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**VIA HAND DELIVERY**

July 27, 2018

Chair Felicia Marcus and Board Members  
State Water Resources Control Board  
1001 I Street, 24th Floor  
Sacramento CA 95814-00100

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24th Floor  
Sacramento CA 95814-00100

Re: Comment Letter – Revisions to Proposed Bay-Delta Plan Amendments

Dear Chair Marcus and Board Members:

Modesto Irrigation District (“MID”) appreciates the opportunity to comment on the July 6, 2018 revisions (“2018 revisions”) to the Proposed Final Amendments to the Water Quality Control Plan (“WQCP”) for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (proposed final amendments referred to hereinafter as “Plan Amendments” or “Project”) released with the associated Proposed Final Substitute Environmental Document Including Responses to Comments (“SED”) on July 6, 2018.

In a March 17, 2017 comment letter, MID identified numerous fundamental flaws in the 2016 Draft Plan Amendments and associated Substitute Environmental Document.<sup>1</sup> Regrettably, the 2018 revisions do *nothing* to address *any one* of the myriad of legal deficiencies MID pointed out in the prior draft documents; in fact, they only magnify or create new defects in the Project and underlying SED. MID therefore continues its previous objections to the Project and the SED, and in this letter specifically objects to the 2018 revisions on the grounds that they are inaccurate, are not discussed or adequately analyzed in the SED, and/or they constitute significant new information that requires recirculation of the Plan Amendments and SED.

When the State Water Board released the July 2018 revisions and SED, it gave the public only 21 days to review and comment on substantial changes made to the 2016 Draft Plan Amendments and SED. In an attempt to bypass the requirement to recirculate the documents for public review, the State Water Board unlawfully limited public comments to revisions on the WQCP reflected in Appendix K of the SED. However, the 2018 revisions discussed below constitute significant new information that demands recirculation for meaningful public scrutiny. (Cal. Code Regs., tit. 14, § 3779(e); CEQA Guidelines, § 15088.5.) CEQA Guidelines broadly define “information” to “include changes in the project or environmental setting as well as additional data or information” (CEQA Guidelines, § 15088.5(a)), and the information is significant if it changes the SED “in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect...that the project’s proponents have declined to implement”

<sup>1</sup> All materials and documents cited in support of MID’s March 17, 2017 comment letter and in support of the March 17, 2107 MID/Turlock Irrigation District joint comment letter are hereby resubmitted to the administrative record in electronic format on disks submitted concurrently with these comments.



(*Id.*). Here, the 2018 revisions contain information that changes the Project and environmental setting in the following ways.

First, Appendix K now makes the unsupported contention that the WQCP protects all beneficial uses in the Bay-Delta Estuary *and* tributary watersheds. Instead, as disclosures in the SED make clear, the Project functions only to allegedly protect fish-related beneficial uses, and only in three specific tributary watersheds.

Second, the 2018 revisions further establish a new narrative objective imposing year-round flow management requirements and separate obligations to meet specific temperature targets. The 2018 revisions are vague with respect to how these new requirements would be implemented and on which water right holders, but it is clear from the underlying SED that they could only be implemented by restricting dam operations. The SED never analyzed year-round flow management on dam operations (or otherwise), and the public has no idea the type and scope of management envisioned by this revision and therefore no understanding of the potential impacts associated with it.

Likewise, prior to the 2018 amendments, the SED proposed that flow management would have the effect of creating instream temperatures supportive of fish survival, but the 2018 revisions are the first time the State Water Board considered requiring particular entities to meet specified temperature targets as an independent obligation from meeting flow requirements. The impacts of such requirements, the way in which temperature targets would interact with flow requirements and affect dam operations, and the resulting impacts on the consumptive users and resources that rely on reservoir diversions have never been analyzed.

Third, for the first time since the implementation of the State Water Project (“SWP”) and Central Valley Project (“CVP”), the State Water Board relieves the SWP and CVP of responsibility for salinity control and establishes the authority to reassign that responsibility to other undetermined water right holders. Who might be responsible and how, and the possible impacts of such reassignment, have not been properly analyzed, but must be.

Although the State Water Board has stated that it will not accept comments at this time on the SED, it is impossible to meaningfully review and comment on the latest revisions to Appendix K without reference to the underlying SED, which contains disclosures and justifications (or lack thereof) for the revisions. Thus, while the purpose of this letter is to comment on the certain 2018 revisions, MID necessarily evaluates the revisions in the context of and with reference to the SED, which the State Water Board cannot disregard.<sup>2</sup>

For the reasons set forth below, MID objects to the approval by the State Water Board of the Proposed Final Amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary or the Proposed Final SED.<sup>3</sup>

<sup>2</sup> Documents attached to this letter and cited in support of the following comments are enumerated on an index at the end of the letter.

<sup>3</sup> MID also specifically references and incorporates herein all comments submitted jointly by MID and the Turlock Irrigation District (“TID”) and all comments submitted by or on behalf of the San Joaquin Tributaries Authority.

## I. COMMENTS

### A. **Contrary to the 2018 Revisions, the Plan Amendments Do Not Protect the Beneficial Uses of the Bay-Delta Estuary and Tributary Watersheds**

The 2018 revisions contain this erroneous statement:

“This plan protects the beneficial uses of the Bay-Delta Estuary and tributary watersheds.” (App. K, p. 4.)

The Water Code defines beneficial uses of the waters of the state that may be protected against quality degradation to include (among others): domestic, municipal, and agricultural supply, and “preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.” (Wat. Code, § 13050(f).) Each of these uses is identified by the WQCP as a designated beneficial use in the Project area that must be protected by the WQCP.

However, the Plan Amendments in reality seek to allegedly protect *only* fish-related beneficial uses of the Bay-Delta Estuary and tributary watersheds – and there is not substantial evidence in the SED to support that the Plan Amendments do even that.<sup>4</sup> Indeed, the Plan Amendments fail to protect and instead *devastate* Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Ground Water Recharge (GWR), and Wildlife Habitat (WILD) beneficial uses.

#### 1. **Agricultural Supply**

Agricultural Supply beneficial uses include uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing. (WQCP Ch. II.) The drastic reductions in surface water deliveries under the Plan Amendments are projected to affect more than 1 million acres of agricultural land in the San Joaquin Valley, 65% of which is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The majority of farms within that 1 million-acre area are small farms, fewer than 100 acres in size. (SED, p. 11-10.) Most farms within the jurisdiction of MID are fewer than 20 acres, and most of those are family farms; therefore, impacts to agriculture in the communities served by MID are actually impacts to family livelihoods and well-being.<sup>5</sup>

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<sup>4</sup> It is unclear from the State Water Board’s response to comments whether the Board has actually abandoned reliance on the SalSim model, as previously declared (Att. 1), or if it is again relying on the model to justify the Project, only now with cherry-picked data for only a 6-year period (1998-2004) that shows slightly better—but still insignificant—returns than those reflected in the 2016 Draft SED for a 16-year period (Master Response 3.1, pp. 64-65). If the former, then the Board has not developed or relied on a replacement model, and thus has pressed forward with the Project without any scientific basis for doing so. If the latter, then the Board itself admits that the data is insufficient to prove any long-term efficacy of the Project. (Master Response 3.1, p. 65 [“Calculating long-term increases or long-term averages for salmon requires many more years of data,” which the Board did not but should have developed].) In either case, there is no evidence that the Plan Amendments will indeed protect fish-related beneficial uses. (Atts. 2-6.)

<sup>5</sup> Atts. 7-9.



### Impacts to Williamson Act Contracts

The Project fails to protect Agricultural Supply uses and the people who depend on them in part because the State Water Board incorrectly determined that the Project will not have a significant impact on the very contracts that protect agricultural land from conversion to other uses. The State Water Board is required by CEQA to assess impacts to Williamson Act contracts as part of its agricultural resources analysis.<sup>6</sup> Without any meaningful analysis, the SED determined that the Project would not conflict with the existing Williamson Act contracts in the Project area and that impacts to those contracts would be less than significant. The determination is grounded in flawed reasoning and a disregard for facts. The Project will likely lead to nonrenewals of Williamson Act contracts, opening the door for conversion of agricultural land for uses inconsistent with the Williamson Act. The SED is legally inadequate for its failure to disclose and analyze these effects, and the Plan Amendments certainly do not protect against them.

