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The Temperance Flat Dam Is Costly and Produces Little Water

Reclamation's Upper San Joaquin River Basin Storage Investigation (USJBRSI)

The proposed Temperance Flat dam has long been proposed to be constructed on the San Joaquin River Gorge. Decades later, it was one of the CALFED storage projects proposed for further investigation by the state/federal CALFED program in the year 2000 CALFED Record of Decision.¹

Under its general authorities, the FY 2003 omnibus appropriations bill, and the 2004 Water Supply, Reliability, and Environmental Improvement Act,² the U.S. Bureau of Reclamation (Reclamation), the owner of the federal Central Valley Project (CVP), undertook and completed a draft feasibility report³ and draft environmental impact statement⁴ for the Temperance Flat Dam (TFD) in 2014. The dam was conceived to be located in the San Joaquin River Gorge,⁵ in the upstream part of Reclamation's Millerton Reservoir, a reservoir impounded by Friant Dam.⁶ Four⁷ and then five⁸ different dam operational scenarios were under study, but Reclamation was unable to identify any preferred alternatives⁹ because of serious unresolved issues¹⁰ and a number of project uncertainties.¹¹

Reclamation's action alternatives all featured construction of a 665 foot-high dam,¹² which would be the second tallest dam in California. It would have the capacity to store an additional 1.26 million acre-feet (MAF) of water.¹³ But regardless of the alternative, Reclamation found that it would produce relatively little new water¹⁴ and could cost state and federal taxpayers and water users billions of dollars.¹⁵ In addition, there were significant environmental impacts to the scenic San Joaquin River Gorge identified, as well as to the river and its resources downstream of Friant Dam in the view of resource experts outside of Reclamation. Key issues concerning Reclamation's Temperance Flat project are discussed below:

Water Capacity and Yield – Although the TFD could store up to 1.331 MAF¹⁶ of water, Reclamation concluded that the new dam would increase average annual water deliveries by only 61,000-87,000 acre-feet (depending on the emphasis of the operational scenario).¹⁷ The potential front runner was modeled to produce 70,000 acre-feet, 21,000 in a dry or critically dry year.¹⁸ (Reclamation's CVP produces 7 million acre-feet annually¹⁹ and statewide water use is 42 million acre-feet.²⁰) The proposed dam's yield would be small because eight large dams and reservoirs and two large canals already capture and divert most of the flow of the San Joaquin River upstream of Friant Dam.²¹ The river is often dry northwest of Fresno.²²

Can the Project Operate Legally? – The San Joaquin River is fully appropriated all year long,²³ meaning the State Water Resources Control Board has determined that no more water rights are available here during any month of the year.²⁴ Reclamation requires water rights to operate the dam,²⁵ and although Reclamation is free to challenge this determination²⁶ and, if successful, attempt to seek new very junior rights, a recent UC Davis study found that the state has over-allocated water rights in the San Joaquin River by an astounding 861%.²⁷ Reclamation noted that this is an unresolved issue for Temperance Flat Dam.²⁸

Cost & Economics – Reclamation's 2014 estimate for the capital cost of TFD was \$2.6 billion,²⁹ although it recognizes that this estimate could grow.³⁰ To compare, in 2011, the unpaid reimbursable costs being borne by the entire CVP were \$1.3 billion.³¹ The TFD price tag does not include a complete picture of environmental mitigation costs,³² and it is unclear whether PG&E has agreed with Reclamation's explanation on how it will be compensated for the loss of two major powerhouses — one of Reclamation's

issues to be resolved.³³ In 2018, Reclamation's aspiring project partners estimated TFD cost at \$2.8 billion.³⁴ In 2020, Reclamation's aspiring project partners estimated the capital cost of TFD to be \$3.2 billion.³⁵ In Reclamation's draft feasibility report, none of its alternatives have annualized benefits (to whomever they accrue) that exceed the annualized benefits if the ecosystem "benefits" disputed by federal and state natural resources agencies are *not* included in the monetized benefits. Reclamation's draft feasibility report does not meaningfully discuss financeability of the project, something that post-draft-feasibility-report experience has highlighted.

Benefits – Depending on which of the five alternative operating plans is chosen, Reclamation modeled TFD to result in small decreases or increases of water for agricultural or municipal consumption,³⁶ as well as provide comparatively small increases in reserved storage for emergency water supplies to Southern California customers in case of a catastrophic disruption in Delta water exports.³⁷ No specific beneficiaries were identified, but in all but one of Reclamation's dam scenarios, the TFD would export water to the municipal and industrial customers of the State Water Project (SWP),³⁸ which would require a controversial expansion of the state water rights place of use (where water is delivered) of the CVP.³⁹ Contrary to Reclamation's expectations,⁴⁰ the California Department of Water Resources did not prepare an environmental impact report for this project, perhaps a signal of the Department's view of its importance to the SWP, which it serves. In an attempt to be eligible for federal taxpayer funding, Reclamation alleged salmon enhancement benefits account for 49% or \$1.3 billion of the then estimated project cost.⁴¹

Critiques of Benefits – Reclamation's draft feasibility report and environmental impact statements received uncomfortable critical reviews of its benefit assumptions by state and federal natural resources agencies,⁴² environmental groups,⁴³ and by University of the Pacific economist Jeff Michaels, and others. To summarize, resource agencies were unconvinced that minor modeled temperature benefits to cold-water fishery habitat are real or worth the loss of water and occasional high channel-shaping flows to downstream river ecosystems. Environmental groups noted (among a large body of other comments) that Reclamation's Friant Project water would become more expensive, potentially reducing affordable water available to Friant Project farms and cities and the San Joaquin River Restoration Project.⁴⁴ To summarize Dr. Michaels, Reclamation's draft reports for the TFD overestimated the value of agricultural benefits by two or three times and "extremely exaggerated" ecosystem and emergency water supply benefits in order to provide a modeled positive cost-benefit ratio.⁴⁵

Environmental/Cultural Impacts and the San Joaquin River Gorge – Reclamation conceded that the TFD would have long-term unavoidable adverse impacts on riverine fisheries and their habitat,⁴⁶ botanical resources⁴⁷ and wetlands,⁴⁸ wildlife and wildlife habitat,⁴⁹ cultural resources,⁵⁰ recreation,⁵¹ and scenery.⁵² Up to 5,000 acres of public land would be flooded by the dam,⁵³ adversely impacting 11 known and 19 possible sensitive, threatened, or endangered wildlife species.⁵⁴ The reservoir would also drown several miles of trails popular for public recreation and used for Native American cultural interpretation and outdoor education in the scenic San Joaquin River Gorge.⁵⁵ In addition, the reservoir would drown the unique Millerton Cave System, perhaps the world's best example of a granite cave carved by a flowing scouring underground stream.⁵⁶ In contrast, in December of 2014, the U.S. Bureau of Land Management Bakersfield field office issued a Record of Decision recommending this reach of the Joaquin River Gorge for National Wild & Scenic River protection by the Bureau of Land Management (BLM) in recognition of this river segment's outstanding scenic and historical/cultural values.⁵⁷

