DELIVER THE RIVER:
STATES' RIGHTS, COST-BENEFIT, AND ENVIRONMENTAL JUSTICE ON CALIFORNIA'S STANISLAUS RIVER

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Introduction and Overview

In March 2019, the United States government sued the State of California arguing its plans for managing water to balance ecological requirements infringed on Washington, D.C.'s right to sell irrigation from New Melones Reservoir on the Stanislaus River. This same year, New Melones was in a rare state, 84 percent full, one of only a handful of times since 1979. The dam averages 25 percent of capacity, rarely achieving benefits builders promised. The loss of the upper Stanislaus River created serious federal versus states' rights conflicts, was based on faulty economic and misinformed environmental assumptions, and raises questions about democracy and environmental justice. The U.S. Bureau of Reclamation concluded in 1994 that "New Melones may become a case study in all that can go wrong with a project."[1] Today's legal battles offer an opportunity to reopen discussion of permanently lowering New Melones Reservoir. Restoration of the upper Stanislaus river can correct a historic injustice, improve the environment and agricultural sustainability, and offer new economic benefits for local communities.

What Went Wrong with New Melones?

The Stanislaus River, and its various tributaries, rises in the central Sierra Nevada mountain range in Alpine County, flowing southwestward through Tuolumne and Calaveras

[1] Joe Simonds, *New Melones Unit: Project History,* U.S. Bureau of Reclamation, 1994, available at file:///C:/Users/sikay/Downloads/60d51877720e9edad5a7ff114c22558d%20(1).pdf (accessed in April 2019).

counties, and entering the San Joaquin River south of Stockton, California. The origins of New Melones Dam date to 1944, conceived as part of the federal Central Valley Project.[2] New Melones was authorized for flood control several decades later, in 1962. By 1983, a range of new tasks were assigned and New Melones was filled to near capacity, flooding out historic treasures in the deepest limestone canyon in the west coast states. This was America's second most popular commercial white-water rafting river —the Stanislaus "Camp 9 Run" between Camp 9 and the Parrott's Ferry Bridge. Plans for the dam, however, had been approved before the canyon was discovered as a national treasure and before current environmental laws were in place.[3]

The Stanislaus River upstream of Parrott's Ferry Bridge in 2015 as the drought left most of the reservoir empty. This was America's second most popular commercial white-water rafting river.

Rafting the Stanislaus River before the Dam flooded it. David Kay upper left, Dick Linford guiding.

[2] For a review of dam building in the American west, see Marc Reisner, *Cadillac Desert: The American West and Its Disappearing Water* (New York: Penguin, 1993). Regarding California, see Norris Hundley Jr., *The Great Thirst: Californians and Water—A History* (Berkeley, CA: University of California Press, 2001). Also see Harrison C. Dunning, "Dam Fights and Water Policy in California, 1969–1989," University of Colorado Law School, Innovation in Western Water Law and Management, Summer Conference, 5-7 June 1991. For a personal reflection on water in the west, focusing on the Stanislaus, see Rebecca Lawton, *The Oasis This Time: Living and Dying with Water in the West* (Salt Lake City, Utah: Torrey House Press, 2019). For a comprehensive collection of photographs and historical documents about the Stanislaus and New Melones, visit the Stanislaus River Archive at http://www.stanislausriver.org/.

[3] See John Randolph and Leonard Ortolano, "Effect of NEPA on the Corps of Engineers' New Melones Project," *Columbia Journal of Environmental Law* 1, no. 2 (1975): 233–273.

New Melones Dam, completed in 1978, reaches 625 feet, making it the second highest in California. The reservoir capacity is 2.4 million acre-feet (ac/ft) with a surface area of 12,500 acres. This was not the original size needed for flood control. It grew from 1.1 million ac/ft to 2.4 million to increase benefits from hydro-power and irrigation, popular with agricultural interests in the San Joaquin Valley. In the early 1960s, the Sierra Club and some commercial outfitters began kayaking and rafting the Camp 9 Run. They found a deep limestone canyon with multitudes of caves, great diversity of wildlife, Native American antiquities and Gold Rush-era heritage, and some of the most exciting but safe whitewater in the United States.[4] By 1979, 90,000 people annually boated the river.[5] A campaign to save the Stanislaus was sparked by Gerald Meral, a biologist from Michigan and early Stanislaus kayaker and David Kay, an Ohio native and early Stanislaus rafter who eventually managed the American River Touring Association (ARTA).[6] In 1969, Kay addressed the Governor's Conference on California's Changing Environment: "I am here to represent the river people, the many groups and individuals who follow the river trail on kayak, canoe, and rubber raft and who believe present trends in river-related resource management must change course in the spirit of equal opportunity and fair play."[7] Barnstorming Calaveras and Tuolumne counties in 1971 with Kay,

[4] The access and forgiving nature of the river's rapids allowed for pioneering river trips for disabled people, led by a non-profit river outfitter called ETC. (Environmental Traveling Companions) built by Graciela Rossi, Fred Dennis, Ron Coldwell, and Mark Dubois.

[5] Christian Kallen, "Last Year on the Stanislaus," *Adventure Travel*, April/May 1979, 46–50.

[6] Meral and Kay worked together at the Berkeley, California, office of the Environmental Defense Fund beginning in 1971. Gerald Meral went on to senior positions in environmental organizations and served as Deputy Secretary of the California State Resources Agency. Kay relocated to Ohio in 1979, where he continued to coordinate campaigning for the Stanislaus in Washington, D.C.

[7] David A. Kay, "Reactor Paper," People & Water, Governor's Conference on California's Changing Environment," 17 November 1969, David A. Kay Collection. At the same conference, Gerald Meral, representing the Sierra Club, laid out the emerging case for river preservation: "We intend to aid the State Protected Waterways program in classifying the Rivers of California according to scenic values, boating quality, and estimated present and future use

Meral argued that historic Gold Rush towns like Angels Camp and Columbia "would suffer the disruptions of a construction boom and bust, with 683 workers coming and going in four years. After that, local communities would be inundated by motor boaters, highway bills, trash piles, and other demands for public service."[8] Meral showed that flood control and downstream demand pressures for New Melones water could be met with a smaller dam, preserving the upper Stanislaus canyon.[9]

California came to see a flood control dam as advantageous for emergencies and for regulating downstream flows. In April 1973, the State Water Resources Control Board determined that New Melones would irreparably damage the Stanislaus above the dam and need had not been demonstrated to justify the larger dam.[10] The Board described the upper Stanislaus as a "unique asset to the state and the nation." The decision noted that "additional filling for irrigation supply (was) not covered under "prior rights," [and that] … filling for power generation is forbidden at this time."[11] The SWRCB concluded that 1.1 million acre-feet of storage would meet demands for additional water in Oakdale and South Southern Joaquin Irrigation districts. In 1978, the U.S. Supreme Court upheld California's right to control its water, with a caveat: "a state may impose any condition on 'control, appropriation, use or distribution of water' in a federal reclamation project that is not inconsistent with clear

for canoeing, kayaking, rafting, and swimming." Gerald Meral, "Reactor Paper," People & Water, Governor's Conference on California's Changing Environment," 17 November 1969, David A. Kay Collection.

