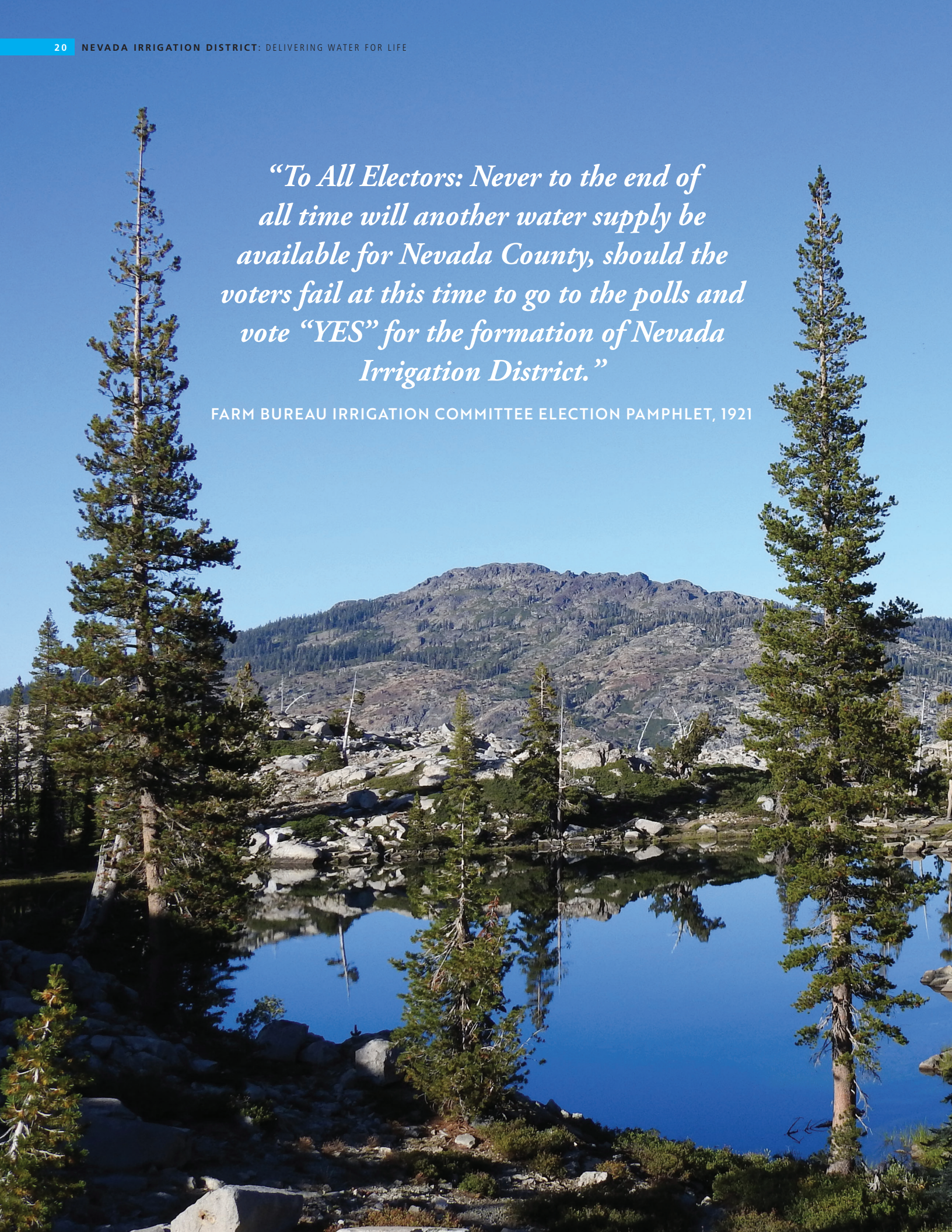


"To All Electors: Never to the end of all time will another water supply be available for Nevada County, should the voters fail at this time to go to the polls and vote "YES" for the formation of Nevada Irrigation District."

FARM BUREAU IRRIGATION COMMITTEE ELECTION PAMPHLET, 1921

CHAPTER 3

Dreams of Water Lead to the Formation of Nevada Irrigation District

KATE AND BERT CHURCH, two of the dedicated promoters of Nevada Irrigation District in the late twenties. "Ma Church" was given the honor of dedicating the rebuilt and enlarged Bowman dam 29 years ago. This picture was taken on their 50th wedding anniversary in 1940.