Power Loss – Although TFD would have a 160-megawatt power plant, Reclamation's analysis shows that the loss of PG&E's powerhouses would make the project a net energy loser.⁵⁸

Risks, Uncertainties, & Unresolved Issues – Reclamation recognizes and discusses a number of uncertainties that could affect the findings of the Draft Feasibility Report. They include: hydrology and climate change, water supply reliability and demands, the effects on the San Joaquin River Restoration Project, water systems operations analysis, cost estimates, and alternatives refinements.⁵⁹ Predicting salmon survival is difficult due to limited data, modeling problems, and many other influencing factors. Unresolved issues include: securing non-federal partners, resolution of Native American tribes cultural

resource issues, environmental impacts and mitigation, BLM's conflicting wild and scenic river designation, water rights, and lost hydropower mitigation.⁶⁰

Water Infrastructure Improvements for the Nation Act of 2016 (WIIN)

WIIN – In 2016 Congress created the Water Infrastructure Improvements for the Nation Act of 2016, otherwise known as the WIIN. This legislation (S. 612) became law on December 16, 2016, and was a hybrid of a federal program for lead pollution management legislation for Flint Michigan, the 2016 Water Resources Development Act (WRDA), a slimmed-down version of the California Emergency Drought Relief Act of 2015 (S. 1894) from Senator Feinstein (D-CA), and other miscellaneous water matters. It was intended to address the then ongoing multi-year California drought⁶¹ and was part of the biennial Corps of Engineers authorization bill, usually called the Water Resources Development Act. The WIIN was opposed by retiring Senate Environment & Public Works Committee ranking member California Senator Barbara Boxer.⁶² Subtitle J of Title 3 of the WIIN (especially §4007) created a new Reclamation project authorization and funding program⁶³ for federal and non-federal water projects — along with other matters.⁶⁴ Most provisions of Subtitle J sunset five years from the date of enactment. (§4007 storage projects already under construction are not sunsetted.⁶⁵ §4007 storage projects without Secretarial feasibility determinations by December 31, 2020, lose WIIN program status and eligibility.⁶⁶)

The TFD has been proceeding as a WIIN project.⁶⁷ The Administration Bureau of Reclamation budget justification for FY 2020-21 said that Reclamation would “complete Final Feasibility Report and/or Concluding Report for the Upper San Joaquin River Storage Project and submit to the Regional Director.”⁶⁸ However, it did neither. On January 28, 2021, the Congressional Research Service (CRS) reported that three federal projects⁶⁹ in California had been found feasible in a discussion following recognition of the WIIN Secretarial deadline. The CRS did not include the Temperance Flat Dam, also noting that Congress had not approved a funding allocation for TFD since January of 2018.⁷⁰ The apparent lack of a timely Secretarial feasibility determination may have ended the project's status as a WIIN project⁷¹ — as would be the likely failure to not start construction by December 16, 2021.⁷²

DRWSIA – number of bills were introduced in the 117th Congress to modify the WIIN storage program and make it a permanent part of Reclamation law. The lead contender on the Senate side was S. 1932, or the “Drought Resiliency and Water Supply Infrastructure Act” (DRWSIA).⁷³ There, of course, would be no construction-start or Secretarial feasibility-determination deadlines in a permanent Reclamation program, and thus the Temperance Flat dam project could gain eligibility under a revised WIIN-like Reclamation Program. WIIN-extension legislation has been introduced in the 118th Congress by Rep. David Valadao (R-Hanford),⁷⁴ and more introductions are expected.

California Water Commission Water Supply Investment Program (WSIP)

Proposition 1 – The California Water Bond (ultimately Proposition 1, the Water Quality, Supply and Infrastructure Improvement Act of 2014) was created by the California legislature in 2009. San Joaquin Valley legislators, whose votes were needed to pass the measure, insisted on the generous (\$3 billion) storage project state taxpayer funding provision in this version of the Bond. The Great Recession and Governor Jerry Brown's request for a smaller bond caused the legislature to renegotiate the bond in 2010 to reduce its price tag. In the process, the storage provision was trimmed to \$2.7 billion. Because of the economic downturn, the legislature postponed the ballot measure twice, initially to the 2012 election then the 2014 general election.⁷⁵ Governor Brown spent most of his re-election funds in favor campaigning in favor of Propositions 1 & 2,⁷⁶ and both measures easily passed.

SJVWIA – Merced, Madera, Fresno, Kings, and Tulare County governments formed a joint powers authority called the San Joaquin Valley Water Infrastructure Authority (SJVWIA),⁷⁷ holding its first meeting on January 8, 2016.⁷⁸ The SJVWIA's initial mission was “[t]o solicit grants under the competitive process established by the State of California pursuant to the Water Quality, Supply and Infrastructure Improvement Act of 2014 ('Act') or any similar state or federal statutes or programs to fund water infrastructure improvement projects within the jurisdiction of some or all of the member Parties, and to

administer the disbursement and expenditure of said funds on qualified infrastructure projects including but not limited to local surface storage projects, groundwater recharge projects and construction of the Temperance Flat Dam project.”⁷⁹ Among the other actions or work undertaken by the Authority was to (1) enter into an MOU with Reclamation to complete the EIS and feasibility studies,⁸⁰ (2) to develop another project alternative for the federal EIS⁸¹, and presumably for the SJVWIA’s environmental impact report (EIR). (3) support water legislation authored by southern San Joaquin Valley Congressmen,⁸² and (4) send an Authority letter⁸³ and orchestrate a letter from Republican members of the California Congressional delegation to Secretary of the Interior Sally Jewel urging her to prevent the wild & scenic river designation recommended by the Bureau of Land Management for the San Joaquin River Gorge.⁸⁴ The SJVWIA (apparently) still maintains a simple advocacy website.⁸⁵

TFD WSIP funding allocations – The California Water Commission is administering its Proposition 1 Chapter 8 storage project grant responsibilities under its Water Supply Investment Program (WSIP).⁸⁶ In order to be eligible for WSIP funding allocations, applicants have to provide the Commission their latest publically available environmental documentation.⁸⁷ The Authority provided an incomplete publically available administrative draft EIR, which was accepted by the Commission for its purposes. This administrative draft EIR is no longer posted on the Commission’s or the SJVWIA’s or its successor Authority’s⁸⁸ (the Temperance Flat Reservoir Authority – TFRA) websites, the latter perhaps never posting the document.⁸⁹

Under the WSIP, “public benefits” of storage projects are potentially eligible for public funding. The Authority found \$3.057 billion in public benefits and asked for \$1.068.7 billion in funding from the Commission. Commission and California Department of Fish & Wildlife disputed these benefits, particularly the purported Spring Run salmon benefit.⁹⁰ By narrow votes in early May of 2018, the Commission adopted the Dept. of Fish & Wildlife conclusions.⁹¹ It added a reservoir recreation benefit to the calculation⁹² over the objections of the Department of Water Resources, which noted the loss of San Joaquin Gorge recreation, among other concerns.⁹³ In the end, the public benefits assigned to the project were refuge water supply, incidental flood control, emergency delta supply disruption water supply, and reservoir recreation.⁹⁴ The funding allocation was \$171.3 million, an amount constrained by the Bond Act §79756(b) requirement that funding not exceed 50% of the ecosystem benefits awarded to a project.