[8] Tim Palmer, *Stanislaus: The Struggle for A River* (Berkeley, CA: University of California Press, 1982), p. 64.

[9] Gerald H. Meral, "A Report on the Stanislaus River, with Emphasis on the New Melones Project," Sierra Club, California River Conservation Committee, 1971.

[10] Concurrently, the Environmental Defense Fund sued the federal government to enforce compliance with new national environmental regulations. See "Environmental Defense Fund, Inc. v. Armstrong," United States District Court, N.D. California, Nov. 14, 1972, Full title 352 F. Supp. 50 (N.D. Cal. 1972).

[11] "New Melones Project: Water Rights (Decision 1422)," State of California Water Resources Board, Sacramento, California, 4 April 1973.

congressional directives respecting the project."[12] Governor Ronald Reagan approved: "I agree with the Board's decision which reflects California's desire for a balance between real water needs and environmental concerns."[13]

The total cost of New Melones dam was $381 million, just over $1.4 billion today. In 1979, Stephen D. Mikesell, who served as Deputy State Historic Preservation Officer, traced the evolution of cost assumptions on New Melones, which grew from $7 million in 1944 to $47 million in 1953 with no corresponding increase in benefits. By doubling reservoir capacity, the Army Corps of Engineers increased projected flood benefits by 25 percent. Yet, this was unnecessary relative to flood control needs. Added storage capacity mainly helped proponents expand stakeholders with interests in a larger dam.[14] According to Mikesell, presumed irrigation benefits grew in accounting models by 300 percent between the 1940s and 1960s. Power supply to run irrigation was added, beginning with an initial benefit assumption of $36,000 in 1945 and inexplicably expanded in projections to $16,560,000 in 1978. Mikesell observed, "inflation of this magnitude should alert the monitor to fundamental changes in the way benefits are calculated."[15] While assumed irrigation benefits grew, water flowing into the reservoir did not.

[12] U.S. Supreme Court, *California v. United States*, 438 U.S. 645 (1978), No. 77-285, argued March 28, 1978, decided July 3, 1978, 438 U.S. 645. The Supreme Court finding did not save the Stanislaus. As Harrison C. Dunning observes: "… the doctrinal victory of 1978 by the SWRCB was not enough to save the Stanislaus Canyon. Ultimately, the Ninth Circuit upheld all 25 of the boards permit conditions, but severe flooding largely filled the reservoir, and the SWRCB's plans to force release of the impounded flood waters brought threats from the legislature to strip the board of its permit conditioning authority. The board backed down, the permits were amended, and the reservoir stayed full." Dunning, "Dam Fights …," p. 23.

[13] Palmer, *Stanislaus*, p. 74.

[14] The Oakdale and South San Joaquin Irrigation districts conceded in 2006: "As part of the IPO, contractual deliveries were artificially capped at 90,000 acre-feet even though the contractual amount is 155,000 acre feet, and the IPO provided water deliveries to the CVP contractors only in the wettest of year types." Oakdale Irrigation District and South San Joaquin Irrigation District, *New Melones Operation Plan: Current Performance and Proposed Transition Plan,* May 2006.

[15] Mikesell, "Historical Analysis…," p. 61.

Mikesell concluded that, "had decision makers outside the agencies been fully aware of problems in benefit-cost analysis, the project might not have been authorized and funded."[16]

The Bureau of Reclamation conceded that "New Melones does not have a sustainable water supply sufficient to meet exiting obligations for irrigation, wildlife enhancement, and water quality improvement."[17] There are, nevertheless, benefits to New Melones Dam. Farmers downstream now have reliable seasons for growing due to flood control allowing for alfalfa, fruit and nut trees, and vineyards, along with livestock and dairy in the historic floodplain. As to flood control, a 2.4 million ac/ft reservoir capacity is doing the job. Through 2003, the dam prevented a cumulative total of $128,500,000 in flood damage; total damages includes floodplain occupation that would have been avoided if larger objective releases were permissible and higher releases judged to be more frequent.[18] However, one flood event in 1997 accounted for most of these benefits. There were potential downstream benefits to fish habitats from New Melones Dam. Protected salmon can be aided by colder water flowing from dam releases. However, the original Melones Dam was buried underneath the reservoir. "Old Melones" traps cold water and when levels are low, water released from New Melones is too warm, damaging fish habitats.[19] Populations of Stanislaus fall run Chinook salmon declined from 35,000 spawning fish in 1953 to fewer than 300 in 1992 with loss of dynamic fluvial processes as the primary cause.[20]

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[16] Mikesell, "Historical Analysis…," p. 64.
[17] Simonds, *New Melones Unit*.
[18] Simonds, *New Melones Unit*.
[19] Jack Rowell, "Memo Regarding How Old Melones Dam Affects the Temperature of Water Leaving New Melones," 18 October 1994, Bureau of Reclamation, Sacramento, California, and Jack Rowell, "New Melones Appraisal Temperature Model Study," U.S. Bureau of Reclamation, Sacramento, California, 17 April 1998.
[20] Katrina S. Schneider, G. Mathias Kondolf, and Anthony Falzone, "Channel-Floodplain Disconnection on the Stanislaus River: A Hydrologic and Geomorphic Perspective," available at https://www.researchgate.net/publication/238743612_Channel-Floodplain_Disconnection_on_the_Stanislaus_River_A_Hydrologic_and_Geomorphic_Perspective (accessed in April 2019).

Initial inflow estimates for New Melones were collected between 1922 and 1978. Rebecca Lawton notes that official reporting now shows "the earlier estimates were off, failing to predict drought and demand cycles 'by a significant amount'."[21] Drought from 1987 to 1992 forced the federal government to honor allocation commitments by purchasing water from older dam projects. Geographer Kimra Dawn McAfee observes that official "modeling efforts confirm that there is not enough water to meet the original water quality and fishery allotments in all years."[22] These conclusions were made before things got *really bad* with the five-year drought of 2011–2016, California's worst in its recorded history.[23] Ironically, Stanislaus River flows before the dam provided greater benefits. Geographer Christopher Soulard demonstrates: "This 'pure' water source benefited agriculture in the San Joaquin Valley by diluting the saline waters of the San Joaquin River, which farmers heavily rely on as an irrigation source. Low flows, which are noted in the literature and evident in USGS streamflow data, have prevented this diluting effect, consequently leaving farmers in San Joaquin Valley with saline irrigation water, which leads to long-term soil infertility."[24] Serious inefficiencies also occur, as in 2016 when in a wet year for California, water contractors to the north received 100 percent of their allocations while those promised water from New Melones received 5 percent. The rest was made up by purchasing and delivering costly alternative sources.[25] The pool fell to "inactive" elevation in 1991 and 1992 and in 2015 dropped to 5 percent of pool availability, almost completely empty. McAfee summarizes the dilemma: "Many stakeholders are leery of the future because decisions made to meet fishery

