Taming the Rapids:

A Brief History of Development on the Stanislaus River

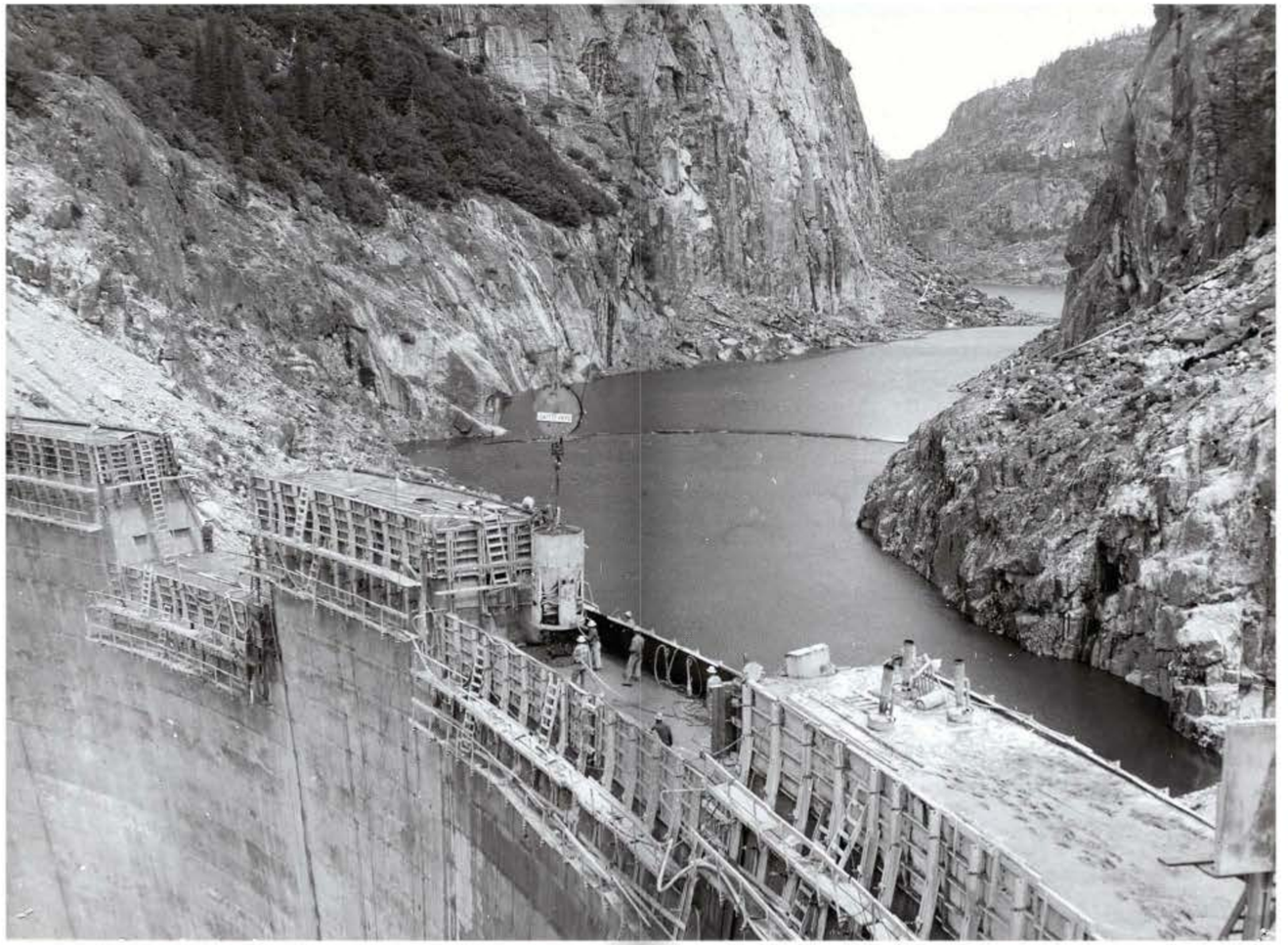
BY MICHELAINA JOHNSON

The yarn of the Stanislaus River is made of the same historical thread as the development of most rivers in California. It weaves into the statewide phases of water development from the Gold Rush to the advent of agriculture and inland settlements, the privatization of water, the Central Valley Project, the environmental movement and now the drought.

Before the dawn of mass settlement in California more than 150 years ago, the Stanislaus River flowed about 96 miles uninterrupted from the Sierra Nevada Mountains to the San Joaquin River. The Stanislaus River consists of three forks called the North, Middle and South Forks that start in the Stanislaus National Forest. The North and Middle Forks converge at the Stanislaus River proper and the South Fork joins the river at New Melones Lake. The lake is actually a reservoir and has been a fixture on the river's course for only a few decades, serving as a reminder of the years of development projects, beginning during the Gold Rush, that have altered the river's natural flow.