In 1965, the California Legislature passed the Williamson Act (known formally as the California Land Conservation Act) to preserve agricultural and open-space land by discouraging conversion to urban uses. Under the Williamson Act, landowners may voluntarily enter into a contract with local governments and agree not to convert agricultural land in return for lower property taxes. (Gov. Code, §§ 51200 *et seq.*, 51240 *et seq.*) The contracts, which run with the land, have an initial term of ten years with automatic annual renewal thereafter unless the landowner files a notice of nonrenewal. Landowners suffer penalties for exiting contracts prematurely, but they may not renew the contract without penalty after the initial term is over. In 1998, the Farmland Security zone provisions of the Williamson Act were added, providing landowners an even greater property tax reduction in exchange for an initial contract term of 20 years. (Gov. Code, §§ 51296 *et seq.*)

The SED concludes that reductions in surface water supplies to agriculture under the Project would not conflict with the Williamson Act because a reduction in the economic character of existing agricultural land does not qualify as a reason to cancel Williamson Act contracts without penalty. (SED, p. 11-64.) Thus, the SED assumes farmers will sit on unproductive land to avoid penalties. That the SED ends its analysis there and does not assess nonrenewals as a factor reflects a complete lack of analytical rigor, without which the State Water Board's "less than significant" finding is unsupported. The over simplistic assumption also ignores a documented reality that is readily available to the State Water Board in an annual report published by its sister agency, the Department of Conservation ("CDC Report").<sup>7</sup>

The SED does not recognize or discuss the fact that nonrenewal is the most common method to end a Williamson Act contract, and nonrenewal "often occurs with the anticipation of converting farmland to other uses."<sup>8</sup> Between 2006 and 2015, 78.16% of all acres coming out of contract were due to nonrenewal expiration. Cancellations during that same time frame

<sup>6</sup> See Environmental Checklist Form, App. A to State Water Board's CEQA Regulations, Cal. Code Regs., tit. 23, div. 3, ch. 27, §§ 3720-3781 at 11.b.

<sup>7</sup> At 10.

<sup>8</sup> *Id.* at 18, 28 at Table 9.

accounted only for 2.2%.<sup>9</sup> Where nonrenewal is the dominant means of terminating the contracts that preserve agricultural land, the SED's focus on cancellation as a determinant of significance is misplaced and in error.

The SED makes no mention of the fact that Williamson Act contracts pervade the San Joaquin Valley and account for about 47% of Williamson Act contract enrollment statewide.<sup>10</sup> In 2015, Stanislaus County alone had 575,705 acres of farmland under Williamson Act contract.<sup>11</sup> Prior to the Project, the San Joaquin Valley was already experiencing a steady decline in protected lands; in 2014 and 2015, it ranked first in the state with respect to the number of acres under contract being nonrenewed.<sup>12</sup> The Project is certain to contribute cumulatively to that trend. All lands now under Williamson Act contract are potentially at risk of nonrenewal, but the SED is silent on the overwhelming number of acres implicated and on the possible loss of agricultural land currently protected from development. And as the SED admits elsewhere, reduced surface water supplies could lead to conversion of land to nonagricultural uses, and *any* such conversion would constitute a significant impact. (SED, pp. 11-1, 11-52.)

### Assumed Mitigation in Impacts Analysis

The WQCP does not adequately protect agricultural resources due to a tactic the SED employs in its impacts assessment that prevents the public and decisionmakers from ascertaining the full extent of the potential harm to agriculture under the Project. Specifically, the SED evaluates impacts to agricultural resources only after assuming that mitigation in the form of increased groundwater pumping will compensate for reduced deliveries of surface water. (CEQA Guidelines, § 15370(e) [mitigation includes “[c]ompensating for the impact by replacing or providing substitute resources or environments”].) The State Water Board must disclose Project impacts prior to mitigation but does not do so with respect to agricultural resources.

As a result of the SED's conflation of agricultural impacts analysis with mitigation measures into a single issue, the SED violates CEQA on two fronts: (1) it misleads the public and decisionmakers about the true impacts of the Project in contradiction with CEQA's central disclosure function, and (2) it establishes and relies on unenforceable mitigation measures that have not been adequately adopted pursuant to CEQA requirements. (*See* CEQA Guidelines, §§ 15126, subd. (e); 15126.4, subd. (a)(1)(A), (a)(?) [certain requirements for adopting mitigation measures].) Because the full extent of impacts to agriculture are not made evident in the SED, the State Water Board cannot propose appropriate mitigation, and therefore Agricultural Supply beneficial uses are not and cannot be protected by the WQCP.

## **2. Municipal and Domestic Supply**

Municipal and Domestic Supply beneficial use includes uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply. (WQCP Ch. II.) Contrary to the 2018 revisions, the WQCP fails to protect municipal and

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<sup>9</sup> *Id.* at 32, Table 22.

<sup>10</sup> *Id.* at 33.

<sup>11</sup> *Id.* at 39.

<sup>12</sup> *Id.* at 20, Table 13.

domestic beneficial uses. The SED does not analyze impacts to both municipal and domestic supplies and subsequently fails to provide feasible mitigation to protect the uses from Project impacts.

#### Assumed Mitigation in Municipal Supply Impacts Analysis

The SED makes no effort to analyze effects on municipal water supplies and instead simply concludes that impacts to municipal supplies is a function of the ability to find or develop alternative sources.<sup>13</sup> (SED, p. 13-47.) The conclusion is legally problematic because it assumes impacts need only be analyzed *after* service providers mitigate for the Project by finding alternative supplies. Developing alternative drinking water sources amounts to “[c]ompensating for the [Project’s] impact by replacing or providing substitute resources,” and is therefore considered mitigation under CEQA. (CEQA Guidelines, § 15370(e).) However, as discussed above with respect to agricultural supply, CEQA requires that the SED disclose and analyze impacts to municipal supplies *prior* to any mitigation; a municipal service provider’s ability to use or develop alternative supplies is irrelevant to that threshold impacts analysis. The WQCP cannot protect municipal supply beneficial uses from adverse Project impacts which the SED never analyzed in the first place.

#### Failure to Mitigate Project Impacts to Private Domestic Wells

By the State Water Board’s own estimation, the Project threatens the health and safety of 133,000 primarily disadvantaged residents who rely on private wells for drinking water and other domestic uses. (SED, p. 22-5.) The State Water Board knows that the Project will cause many domestic wells to dry up or become contaminated due to increased groundwater pumping by municipal and agricultural users in response to surface water reductions caused by the Project. But it conducts no analysis to determine and disclose which wells or areas may be most vulnerable, nor does it propose feasible mitigation to avert the public health crisis the Project may create. (See, e.g., SED, p. ES-35.)

As the SED notes, domestic wells tend to be shallower than municipal and agricultural wells, and therefore are more prone to dry up during water supply shortages when service providers and farmers draw from their deeper wells. (SED, p. 13-52.) This was proven true during California’s recent drought when many private wells went dry—leaving hundreds of people in the San Joaquin Valley without drinking water even to this day.<sup>14</sup> The SED predicts that under the Project domestic wells also could experience significantly degraded water quality, including the migration of contaminant plumes that impair water supplies. (See, e.g., SED, pp. 13-86, 87.) Consequently, for many of the residents who rely on private wells for drinking water, the Project will have the adverse effects of: (1) increasing the need to drill deeper wells to

<sup>13</sup> Flaws in the SED’s analysis with regard to the City of Modesto’s water supplies are compounded by the SED’s disregard for the parity clause in the Amended and Restated Treatment and Delivery Agreement (“ARTDA”) between MID and the City of Modesto, which requires MID to reduce surface water deliveries to the City of Modesto and MID’s agricultural customers in equal proportion. The refusal of the State Water Board to consider the effects of this parity clause under the Project is inexcusable, given that the State Water Board has long been well aware of its existence as a result of a change petition the Board granted to MID in connection with the ARTDA. (Airs. 11-15.)