Political reactions to TFD WSIP allocations – Southern San Joaquin Valley leaders reacted angrily to the Commission decision, which left them with a large funding deficit that caused both despair and a vow to seek federal and private funding to help finance the project.⁹⁵ Some Valley commentators recognized that the bond act was not designed to fund their proposed Temperance Flat dam, which would have a difficult time demonstrating “ecosystem benefits.”⁹⁶ A Fresno Bee opinion columnist opined that the dam was dead and it was time to move on.⁹⁷ Rejecting that, Authority staff wondered if the strings attached to the state money were worth it and that their focus needed to be in rewriting the WIIN to bring more dollars to storage projects.⁹⁸ The Authority expected that their MOU with Reclamation including a locally preferred alternative for the TFD EIS feasibility would shortly result in a Reclamation final feasibility report and EIS for the project.⁹⁹

TFRA – In response, the Friant Authority spearheaded efforts to form the Temperance Flat Reservoir Authority (TFRA), wresting control of the project from the SJVWIA on the basis that the SJVWIA did not well represent the potential public agency financiers of the project.¹⁰⁰ The TFRA became the WSIP applicant for the TFD.¹⁰¹ The Friant Authority’s focus is on reconstructing and expanding the south Valley canal infrastructure to better enable deliveries from the north state and within the San Joaquin Valley. Temperance Flat dam would be operated in coordinated operations with other east- and west-side reservoirs and canals in an attempt to increase water deliveries to the south Valley.¹⁰² This is often called the “San Joaquin Valley Water Blueprint.”¹⁰³ The Authority and elected representatives worked with President Trump to sign executive orders to streamline water projects for south Valley farmers,¹⁰⁴ culminating in a flashy visit by the President to Bakersfield in February 2020.¹⁰⁵

In June 2020, news broke that the TFRA had failed to find enough private/public investor partners to help finance the project¹⁰⁶ and had quietly asked Reclamation to place the TFD in deferral status.¹⁰⁷ The TFRA

made a presentation to the California Water Commission that it would not likely meet the Commission's statutory and regulatory deadlines for funding.¹⁰⁸ On October 30, 2020, the Authority adopted a resolution withdrawing its request for WSIP funding.¹⁰⁹ The Water Commission website now notes that "[t]he Temperance Flat Reservoir Project withdrew from the WSIP in October 2020."¹¹⁰

For current fact sheets and more resources see: <http://www.friendsoftheriver.org/our-work/rivers-under-threat/sacramento-threat/>. For more information, contact Ronald Stork, Friends of the River, 1418 20th Street ~ Suite 100, Sacramento, CA 95814, phone: (916) 442-3155 Ext. 220, rstork@friendsoftheriver.org; or Steven L. Evans, Wild Rivers consultant, sevans@CalWild.org.

Some Sources:

Upper San Joaquin River Basin Storage Investigation Draft Environmental Impact Statement, August 2014, U.S. Department of the Interior, Bureau of Reclamation, Mid-Pacific Region. Upper San Joaquin River Basin Storage Investigation Draft Feasibility Report, January 2014, U.S. Department of the Interior, Bureau of Reclamation, Mid-Pacific Region.

http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=821

http://www.usbr.gov/mp/sccao/storage/docs/Draft_Feasibility_Report_2014/USJRBSI_Draft_FR_2014_Full_Report.pdf.

New Temperance Flat Feasibility Study Claims Salmon Benefits and Delta Earthquake Risk Reduction Justify the New Dam and a Big Taxpayer Subsidy, March 4, 2014, Valley Economy blog by Jeff Michaels, Director of the Business Forecasting Center and Associate Professor, Erberhardt School of Business, University of the Pacific. <http://www.friendsoftheriver.org/our-work/rivers-under-threat/san-joaquin-threat/> "Brief Economics Review by Dr. Jeff Michaels, University of the Pacific."

Bakersfield Field Office Proposed Resource Management Plan & Final Environmental Impact Statement, Volume 1, August 2012, Department of the Interior, Bureau of Land Management. Record of Decision and Approved Resource Management Plan, Dec. 2014

<http://www.friendsoftheriver.org/our-work/rivers-under-threat/san-joaquin-threat/> "San Joaquin River Gorge – Wild & Scenic (W&S) recommendation documents

NRDC et al., FOR et al., California Department of Fish & Wildlife, Trout Unlimited, CSPA, American Rivers, U.S. EPA, American Whitewater, U.S. NOAA NMFS comments on TFD draft EIS, October 2104. <http://www.friendsoftheriver.org/our-work/rivers-under-threat/san-joaquin-threat/> "Comments by FOR & Other Environmental groups on the Draft Environmental Impacts Study(DEIS)"

¹ Upper San Joaquin River Basin Storage Investigation [USJRBSI], Draft Feasibility Report, U.S. Department of the Interior, U.S. Bureau of Reclamation, Mid-Pacific Region, January 14, 2014, p. 1-1. (USJRBSI Draft Feasibility Report)

² The federal authorities are described in the USJRBSI Draft Feasibility Report, pp. 1-3, 1-4. The state was also involved: "The Upper San Joaquin River Basin Storage Investigation (Investigation) is a joint feasibility study by the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), in cooperation with the California Department of Water Resources (DWR)." USJRBSI Draft Feasibility Report p. 1-1. The state's participation was under the authority of §227 of the California Water Code. USJRBSI Draft Feasibility Report p. 1-4.

³ The USJRBSI Draft Feasibility Report is available on Friends of the River's website: https://www.friendsoftheriver.org/wp-content/uploads/2021/01/USJRBSI_Draft_FR_2014_Full_Report.pdf and Reclamation's website:

http://www.usbr.gov/mp/sccao/storage/docs/Draft_Feasibility_Report_2014/USJRBSI_Draft_FR_2014_Full_Report.pdf

⁴ USJRBSI Draft Environmental Impact Statement [DEIS], U.S. Department of the Interior, U.S. Bureau of Reclamation, Mid-Pacific Region, August 2014. (USJRBSI DEIS)

⁵ USJRBSI Draft Feasibility Report, p. 1-21.