[21] Rebecca Lawton, "A Storage Problem: The End of the Big Dam Era," available at https://undark.org/article/storage-dams-water-groundwater-canada-drought-site-c/ (accessed in March 2019).
[22] Kimra Dawn McAfee, *Post-Audit of New Melones Dam, Central Valley Project, Stanislaus River, California*, M.A. Thesis in Geography, San Francisco State University, May 2000.
[23] Jonathan Belles, "California's Five-Year Drought Was Worst in Nearly 450 Years for Some Areas, Records Show," *The Weather Channel*, 12 April 2017.
[24] Christopher Soulard, *The Impact of Dam Construction on Land Cover, 1972–2001*, Master's Thesis in Geography, San Jose State University, 2005, p. 47.
[25] Reed Fujii, "No New Melones Water for Stockton," *Record*, 1 April 2016.

needs and water quality criteria could limit the water supply available for agricultural and municipal uses; could influence how the project is managed for flood control; could restrict the amount of hydropower generated by dictating the timing and amount of releases; and could affect recreation both upstream and downstream."[26]

Commercial Rafting and Opportunity Costs

Supporters of New Melones Dam failed to account for opportunity costs, misleading the public on economic losses in recreation.[27] People flock to a reservoir to recreate when it is full with fresh water, not when it is low, warm, filled with silt, and surrounded by an unappealing and smelly "bathtub ring." In his initial challenge to New Melones in 1971, Gerald Meral studied twenty-one flat-water recreation areas within 75 miles of New Melones, twelve of which were closer to Sacramento than New Melones, and sixteen closer to San Francisco. Meral concluded that "New Melones is right in the middle of a bunch of other reservoirs" and the "prognosis for New Melones as a magnet for flat water recreation is not very good."[28] Any presumed benefits from the large reservoir pool would have to account for loss of hunting, river fishing, and the commercial and private whitewater rafting that was exploding along the upper Stanislaus. Dam enthusiasts instead wrongly proclaimed that New Melones a boon for local economies: "With 12,500 surface acres of water, house boaters, fishermen, skiers and personal water craft operators will find wide open spaces for their enjoyment."[29] Decades after the dam was built, Calaveras

[26] McAfee, *Post-Audit of New Melones*, pp.48–49.
[27] See Jim D. Currie, "An Economic Analysis of the New Melones River Project," (M.P.P. Thesis, University of California, 1973).
[28] Meral, "A Report on the Stanislaus River."
[29] U.S. Bureau of Reclamation, *Environmental Impact Statement, New Melones Lake, Stanislaus River, California: Supplemental Data on use of Conservation Yield*, Sacramento, CA, Bureau of Reclamation, Mid-Pacific Regional Office, 1972.

and Tuolumne counties had housing values and median household income below, and unemployment above, state averages.[30]

In 1971, David Kay demonstrated that commercial outfitters were spending combined about $55,000 a year in cash benefits for Tuolumne and Calaveras counties. This number, however, rose to $195,000 when factoring for additional spending per person of $20.00 a day for meals, lodging, gasoline, etc., before and after the river trip. [31] About 30 percent of rafters took extended visits to the Gold Rush country spending disposable income. With exponential growth to about 60,000 annual commercial boaters and another 30,000 private boaters, Kay correctly estimated that by 1978, rafting companies would generate $2.7 million from annual business flowing through these rural economies.[32] Holding the benefits at the levels of maximum commercial rafting from 1978, this indicates minimum direct annual benefit losses of $4.1 million. Maintaining 1983 numbers, excluding inflation and related benefits from hotels, food, and travel, total commercial rafting loses generated out of Calaveras and Tuolumne counties by the Stanislaus were $147 million by 2018. Adjusting for inflation, today's current annual value lost is $10.5 million. Moving that baseline forward an additional thirty-six years projects an additional $378 million in recreational losses, totaling $555 million of commercial rafting losses by 2055, over seventy-two years of dam operations on the upper Stanislaus River.[33]

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[30] U.S. Bureau of Reclamation, *New Melones Lake Area*, pp. 8–15, 17.

[31] Palmer, *Stanislaus*, 59. David Kay demonstrated in his 1971 testimony that: "… 1/3 the gross income [from outfitters] was contributed to the local economy for food, gasoline, vehicle and warehouse rentals, equipment, and wages to local guides. About one in every five professional guides live in Calaveras or Tuolumne County, and just by working weekends, a single guide can earn $1,600.00 during a regular season of 40 trips. As the river outfitters schedule more week day trips, the guides can expect fulltime employment with resultant increases in earnings. Most California outfitters plan to hire and train more local boatmen for the coming year." Kay, "Testimony by David Kay…"

[32] Palmer, *Stanislaus*, p. 65. Also see Kay, "Reactor Paper: People and Water," and David A. Kay, "Testimony by David Kay in Front of Tuolumne/Calaveras Boards of Supervisors," 9 February 1971, David A. Kay Collection.

[33] This economic estimate was built with the assistance of Robert Gitter, professor of economics at Ohio Wesleyan University. This is a conservative estimate using baselines limited to commercial rafting losses adjusted over time. Other potential losses are not factored for such as secondary recreation, hotels and food, gasoline, etc. It is not

In its environmental impact assessment for New Melones, the Army Corps of Engineers counted assumed $910,000 in annual recreation benefits, mainly flatwater recreation. Benefits to local communities were estimated at $635,000 from the short-term boost of dam construction and residual maintenance wages.[34] The loss of commercial rafting on the upper Stanislaus was assigned total lost commercial value of zero. According to UC Berkeley ecological economists B. Thomas Perry and Richard B. Norgaard, the "expected net benefit from flat-water recreation is negligible." The assessment, they noted, "did not account for the burgeoning white water rafting business that was exponentially growing at the time on the 9 mile Stanislaus run."[35] Stanislaus guide, Jeffe Aronson, returning to the area decades later, visited an abandoned market where he used to purchase supplies: "An older gentleman, slightly familiar smiled and offered his hand, asking, 'aren't you one of those skirt-wearing raft hippies that used to come in and buy food back in the 1970s?' Jeffe said the man reflected, 'My brother and I used to own this store. We went out of business soon after the dam went in. The whole town died. You were right. They lied to us, and I'll regret it for the rest of my life."[36] Bob Ferguson of Zepher Whitewater Expeditions, based in Columbia, says the economic impact of rafting would be "ten times higher" than the reservoir. "Most of the people buy their gas, their boat gas in the valley, their fishing tackle and their bait in the valley… The economic impact of the river itself, that drew thousands of people up here. They stayed the night and they ate their meals up here, they came from all over the world." Ferguson concludes, "if the river was still there, the economic impact

presented as an absolute figure, as gaining a complete estimate forty years later would be difficult. The purpose of this number is to show scale of losses relative to the initial official estimated losses of zero.