EARLY WATER RIGHTS

Thousands of prospectors mined for gold on the Stanislaus River beginning in 1848, two years before California was granted statehood. Without any state water agency in place to manage the fortune-seeking settlers' claims, the miners asserted their right to a site along the river on a first come, first serve basis, according to prominent historian Norris Hundley in *The Great Thirst: Californians and Water - A History*. That ad hoc water rights system came to be known as "prior appropriation" and was legalized in 1851. As mining continued, miners and investors formed joint stock and private water companies to fund the construction of engineering projects, such as dams, crude ditches, and canals, to transport water to placer deposits.



IRRIGATION DISTRICTS

By the late nineteenth century, mining was losing its vitality, forcing many of the water companies to close, sell or join the new irrigation districts. The irrigation districts were formed following Congress' passing of the Wright Act in 1887 and supplied water to the growing agricultural sector of Stanislaus and Tuolumne Counties and utilized some of the preexisting infrastructure on the Stanislaus River, according to historians W. Turrentine Jackson and Stephen D. Mikesell in *The Stanislaus River Drainage Basin and the New Melones Dam: Historical Evolution of Water Use Priorities.* As the population increased and miners transitioned into the agricultural and service sector, the demand for better engineering projects pressured the districts to further develop the river. For instance, the Oakdale Irrigation District (OID) and South San Joaquin Irrigation District (SSJID), both of which formed in 1909, constructed Goodwin Dam in 1912 and Old Melones Dam in 1926 to capture more water to supply to their clients.

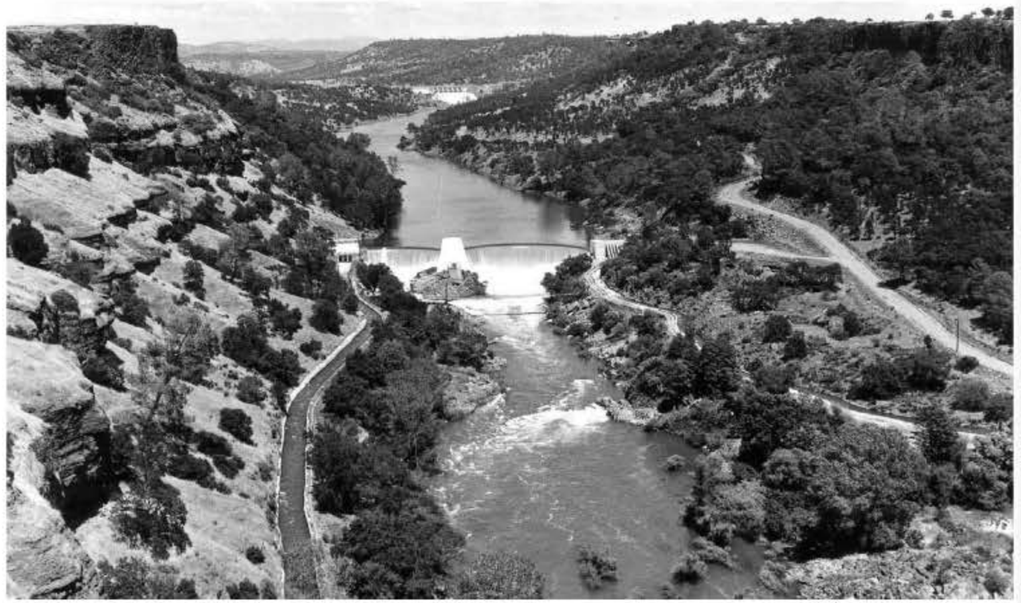
INCREASED DEMAND: THE TRI-DAM PROJECT

Within two decades, the districts realized public demand for water was again higher than their infrastructure could provide and teamed up to resolve the problem, as Jackson and Mikesell recount in their book. The historians write that the OID and SSJID publicly announced on January 13, 1948 their intent to develop the Tri-Dam Project: a series of dams, reservoirs and power plants at the current sites of Donnell, Beardsley, and Tulloch reservoirs on the Middle Fork of the Stanislaus River, as well as improvements to older developments. The districts' plans were met with opposition on the state and local level, as the State of California and other irrigation districts also filed for rights to the Stanislaus River. After overcoming the obstacles of conflicting claims and financial difficulties, OID and SSJID, with the help of Pacific Gas and Electric, successfully sold bonds to fund the Tri-Dam Project and completed the dams in just two years, from 1955 to 1957, according

to a 1959 summary report on the Tri-Dam Project written by the engineers of the project, Tudor-Goodenough Engineers. The districts paid off the bonds by entering into a contract with PG&E in which the OID and SSJID sold the electricity generated by the dams' hydropower facilities to PG&E over a fifty-year period, according to SSJID's online history. The contract ended in 2004.

