Bend in Crestline. The Agency provided fire fighters with added capability to fight the fire with approximately four million gallons of water. Additionally, in 2003 the Old Fire burnt across the mountain from the Cajon Pass to Running Springs and from San Bernardino to Silverwood Lake. The Agency provided fire fighters with approximately 20 million gallons of water to fight this fire. In addition to providing water for fire fighting, which the Agency is not reimbursed for, the Agency has helped to lower homeowner's insurance premiums for mountain residents given the added fire protection allowed with State water.

Reliability

Given the mountainous terrain within the Agency, elevations vary from 3,300 feet to over 7,300 feet above sea level, requiring special high-pressure water pumping units to boost the water at four main booster stations up to as much as 1,800 feet vertically each lift. The Agency uses both natural gas engine-driven pumps and electric motor-driven pumps, which have been installed or are proposed at each main booster station for system reliability and to maximize readiness in the event of fire, earthquake or other emergency. The Agency has also installed emergency generators at all pump stations, as well as the Treatment Plant.

Lake Arrowheadⁱ

During 2005, the Agency completed negotiations and executed agreements with San Bernardino Valley Municipal Water District (SBVMWD) and with the Lake Arrowhead Community Services District (LACSD) to address water shortage concerns in Lake Arrowhead while also strengthening the reliability of the Agency's supply to its own customers. A main significant element of the arrangement is that the Agency has pre-purchased 7,600 acre-feet of water from SBVMWD, which will be taken from SBVMWD's future allocations of imported water from the State Water Project.

This arrangement negotiated between the Agency, SBVMWD, and the LACSD results in significant benefits for all parties involved. It takes water which the SBVMWD currently does not need, and instead applies it for use in an area which has a water shortage crisis compounded by a regulatory decision which limits the quantity of water which the LACSD can take from Lake Arrowhead for delivery to its customers. It makes use of available capacity in the Agency's water treatment and delivery facilities, for a charge which is fair and which will produce additional revenue to help hold down the Agency's charges to its own customers and property owners. And the arrangement also makes an additional source of water available to the Agency for temporary use by the Agency in the event of a drought. It is a classic case of public agencies working together cooperatively to produce benefits for all involved. However, the arrangement has produced only a temporary solution to the water supply issues confronting the Lake Arrowhead area. The LACSD has now requested permission to discuss possible arrangements with the Agency to address water supply issues in Lake Arrowhead on a long-term basis. The Agency's Board of Directors has authorized staff to engage in those discussions provided that such arrangements result in financial and/or water supply benefits to the Agency's

existing customers and property owners, and do not adversely affect existing customers or property owners in any way.

Snow Valley Annexation

The Agency has also completed proceedings to annex the Snow Valley Ski Resort area into the Agency. The annexation will allow the ski resort to take Agency water for snow-making purposes during the ski season, provided the Agency has water in excess of the demands of other Agency customers. The ski resort may use the water only to make snow, not for domestic consumption, and the agreement provides that the Agency may deny water service to the ski resort whenever that water is needed to satisfy service demands elsewhere, save Lake Arrowhead. This annexation originated when Snow Valley contacted the Agency in 1988 regarding obtaining water from the Agency for snowmaking purposes. The inquiry was renewed in 1996, and the annexation and environmental impact report have been completed; however, no infrastructure has been completed to date.

Upon completion this agreement would be beneficial not only to the Agency, but to the mountain communities. The agreement would allow the Agency to use system capacity in the winter when demand is low (October through April) and produce additional revenue. The agreement would benefit the mountain because the capacity for snowmaking at the resort would increase, and potentially the ski season could increase in length; allowing for greater revenue in the community.

Bibliography

Crestline-Lake Arrowhead Water Agency documents:

- Fact Sheet
- Scrap Book
- Water Quality Report

Hanson, Fred H. Vice President, A.A. Webb & Associates. Interview May 31, 2007.
Agency Engineer

Holmes, Roxanne M. Crestline-Lake Arrowhead Water Agency. Interviews May 2, 16,
30 and June 4, 2007. Agency General Manager.

Newell, Thomas C. Crestline-Lake Arrowhead Water Agency. Interviews May 21 and
June 1, 2007. Assistant General Manager.

¹ This information is taken directly from the Agency's 2005 Water Quality Report and was reproduced in its entirety (as applicable) with authorization from the General Manager of the Agency.