[34] U.S. Army Corps of Engineers, Sacramento District, *Environmental Impact Statement, New Melones Lake, Stanislaus River, California*, U.S. Department of the Army, Corps of Engineers, Sacramento District, 1972.

[35] B. Thomas Parry and Richard B. Norgaard, "Wasting a River: In One Hundred Years Who Will Care?" *Environment* 17, no. 1 (January/February 1975): 17--27.

[36] Rebecca Lawton, "A Storage Problem…".

would be great in Calaveras and Tuolumne counties, much more than the reservoir brings in terms of recreation."[37] A 2003 survey of operations at New Melones Reservoir concluded that, "visitor capacity is not currently a problem in New Melones Lake Resource area. That is, visitor demand does not exceed visitor supply with several notable exceptions [the few busy weekends in a high-water year] that people flock to the reservoir."[38]

Where is the Water?

Since the filling of New Melones reservoir, water shortfalls and competing federal and state commitments have left every affected party unhappy. The Bureau of Reclamation acknowledges this problem, writing, "it became clear during the 1987 to 1992 drought … that the sustainable yield of New Melones Reservoir is insufficient to meet the demands which have been placed on it."[39] Original cost-benefit assumptions built around annual inflows of 200,000 ac/ft of water were wrong. The Army Corps concedes "at the time of construction, this was a crucial projection, since the current and future water shortages were of grave concern. That concern remains today, though the maximum supply is realized only intermittently."[40] This outcome contradicts claims made by those who sold the dam. Col. James Donovan of the Army

[37] Guy McCarthy, "Rising Waters at New Melones Lift Boaters, Businesses, Morale," *Union Democrat*, 9 May 2017.
[38] For example, in 2016, the Bureau of Reclamation registered 283,938 visitors to New Melones, a very low water year. The last prior near-full reservoir year was 2011, which recorded 456,939 visitors. Bureau of Reclamation, *New Melones Lake Area*, 7-5 and Glenn Haas, "New Melones Lake Resource Area: A Visitor Capacity Analysis," 6 June 2003, available at https://www.recpro.org/assets/Library/Visitor_Capacity/visitor_capacity_analysis_new_melones_9-1-03.pdf (accessed in April 2019).
[39] Simonds, *New Melones Unit: Project History*. Kimra McAfee explained the basic problem with New Melones: "Although the average annual inflow between 1980 and 1999 (1,237,000 af) has exceeded the Corps' calculated average annual flow of the Stanislaus River at the dam site (1,130,000 af), the annual inflow has ranged from 324,000 af in 1988 to 2,747,400 af in 1983. Between 1987 and 1992, the six-year average was only 462,600 af." McAfee, *Post-Audit of New Melones Dam*. The Bureau of Reclamation shows that between 2000 and 2006, storage ranged from 1.1 to 2.1 million ac/ft—with average levels between 956 and 1,061 feet above sea level. The Bureau notes this is variable depending on release levels from 10 reservoirs with storage capacity of up to 189,000 ac/ft above New Melones. Bureau of Reclamation, *New Melones Lake Area Resource Management Plan and Environmental Impact Statement: Resource Inventory Report*, Central California Office, August 2007, 2-27.
[40] U.S. Army Corps of Engineers, *Sacramento District History*, p. 47.

Corps of Engineers wrote in 1972, "I find that even if it were not possible to completely mitigate the loss of the upstream white water area, continued construction and completion of the New Melones Lake would provide economic, social, and environmental benefits of such magnitude that they would be a desirable tradeoff for the environmental loss incurred."[41] The project was justified assuming the dam would earn $1.70 for every dollar spent on its construction, operations, and maintenance. In 1979, this ratio was expanded to 2.3 to 1, so that for every dollar spent, $2.30 would be a benefit to someone, somewhere.[42] B. Thomas Parry and Richard Norgaard, however, demonstrated the actual cost/benefit ratio was .31 cents on the taxpayer dollar.[43] Dam opponents showed it would have been cheaper, about $70 million at $2,000 an acre in 1973, to buy the flood plain than build the dam.[44] To those who fell in love with the river, there was a deeper loss. David Kay reflected in 1978: "The kayakers and private boaters are part of an American heritage of individualism and strength of character. The professional rafting companies who serve the general public are not just selling water by the river. They are putting urban-worn people in touch with themselves in nature. Let the best of the Stanislaus flow through time as a symbol of our grace in the real House of God."[45]

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[41] Palmer, *Stanislaus*, p. 71. Also see Col. James C. Donovan, *Statement of Findings, New Melones Lake, California*, 31 May, 1972, District Engineer, Sacramento District, Department of the Army Corps of Engineers.

[42] Palmer, *Stanislaus*, p. 58. The official annual benefits were detailed by the Army Corps of Engineers as: flood control, $3,125,000; irrigation, $3,610,000; hydro-electric power, $10,380,000; water quality, $180,000; fish and wildlife, $650,000; recreation, $1,470,000; area redevelopment, $1,185,000. Total projected annual benefits were $20,600,000. Palmer, *Stanislaus*, p. 58. Palmer references the study by Norgaard and Parry who demonstrated that the official benefit assumptions overestimated flood control benefits two-fold; crop gains were overinflated in value (i.e. listing cotton at .32 cents a pound when the market price was only .20 cents); increased energy from hydro-electric power was noted as a benefit, but the increased energy for irrigation pumping was ignored as a cost; water quality benefits were counted twice (once under water quality and again under fisheries enhancement); and interest and discount rates were applied at 3 and 1/8 versus the government recommended 6 and 7/8 percent.

[43] Parry and Norgaard, "Wasting a River…" Parry and Norgaard cited evaluative errors in irrigation, flood control, recreation, area redevelopment, fish and wildlife, and water-quality control. They showed the project life used to determine the ratio employed an incorrect interest rate and did not figure in various environmental costs.

[44] Palmer, *Stanislaus*, p. 70.

[45] David A. Kay, "Comments Before the Public Workshop on White-Water Mitigation for the Stanislaus River," White-Water Advisory Board, 17 May 1978, David A. Kay Collection.