CENTRAL VALLEY PROJECT AND NEW MELONES DAM

At the time, the Tri-Dam Project solved the issue of local water shortage and today provides water for the irrigation of about 117,500 acres of farmland in San Joaquin and Stanislaus Counties and for urban consumption, as stated on the Tri-Dam Project's website. Yet, farmland and cities outside those counties were also thirsty, and the federally funded Central Valley Project



stepped in to quench the thirst with several development projects, including New Melones Dam. Approved under the Flood Control Act of 1944 and built beginning in July 1966, the dam ushered in an era of federal management of the Stanislaus River.

However, activists challenged every step of the transition. Though several dams already had been constructed on the Stanislaus River, no project received the opposition or national media attention as New Melones Dam. The Army Corps of Engineers originally designed the dam to manage flood control, but plans for the dam changed multiple times, as Jackson and Mikesell demonstrate in their book. The Corps and the U.S. Bureau of Reclamation drafted competing and more expensive proposals for the dam and disagreed on several points, such as whether the primary function of the dam should be flood control or the integration of the dam into a larger, multi-purpose system of developments. Congress tabled the project due to high costs in a report issued on July 29, 1953 in which the Committee on Public Works questioned "the advisability of the construction on the Stanislaus River, with greatly increased costs, until it has been restudied and its economic justification determined."

Jackson and Mikesell write that eighteen years later, Congress, in the Flood Control Act of 1962, reauthorized the project and enlarged New Melones Dam with several improvements, including increasing the storage capacity from 1.1 million acre feet (maf) to 2.4 maf for the purposes of irrigation, power generation, and municipal and industrial water supply, to name a few. The initial construction began in 1966 but was not completed until 13 years later as activists fought at the federal, state and local levels to impede the project's full implementation.

PROPOSITION 17

One of the first major, organized efforts against New Melones Dam was the political campaign surrounding Proposition 17, an initiative that, if it had passed, would've added the Stanislaus River to the State Wild and Scenic Rivers Act and consequently required a decrease in the dam's size. Friends of the River (FOR), an environmental organization that formed in March 1974, successfully campaigned to get the initiative added to the 1974 ballot as Prop 17 and actively distributed campaign literature, including a pamphlet entitled *Proposition 17: A Fact Sheet*, at the grassroots level to garner support. The pamphlet echoed the activists' concerns that the "New Melones Dam would bury most of the history and lore, the caves and canyons, the mines and rapids, the trout fishery and the spiders, under 20 miles and 3 billion tons of reservoir water." Proposition 17 was defeated by a slim margin.

"Defeated at the polls, the opponents (of the dam) pinned their hope on the courts," writes Hundley in his book. Hundley added that a year before the campaign, California Water Resources Control Board, at the prompting of activists, refused the Reclamation Bureau a permit to fill the reservoir, claiming the Bureau's environmental impact report was inadequate. The refusal led to a series of court cases and appeals that culminated in the U.S. Supreme Court decision California vs. U.S. The Supreme Court sided with the Board though the ruling set the groundwork for additional appeals and court cases. The activists were involved in other court cases besides California vs. U.S. and influenced Congressional legislation and individual attempts to stop the filling of New Melones Reservoir.

YEARS OF FLOOD AND DROUGHT

Despite the myriad efforts to limit the full implementation of New Melones Dam, the reservoir filled to capacity during the severe floods of 1982 and 1983, and actually flooded areas upstream of the dam, according to U.S. Bureau of Reclamation historian Joe Simonds in his 1994 assessment of the New Melones Dam. Hundley writes that the flood control benefits of the dam during those wet years were enough to persuade the California Water Resources Control Board to lift the restrictions on the lake's capacity. Following the storms, California entered a drought and the water level of New Melones Lake dropped significantly.

New Melones Dam is the largest dam on the Stanislaus River and was one of the last dams to be built during an era of major dam construction in California, according to Simonds. In his assessment, he questions New Melones Dam's effectiveness and asserts that "even without the environmental controversy that surrounds the project, the operational and water yield problems will certainly cause continued difficulties well into the future."

More than twenty years later, as a drought ravages the state for the fourth consecutive year, millions of Californians share the same opinion as Simonds. The Tri-Dam Project is producing less electricity due to lower water flows, according to SSJID communications coordinator Troylene Sayler. The same can be said about New Melones Dam, which generated about 40% less hydroelectricity in April of this year as compared to last year due to decreased water flows. The dam produced a gross total of 23,361 Megawatt hours of hydroelectricity in April of this year as compared to 59,954 Mwh in April of 2014, according to the Bureau of Reclamation's monthly power system generation summary. Despite the challenges arising from the decrease in electricity and the dire need to conserve water, the dams on the Stanislaus remain critical for supplying water for irrigation, urban consumption, energy production and recreation, even during the drought. SM