⁶ USJRBSI Draft Feasibility Report, p. ES-3, figure ES-1.

⁷ For a brief introduction to four action (dam) alternatives, see USJRBSI Draft Feasibility Report, pp. ES-12–14. For a brief introduction to the subsequent five action alternatives, see USJRBSI DEIS, pp. ES-23–25. The Report and the DEIS also displayed a no-action (no-dam) alternative.

⁸ USJRBSI DEIS, p. ES-23–25.

⁹ USJRBSI DEIS, p. 2-105. Interestingly, Reclamation commits on this page reference to selecting a preferred alternative in the Final EIS. "Consistent with CEQ Regulations, 40 CFR Part 46.425, a preferred alternative (or alternatives, if there is more than one) will be identified in the Final EIS." See also USJRBSI DEIS p. ES-33. However, the value of a preferred alternative seems to have been devalued recently. Reclamation chose a preferred alternative in a similar situation in Reclamation's Shasta Lake Water Resources Investigation (SLWRI) Final EIS examining a Shasta Dam raise. However, it found itself unable to recommend an alternative. "In light of the outstanding considerations articulated below, the Secretary is unable to provide a recommendation for implementation of the SLWRI NED Plan until these considerations are addressed. Although there is no recommendation at this time for Congressional action, all of the alternatives analyzed are feasible from an engineering standpoint. Based on the economic analysis of the alternatives, alternative CP4A has the highest net NED benefits." Final Shasta Lake Water Resources Investigation, Feasibility Report, USBR, July 2105, p. 9-1.

¹⁰ USJRBSI Draft Feasibility Report, pp. 6-34–36.

¹¹ USJRBSI Draft Feasibility Report, pp. 6-27–33.

¹² At 665 feet, the TFD would be the 5th tallest dam in the United States and the 2nd highest dam in California.

https://en.wikipedia.org/wiki/List_of_the_tallest_dams_in_United_States.

¹³ USJRBSI DEIS, p. ES-17–18.

¹⁴ USJRBSI DEIS, p. 2-95–96.

¹⁵ USJSBSI DEIS, p. 6-34.

¹⁶ “Constructing Temperance Flat RM 274 Dam and Reservoir would create a storage capacity of 1,331 TAF, reduce the storage capacity of Millerton Lake by about 75 TAF, and create additional net storage capacity of about 1,260 TAF.” (USJRBSI Draft Feasibility Report, p. 3-38.)

¹⁷ USJRBSI DEIS, p. 2-92, table 2-9.

¹⁸ USJRBSI Draft Feasibility Report, pp. ES-21–22.

¹⁹ The CVP “[m]anages some 9 million acre-feet of water” and [a]nnually delivers about 7 million acre-feet of water for agricultural, urban, and wildlife use.” About the Central Valley Project. USBR MidPacific Region website, accessed 12/7/2015 <http://www.usbr.gov/mp/cvp/about-cvp.html>.

²⁰ The U.S.G.S. estimated California water use in 2010 at 42,600,000 acre feet. Maupin, M.A., Kenny, J.F., Hutson, S.S., Lovelace, J.K., Barber, N.L., and Linsey, K.S., 2014, Estimated use of water in the United States in 2010: U.S. Geological Survey Circular 1405, p. 9. <http://dx.doi.org/10.3133/cir1405>.

²¹ For a description of the law of diminishing returns for major water supplies, see: “Peak water limits to freshwater withdrawal and use,” Peter H. Gleick and Meena Palaniappan, Pacific Institute, 654 13th Street, Oakland, CA 94612. http://www.pacinst.org/wp-content/uploads/2013/02/peak_water_pnas2.pdf. Discussion around Figure 3 is particularly relevant.

²² USJRBSI Feasibility Report, p. 2-11. For a more literary description, here is what Gene Rose, the retired longtime Fresno Bee reporter said in his book on the San Joaquin River. “As it is now ‘plumbed,’ — that is, manipulated — the river’s natural hydrology has been destroyed. Today the San Joaquin flows as one of the nations’ most controlled rivers, moving more in man-made canals, tunnels and penstocks than it does in its own natural channel...In the 41 mile stretch downstream of Gravelly Ford, the river doesn’t flow at all...” San Joaquin, A River Betrayed, by Gene Rose, Linrose Publishing Co. Fresno, California, 1992, p. vi.

²³ The San Joaquin River is fully appropriated during the entire year. State Water Resources Control Board, Water Rights Order, 98 - 08, p. 11. Available at: http://www.swrcb.ca.gov/waterrights/water_issues/programs/fully_appropriated_streams.

²⁴ California Water Code §1205 (b) A declaration that a stream system is fully appropriated shall contain a finding that the supply of water in the stream system is being fully applied to beneficial uses where the board finds that previous water rights decisions have determined that no water remains available for appropriation.

²⁵ California Water Code, §1206(a) “From and after the date of adoption of a declaration that a stream system is fully appropriated, and subject to subdivision (b) [not applicable here], the board shall not accept for filing any application for a permit to appropriate water from the stream system described in that declaration, and the board may cancel any application pending on that date.” Reclamation’s discussion of water rights in the Draft Feasibility Report (USJRBSI Draft Feasibility Report, January 2014, pp. 6-34, 6-35) is in error since they assumed that water rights associated with their Friant Dam project would be available for use by the Temperance Flat Dam. State Water Resources Control Board staff subsequently informed Reclamation that the new dam would require its own water rights and discussed the procedures for seeking a revision of the status of the fully appropriated San Joaquin River required before seeking a new junior water right for TFD. (Letter from Katherine Mrowka, Inland Streams Unit, Division of Water Rights, State Water Resources Control Board, to Robert Colella, KDM:A005638, August 7, 2014)

<http://www.friendsoftheriver.org/wp-content/uploads/2016/01/SWRCB-8-7-14-ltr-on-TFD-water-rights-Adobe-OCR.pdf>.

²⁶ California Water Code, §1205(c) “Upon its own motion or upon petition of any interested person, and following notice and hearing, the board may revoke or revise a declaration that a stream system is fully appropriated.”

²⁷ Grantham, T.E. and Viers, J.H., 100 years of California’s Water Rights System: Patterns, Trends and Uncertainty, Environ. Res. Lett. 9 (August 19 2014) at p. 5, available at: https://watershed.ucdavis.edu/files/biblio/WaterRights_UCDavis_study.pdf.