Democracy and Environmental Justice

The idea of a state-wide referendum to save the Stanislaus came from Gerald Meral who with David Kay formed Friends of the River in 1973 to gather the necessary 300,000 signatures of registered voters to place a referendum on the state ballot. The vote sought to put the Stanislaus into the California Scenic Rivers System while allowing for a smaller dam. They began talking with members of Congress, taking influential people down the river, and doing all they could with minimal resources; teams of volunteers flooded across the state while river guides explained the issue to passengers. Meral and Kay persuaded outfitters to add a $2.50 per-customer donation for river protection as part of their river trip. The signature campaign through 1974 gathered 500,000 signatures. Journalist Tim Palmer concludes that the river people had power, having put what became Proposition 17 on the ballot: "It was beyond the understanding of the dam people, who were guided by the massive inertia and conventional wisdom of California water development, by persuasive economic incentives, and by personal contact with politicians who were old friends."[46]

Save the Stanislaus? A Democracy Deficit

Californians Against Proposition 17 was formed to press the case for the dam. This effort began with small donations from farmers but was inundated with money from contractors and financially interested parties around the United States. They hired a public relations firm to sell the dam. Proponents distributed photos of dead fish to congressmen and the media captioned: "Fish killed by oxygen depletion in the Stanislaus." In fact, the fish had been killed by a chemical spill.[47] The dam lobby attacked Gerald Meral as unethical, river companies as greedy elites, and argued existing dams and diversions made the claim that the upper Stanislaus was a

[46] Palmer, *Stanislaus*, p. 86.
[47] IBID, p. 94.

natural place a "hoax." The pro-dam campaign included an environmentalist, Clifford Humphrey who argued: "New Melones will provide a reliable source of water through almost any drought … We need a water-rich system. If we have only a minimum amount of water, there may not be enough return flows to support secondary effects—hedgerows and valley habitat. We need enough water to flush salts through."[48] Downstream from New Melones, the Yokut Wilderness Group, a local Sierra Club organization, endorsed the dam.[49] Thus dam advocates asserted their efforts would "Save the Stanislaus" with a vote for the dam.

When summer 1974 arrived, the commercial rafting business was in full swing. Meanwhile, Californians Against Proposition 17 got busy pressuring newspaper boards and putting up wildly misleading billboards on major California highways. The activists had raised approximately $238,126 for the Prop 17 campaign, most of which had been spent on collecting signatures. When the actual election campaign came, most of the funding was gone, which greatly limited advertising purchases. The advantage that the river campaigners had was their deep volunteer base. Dam supporters had over $400,000 to spend on television, radio, and billboard campaigns. After the election, it was found that only $281,699 had been legally recorded, which included $50,000 coming from contractors building the dam. In total, $150,000 was contributed by Melones contractors. While Friends of the River did not have any contributions of $5,000 or more, Californians Against Proposition 17 received thirteen from around the United States, all with direct interests in the project or who fought the idea that citizens not determine project outcomes.[50] The group coopted the environmental message: "The loser in this issue will be the lower Stanislaus River, which is dying from pollution, being

[48] Palmer, *Stanislaus*, p. 98.
[49] Palmer, *Stanislaus.*
[50] Palmer, *Stanislaus*, pp. 107–108.

stripped of its salmon spawning gravel beds and streamside vegetation and squeezed dry by agricultural and urban intrusion." They falsely asserted that rafting in California was "an exclusive sport for only 6,000 rafters" who "want[ed] to prevent creation of family recreation for a possible 250,000 persons, in order to keep their river adventures."[51] When the ballot initiative came to the voters in November 1974, the river lost 47.5-52.5 percent with 2,576,000 votes against 2,891,000.

After the election, Friends of the River was inundated by phone calls from upset voters who, thinking they were voting to save the upper Stanislaus, had voted "No," confused by ballot language that required a "Yes" vote to save the river and stop the dam. The group contracted a polling firm to survey voters' intent. It showed that "On election day, November 5, 1974, the majority of voters in California intended to vote against construction of the New Melones Dam and reservoir on the Stanislaus River." The survey found that "more voters opposed the dam than favored it … confusion caused by the wording of the ballot proposition itself and by the advertising resulted in the defeat of the wild and scenic river initiative."[52] They found that both sides had elements of confusion—of those voting "Yes," some 24 percent intended to vote for the dam. Of those voting "No," 46 percent intended to cast their vote to save the upper Stanislaus. Tim Palmer explains: "The net result about 60 percent of the people who voted intended to vote for the wild river and against the dam. This was the vote that guaranteed construction of New Melones."[53]

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[51] "Rafter's Rip-Off Flyer," available at http://www.stanislausriver.org/story/anti-prop-17-rafters-rip-off-flyer/ (accessed in March 2019). This argument had been addressed by Norman B. Livingston, Secretary of the state Resources Agency, who said that the "few persons" were not just the members of the Sierra Club, Audubon Society, or National Wildlife Federation – but "millions of the voting public who may not belong to specific conservation or sportsman groups." Kay, "Reactor Paper." In 1971 Gerald Meral and David Kay working with commercial outfitters and the Sierra Club, gathered 7,000 signatures delivered to Livermore. David Kay, "Pre-History of Friends of the River," David A. Kay Collection.

[52] Palmer, *Stanislaus*, pp. 110–111.

[53] Palmer, *Stanislaus*, p. 111.

"Parrott's Ferry Is the Limit!"

David Kay wrote to his Friends of the River colleagues in 1975: "The Friends of the River will continue to lobby vigorously to halt the dam itself, but political realism may ultimately force us to accept the dam in favor of saving the stretch above Parrott's Ferry."[54] Friends of the River developed a detailed case for limiting the reservoir pool to 808 feet above sea level by using cost-benefit frameworks.[55] They showed the requirements of the California State Water Board ruling on the size of the reservoir could be met with a 270,000 acre-foot reservoir, approximately 30,000 less than the Parrott's Ferry level, while allowing for maximum flood control. The cabinet-level California Resources Agency also conducted a review finding that even at capacity, New Melones would provide one tenth of one percent of California's electricity needs; full operation for power and irrigation would increase fishery problems downstream, not resolve them; a price for irrigated water three times what the federal government planned to charge meant a taxpayer subsidy of up to $741 million over fifty years; and it would still be insufficient to cover operations, maintenance, and the distribution of water.[56] The state concluded that "current data (did) not justify increasing the reservoir elevation above Parrott's Ferry to meet conditions of Decision 1422 … a decision for a lower reservoir size is reversible while a higher reservoir is not." A senior California official said: "Even though the project is built, we decided it should be held up as an example of abuse in water planning,

[54] Memorandum to Members/Stanislaus River Recreation from David A. Kay, Steering Committee, Friends of the River, 1975, David A. Kay Collection.
[55] Friends of the River, *Operation of New Melones Dam to Generate Electricity*, (Sacramento, CA: Friends of the River, 1980).
[56] Palmer, *Stanislaus*, p. 147 and Guy D. Phillips, *The New Melones Project: A Review of Current Economic and Environmental Issues*, (Sacramento, CA: California Resources Agency, November 1979).

pricing, and benefit/cost ratios. It was so far down the line, but ultimately we decided to become involved because New Melones is such an important symbol of poor fiscal management."[57]

As efforts continued to halt flooding and to publicize the loss, national environmental figures rallied to the cause and rafters pressed their case. David Kay read a speech at a 1978 rally in Sacramento on behalf of David Brower. Brower said there is:

> … an ethic and we must insist that the federal government, the state, and even the independent government of the dam-building agencies, should observe, now and henceforth. The dam is there, but its river values do not require to be closed. Let there be a careful analysis of the means of keeping them open for our time, to be closed when they absolutely must be, but not a moment sooner. What would the cost be, and what the benefits?[58]

Under increasing pressure, the Army Corps had set up a "White-Water Mitigation Committee" that included David Kay. The committee recommended "to limit the size of New Melones Reservoir to allow continued river touring above Parrott's Ferry Bridge."[59] Kay reflected on this process in 1978: "With no justifiable reason to fill the reservoir to capacity in the foreseeable future, we felt the recommendation was only a matter of common sense." He added, "By failing to mention it in their 'Study of White-Water Alternatives,' the Corps committed a forgery and a cover-up in the eyes of its own advisory committee."[60]

State court filings and political efforts in Washington D.C. progressed while the reservoir slowly rose, eventually filling in 1982–1983. In early 1979, however, the Army Corps of Engineers tested turbines which required temporarily filling the reservoir past Parrott's Ferry.