<sup>14</sup> See, e.g., Atrs. 16-24.

continue to access groundwater; (2) increasing groundwater pumping costs; and/or (3) making groundwater completely unavailable in some areas after some undetermined period of increased groundwater pumping caused by the Project. (SED, p. ES-35.) Even under the lower 20% unimpacted flow Alternative, “it is assumed that those [domestic well users] affected would need to find an alternative drinking water supply such as bottled water or drill additional groundwater wells, and impacts would be significant.” (SED, 13-64.) Thus, the impacts from the Project on private domestic wells will be immediate.

The SED identifies significant impacts to private drinking wells but dismisses any obligation to analyze such impacts. The State Water Board claims that in the absence of reporting and testing requirements for private well owners, it simply does not have the information it would need to conduct meaningful analysis. (See, e.g., SED, p. 9-20.) Given the grave threat to more than 133,000 residents, this quick dismissal of statutory duties on the part of the State Water Board is inexcusable and unlawful.<sup>15</sup> “CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible.” (CEQA Guidelines, § 15021, subd. (a).) Here, the SED proposes *no* mitigation whatsoever for significant impacts to domestic well owners; it merely states that the State Water Board “will take actions as necessary to ensure that the implementation of flow objectives does not impact supplies of drinking water for minimum health and safety needs.” (See, e.g., SED, p. 13-90.) Postponing the formulation of mitigation in this way violates CEQA’s proscription against deferred mitigation measures, especially in light of the foreseeable threats to domestic water supply and quality during dry and critically dry years. (CEQA Guidelines, § 15126.4, subd. (a)(1)(B) [“Formulation of mitigation measures should not be deferred until some future time.”].)

Moreover, this assurance is an empty promise. Here, the State Water Board identifies tens of thousands of people whose health and safety are threatened, and it proposes to do *nothing* to ensure the Project does not impact their drinking water supplies. At the very least, the State Water Board could have run analysis regarding groundwater level change under the Project as measured in the wells for which it *does* have information, in order to disclose to the public the water level declines they can expect in their wells and the geographic areas most likely to experience severe declines.<sup>16</sup> The Board could, for example, conduct voluntary testing of private wells to notify residents when their wells become contaminated due to the Project, or facilitate a tank program whereby residents and schools whose wells run dry can receive and store delivered water. The State Water Board is staffed with experts and engineers who know how to address this problem and who could at least attempt to craft solutions, but they plan to do nothing to address the crisis they admit creating. Considering the foreseeable, significant impacts to private wells, the State Water Board cannot be permitted to postpone consideration of alternative drinking water sources until a public health crisis is well underway. Under CEQA, future water sources “and the impacts of exploiting those sources are not the type of information that can be

<sup>15</sup> And it is untrue. Using publicly available information, the Center for Watershed Sciences at UC Davis prepared a detailed analysis of the effect of declining groundwater levels on supply well operations for the Department of Food and Agriculture in 2016. The State Water Board should have made an effort to conduct similar analysis in connection with assessing Project impacts to domestic wells. (Att. 21; *see also* Att. 25 (public information regarding location of domestic wells).)

<sup>16</sup> Using publicly available information, MID conducted such analysis and created images portraying expected well declines over a ten-year period. (See Att. 26.)



deferred for future analysis.” (*Vineyard Area Citizens v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 431).

The State Water Board reasons it is not specifically authorized to impose mitigation on private domestic wells, and private domestic well users are largely unregulated and are under no state requirements to monitor, test, and treat their water to meet state and federal maximum content levels (“MCLs”). (SED, pp. 13-84, 87.) However, in the absence of specific authorization, the Board has the *discretionary* authority to mitigate—but here the Board chose to ignore it. (See Pub. Res. Code, §21004 [“[A] public agency may use discretionary powers provided by such other law for the purpose of mitigating or avoiding a significant effect.”].) Instead, the SED suggests the individuals most affected—whom the SED recognizes are primarily disadvantaged—undertake expensive and unrealistic mitigation measures. (See, e.g., SED, pp. 13-87.)<sup>17</sup> It proposes that private well owners hire licensed contractors to construct new wells, use certified laboratories to test water, install treatment systems, and drill new wells into cleaner aquifers. These are all extremely costly options which the State Water Board knows the affected population by and large cannot afford, and which therefore are infeasible unless the State Water Board undertakes such necessary mitigation measures. (SED, p. 13-87, p. 22-20, 21 [admitting disadvantaged communities struggle to respond to impacts to water supplies because of a lack of financing and infrastructure]; CEQA Guidelines, § 15364 [economic factors taken into account in determining whether a mitigation measure is feasible].)

Under Public Resources Code, § 21081, the State Water Board may not approve or carry out a project for which one or more significant effects has been identified, unless it makes specified findings as to measures that mitigate such effects. If the State Water Board does not adopt mitigation or alternatives on its own that would avoid or lessen the significant effects, it must make a specific finding that mitigation is infeasible or that the mitigation is within the responsibility and jurisdiction of another public agency and *not* the State Water Board. (CEQA Guidelines, § 15091.) Here, the mitigation for impacts to domestic wells is clearly feasible and can be implemented by the State Water Board.

### 3. Groundwater Recharge

Groundwater Recharge beneficial uses includes uses of water for natural or artificial recharge of groundwater for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers. (WQCP, II.) Regarding groundwater, MID is centrally concerned with maintaining a sustainable balance between use and recharge. The Modesto Subbasin is one of only two Project-area subbasins not in critical overdraft, in large part due to MID’s attention to groundwater recharge and balance.<sup>18</sup>

A host of existing factors already make groundwater recharge and balance a challenge for MID. Municipal and industrial water demand is projected to grow with population growth in MID’s service area.<sup>19</sup> Concurrent with the increased demand, some important pathways for groundwater recharge are expected to decline. Most of the recharge in the Project area comes

<sup>17</sup> Atts. 27, 28.

<sup>18</sup> Atts. 29, 30.

<sup>19</sup> Atts. 31a-k.; Att. 119 (showing average amount of water necessary to meet per-household domestic consumption).

<sup>20</sup> Att. 32.  
<sup>21</sup> Att. 33-35.  
<sup>22</sup> Att. 36.  
<sup>23</sup> Certain City of Modesto wells have already been designated EPA Superfund sites due to contamination. (Att. 37.)

The Project causes two simultaneous adverse impacts to groundwater: (1) it reduces groundwater recharge by restricting the amount of surface water available for agricultural application to land, and (2) it increases groundwater pumping by agricultural and municipal users to replace the reduced surface water deliveries. (See, e.g., SED, pp. 9-53, 54.)<sup>23</sup> Combined, these impacts could foreseeably deplete groundwater resources permanently, degrade groundwater quality to the point that much of it is unsafe to drink or use for agriculture,<sup>23</sup> and cause devastating and permanent land subsidence. The SED acknowledges that the simultaneous impact of these dual effects is significant, but it fails to disclose the magnitude of the impacts, rendering the cumulative impacts analysis legally deficient.

CEQA requires the State Water Board to conduct cumulative impact analysis to "assess[] cumulative damage as a whole greater than the sum of its parts. (*Environmental Protection Information Center v. Johnson* (1985) 170 Cal.App.3d 604, 625.) "Cumulative impacts" refers to "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA Guidelines, § 15355.) Importantly, "[t]he individual effects may be changes resulting from a *single project* or a number of separate projects." (CEQA Guidelines, § 15355 [emphasis added].)