²⁸ USJRBSI Draft Feasibility Report, pp. 6 34–36.

²⁹ USJRBSI, DEIS, pp. ES-15, ES-18, table ES-3.

³⁰ USJRBSI Draft Feasibility Report, p. 6-33–34.

³¹ As of 2011, the unpaid reimbursable cost for irrigation and municipal and industrial purposes was \$1.3 billion. Central Valley Project, California: Repayment Status And Payoff, Office of the Inspector General, U.S. Department of the Interior, Report No.: WR-EV-BOR-0003-2012, March 2013, p. 2. Since 2011, the Water Infrastructure Improvements for the Nation Act of 2016 has permitted and encouraged advanced payments on the capital debt of the CVP, and all CVP contractors have elected to make these payments. Such payments would result in permanent contracts, no acreage restrictions, and the funds would be sequestered into a Reclamation account to be used to construct additional storage. These contract conversions have been challenged in court, so the present status of the unpaid reimbursable capital debt on the CVP may remain uncertain for a while.

³² Project mitigation costs are not fully known, in part, because they have not been fully identified. “Details about offsite opportunities to mitigate impacts on biological resources in the primary study area are not yet available.” USJRBSI Draft Feasibility Report, p. 6-34. In addition, undisclosed impacts in the secondary study area (downstream San Joaquin River) were a major focus of the comments of the National Marine Fishery Service, California Department of Fish & Wildlife, U.S. EPA, and NRDC et al. to the SJRBSI DEIS.

³³ USJRBSI Draft Feasibility Report, pp.6-34–36.

³⁴ The \$2.8 estimate was made by the San Joaquin Valley Water Infrastructure Authority to the CA Water Commission and was sourced at https://cwc.ca.gov/Documents/2016/WSIP/SJVWIA_TemperanceFlat.pdf. However, the application for California Water Commission Water Supply Investment Program funding was withdrawn by the successor Authority (the Temperance Flat Reservoir Authority) in November 2020. This CA Water Commission reference is no longer available.

³⁵ The \$3.2 billion estimate was made by the Temperance Flat Reservoir Authority in a presentation to the CA Water Commission. https://www.friendsoftheriver.org/wp-content/uploads/2020/10/October2020_Item_8_Attach_1_PowerPoint.pdf.

³⁶ USJRBSI DEIS, p. 2-96, table 2-11.

³⁷ USJRBSI DEIS, pp. 2-2, 2-32, 2-92–93. Note that water available to the Metropolitan Water District of Southern California (MWD) in south-of-delta MWD and SWP surface reservoirs, the Kern Water Bank, and local groundwater aquifers dwarf reserved storage in TFD.

³⁸ USJRBSI DEIS, pp. ES-23–25, including table ES-1. For more precision see: USJRBSI DEIS p. 2-96, table 2-11.

³⁹ USJRBSI Draft Feasibility Report, pp. 6-35–36. This matter has come up before: “[s]ignificant concerns have been raised by existing CVP water service and repayment contractors regarding water-supply benefits from the proposed project being made available to California SWP contractors outside the existing service area of the CVP. In part, their concern emanates from a desire to have water supply developed under any of the alternatives meet existing demands of Federal contractors within the existing CVP service area before being utilized to meet water supply needs of public water agencies that do not currently contract for delivery of CVP water.” (Final Shasta Lake Water Resources Investigation, Feasibility Report, USBR, July 2105, p. 9-1)

⁴⁰ “During the meeting, Reclamation informed the Division that the Department of Water Resources (DWR) will be the California Environmental Quality Act (CEQA) lead agency. Reclamation anticipates that a National Environmental Policy Act document will be circulated in September, 2014. The CEQA document will be circulated at a later date by DWR.” (Letter from Katherine Mrowka, Inland Streams Unit, Division of Water Rights, State Water Resources Control Board, to Robert Colella, KDM:A005638, August 7, 2014) <http://www.friendsoftheriver.org/wp-content/uploads/2016/01/SWRCB-8-7-14-ltr-on-TFD-water-rights-Adobe-OCR.pdf>. “Resources & Documents Comments by Government Agencies (state & federal) on Temperance Flat Dam (TFD).”

⁴¹ USJRBSI Draft Feasibility Report, p. 6-14, table 6-2 and p. 6-19, table 6-4 for preliminary cost allocation information for the “representative” or tentative NED plan. See p. 6-20, table 6-4 for the preliminary cost allocations for the “representative” plan.

⁴² See comments of the National Marine Fisheries Service, California Department of Fish & Wildlife, and the U.S. Environmental Protection Agency at: <http://www.friendsoftheriver.org/our-work/rivers-under-threat/san-joaquin-threat/> “Resources & Documents Comments by Government Agencies (state & federal) on Temperance Flat Dam (TFD).” See especially the succinct comments of the Department of Fish and Wildlife at page 3, which in part follow: “The Department has significant concerns with the Project-related impacts to the San Joaquin River below Friant Dam. The DEIS implies that the Project would be beneficial to restoring the San Joaquin River below Friant Dam, and to the ecosystems in the lower San Joaquin River and Delta, mainly due to the conclusion that increased storage will benefit water temperatures. However, while temperature benefits would likely be realized during drier years, the DEIS fails to adequately consider the ecosystem benefits that flood releases currently provide to the aquatic and riparian communities downstream of Friant Dam and the potentially detrimental effects to those ecosystems by eliminating flood flows from the hydrograph.

“There may be some benefit to water temperatures from the Project, but overall it would mean less water and altered timing of releases for the San Joaquin River and the Delta. Temperature benefits for reintroduced Chinook salmon would be spatially limited to Friant Dam and Reach 1 of the San Joaquin River below Friant, and temporally limited to late summer and fall, benefitting spawning and egg incubation, but providing no benefit to or harming other life stages of salmon. Downstream reaches of the San Joaquin River, the lower San Joaquin River, and the Delta would see no temperature benefit and a loss of habitat due to reduced flows.”

⁴³ See comments of NRDC et al., Friends of the River et al., CSPA, American Whitewater, Trout Unlimited, American Rivers and others at: <http://www.friendsoftheriver.org/our-work/rivers-under-threat/san-joaquin-threat/> “Comments by FOR & Other Environmental groups on the Draft Environmental Impact Study(DEIS)”

⁴⁴ “The Friant Division contractors would be affected by the increase in cost to deliver stored Temperance Flat Reservoir water that would have otherwise been released as \$10 water, but with Temperance Flat Reservoir could receive a greater volume of water supply and greater water supply reliability. In addition, the Friant Division contractors would be affected if the volume of water made available from Temperance Flat Reservoir is not made available to them and is stored for other CVP contractors. (USJRBSI Draft Feasibility Report p. 3-47) For an analysis, see NRDC et al. Comments on the USJRBSI DEIS, p. 31 and Friends of the River et. al. Comments on the USJRBSI DEIS at pp. 6–7, 9–11 at: <http://www.friendsoftheriver.org/our-work/rivers-under-threat/san-joaquin-threat/> “Comments by FOR & Other Environmental groups on the Draft Environmental Impact Study(DEIS).”