Bert and Kate Church

Western Nevada County cattle ranchers Munson Bernard "Bert" Church and his wife, Kate, were among Nevada County's strongest irrigation advocates. Like many ranching families, they had access to grazing land in the mountains, near the present site of Jackson Meadows Reservoir. During those early summers when foothill pastures would turn brown, the couple would drive their cattle to the green pastures of the Sierra. There, they crystallized dreams of a water system where the tumbling and abundant clear waters of the high mountains could be carried to the fertile but dry farms and ranches of the foothills.

Doyle Thomas, who headed the District's public relations outreach, wrote the following account in 1956 as part of Nevada Irrigation District's Founders Day Picnic and 35th Anniversary: "Nearly 49 years ago, Kate Church, astride her horse high on a mountain top, looked upon rushing, tumbling Sierran streams far below. It was not a new sight. For many years she and Bert Church, her husband, had driven their cattle to lush mountain meadows from parched unwatered

Alfonso A. Tregidgo, mining expert (left), and Eugene J. de Sabla, Jr., in 1895, while constructing a flume for the Nevada plant of the Nevada County Power Company.

Alfonso Tregidgo (left) and Eugene de Sabla in 1895, while constructing a flume for the Nevada County Power Company.

pastures miles away. This day, she saw the wasted waters as if for the first time. Her mind envisioned a great irrigation system transporting life-giving water to dry, but fertile acres, bringing growth and prosperity. A dream was born. Far into the early summer night this pioneer woman and her husband made plans. As the last red embers of the campfire died away, Kate Church knew of a certainty that she must do and more important, how she could accomplish her purpose."

The Churches worked with Nevada County Farm Adviser Herman Graser, who spent several days in 1919 with Bert Church surveying the high mountain watersheds, including around Jackson Meadows, English Meadows and Bowman Reservoir: "He was greatly impressed with the potentialities of these great sheds, lying unused, as a future source of irrigation waters," Lardner wrote.

Other important figures soon joined Graser in exploring a viable irrigation alternative. J.E. Taylor, president of the Grass Valley Chamber of Commerce; A.L Mooser of the Nevada County Bank; and Joseph O'Connor, a Nevada County engineer, accompanied Graser on a trip to Canyon Creek and the South Yuba River on May 4, 1919. The prospect was so enticing that afterward several applications were filed with the State Division of Water Rights in the name of J.F. O'Connor. These filings were later turned over when the Nevada Irrigation District formed, and they became the District's first and basic applications.

As an organized movement mounted to secure reliable irrigation, the local chambers of commerce called a year-end meeting among representatives of neighboring Yuba and Sutter counties, as well as state officials, including from the State Board of Control and the State Water Commission. The idea of a tri-county association was established. The efforts went so far as circulating petitions for the organization of an irrigation district. "Then came a period of reverses. It became evident that farmers in the neighboring counties had lost interest. Coupled with this fact, it was discovered that the petitions which had been widely circulated and signed were not legally drawn," Lardner wrote.

The Nevada County contingent was undaunted, however. E.O. Gassaway, president of the Nevada County Farm Bureau, formed a committee to organize a district under the California Irrigation Act of 1897. The Act, an amendment to the state's original 1887 Wright Act, allowed farming regions to form and bond irrigation districts. By late 1920, the campaign was in full swing. On December 30, The Sacramento Union, in an article datelined from Nevada City, reported, "The petition to the supervisors asking for permission to form an irrigation district is being liberally signed in this city and Grass Valley."

The irrigation movement was centered mainly in the farming and ranching areas of Nevada County as the cities of Grass Valley and Nevada City had their own small water systems. Even so, residents and business leaders of the cities were quick to recognize the value of a better community water supply. Water rights for the proposed irrigation district drew formal protests in quarters where there were competing interests, including from the city of San Francisco.

The local campaign continued, however, and on March 15, 1921, the committee presented petitions carrying 797 signatures of residents in favor of forming an irrigation district to the Nevada County Board of Supervisors. The documents were declared good and sufficient, and a copy was filed in the State Engineer's office.

Leading up to the public vote, much work needed to be done. The State Engineer required all lands to be included in the District to be surveyed, mapped and defined. The San Francisco firm of Fred H. Tibbetts was hired to make the survey, estimated to cost $17,500 with the total expenses up to $22,500. To cover organizational costs,

the committee turned to the community, asking for pledges from landowners, with the caveat that if the District's formation was successful at the polls they would be repaid, but if the District failed their pledges would be lost.

Landowners with 100 acres or fewer were asked for loans of $10; those who owned 100 to 500 acres would loan 10 cents per acre; and those with more than 500 acres would loan an additional 5 cents per acre. Other citizens were invited to participate to a maximum contribution of $100.