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[57] Palmer, *Stanislaus*, p. 149.
[58] Hand-written speech by David Brower, delivered on 26 August 1978, Sacramento, California, David A. Kay Collection.
[59] Letter from Dick Roberts (Chairman) and David A. Kay (Member), White-Water Mitigation Committee, 1975 (undated otherwise), David A. Kay Collection.
[60] David A. Kay, "Comments Before the Public Workshop."

Mark Dubois, an early ARTA guide, had emerged as a leader of Friends of the River.[61] Dubois chained himself to a rock above the flooding reservoir in May 1979, writing to the Army Corps of Engineers: "By tomorrow morning, Monday, *my foot will be locked at an elevation of about 2 or 3 feet above the dam's water level (assuming water rose Sunday at the same rate as Saturday). I will be hiding in the canyon somewhere between the dam and Parrott's Ferry. I don't believe the canyon above Parrott's Ferry should be flooded. I hope you don't find me and that you opt to stop the filling*."[62] Dubois' actions were heroic because the canyon was to be flooded before required surveys of archeological sites were completed. Worse, the federal government was proceeding in violation of the Supreme Court recognition that California had the right to determine water allocation. Flooding might have created a status quo of inundation. The chaining gained national media coverage and Governor Jerry Brown telegrammed President Jimmy Carter, writing that the Stanislaus, "is a priceless asset to the people of California and to the people of this nation. The beauty of the Stanislaus River and the life of Mark Dubois deserve your personal attention."[63] Mark Dubois' actions saved the river for another year, and his vigil ended. But the radical nature of the protest was a final straw for many local citizens, who now wanted the issue settled. Still, Marc Reisner wrote of Dubois in *Cadillac Desert*: "Like Rosa Parks climbing defiantly aboard her segregated bus, he started something that couldn't be

[61] Members of Friends of the River Alexander Gaugine and Bob McBride prepared an action plan in January 1979 for a vigil at the Parrott's Ferry Bridge: "We can make the inundation of the Stanislaus Canyon below Parrott's the best publicized destruction of a wilderness in history, and place considerable pressure on decisionmakers to limit the filling." Alexander Gaugine and Rob McBride, et al., "Non-Violent Direct Action for the Protection of Threatened Wilderness and Wildlife, Stanislaus River Canyon, Spring 1979," 18 January 1979, Alexander Guagine Collection, available at http://www.stanislausriver.org/story/proposal-for-non-violent-direct-action-to-protect-the-stanislaus/ (accessed in April 2019).

[62] "A Letter to Col. O'Shea, from Mark Dubois," 20 May 1979, available at http://www.stanislausriver.org/story/a-letter-to-colonel-oshea-us-army-corps-of-engineers-from-mark-dubois/ (accessed in April 2019).

[63] Palmer, *Stanislaus*, p. 168.

quelled. Millions of people who had never seen the Stanislaus River found themselves feeling upset, if not infuriated over the loss."[64]

"One of the Richest Archaeological Sites in California"

Heavy rainfall led to inundation past Parrott's Ferry Bridge in winter 1982–1983. Federal law now required a survey of archeological and historical losses, but the reservoir arrived before completion. Hosting over 600 archeological sites, the upper Stanislaus canyon had been a home and transit route for Miwok Indians. The area was also the location of historical Gold Rush-era artifacts. The *Modesto Bee* reported: "almost from the start, complaints were heard from archaeologists and critics, including some who were associated with the losing bidder, often claiming inadequacies in the research design."[65] In 1980, Knox Mellon, California State Historic Preservation Officer wrote to the U.S. Department of Interior that "DOI has not complied with Section 106 of the National Historic Preservation Act."[66] Also in 1980, Miwok tribes informed federal officials that their group "opposes removal of Indian remains from land scheduled to be flooded by the New Melones Reservoir."[67] Ward Weakly, a Preservation Officer with the Bureau of Reclamation said in 1981: "New Melones probably represents the worst of all possible situations. The rules were constantly changed by Congressional action. The legal basis for doing (cultural mitigation) work was enacted during construction of the project."[68]

When New Melones Dam was authorized in 1962, requirements for archeological and historical protection did not exist. Once they did, funding was not made available until 1974. In

[64] Reisner, *Cadillac Desert*, p. 510.
[65] Thorne Gray, "Melones Digging: Archeologists want to Start Over," *Modesto Bee*, 15 November 1978.
[66] "Statement of Knox Mellon," Letter to Secretary of the Interior Andrus, 1980. Cited in G. James West, "New Melones: Public Interpretation of the Archeological-Historical Record," in National Park Service, *Darn Good Archeology: The Bureau of Reclamation's Cultural Resources Program* 23, no. 1 (2000): 29–32.
[67] *Sacramento Bee*, 1980.
[68] *Union Democrat*, 12 June 1981.

1976, the Army Corps assigned a cost of $2.8 million for mitigation, relocating as many historical and cultural materials as possible. The Army Corps of Engineers District Archeologist Patti Johnson recalled in 2002, that mitigation "was easily challenged since decisions of what was important and how much mitigation was 'enough' were very subjective."[69] The Army Corps now concludes: "The large number of historic and prehistoric sites requiring evaluation in a relatively short period of time sometimes compromised the archeologists' ability to respond with meaningful research in the tradition to which they were accustomed."[70] The Army Corps adds: "Lewis Whitney, Chief of Civil Design Branch, recalled that the process was anything but smooth sailing. No one agreed with the mitigation recommendations for the cultural resources, whether they had worked with the project or not. Divergent voices complained about the process of the cultural resource compliance that had to be followed."[71] Patti Johnson reflects: "the pressure to hurry before the dam was completed coupled with the need to hire a large number of field workers, some of whom were not trained in archeological methods, along with the requirement to work on numerous sites at once resulted in issues of quality control. Although this was recognized early on, remedies were not usually satisfactory."[72]

The official assessment of archeological and historical resources concluded in 1978: "Inundation of significant cultural resources below the elevation of 808' was imminent and unavoidable given the evidence concerning the reservoir filling schedule as provided by the Corps of Engineers; the majority of the cultural resources sites below the elevation of 808' have been suitably recorded; and additional studies were needed of the resources below elevation

[69] U.S. Army Corps of Engineers, *Sacramento District History*, p. 41.
[70] IBID.
[71] IBID.
[72] IBID, pp. 41–42.