⁴⁵ “Brief Economics Review by Dr. Jeff Michaels, University of the Pacific.” http://www.friendsoftheriver.org/wp-content/uploads/2016/01/TFD_Econ_Media_Release_4-21-2014.pdf. http://www.friendsoftheriver.org/wp-content/uploads/2016/01/TFD_Econ_Analysis_Final.pdf.

⁴⁶ USJRBSI Draft DEIS, pp. ES-37 FSH-1, ES-40 FSH-9, ES-40 FSH-11, table ES-3; pp. 5-68–69, 5-87–89, 5-94–97.

⁴⁷ USJRBSI DEIS, p. ES-48 Bot-2, table ES-3; pp. 6-60–78.

⁴⁸ USJRBSI DEIS, pp. 6-73–78.

⁴⁹ USJRBSI DEIS, pp. ES-53 Wld-3, ES-56 Wld-10, table ES-3; pp. 7-71–74.

⁵⁰ USJRBSI DEIS, pp. ES-61–62 Cul-1–5, table ES-3; pp. 9-23–32,

⁵¹ USJRBSI DEIS, pp. ES-90–91 Rec-1–4, table ES-3; pp. 22-42–73. In addition to the land-based recreation in the San Joaquin River Gorge, the river is also used: “For our members and other whitewater enthusiasts, the San Joaquin River between Kerckhoff Dam and Millerton Reservoir is a place to experience this area while enjoying Class III to V whitewater. Our members run the “Patterson Bend” and “Millerton Lake Bottom” runs, both of which would be inundated if the Temperance Flat Dam were constructed.” Comments of American Whitewater to the USJRBSI DEIS, p. 1. <http://www.friendsoftheriver.org/wp-content/uploads/2016/05/AW-20141027-AW-TFD-DEIS-cmts-.pdf>.”

⁵² USJRBSI DEIS, pp. ES-101–102 Vis-1–3, table ES-3; pp. 26-25–38.

⁵³ For a visual representation of the land ownership of the 5,700 (surface) acres (USJRBSI DEIS p. 22-42) that would be inundated by the Temperance Flat Dam if built, see USJRBSI DEIS, p. 17-6, figure 17-2.

⁵⁴ USJRBSI DEIS, pp. 7-9-14, table 7-1.

⁵⁵ USJRBSI DEIS, p. 22-44, table 22-15.

⁵⁶ USJRBSI DEIS, p. 22-18. <http://www.goodearthgraphics.com/Millerton/>. <https://www.kvpr.org/post/outdoorsy-4-exploring-underground-world-caves#stream/0>.

⁵⁷ <http://www.friendsoftheriver.org/our-work/rivers-under-threat/san-joaquin-threat/> “San Joaquin River Gorge – Wild & Scenic (W&S) recommendation documents”

⁵⁸ See USJRBSI DEIS, chapter 20 for a detailed discussion of lost hydropower associated with Temperance Flat Dam. For alternative 4 (the potential NED project): “Alternative Plan 4 would inundate the Kerckhoff Hydroelectric Project powerhouses and eliminate energy generation at these facilities. Under Alternative Plan 4, onsite hydropower energy generation at Temperance Flat RM 274 Reservoir would replace 91 percent of Kerckhoff Hydroelectric Project generation compared to Existing Conditions and the No Action Alternative. Ancillary services would increase 31 percent and 43 percent compared to Existing Conditions and the No Action Alternative, respectively. Alternative Plan 4 has higher carryover storage in Temperance Flat RM 274 Reservoir than other action alternative and can replace more lost energy and ancillary services value, although not to the level of the Kerckhoff Hydroelectric Project.

“Energy generation impacts would be significant under Alternative Plan 4. No feasible avoidance or minimization measures are available to reduce this impact below the level of significance. Mitigation for this impact is not proposed because no feasible mitigation is available to reduce the impact to a less-than-significant level. Although not considered mitigation for this impact, PG&E’s net lost power generation value after development of new on-site hydropower facilities would be compensated, as described in Chapter 2, ‘Alternatives.’ ” (USJRBSI DEIS 20-29.)

PG&E stopped operating the last two units of the Kerckhoff K 1 Powerhouse in 2018. It is proposing to retire the K 1 Powerhouse. “PG&E Kerckhoff Hydroelectric Project, FERC Project No. 96, Final License Application,” Exhibit A pp. A-7, A-14, A-17-19, November 2020. https://www.pge.com/pge_global/common/pdfs/safety/electrical-safety/safety-initiatives/kerckhoff-relicensing/Kerckhoff-Final-License-Application.pdf. Reclamation has not published an energy and energy services analysis of project impacts on the project with Kerckhoff K 1 no longer being operational.

⁵⁹ USJRBSI Draft Feasibility Report, p. 6-27-33.

⁶⁰ USJRBSI Draft Feasibility Report, p. 6-34-36.

⁶¹ https://en.wikipedia.org/wiki/2011%E2%80%932017_California_drought

⁶² <https://mavensnotebook.com/2016/12/05/this-just-in-costa-applauds-wrda-bill-huffman-slams-the-effort-boxer-blasts-the-gop-push-and-nrdc-says-safe-drinking-water-for-flint-shouldnt-be-at-expense-of-ca-jobs-or-environment/>.

<https://www.mercurynews.com/2016/12/09/boxer-filibustering-to-block-water-bill-she-says-threatens-delta/>.

<https://www.latimes.com/politics/la-pol-ca-barbara-boxer-anita-hill-supreme-court-20160314-htlstory.html>.

⁶³ WIIN §4011 created a “Water Storage Account” that could be accessed by the Secretary of the Interior (subject to certain conditions) to be funded by advance payments to pay off water service contractor obligations required to pay off CVP capital debt. Reclamation keeps a list of contractor negotiations to do this. <https://www.usbr.gov/mp/wiin-act/index.html>. To the best of our knowledge, all CVP water service contractors do this. Such contractors become water repayment contractors (paying for CVP O&M), gaining permanent contracts and freedom from acreage restrictions — with these repayments used to subsidize additional water supply infrastructure.

⁶⁴ The WIIN can be found here: <https://www.friendsoftheriver.org/wp-content/uploads/2020/12/PLAW-114publ322.pdf>.

⁶⁵ WIIN §4013.

⁶⁶ WIIN §4007(i).