The plan called for a Board of Directors to be seated as part of the District's formation. Among the board's first actions would be to impose a land tax that would repay the landowners who had put up money to back the new District.

The survey results soon reported that the total acreage of the proposed district was 208,360, all in Nevada County. Of this area, 125,307 acres were reported as tillable and irrigable by gravity; 29,624 acres as arable but irrigable only by pumping; and the balance was classified as grazing and timberland.

Upon receiving the survey, the State Engineer made a favorable report, and the Nevada County Board of Supervisors called an election on August 4, 1921, to put the proposition of a locally controlled irrigation district before voters.

The timing was right, especially as families were continually losing their farms and ranches due to a failing water source. Still, an aggressive campaign in favor of a new district ensued.

A 1921 election pamphlet, produced by the Farm Bureau Irrigation Committee, declared: "To All Electors: Never to the end of all time, will another water supply be available for Nevada County, should the voters fail at this time to go to the polls and vote "YES" for the formation of Nevada Irrigation District. You know how inadequate has been the water supply afforded us for years past, and the reasons why hardly a season passes without a water shortage. If you permit private corporations to seize the only remaining water sources in this county, YOUR LAST OPPORTUNITY for cheap and abundant water WILL BE GONE FOREVER!"

Rome Powerhouse on the South Yuba River was the first hydroelectric plant in Nevada County.

Leading up to the election, regional water was in the hands of nine main companies, which had secured the rights to use most of the water. These were the North Bloomfield Mining and Gravel Company; Eureka Lake; Yuba Canal Company; Excelsior Water and Power Company; the South Yuba Canal Company; the Omega Ditch Company; Blue Tent Mining and Water Company; Liberty Hill; and Consolidated Mining. These companies, finding it difficult to operate and manage the ditches and canals alone, had begun to incorporate.

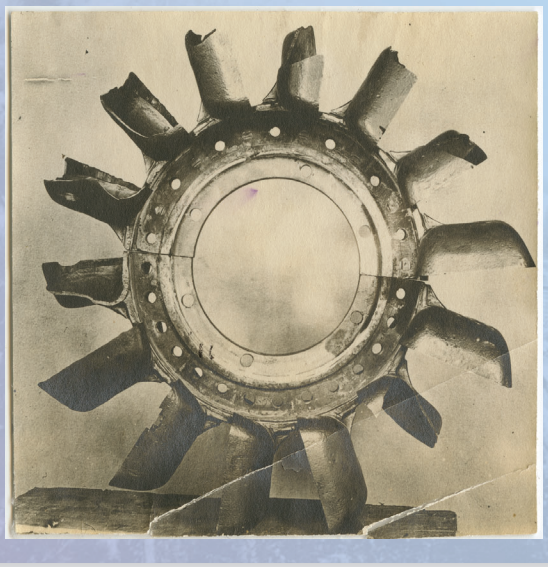
Many landowners feared the loss of the ditches to private water companies would lead to the loss of the historic water rights that went with them, putting them completely at the mercy of the private companies. Some even warned that local communities would become ghost towns as a result. An election pamphlet noted: "If these (rights to use water) should lapse NEVADA COUNTY WOULD BE DOOMED to eternal water shortage, because private corporations, hostile to the interests of the people, are watching our sources of water supply with greedy eyes, ready to initiate adverse rights if our rights should lapse for ONE INSTANT."

Hydroelectric energy is necessary to afford a water district

Campaign leaders agreed that a future Nevada Irrigation District could not succeed if funded solely through water sales. The key to formation, committee members said, was a contract with the Pacific Gas & Electric Company (PG&E) that would ensure the district revenue through hydroelectric power earnings.

What is a Pelton Wheel?

The Pelton Wheel is a local innovation. The wheel is an impulse type water turbine that extracts energy from moving water. Invented by Lester Allan Pelton in the 1870s and manufactured at the Miners Foundry in Nevada City, the wheel featured split buckets side by side that would harness the kinetic energy of flowing water. The invention revolutionized the generation of hydroelectricity. By directing water into dual buckets, the efficiency doubled over a standard water wheel, ranging from around 30 to 90 percent increase in efficiency.



Hydroelectric power is generated by transforming the energy created by flowing water into electricity. The Greeks were first to use water wheels for grinding wheat into flour more than 2,000 years ago. In Nevada County, water diversions central to early mining endeavors expanded for hydroelectric power use. The technology had advanced since the time of the Greeks, of course, but the concept remained the same: Energy from moving water turned a turbine connected to a generator to produce electricity.