#### Cumulative Impacts of the Project Over Time

The Project threatens to exacerbate these issues and drive the Modesto Subbasin to critical overdraw; it will reduce groundwater recharge by limiting surface water diversions for agricultural applications to land while simultaneously increasing groundwater pumping to replace surface water.<sup>24</sup> And the WQCP is not protective of groundwater recharge beneficial uses because the State Water Board crafted the Project and mitigation for its adverse effects without conducting sufficient groundwater impacts analysis. Specifically, the SED: (1) never considers the cumulative impacts on groundwater of the Project itself; (2) does not analyze cumulative impacts of the Project with existing and foreseeable groundwater pumping projects; and (3) assumes mitigation prior to conducting the analysis.

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from surface application of water to crops. However, many farmers who now employ surface irrigation are converting to managed techniques that use less water and reduce deep percolation, such as drip irrigation.<sup>20</sup> And the SED advocates for even more efficiencies. But agricultural water efficiencies generally adversely affect recharge; although they may reduce the total amount of water applied to agriculture, the efficiencies will not have a net positive effect on groundwater because less deep percolation will occur. Urbanization of farmland is also a factor; rapid conversion of farmland to urban use and the accompanying sudden loss of recharge can result in cones of depression, as was the case with the City of Modesto in the past. In addition, as recharge is reduced, water quality further degrades because salts and other contaminants become more highly concentrated in the groundwater.

Specifically, the SED improperly limits specific analysis regarding the effects of the Project to a snapshot of the average annual net change in groundwater level in a *single year*—and the SED’s analysis of that single year is itself deficient. (SED, p. 9-57 at Table 9-12; *see also* p. 22-15, at Table 22-5 [showing average annual change in groundwater balance for the first year of the Project].) For example, the SED’s key disclosure image for impacts to groundwater balance, Table 9-12, utilizes a metric that is not understandable to the public or decisionmakers and that obscures the magnitude of overdraft caused by the Project. Readers must do their own calculations based on information scattered throughout the SED to understand that the 2.2 inch decline in Modesto’s “groundwater balance” shown in Table 9-12 amounts in real terms to a *22 inch—or nearly two-foot—plunge* in actual annual groundwater level *in the first year of the Project alone*.

However, the Project does not end after one year. Groundwater overdraft is a multi-year problem and is thus a quintessential cumulative impact issue. To accurately disclose the magnitude of Project impacts to groundwater, the State Water Board must look at cumulative impacts over the life of the Project, or at least for a meaningful period such as ten or twenty years, and it must do so in an accessible way. As an example of its failings in this regard, the SED includes a map prepared by the Department of Water Resources reflecting existing groundwater overdraft for the period 2005 to 2015 (SED, Figure 9-4), but inexplicably contains no such graphic or readily understandable image showing the cumulative Project impacts to groundwater on top of the existing overdraft situation.<sup>24</sup> The SED should have presented information, such as the graphics attached to this letter as Attachments 26 and 121, to assist the public’s and decisionmakers’ understanding that the Project will cause a shocking, rapid decline in groundwater level over multiple years, and that that the WQCP will devastate, rather than protect, groundwater recharge.

Likewise, the SED is void of any specific and substantive analysis regarding subsidence likely to occur under the Project because of reduced groundwater recharge. Subsidence, too, is a multi-year problem and one that cumulatively impacts aquifer storage capacity; with subsidence comes the permanent loss of groundwater storage and decreased pore space and permeability within aquifers.<sup>25</sup> It also should have been specifically analyzed over a meaningful time period and disclosed in an easily understood format.

The 2018 revisions, which clarify that the Project will be ongoing and require continual implementation, support running this extended analysis:

“Most of the objectives in this ongoing plan are being, and will continue to be implemented by assigning responsibilities to water right holders because the parameters to be controlled are primarily impacted by flows and diversions.” (App. K, p. 4.)

An ever-declining water level will have exponentially greater repercussions to water users over time; hence, the State Water Board’s decision not to look at impacts over multiple years resulted

<sup>24</sup> Atts. 33-40 (examples of existing overdraft maps).

<sup>25</sup> Att. 41, 42.

in a deficient CEQA document and a WQCP that is not protective of groundwater recharge beneficial uses.

### Cumulative Impacts of Project with Existing Groundwater Pumping Projects

Project impacts to groundwater recharge are further understated by the SED's failure to evaluate the cumulative effects of increased pumping and decreased recharge under the Project when considered with past, present, and foreseeable probable groundwater pumping projects. "[A] cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the [SED] together with other projects *causing related impacts*." (CEQA Guidelines, § 15130, subd. (a)(1).) CEQA defines "project" as an action "which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment," and includes: (1) an activity directly undertaken by any public agency; (2) an activity undertaken by a person which is supported in whole or in part through public agency contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies; and (3) an activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies. (CEQA Guidelines, § 15378.)

The SED is deficient because it *fails entirely* to identify as a project requiring cumulative impacts analysis the Discretionary Well Permitting and Management Program that Stanislaus County is implementing pursuant to its Groundwater Ordinance, Chapter 9.37 of the Stanislaus County Code ("Well Permitting Program").<sup>26</sup> The purpose of the Well Permitting Program is to permit and regulate wells in unincorporated areas of Stanislaus County, and (according to its draft Program EIR) when implemented, will cause potentially significant impacts to the very groundwater resources and land uses dependent on those resources that are affected by the Plan Amendments.<sup>27</sup> In light of this reality, and in light of the fact that Stanislaus County has released a draft Program EIR for public review, the program is a probable foreseeable future project that the SED should have analyzed.

In addition to omitting disclosures regarding the Well Permitting Program, the SED does not adequately evaluate the cumulative impacts of the Project when considered together with closely related past, present and future groundwater pumping projects in the Project area that also result in related impacts to groundwater. (See CEQA Guidelines, § 15355, subd. (b) [agency must review "individually minor but collectively significant projects taking place over a period of time."].) The SED acknowledges that because of past and present groundwater pumping projects, the "overall rate of groundwater pumping in the plan area... is likely *not sustainable* over extended periods of time. *The area is in a state of overdraft*—more groundwater is being pumped than is being recharged." (SED, p. ES-33 [emphasis added]; see also *id.* at 9-15.) Squarely within the Project area, the Modesto, Turlock, and Merced Subbasins

<sup>26</sup> Att. 43. [Ordinance Chapter 9.37]

<sup>27</sup> Att. 44, p. 317 ("Additional stress on the entire subbasin may occur if, as is currently proposed, the state mandates minimum unimpaired flow requirements for the Stanislaus and Tuolumne Rivers as part of the Bay-Delta Water Quality Control Plan Amendment process. Under these conditions, it is anticipated that less water will be available for diversion to meet existing agricultural and municipal water demands. The shortfall in demand is expected to be met through additional groundwater pumping. This scenario will potentially result in significant additional stress throughout the subbasin."); Att. 45.



“experienced a net overdraft condition between 1970 and 2000, as indicated by average declines in groundwater elevation of approximately 15, 7, and 30 (ft). respectively.” (SED, p. ES-34.) And under current conditions—even without the Project—there will be a persistent decline in groundwater going forward because “[g]roundwater pumping in the region continues to increase in response to growing urban demand and reduced surface water deliveries.” (*Id.*) Indeed, the State Water Board admits the Project will exacerbate the overdraft caused by past and present groundwater pumping projects: “[t]he 186 TAF/y increase in overdraft under [the chosen Alternative] would slightly more than *double this rate of overdraft* to 330 TAF/y (144+186).” (SED, p. 22-15 [emphasis added].)

This admission notwithstanding, the SED does no meaningful analysis of the cumulative impacts to groundwater. Instead, the SED improperly presents its impacts analysis related to groundwater in isolation from existing declining groundwater conditions. (SED, p. 9-57 at Table 9-12; *see also* p. 22-15 at Table 22-5 [showing average annual change in groundwater balance].) The SED’s single statement that the Project will compound impacts caused by related groundwater pumping projects does not constitute sufficient cumulative impacts analysis under CEQA.