⁶⁷ Report to the House and Senate Committees on Appropriations, Summary Distribution of Fiscal Year 2017 Funding for Water Conservation and Delivery-Pub. L. 114-322 (Section 4007), Water and Related Resources, Bureau of Reclamation and Discussion of Criteria and Recommendations, pp 5, 6. <https://www.friendsoftheriver.org/wp-content/uploads/2018/03/Adm-rprt-on-2018-CA-reservoir-enlargement-approps-request-ocr.pdf>.

⁶⁸ <https://www.friendsoftheriver.org/wp-content/uploads/2021/02/fy2021-bor-budget-justification-TFD.pdf>.

⁶⁹ The CRS report found that these three CA federal WIIN projects had been found feasible: the Friant-Kern Canal Subsidence Challenges Project, the B.F. Sisk Dam Raise and Reservoir Expansion Project, and the Shasta Dam and Reservoir Enlargement Project. https://www.friendsoftheriver.org/wp-content/uploads/2021/02/crs_infocus_reclamation_section4007_28jan20217.pdf.

⁷⁰ https://www.friendsoftheriver.org/wp-content/uploads/2021/02/crs_infocus_reclamation_section4007_28jan20217.pdf

⁷¹ WIIN §4007(b)(3)(A) requires a Secretarial feasibility determination. §4007(i) requires the Secretarial feasibility determination before January 1, 2021.

⁷² The general WIIN sunset clause (WIIN §4013) applies to projects under construction within five years of the date of enactment (December 16, 2016)

⁷³ <https://www.friendsoftheriver.org/wp-content/uploads/2021/02/WSIP-RegulationsSubmitted.pdf>.

⁷⁴ <https://www.friendsoftheriver.org/wp-content/uploads/2021/02/2021-2-03-Valadao-introduces-WIIN-extension-Kingsburg-Recorder.pdf>.

⁷⁵ [https://ballotpedia.org/California_Proposition_1,_Water_Bond_\(2014\)](https://ballotpedia.org/California_Proposition_1,_Water_Bond_(2014)).

⁷⁶ <https://www.washingtonpost.com/blogs/govbeat/wp/2014/10/24/jerry-brown-is-spending-more-on-ballot-measures-than-on-his-own-campaign/>.

[https://ballotpedia.org/The Tuesday Count: Brown spending more on CA%E2%80%99s Props 1 and 2 than on his own reelection](https://ballotpedia.org/The_Tuesday_Count:_Brown_spending_more_on_CA%E2%80%99s_Props_1_and_2_than_on_his_own_relection).

⁷⁷ <https://www.friendsoftheriver.org/wp-content/uploads/2020/07/Valley-Counties-push-for-TFD-KFSN-TV-Fresno-7-14-2015.pdf>.
<https://www.friendsoftheriver.org/wp-content/uploads/2020/07/Temperance-Flat-Idea-Gets-Tulare-County-Fresno-Bee-7-21-2015.pdf>.

⁷⁸ <https://tularecounty.ca.gov/board/index.cfm/committees-commissions/san-joaquin-valley-water-infrastructure-authority/february-5-2016-meeting/january-8-2016-minutes/>.

⁷⁹ <https://tularecounty.ca.gov/board/index.cfm/committees-commissions/san-joaquin-valley-water-infrastructure-authority/february-5-2016-meeting/8-b-san-joaquin-valley-water-infrastructure-authority-status-nbsp/>.

⁸⁰ “The Parties will participate cooperatively as both cost-share and study partners to complete feasibility, environmental, and funding agreement activities effectively and efficiently, with intent to manage and perform joint and/or separate activities; preparation of information required for a Water Storage Infrastructure Project Report for State funding; monitor and account for actions; produce documents for reviews, revisions, and appropriate distribution to support respective decision making, approvals, and related actions. The Parties commit to sharing all required documents (e.g., technical memoranda, draft and final reports, supporting materials, summaries of expenditures and expenses), work products, and work efforts. Each Party is responsible for ensuring that their respective Federal, State, and local technical and legal requirements are met, as well as all pertinent authorities, directives, standards, principles and guidelines, procedures, law, and policy.” <https://tularecounty.ca.gov/board/index.cfm/committees-commissions/san-joaquin-valley-water-infrastructure-authority/june-10-2016-meeting/4-a-iii-mou-upper-san-joaquin-river-basin/>.

⁸¹ The Administration FY 2019 budget justification was a good summary of Reclamation’s recent TFD justifications and project status before the deferral:

Project Description: Reclamation is amending and completing the Final Feasibility Study in cooperation with the San Joaquin Valley Water Infrastructure Authority (SJVWIA) for the Upper San Joaquin River Basin Storage Investigation. The purpose of the study is to determine the type and extent of Federal interest in a multiple purpose project to provide additional storage in the upper San Joaquin River watershed. The primary planning objectives are to improve water supply reliability and enhance water temperature and flow conditions in the San Joaquin River downstream from Friant Dam, which will be beneficial for salmon and other fish. Secondary objectives include flood damage reduction, water quality, recreation, and hydropower.

Current Status: The FFR and EIS were reviewed by the Secretary of the Interior's Office in January 2017. Subsequently, the SJVWIA decided to request that a new operational alternative be added to the FR. The Amended Final Feasibility Report and EIS will be re-submitted to the Secretary in August 2018, for review. The current funding level will meet the needs to respond to questions on the Final FR/EIS and coordinate with Reclamation's cost-sharing partners as described below.

Proposed Actions for FY 2019: Consistent with the Secretary of the Interior's direction to seek cost- share partners for the storage projects prior to authorization, Reclamation has signed a cost-sharing agreement with the SJVWIA. Reclamation is working with the cost-share partner on operational refinements to meet local needs and completion of an Amended Final FR and EIS. Funding will be used to address questions and followup on the Amended Final Feasibility Report and EIS.

<https://www.friendsoftheriver.org/wp-content/uploads/2021/02/bay-delta-fy2019-Storage-TFD.pdf>.

⁸² <https://tularecounty.ca.gov/board/index.cfm/committees-commissions/san-joaquin-valley-water-infrastructure-authority/may-13-2016-meeting/5-a-h-r-2898-support-letter-congreeman-valadao>.<https://www.congress.gov/bill/114th-congress/house-bill/2898>.

⁸³ <https://tularecounty.ca.gov/board/index.cfm/committees-commissions/san-joaquin-valley-water-infrastructure-authority/june-10-2016-meeting/4-a-iii-2-letter-to-interior-secretary/>

⁸⁴ <https://tularecounty.ca.gov/board/index.cfm/committees-commissions/san-joaquin-valley-water-infrastructure-authority/july-8-2016-meeting/letter-to-dept-of-interior-wild-and-scenic-river/>.