808."[73] A previous survey done in 1976 showed the region was a repository of more than 10,000 years of Native American culture. It encompassed 30,000 acres and documented 629 archeological sites, of which only 180 were previously known. This included petroglyphs and 66 locations that may have contained Miwok burial sites. The survey also listed Gold Rush-era locations including historic mining towns, homesteads, and cemeteries.[74] The official Army Corps history now acknowledges the area was "one of the richest archaeological sites in California."[75] Today, the Bureau of Reclamation observes: "Sites that have been totally inundated in the permanent pool are generally considered unavailable for further interpretation or study due to their lack of accessibility …. Sites entirely or partially within the fluctuating pool have been subject to wave action, erosion from cyclical inundation, and exposure."[76] The Bureau reports that 66 pre-historic sites are totally inundated in the permanent pool and are unavailable for further interpretation or study due to their inaccessibility. There are 96 pre-historic sites entirely or partially within the fluctuating pool.[77] Meanwhile, 75 historic Gold Rush-era sites are inundated in the permanent pool and unavailable for further interpretation or study due to loss of physical integrity and setting. There are 226 sites that are entirely or partially within the fluctuating pool.[78]

The Last River Lost?

No new major on-stream multipurpose dam project of New Melones' scale has since been authorized, licensed, and constructed in the United States. Similar proposals for white water

[73] Interagency Task Force, New Melones Cultural Resources Mitigation Program Report, March 22, 1979, p. 2.
[74] Michael J. Moratto, Judith D. Tordoff, and Laurence H. Shoup, "Culture Change in the Central Sierra Nevada: 8000 BC-AD 1950," Final Report of the New Melones Archeological Project, Washington, D.C., vol. 9, 1988.
[75] U.S. Army Corps, *Sacramento District History*, p. 42,
[76] Bureau of Reclamation, *New Melones Lake Area*, 3-2.
[77] IBID, 3-12.
[78] IBID, 3-14.

stretches on California's Tuolumne River and the American were defeated shortly after the Stanislaus flooded. Friends of the River has since helped protect forty-one rivers around the state.

But in 2014 California voters set aside $2.7 billion for water storage projects in California.[79] In 2016, the U.S. Congress created a new Reclamation program to revive their storage dam construction programs and federal funding mechanisms.[80] Reclamation has completed a draft environmental impact statement for a $2.6 billion dam on the San Joaquin River; its preferred alternative would be the second tallest dam in California.[81] Reclamation has completed a final environmental impact statement for a $1.5 billion raise of the Shasta Dam[82] The expanded reservoir of the preferred alternative would invade the McCloud River, a river protected by the California Wild & Scenic Rivers Act.[83] "Dams not Trains" signs festoon Interstate 5 in the San Joaquin Valley.[84] In 2020, the President visited Bakersfield promising "A lotta dam, a lotta water."[85]

At the same time, across the United States wasteful and unneeded dams are being decommissioned. As the Stanislaus and its dam are again in national headlines, the query posed by David Kay in 2009 remains: "At this point in time, looking backward and forward, my

[79] https://cwc.ca.gov/Water-Storage
[80] https://www.friendsoftheriver.org/wp-content/uploads/2018/06/FOR-WIIN-CA-storage-provisions-memo-1-5-2016.pdf
[81] https://cwc.ca.gov/Water-Storage/WSIP-Project-Review-Portal/All-Projects/Temperance-Flat-Reservoir-Project https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=821
[82] https://www.usbr.gov/mp/ncao/docs/sdrep-faq.pdf
[83] https://earthjustice.org/news/press/2019/fishing-and-conservations-groups-hold-up-illegal-plan-to-raise-shasta-dam
[84] https://www.friendsoftheriver.org/wp-content/uploads/2020/07/Dams-not-trains-our-rallying-cry-Bakersfield-Californian-column-4-9-2018.pdf
[85] https://www.friendsoftheriver.org/wp-content/uploads/2020/02/Trump-delivers-not-so-says-Newsom-Fresno-Bee-Nov-19-2020.pdf

question is, 'What about the cost-benefit justifications for New Melones? What about payback and mitigation? Have they been achieved? Or were they misstated, as we first suspected?'"[86]

Freeing the Stanislaus Above Parrott's Ferry

California's 1,400 dams are under challenge from increased demand and decreasing supply as climate change accelerates evaporation and causes more rain/flood events than gradual snowmelt. At the same time, a *California Agriculture* study notes: "California is the largest food producer in the nation and exports food around the world. Seven of the state's top 10 counties for food production are in the San Joaquin Valley; in 2016, those seven counties generated over $30 billion in agricultural revenue, 67% of the state total."[87] The Public Policy Institute of California observes the valley depends on reliable water supplies: "Yet this reliability is decreasing, particularly in times of drought. Today, local and imported water resources support more than 5 million acres of irrigated farmland, a population of more than 4 million, and an economy that generates an average of nearly $160 billion in gross domestic product (GDP)."[88] Yet the *Los Angeles Times* notes: "Existing water rights—that is, the legal right to draw water from a source—accounted for eight times as much water as the San Joaquin could yield in an average year."[89] In 2015, the *Sacramento Bee* reported about the occurrence of toxic algae bloom in the Delta: "there's far less water flowing into the Delta from upstream reservoirs, creating warm, slow-moving currents that blue-green algae prefer. The low flows also mean nutrients from

[86] David A. Kay, "Written Comments, Stanislaus River Reunion, Camp Lotus, California, October 2009, "David A. Kay collection.
[87] Rodd Kelsey, et al., "Groundwater Sustainability in the San Joaquin Valley: Multiple Benefits if Agricultural Lands are Retired and Restored Strategically," *California Agriculture* 72, no. 3 (2018): pp. 151–154.
[88] Ellen Hanak, et al, *Water and the Future of San Joaquin Valley*, Public Policy Institute of California," February 2019.
[89] Michael Hiltzik, "This Zombie Dam Project Underscores California's Dilemma Over Water," *Los Angeles Times*, 16 May 2018.

sewage, fertilizer and other pollutants released from cities, farms and industrial sites upstream could be more concentrated, contributing to the unusual bloom."[90] The *Sacramento Bee* also notes "about 25 million people from Napa to San Diego depend to some degree on fresh water diverted from the Delta, along with about 3 million acres of irrigated farmland."[91] California was now paying a high price, including threats to agricultural sustainability, due to some of its dams, including New Melones.