#### Assumed Mitigation in Project Impact Analysis

The SED impermissibly draws conclusions regarding impacts to groundwater only after assuming the Sustainable Groundwater Management Act (“SGMA”) will mitigate for otherwise unsustainable pumping. SGMA serves to “[r]ectify[] the impact by repairing, rehabilitating, or restoring the impacted environment” (CEQA Guidelines, § 15370(c)), and is therefore considered mitigation under CEQA. The SED’s failure to analyze Project impacts to groundwater recharge prior to mitigation renders the SED inadequate.

Moreover, SGMA Groundwater Sustainability Plans (“GSPs”) *do not yet exist*, so the reliance on SGMA to mitigate Project impacts is another fatal flaw that infects impacts analysis throughout the SED. (Water Code, §§ 10720.7, 10735.2.) The state-imposed deadline for completion and adoption of GSPs is January 31, 2022, and the implementation deadline is not until 2040 for critically overdrafted basins and 2042 for high and medium priority basins.<sup>28</sup> Even the Modesto Groundwater Subbasin GSP submittal—which is ahead of the required deadline—is not expected until October 2021.<sup>29</sup> In fact, the SED calls local agency action under SGMA “inherent[ly] uncertain[.]” (SED, p. 9-69.)

The SED is rendered irreparably inadequate for its reliance on unformulated groundwater management plans for the viability of mitigation. (*Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 281 [The SED “is inadequate if success or failure of mitigation efforts may largely depend upon management plans that have not yet been formulated, and have not yet been subject to analysis and review within the [SED].”].)

Moreover, even if GSPs were in place, the SED cannot lawfully propose SGMA as mitigation because SGMA will not actually lessen or avoid impacts but will rather increase

<sup>28</sup> A.1. 46.

<sup>29</sup> A.11. 47.

impacts by diminishing available water to agriculture, drinking water, and municipal supplies. (Pub. Res. Code, § 21002.1, subd. (b).) It is not feasible to make up for lost surface supplies to these resources with additional groundwater pumping and also comply with SGMA.<sup>30</sup> Further, from a technical perspective, even if you ignore the realities of SGMA and assume groundwater pumping will occur in sufficient quantities to backfill for the loss of surface water, the necessary infrastructure to achieve this objective simply does not exist at present. Extensive capital infrastructure improvements would have to be constructed to support that level of groundwater pumping at a considerable cost in terms of both money and time. In any event, assuming SGMA can achieve groundwater sustainability, it would likely take decades, and the Project will continue to inflict unmitigated adverse impacts to groundwater resources over those many years. At minimum, the SFD needed to look at impacts to groundwater recharge beneficial uses in the interim between GSP adoption in 2022, and implementation over the next twenty years.

In the face of the foregoing, the SED ironically recommends groundwater recharge as mitigation for the Project impacts to groundwater yet does none of the CEQA-required analysis regarding whether recharge would in fact be possible. (Pub. Res. Code, § 21002 [SED must analyze reasonably foreseeable feasible mitigation measures].) The City of Modesto recently funded a study to identify potential managed aquifer recharge opportunities, and although available aquifers were identified, such projects would depend on surface water deliveries from MID in excess of the consumptive needs of the City Modesto, which are less likely under the Project.<sup>31</sup> The SED should have conducted similar studies for the whole Project area to determine the feasibility of recharge as mitigation before proposing it.

The Project and mitigation proposed to address its adverse effects are based on an incomplete understanding of its probable effect on groundwater due to flawed impacts analysis. Such mitigation-- and the WQCP-- therefore, does not and cannot adequately protect against impacts to groundwater recharge beneficial uses.

#### 4. Wildlife

In addition to purporting that the WQCP “protects the beneficial uses of the Bay-Delta Estuary and tributary watersheds” (App. K, p. 4), the 2018 revisions further provide:

“The fish and wildlife beneficial uses designated in the ‘[WQCP] for the Sacramento River Basin and San Joaquin River Basin’ for the Stanislaus River, Tuolumne River, Merced River, and the San Joaquin River from the mouth of the Merced River to Vernalis remain in effect and this plan includes measures to protect those uses.” (App. K, p. 10)

Despite these statements, the SED fails to analyze and protect against the impacts of the Project to the San Joaquin River National Wildlife Refuge (“Refuge”) and the terrestrial protected species that inhabit it. As further set forth below, critical water supplies to the Refuge will unavoidably decline as part of the implementation of the Plan. Failure to analyze the impacts to the water supply of this vital Refuge renders the SED and Plan Amendments legally deficient.

<sup>30</sup> Att. 48.

<sup>31</sup> See Att. 49, p. 33.

The U.S. Fish & Wildlife Service ("Service") became interested in the present Refuge location in 1976 when the then federally-listed Aleutian Canada goose was discovered using the privately owned Faith Ranch and Mapes Ranch as winter habitat.<sup>32</sup> In 1987, the Refuge was established to provide winter forage and roosting habitat for the Aleutian Canada goose, among other waterfowl and migratory birds.<sup>33</sup> The Service has continued to expand the acreage of the Refuge through a series of land acquisitions and conservation easements, including through a Conservation Land Management Agreement ("CMLA") with the owners of Mapes Ranch.

The Refuge currently supports a variety of native habitats, ranging from valley oak gallery and mixed riparian forests/woodlands to seasonal and permanent wetlands.<sup>34</sup> Close to 50 species of ducks, geese and swans make use of the Refuge.<sup>35</sup> Currently, there are at least twelve federally listed endangered species that occur, or that could potentially occur on the Refuge.<sup>36</sup> With human assistance, the Aleutian Canada goose has made a remarkable recovery. However, more than 95 percent of the world's Aleutian Canada goose population winters on the Refuge, and they remain a critical focus of this Refuge.<sup>37</sup>

The Refuge, and particularly its wetlands, are supplied in part by water from MID and the Mapes Ranch. The Project may eradicate this water source. The Refuge estimates it needs at least 20,000 acre/feet of water annually to manage habitats for native assemblages of fish and wildlife.<sup>38</sup> Water is used on the Refuge to manage wetlands and agricultural habitats and for the restoration of riparian forests.

Lack of reliable water is a critical challenge for the Refuge.<sup>39</sup> Unlike other refuges, this Refuge does not receive a water allocation from the Bureau of Reclamation under the authority of the Central Valley Project Improvement Act. Instead, water is supplied through private agreements. Portions of this Refuge lie within the MID service area, and MID supplies water to the western portions of the Refuge. Water used east of the San Joaquin River is provided by the privately owned Mapes Ranch. Agricultural tailwater makes up the largest contribution of flows entering the Refuge.<sup>40</sup>

On June 28, 1983, MID and the owners of Mapes Ranch entered into the Mapes Ranch Annexation, Easement, and Water Use Agreement ("Agreement").<sup>41</sup> This Agreement permits the Mapes Ranch to utilize the water that flows through MID canals on the Mapes Ranch.<sup>42</sup> This water is then used by the Ranch for conservation measures on the Refuge, including supplying

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<sup>32</sup> Att. 50, p. 5.

<sup>33</sup> *Id.* at 4. (Appendix E of this document provides a species list of fish and wildlife on the Refuge.)

<sup>34</sup> *Id.*

<sup>35</sup> *Id.* at 31.

<sup>36</sup> *Id.* at 33.

<sup>37</sup> *Id.* at 33.

<sup>38</sup> *Id.* at 65.

<sup>39</sup> *Id.* at 47.

<sup>40</sup> *Id.* at 22.

<sup>41</sup> See Att. 51, p. 487; Att. 52, p. 600; for general information and background regarding Refuge, see also Att. 53-56.

<sup>42</sup> See Att. 51 & 52 at § 3.04.

water to wetland habitat.<sup>43</sup> The water supplied by this Agreement is not guaranteed, and water is only supplied after allocations are satisfied and excess water is available. If the water supply is insufficient to fulfill MID's delivery and allocation obligations, there will be no water left for conservation purposes to supply this critical habitat.