⁸⁵ <https://www.buildtemperanceflat.com/>

⁸⁶ <https://cwc.ca.gov/Water-Storage>.

⁸⁷ WSIP Regulations §6003(a)(1)(S). <https://www.friendsoftheriver.org/wp-content/uploads/2021/02/WSIP-RegulationsSubmitted.pdf>.

⁸⁸ The SJVWIA website for Authority agendas, minutes, and Board materials is hosted on the Tulare County website.

<https://tularecounty.ca.gov/board/index.cfm/committees-commissions/san-joaquin-valley-water-infrastructure-authority/>.

⁸⁹ The Friant Authority hosts the Temperance Flat Reservoir Authority website, which appears to be mostly unconstructed or not publically particularly accessible.

⁹⁰ https://www.friendsoftheriver.org/wp-content/uploads/2021/02/TemperanceFlat_PBRPackage.pdf.

⁹¹ <https://www.friendsoftheriver.org/wp-content/uploads/2018/07/Dam-backers-angry-GV-Wire-May-10-2018.pdf>.

⁹² <http://www.friendsoftheriver.org/wp-content/uploads/2018/05/CWC-will-not-significantly-fund-TFD-ABC-30-5-3-2018.pdf>.

⁹³ https://www.friendsoftheriver.org/wp-content/uploads/2021/02/TemperanceFlat_PBRPackage.pdf.

⁹⁴ <https://www.friendsoftheriver.org/wp-content/uploads/2018/07/Dam-backers-angry-GV-Wire-May-10-2018.pdf>.

⁹⁵ <http://www.friendsoftheriver.org/wp-content/uploads/2018/05/TFD-funding-denied-all-hope-dries-up-CA-Ag-News-5-3-2018.pdf>.

<http://www.friendsoftheriver.org/wp-content/uploads/2018/05/TFD-far-from-state-funding-Fresno-Bee-May-3-2018.pdf>.

<https://www.friendsoftheriver.org/wp-content/uploads/2018/07/TFD-Blocked-GV-Wire-5-4-2018.pdf>.

<http://www.friendsoftheriver.org/wp-content/uploads/2018/05/Valley-leaders-vow-Fresno-Bee-May-4-2018.pdf>.

<http://www.friendsoftheriver.org/wp-content/uploads/2018/05/The-high-hurdles-to-CA-water-storage-Western-Farm-Press-5-21-2018.pdf>.

<https://www.friendsoftheriver.org/wp-content/uploads/2018/07/TFD-gets-millions-just-needs-2.6-billion-Fresno-Bee-July-25-2018.pdf>. <https://www.friendsoftheriver.org/wp-content/uploads/2018/08/Worthley-spearheads-TFD-Sun-Gazette-Aug-1-2018.pdf>.

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- ⁹⁶ <https://www.friendsoftheriver.org/wp-content/uploads/2021/02/TFD-was-never-going-to-happen-Families-newsletter-5-5-2018.pdf>.
- ⁹⁷ <http://www.friendsoftheriver.org/wp-content/uploads/2018/05/TFD-is-dead-Fresno-Bee-May-10-2018.pdf>.
- ⁹⁸ <https://www.friendsoftheriver.org/wp-content/uploads/2018/07/Dam-backers-may-turn-down-funding-GV-Wire-7-25-2018.pdf>.
- ⁹⁹ Minutes of the June 10, 2016 meeting, pp 2, 3, & 7. <https://tularecounty.ca.gov/board/index.cfm/committees-commissions/san-joaquin-valley-water-infrastructure-authority/june-8-2018-meeting/june-8-2018-minutes/>
- ¹⁰⁰ https://www.friendsoftheriver.org/wp-content/uploads/2020/10/October2020_Item_8_Attach_1_PowerPoint.pdf.
<https://californiaagtoday.com/optimism-alive-temperance-flat-dam/>.
- ¹⁰¹ <https://cwc.ca.gov/Water-Storage/WSIP-Project-Review-Portal/All-Projects/Temperance-Flat-Reservoir-Project>.
- ¹⁰² <https://www.friendsoftheriver.org/wp-content/uploads/2021/02/MBK-Sustainability-Blueprint-for-Friant-022819.pdf>.
- ¹⁰³ “Water Blueprint for the San Joaquin Valley.” <https://www.waterblueprintca.com/>. <https://waterwrights.net/2020/01/26/san-joaquin-valley-water-blueprint-january-27-2020/>.
- ¹⁰⁴ <https://www.friendsoftheriver.org/wp-content/uploads/2020/07/Momentum-builds-for-storage-Bakersfield-Californian-3-9-2019.pdf>. <https://www.friendsoftheriver.org/wp-content/uploads/2021/02/Trumps-cold-water-war-turns-hot-Legal-Planet-April-9-2019.pdf>.
- ¹⁰⁵ ...<https://www.friendsoftheriver.org/wp-content/uploads/2020/02/Trump-signs-declaration-for-water-for-farmers-Bakersfield-Californian-Feb-19-2019.pdf>. <https://www.friendsoftheriver.org/wp-content/uploads/2020/03/Trump-vows-more-water-LA-Times-Feb-19-2020.pdf>. <https://www.friendsoftheriver.org/wp-content/uploads/2020/02/Trump-brings-more-water-to-Central-Valley-farms-SF-Chron-2-20-2018.pdf>. <https://www.friendsoftheriver.org/wp-content/uploads/2020/02/Trump-delivers-not-so-says-Newsom-Fresno-Bee-Nov-19-2020.pdf>. <https://www.friendsoftheriver.org/wp-content/uploads/2020/02/Trump-delivers-not-so-says-Newsom-Fresno-Bee-Nov-19-2020.pdf>. <https://www.friendsoftheriver.org/wp-content/uploads/2020/02/What-did-Trump-sign-The-Sun-Feb-20-2020.pdf>.
- ¹⁰⁶ For the feasibility/financing analysis presented to the TFRA, see <https://www.friendsoftheriver.org/wp-content/uploads/2020/07/Stantec-TFD-evaluation-March-2020.pdf>.
- ¹⁰⁷ <https://www.friendsoftheriver.org/wp-content/uploads/2020/07/Temperance-Flat-Dam-on-indefinite-hold-SJV-Water-June-30-2020.pdf>.
- ¹⁰⁸ https://www.friendsoftheriver.org/wp-content/uploads/2020/10/October2020_Item_8_Attach_1_PowerPoint.pdf.
- ¹⁰⁹ https://www.friendsoftheriver.org/wp-content/uploads/2021/02/November2020_Item_9_Attach_2_TFRAResolution.pdf.
- ¹¹⁰ <https://cwc.ca.gov/Water-Storage/WSIP-Project-Review-Portal/All-Projects/Temperance-Flat-Reservoir-Project>.