In December 2018, the California State Water Resources Control Board published plans for increased instream flows from the major tributaries of the San Joaquin—the Merced, Stanislaus, and Tuolumne. The plan is to have sustained, restored water flows through the San Joaquin Delta.[92] Acting in accordance with state law and the national Clean Water Act, the Board notes: "A growing body of information suggests that climate change could result in: (1) sea level rise that would adversely impact levees, water quality, and conveyance of water supplies through the Delta; (2) decreased snowmelt in the Sierra Nevada that would reduce effectiveness of existing water storage facilities; (3) increased rainfall that could exacerbate flooding; and (4) adverse biological effects from changes in flow and water quality."[93] The three major San Joaquin tributaries would contribute an average of 40 percent of unimpaired flow from February-June, which is the optimal time for fishery rehabilitation, running as if there were no dams. During drought, the Stanislaus share would be 29 percent of the outflow into the San Joaquin River.

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[90] Ryan Sabalow, "Unusual Delta Algae Bloom Worries Researchers," *Sacramento Bee*, 26 August 2015.
[91] Sabalow, "Unusual Delta Algae Bloom." On the science involved in the water problems downstream, see U.S. Geological Survey, "Excess Nutrients: San Francisco Bay and Sacramento-San Joaquin Delta Estuary," U.S. Geological Survey, available at https://www.usgs.gov/san-francisco-bay-and-sacramento-san-joaquin-delta-estuary/science/nutrients?qt-science_center_objects=0#qt-science_center_objects (accessed in April 2019).
[92] State Water Resources Control Board, "Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, 12 December 2018 available at https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf (accessed in April 2019).
[93] IBID.

The California Water Plan has implications for New Melones Reservoir levels, potentially freeing the upper Stanislaus. This remains unacceptable to those supporting New Melones irrigation. A representative from the Oakdale Irrigation District asserted that the Water Board ignored key stakeholders, especially those with federal irrigation contracts. General Manager Steve Knell complained: "They didn't listen to us—that's the bottom line—they didn't hear us … they took nothing of what we had provided … in the past six years into the document at all … It is very frustrating for people to consume so much time and efforts to get a good plan together … even develop alternative plans for consideration—and to have all of that rejected after all those years is just disheartening."[94] The California Farm Water Coalition estimates the plan will cost them $1.6 billion, with annual losses of $69 million.[95] Critics say the plan is bad for the environment, because it incentivizes groundwater table depletion. Supporters counter that the plan incentivizes conservation efforts and crop substitution.[96]

In March 2019 the Department of Justice and Department of Interior filed suit in state and federal courts against California over its water plan. The federal government argued California did not comply with its own Environmental Quality Act (CEQA) and infringed on the federal right to allocate flows from New Melones Dam.[97] Ironically, the federal litigation against California offers a chance to re-open the erroneous foundations of New Melones Dam while

[94] Tori James, "State Water Regulators' Plans to Impact New Melones," *My Mother Lode*, 18 July 2018.
[95] Dale Kasler and Ryan Sabalow, "Why San Francisco is Joining Valley Farmers in a Fight over Precious California Water," *Sacramento Bee*, 19 August 2018.
[96] Felicia Marcus of the State Water Board writes: "Yes, leaving more water to flow into the Delta from both the San Joaquin and Sacramento watersheds will be challenging for water users, which is why the proposal sends more water but still less than what is optimal for fish and wildlife. Water users can adapt—by switching crops, becoming more efficient and storing more water in wet times. In contrast, species pushed to the brink of extinction have few options." Felicia Marcus, "Here's How to Move Beyond the Water Wars and Save the Delta," *Sacramento Bee*, 6 June 2018.
[97] San Francisco Public Utilities have joined the opposition legal challenge over concerns related to drawdowns from Don Pedro Dam on the Tuolumne River which provides drinking water for the city.

honoring states' rights at the same time. If a separate water rights and dam licensing[98] proceeding occurs in the future, a side benefit could be the liberation of the upper Stanislaus River above 808 feet, the original "Parrott's Ferry Limit." Indeed, the Bureau of Reclamation has completed a study of allowing limited permits for commercial rafting on the upper Stanislaus when water levels permit.[99] The plan is to issue special event permits through 2026 allowing up to four outfitters to assess long-term viability. With time, those who visit the Stanislaus canyon will stay a few days, have some wine and shop in nearby Murphys, visit the state parks at Columbia and Calaveras Big Trees, or add a stop in Angels Camp for dinner and to learn about Mark Twain's jumping frogs and the outlaw Black Bart. Coloma and Placerville to the north in El Dorado County benefit hugely from commercial rafting on the South Fork American River, and can be models for what a gradual return to what the upper Stanislaus has to offer local communities.[100] A Stanislaus River Preservation Trust could help with resources and campaigns for restoration. With the upper Stanislaus added to local recreational benefits, local communities stand to benefit from long denied jobs to property values.

[98] "Licensing" in this context is a colloquial use of the phrase. Note, New Melones is a Federal Reclamation dam project. Reclamation dams are not licensed or relicensed. The Army Corps of Engineers and water rights are the only two aspects that impact the operation of the dam.

[99] The impact assessment indicated that a new put-in would be established just below the old Camp 9 Bridge incorporating an installed ramp. Companies could stop freely along the river, although no camping or open fires would be permitted. Rafters would have to arrange for tows once they hit the reservoir near the new Parrott's Ferry Bridge for takeout at the Mark Twain Recreation Area on New Melones Reservoir. Today, the in-flow managers from the Middle Fork of the Stanislaus which enters the upper Stanislaus via a diversion pipe at Camp 9 would need to coordinate releases with rafting put-in times (generally determined by snow melt and/or electricity generation at upstream sites). The Bureau of Reclamation notes: "We do not manage to 'make the run come back' at all,"… "therefore we cannot estimate how many days there would likely be available for whitewater boating." Guy McCarthy, "Right for Rafting?" *Union Democrat*, 7 July 2016.

[100] See Coloma-Lotus Chamber of Commerce, *Economic Impacts of Coloma & Lotus Valley*, Coloma-Lotus Chamber of Commerce, 2015. The South Fork American River brings about 115,000 people a year to the area.

Conclusion

At the Camp 9 site, the Bureau of Reclamation posts a sign: "RECLAMATION: Protect our Natural and Cultural Resources—Do not destroy, injure, deface, remove, search for, disturb or alter natural resources or cultural resources." Had that advice been heard in the 1970s, California might today be in a better situation regarding its water levels and quality, farmers would have an honest basis on which to plan, and the upper Stanislaus would be generating millions of dollars annually with flatwater recreation maintained in a smaller reservoir pool. The Stanislaus River offers an epic story of bad planning and cost-benefit assessments, and faulty democracy and environmental injustice. California has immediate water challenges that will get worse and costlier to address in years to come. The treasure of the Stanislaus remains, often buried, but increasingly more often free. Given time, the river and canyon can be rejuvenated so future generations might one day know the splendor that generated enduring love for one of nature's great cathedrals.