The WQCP identifies as a beneficial use in the Project area such "uses of water that support terrestrial or wetland ecosystems including, but not limited to preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources." (WQCP, II.) Also, the WQCP identifies for protection those uses that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, or Areas of Special Biological Significance (ASBS), where the preservation or enhancement of natural resources requires special protection. (*Id.*)

Table 8-4a of the SED (p. 8-20) lists the Aleutian Canada goose (among other animals present at the Reserve) as a special status animal species with potential to occur or known to occur within the area of potential effects. However, the SED performed no impacts analysis regarding the effect on these species of the diminished water supply to the terrestrial biological resources provided by the Refuge. Failure to consider these impacts renders the SED, and Appendix K, legally deficient.

The SED must disclose impacts to the Refuge's water supplies and analyze the resulting impacts to effected terrestrial species. Without this analysis, it is impossible to understand how the Project will impact these species and how to mitigate these effects in order to in fact protect this Wildlife Habitat beneficial use.

##### 5. Protecting All Beneficial Uses of the Bay-Delta Estuary and Tributary Watersheds

###### Unlawful Segmentation of the WQCP Updates

The 2018 revisions expand the geographic reach of the WQCP in order to facilitate management of what the State Water Board sees as an integrated water system under one plan. For example, the WQCP has been revised in two places as follows (additions indicated by double-underlining):

"These water quality objectives are established to attain the highest quality of water that is reasonable, considering all the demands being made on the waters in the Estuary watershed." (App. K, p. 12.)

"The water quality objectives in this plan apply to waters of the San Francisco Bay system and the legal Sacramento-San Joaquin Delta, and tributary watersheds, ..." (App. K, p. 12.)

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<sup>43</sup> Att. 50, p. 56.



These revisions make clear that the WQCP conceives of the San Francisco Bay system, the legal Sacramento-San Joaquin Delta, and the watersheds that feed into the Bay-Delta as interconnected. The revisions further make clear the State Water Board, when establishing water quality objectives, should consider and balance the needs of beneficial uses *throughout* the geographic region covered by the WQCP.

As the State Water Board itself explains in a Phase II Fact Sheet, “The [Phase II] Science Report recommends a *holistic* approach for developing instream flows...The Bay-Delta watershed is an inextricably linked ecosystem... with the tributaries intricately linked to conditions in the Bay and Delta.”<sup>44</sup> The Board in Phase II seeks to “establish a unifying regulatory approach for instream flows for *all* tributaries that support salmon species in the Bay-Delta watershed,” and to create an “integrated and comprehensive functioning flow regime in the Bay-Delta watershed.”<sup>45</sup>

However, by phasing the WQCP updates, the State Water Board has made it impossible to fulfill its own mandate. In Phase I, the State Water Board established flow objectives on three tributaries to the San Joaquin River (the Stanislaus, Tuolumne, and Merced Rivers, collectively, “Three Tributaries”), considering only the demands of beneficial uses on the Three Tributaries, in isolation from the rest of the Bay-Delta system. This approach is in contradiction to the 2018 revisions and contrary to the State Water Board’s own philosophy in Phase II.<sup>46</sup> Importantly, because the beneficial uses on the Three Tributaries have not been evaluated in light of “all the demands” in the Bay-Delta water system, the public and decisionmakers have no way of knowing if or to what extent the Plan Amendments in fact protect the beneficial uses of the Bay-Delta Estuary and tributary watersheds.

### Reduced Exports Alternative

The most obvious and feasible way to minimize Project impacts and protect *all* beneficial uses of water in the Bay-Delta Estuary and tributary watersheds is to reduce surface water exports out of the Bay-Delta, thereby lessening the burden on in-Delta and tributary water users to achieve Plan Amendment objectives.

The SED specifically should have considered reduced SWP and CVP exports—but it failed to do so. The CVP and SWP are California’s two largest surface water delivery projects, and they are the largest diverters of water from the Bay-Delta system. In fact, exports through the SWP and CVP comprise the second largest outflow from the Delta, behind only the portion of Delta inflow that travels through the Delta and exits through the San Francisco Bay to the Pacific Ocean. CVP and SWP exports reduce the volume of water flowing through the Delta by a current combined average of 4.9 million AF (“MAF”) per year, and this number is projected to increase under the WaterFix to between 4.7 and 5.3 MAF per year.<sup>47</sup> These massive exports are necessarily facilitated by taking water from other beneficial users in the Bay Delta Estuary and tributary watersheds, and under the Project they will be facilitated by taking water from a select

<sup>44</sup> Att. 57, p. 6 (emphasis added).

<sup>45</sup> *Id.*

<sup>46</sup> See e.g., Atts. 58, 59.

<sup>47</sup> Att. 60, p. 4.

group of six beneficial users with more senior water rights than the CVP and SWP. As discussed above, the State Water Board puts itself in a position to ignore the connection between the Project flow requirements and CVP/SWP exports by unlawfully segmenting the WQCP updates.

By focusing regulation solely on the Three Tributaries with compliance points below the rim dams on each of the three rivers, the State Water Board's Plan Amendments have the effect of subjecting only a select group of just six senior water right holders to the regulation and obligating those six alone to bear the full burden of meeting the instream flow objectives, in violation of the State's most fundamental water rights law, the rule of priority.<sup>48</sup> The Board's unimpaired flow requirements are thus designed to target only Modesto Irrigation District, Turlock Irrigation District, South San Joaquin Irrigation District, Oakdale Irrigation District, Merced Irrigation District and the City and County of San Francisco to contribute to meeting the flow requirements. As a result, beneficial uses of water that rely on deliveries from these six water right holders also disproportionately bear the brunt of the Project impacts and are *not* protected by the WQCP.

However, in the proposed update to the WQCP (i.e., the Plan Amendments) and the accompanying CEQA process (i.e., the SED), the State Water Board never even contemplated imposing constraints on CVP and SWP exports and allocations to reduce the environmental effects of redirecting surface water from other beneficial uses. Instead, the SED unlawfully limited Project alternatives to options that result in *more* water being made available for export to junior right holders at the expense of the environment and resources in the Bay-Delta system and surrounding watersheds. Indeed, the Plan Amendments will make an additional 76 thousand acre feet of water available for export from the Delta by the State Water Project ("SWP") and the Central Valley Project ("CVP").

The State Water Board failed to proceed in a manner required by law, abused its discretion, and failed to protect beneficial uses in the Project area by failing to consider a common-sense alternative that would include the largest surface water diverters in the Delta, and that would leave more water in the Delta water system by simply exporting less water from it.

#### Friant Dam Flows Alternative and San Joaquin River Restoration Program Cumulative Impacts

The WQCP is not adequately protective of beneficial uses throughout the Bay-Delta Estuary and tributary watersheds because the State Water Board did not consider alternatives or mitigation that included flows from the Friant Dam and the Upper San Joaquin River.

The stated goal of the Plan Amendments, as articulated in the WQCP's amended narrative objective, is to "[m]aintain inflow conditions from the San Joaquin River Watershed to the Delta at Vernalis, sufficient to support and maintain the natural production of viable native San Joaquin Watershed fish populations *migrating through the Delta.*" (SED, p. 3-8; App. K, p. 18 [emphasis added].) This objective renders the SED legally deficient because it fails to consider a reasonable alternative that included instream flows from the Upper San Joaquin River,

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<sup>48</sup> The Project also fails to consider alternatives that include any of the other 4,500 water right holders in the Project area. See AHS, 61-68 for examples of other water right holders in the Project area.

particularly the Friant Dam—a CVP storage facility owned and operated by the federal government and junior water right holder to MID.