An NID election pamphlet from 1921 stressed the importance of hydroelectric generation: "No person in Nevada County or elsewhere considers it either possible or safe to finance Nevada Irrigation District except by aid of power earnings, and a contract which assures an absolutely safe income from power earnings must be entered into before the people would be safe in approving a bond issue. Furthermore, such a contract should run at least as long as the bonds."

The legacy of regional hydroelectricity and actually the formation of PG&E can be traced to Nevada County. The first electric power in Nevada County was generated at a small water-driven plant installed at the Charomat Mine, near Nevada City, in 1887. "In the evening of the 5th of August of that year arc lights were seen for the first time in Nevada City. Fire bells rang, and the population of the mining town assembled. Everybody wanted to see the wonderful new illumination. … The system was soon extended to Grass Valley, three miles over the ridge, and on Saturday night, August 22, Grass Valley had its first electric lights. Again, curious crowds thronged the streets and proudly eyed the dazzling arcs, as the people of Nevada City had done three weeks earlier," Lardner wrote.

Hydroelectric generation ramped up in 1892, when Alfonso Tregidgo acquired water rights on the South Yuba River for the development of hydroelectric power that would be transmitted to area mines. That year, Tregidgo and Eugene J. de Sabla formed the Nevada County Electric Power Company to construct an electric powerhouse to provide inexpensive power to the more than 60 mines clustered in the area, including their own Peabody Mine in Grass Valley. In late 1894 de Sabla was introduced to John Martin, who would provide and install the electrical equipment in the new plant and also build and equip the transmission line from the plant to Nevada City and Grass Valley.

As the story goes, the men forged the agreement for the powerhouse project at the National Exchange Hotel in Nevada City in the hotel bar and later in de Sabla's office in the hotel's Suite 74. The three men were joined by investor Romulus Riggs Colgate (the grandson of the founder of the soap and perfume manufacturer Colgate and Company), who had ventured west to acquire gold-mining properties in Grass Valley and Nevada City. Colgate became a $40,000 investor for one-fifth interest in the Nevada County Electric Power Company.

The first powerhouse was the Rome Powerhouse, located in a steep river canyon, downstream

from today's Purdon Crossing on the South Yuba River near the confluence of Rock Creek. Rushing water directed through a penstock powered two large Pelton wheels connected to two Stanley Electrical generators that Martin provided.

The challenging engineering feat was a success; hydro-generation began, and the power was first turned on February 5, 1896. The Daily Transcript reported: "The electric lights of the Nevada County Electric Power Company were turned on at 6 o'clock last evening for the first time and attracted considerable attention. The lights were quite brilliant and the office of the company on Pine St. received many visitors. The lights were burned in Lane's livery stable, the Morgan House at Grass Valley and the company's office, these being the only places wired and connected thus far, but in a few days many other business places and residences will be connected and lights furnished them. The officials of the company felt very much pleased over the excellent beginning made and promise that it will not be long that power, as well as lights can be furnished to all who desire it."

The plant proved so successful Martin and de Sabla decided to expand to the market for electrical power in Sacramento and San Francisco. In a short time, they created the largest network of electric power lines in the world. The local Nevada County Electric Power Company evolved into Bay Counties Power Company, which became the California Electric Company, then California Gas & Electric Company and finally PG&E, incorporated on October 10, 1905. Martin and de Sabla are known to this day as the "fathers of PG&E."

With PG&E's initial support and agreement to negotiate a water and power contract – and a needed bond issue still a few years down the road – the committee felt comfortable in estimating future costs to ratepayers. Irrigation water would cost 10 cents per miner's inch (11.22 gallons per minute) for a 24-hour flow, or $2 per acre-foot, for an average cost of $6 per acre irrigated. "In time this rate could be reduced," noted a pamphlet sent to voters. "Finally, when all the bonds are paid off, the power income would more than pay all district expenses and the land would have free water forever."

The first NID Board of Directors

Election Day – an overwhelming affirmation

During a public election on August 5, 1921, voters recommended formation of the District by a margin of 636-163. Nevada County Supervisors authorized the new District, and 10 days following the election, on August 15, 1921, the NID officially formed. The District's first board meeting occurred that day in Grass Valley's Bret Harte Hotel. The newly elected directors included Willis Green, First Division; William B. Ullrich, Second Division; M.B. Church, Third Division; Guy Robinson, Fourth Division; and Theodore Schwartz, Fifth Division. E.C. Morgan was named Assessor; W.G. Robinson became Tax Collector, and Herbert J. Nile was Treasurer.

It would take six years before water would flow to farms and fields as the new District found its footing. The focus during the first several years was on acquiring water rights and the infrastructure built during the Gold Rush to deliver water supplies to the foothills. ■