While the SED “need not consider every conceivable alternative to a project,” it “shall describe a range of reasonable alternatives to the project or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or lessen any of the significant effects of the project.” (CEQA Guidelines, § 15126.6(a).) When evaluating Project alternatives, the SED ignored Millerton Lake behind Friant Dam as a potential contributor to instream flows on the San Joaquin River at Vernalis. (SED, p. 2-9.) The Upper San Joaquin River, including the Friant Dam/Friant Division, is squarely within the San Joaquin River Watershed and has the potential to provide flow directly to the Delta through the proposed Vernalis compliance point for the Plan Amendment’s base flow numeric objective. The average annual unimpaired flow for the Upper San Joaquin River at Friant Dam is 1.7 MAF, which “alone represents approximately 28 percent of the unimpaired flow on the SJR at Vernalis.” (*Id.*)

Contribution of instream flows from the Friant Dam/Division would mitigate for Project impacts under the Plan Amendments, which currently are concentrated on beneficial uses that depend on surface water deliveries from the select group of six water users on the Three Tributaries. Notably, in Phase II of the WQCP updates, the State Water Board states the following to justify such a holistic approach that considers a more expansive group of water users:

“The current Bay-Delta Plan is implemented by a limited subset of water users, on a limited subset of streams, for only parts of the year...result[ing] in overburdening some streams to the detriment of all beneficial uses in that stream while at the same time failing to protect beneficial uses in other streams and the watershed.”<sup>49</sup>

The State Water Board’s reasoning likewise applies here. It is ironic that in Phase I, the Board targets a “limited subset of water users” for regulation while protecting others from consideration, thereby creating the very issue it purportedly seeks to solve in Phase II.

Moreover, the Friant Dam has had a more significant adverse effect on salmon populations migrating along the San Joaquin River than any of the rim dams on the Three Tributaries that will be regulated under the Plan Amendments. Within a few years after the Friant Dam was completed in the 1940’s, its operations began drying up approximately 60 miles of the Upper San Joaquin River. The salmon run on the Upper San Joaquin River declined from 56,000 to zero in just four years.<sup>50</sup> Accordingly—and pursuant to the 2018 revisions—Friant contractors should be “assign[ed] some measure of responsibility...to mitigate for the effects on the designated beneficial uses of their diversions and use of water” and “to fully accomplish” the WQCP’s water quality objectives. (App. K, p. 4.)

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<sup>49</sup> Att. 58, p. 5.

<sup>50</sup> Atts. 69, 70.

Pursuant to a 2006 settlement agreement (“Friant Settlement”) that ended a 1988 lawsuit filed by NRDC, Friant Dam is now restoring flows to support salmon migration.<sup>51</sup> The Friant Settlement requires releases from the Dam to provide flows on the San Joaquin River to the confluence of the Merced River, and it establishes the San Joaquin River Restoration Project (“SJRRP”) to carry out the settlement obligations.

Recent flow data for the San Joaquin River shows that in wet years, storage capacity behind the Friant Dam can be insufficient to handle the greater flows, and some volume of bypass flows does make it to Vernalis, supplementing the flows from the Three Tributaries.<sup>52</sup> However, the flow data also shows that in critically dry years, no flows from Friant Dam reach Vernalis, and Friant contractors are under no obligation to ensure that they do.<sup>53</sup> This is because the Friant Settlement permits dry year relief, relaxing flow requirements during drought and critically dry periods to protect beneficial uses dependent upon surface water deliveries. In fact, in 2014 and 2015 the Friant Dam/Division was permitted to withhold flows to the point that the San Joaquin River from the Friant Dam to the confluence with Merced went dry again.<sup>54</sup>

The SED improperly dismissed outright any evaluation of the Friant Dam/Division, stating that the State Water Board “will continue to coordinate adaptive implementation and future changes to the 2006 [WQCP] with the SJRRP to assure the protection of fish and wildlife in the SJR Basin. Following full implementation of the SJRRP, the State Water Board will also evaluate whether additional changes should be made to flow, water right, or other requirements to protect fish and wildlife in the SJR.” (SED, p. 7-30.)

Nothing in the Friant Settlement prevents the State Water Board from imposing inflow requirements on Friant contractors and other junior water right holders on the Upper San Joaquin River to ensure sufficient flows past the confluence of the Merced River to Vernalis. In fact, the Friant Settlement contemplates “unavoidable legal impediments or prohibitions” (such as State regulations) as a Force Majeure event, relieving the parties of the obligations which performance is precluded.<sup>55</sup> The agreement further requires that signatories comply with all applicable state laws, rules and regulations.<sup>56</sup>

At a minimum, the SED should have assessed an alternative that requires the Friant contractors and other junior right holders on the San Joaquin River (other than the select six senior right holders on the Three Tributaries) to provide water to assist in maintaining the proposed base flows at Vernalis in dry and critically dry years. Under the Project, the entire regulatory burden falls on the Three Tributaries to compensate for dry conditions<sup>57</sup>—Friant contractors are under no similar obligation.

Moreover, there is precedent for regulating Friant Dam flows under the WQCP, which underscores the indefensibility of the omission of such an alternative here. In 1995, the State

<sup>51</sup> Atts. 71, 72. Don Pedro Dam similarly regulates flows pursuant to a settlement contract. (Atts. 73-75.)

<sup>52</sup> Atts. 76-79; see Att. 80.

<sup>53</sup> *Id.*

<sup>54</sup> Att. 122.

<sup>55</sup> Att. 71 at para. 24.

<sup>56</sup> *Id.* at para. 28.

<sup>57</sup> App. K, p. 29.



Water Board adopted a WQCP updating fish and wildlife objectives for both the 1991 Water Quality Control Plan for Salinity for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and the 1978 Water Quality Control Plan for the Sacramento-San Joaquin Delta (“1991 Bay-Delta Plan”) and Suisun Marsh (“1978 Bay Delta Plan”).<sup>58</sup> In crafting the updates, the State Water Board reviewed “all of the factors that have contributed to the decline of fish and wildlife resources in the Bay-Delta Estuary” and considered objectives “for the factors that have both contributed to the decline of fish and wildlife uses...within the regulatory control of the SWRCB.”<sup>59</sup> With these factors in mind, the State Water Board evaluated a flow alternative in the Environmental Impact Report (“EIR”) that included Friant Dam and other junior water right holders along with MID, TID, Merced Irrigation District. The EIR described Alternative 5 as follows: “This alternative *specifically identifies releases from Friant Dam as a source of water to meet the Vernalis flow and Delta outflow objectives.*”<sup>60</sup>

The State Water Board then understood Friant Dam/Division and other junior water users on the Upper San Joaquin River to be properly within the regulatory reach of the WQCP and understood that these users contributed to the decline of fish and wildlife resources in the Project area. As the State Water Board now updates the WQCP to purportedly be more protective of fish, the Board cannot simultaneously claim such an alternative is not “reasonable” or would not “feasibly attain the most basic objectives of the project.” (CEQA Guidelines, § 15126.6(a).) The exclusion of a similar alternative in this SED simply does not pass the straight-face test.

The omission of an alternative that includes Friant Dam/Division is all the more egregious in light of the recent State Water Board decision to approve Bureau of Reclamation change petitions to facilitate the recapture of SJRRP restoration flows.<sup>61</sup> The State Water Board initially approved a change petition for redirection of SJRRP Friant instream flows in 2013, concurrent with the public review of the 2012 SED.<sup>62</sup> That approval was challenged by several groups—including stakeholders in the current WQCP update proceedings—but on March 23, 2016, the State Water Board upheld its initial decision, just in time for public review of the 2016 SED.

Here, the State Water Board has directly facilitated the recapture of Upper San Joaquin River restoration flows for transfer out of the San Joaquin Basin, while *at the same time* excluding the Upper San Joaquin and the junior Friant contractors from the Project. The State Water Board appears to have gone out of its way to protect CVP exports, (1) to the detriment of the salmon migrating throughout the Delta which could benefit from the SJRRP restoration flows, (2) in complete disregard for senior right holders and the rule of priority, and (3) at the direct expense of all environmental resources in the Bay-Delta Estuary and tributary watersheds, which the WQCP absurdly purports to protect.

Importantly, the CVP has the right under the Friant Settlement to recapture Friant flows but is not yet exercising its right. The Friant Dam provides almost no water now to flows

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<sup>58</sup> Att. 124.

<sup>59</sup> Att. 123 at I-1.

<sup>60</sup> *Id.* at II-23 (emphasis added).

<sup>61</sup> Att. 123.

<sup>62</sup> Att. 127.

throughout the Delta water system, and there will be even less once the CVP begins to recapture Friant Dam releases. The State Water Board should not be permitted to defer evaluation of Friant Dam/Division “flow, water right, or other requirements to protect fish and wildlife in the SJR” until after “full implementation of the SJRPP.” (SED, p. 7-30.) Now is precisely the time to impose unimpaired flow requirements on the Friant Dam/Division and other junior right holders on the Upper San Joaquin River, before a flow recapture program is underway.

Given all the foregoing, the failure to evaluate such a conspicuous alternative that would include the Friant Dam/Division is a fundamental deficiency in the SED and an inexcusable shortcoming regarding CEQA-required disclosures. By impermissibly segmenting the WQCP updates geographically, the State Water Board artificially separated the Upper San Joaquin River from the Lower San Joaquin River to exclude the Friant Dam/Division from consideration. The State Water Board’s approach in Phase I comports neither with nature nor with logic. And, it certainly violates CEQA. The SED must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. (CEQA Guidelines, § 15126.6(a).) Here, it did not. In the absence of this analysis, the public and decision makers cannot be assured that the WQCP sufficiently protects all beneficial uses in the Project area.

**B. The 2018 Revisions Contain Significant New Information Regarding Regulation of Dam Operations, Which Requires Recirculation of the Plan Amendments and SED**

CEQA mandates recirculation of the SED following significant changes to the Project. (Pub. Res. Code § 21092.1; CEQA Guidelines, § 15088.5.) The State Water Board has declared that it will implement the water quality objectives, in part, through the FERC licensing process via Clean Water Act section 401 conditioning. MID and TID currently are undergoing the FERC renewal process for the Don Pedro Dam;<sup>63</sup> the 2018 revisions specify two new requirements that would apply to Don Pedro Dam and to other dams on the Three Tributaries.

First, the 2018 revisions establish *year-round* flow and operational requirements on dams:

“Flows provided to meet these numeric objectives shall be managed in a manner to avoid causing significant adverse impacts to fish and wildlife beneficial uses at other times of the year.” (App. K, p. 18 [italics added].)

Second, the 2018 revisions provide for the imposition of water temperature targets, which also would be necessarily borne by dam operators through carryover storage and refill requirements to control for the temperature of releases:<sup>64</sup>

“Reasonable contributions to ~~productivity~~ these biological goals may include meeting temperature targets and other measures...” (App. K, p. 32.)

<sup>63</sup> AUs. 81-103.

<sup>64</sup> See Att. 104.

The impacts of these two additional requirements—or of any regulation of dam operations, for that matter—have never been analyzed by the State Water Board but must be prior to final adoption of the Plan Amendments.

A failure to recirculate the SED with the 2018 revisions that impose potentially significant new regulations on dam operations amounts to a procedural injury that cannot be undone. These new obligations will have significant impacts to environmental resources and beneficial uses in the Project area which must be analyzed and properly disclosed under CEQA. In particular, these year-round regulatory burdens for meeting temperature targets by way of dam restrictions were never addressed under CEQA and the related administrative process. (*Memphis Light, Gas & Water Div. v. Craft*, 436 U.S. 1 (1978); see also *Sinaloa Lake Owners Ass'n v. City of Simi Valley*, 882 F.2d 1398, 1410 n. 14 (9th Cir.1989).)

Moreover, as it pertains to MID, these 2018 revisions—which suggest wholesale regulation of dam operations—amount to unlawful State control of the privately-owned Don Pedro Dam and Reservoir and outright appropriation without compensation of Don Pedro storage capacity and other related property rights. Due process requires MID to have an opportunity for a hearing prior to the deprivation of these significant property interests.

Recirculation will also provide the opportunity for the State Water Board to correct another fatal defect in the SED as it pertains to dam-related impacts. The State Water Board's modeling and analysis currently fails to incorporate climate change into its analysis. This is a fundamental flaw in the SED, as climate change is a foreseeable condition that will demand increasingly more stringent restrictions on dam operations to counteract the State's forecast that river waters will warm and thus will magnify adverse Project impacts on beneficial uses reliant on dam diversions. Higher temperatures and altered flows resulting from climate change will foreseeably impede the ability to achieve Project objectives over time.<sup>65</sup> Therefore, explicit consideration of the ways in which the Project will address the anticipated challenges of climate change is crucial to accurate and adequate disclosure of the likely constraints to be imposed on dam operations under the Plan Amendments.

The SED's current impacts analysis is based on a temperature model that ignores climate change and that uses cooler historical climate conditions to simulate reservoir stratification, release temperatures, and downstream river temperatures. (SED, p. 19-17.)<sup>66</sup> Without ever running the model to account for increasing temperature conditions, the SED concludes that the impacts of climate change on the Project would be less than significant because the State Water Board "is preparing for the effects of climate change on its programs and adaptive implementation would account for circumstances that arise from climate change." (SED, p. 14-53.) This position is inexplicable, given that in other proceedings before the State Water Board, the Board is keenly aware of the import of modeling adaptive reservoir operations responses to climate change.<sup>67</sup>

<sup>65</sup> Att. 105-106.

<sup>66</sup> The analysis is also inconsistent with the State Water Board's stated understanding in Phase II, that "[w]ith increasing climate change, it is expected that further sculpting and shaping of flows will be needed." (Att. 57, p. 5.)

<sup>67</sup> Att. 107, p. 7.

Even without the new year-round constraints, the State Water Board will foreseeably impose the upper limit of 50% unimpaired flow under warmer conditions, which will cause significant impacts to dam operations. At minimum, the SED should have focused its analysis on impacts incurred under this foreseeable higher regulatory demand, rather than at the starting point of 40% unimpaired flow. The failure to do so resulted in understated and inadequate disclosures regarding adverse Project effects. The only way to know what year-round flow management and the resulting impacts will look like over time is to augment the SED's analysis to account for foreseeable increasing temperatures.

**C. The 2018 Revisions Contain Significant New Information Regarding Responsibility for Salinity Objectives that Requires Recirculation of the SED**

The CVP and SWP historically have been responsible for maintaining salinity levels protective of beneficial uses in the Delta. "One of the major purposes of the [CVP] was containment of maximum salinity intrusion into the Delta. By storing waters during periods of heavy flow and releasing water during times of low flow, the freshwater barrier could be maintained at a constant level." (*U.S. v. State Water Resources Control Bd.* (1986) 187 Cal.App.3d 82, 107.)

Indeed, the implementing legislation of the CVP explicitly states that one of the objectives of the CVP is to control saltwater intrusion in the Delta. When President Franklin D. Roosevelt authorized \$20 million of emergency relief funds for the CVP, he declared, "The purpose [of the CVP] is to store and conserve flood and waste waters of the Sacramento and San Joaquin Rivers and their tributaries so that the entire flow can be used for flood control, improvement of navigation, irrigation, the development of hydroelectric power, and the protection of the delta lands at the junction of the two rivers against injury from salt." (*Id.*, p. 136 [citing Exec. Order (Sept. 10, 1935) [emphasis added].])

Similarly, when the SWP was authorized in 1959, the State Legislature also enacted the Delta Protection Act, which recognized that salinity intrusion was a particular problem in the Delta that required special legislation prohibiting water exports from the Delta necessary for salinity control. (Water Code, §§ 12202, 12203, 12204.)

The WaterFix guts this responsibility of the CVP and SWP to control salinity by routing the Sacramento river flow under the Delta to the South Delta pumps, leaving it to the adaptive management of and higher salinity permitted by the Plan Amendments to mitigate for the salinity levels no longer controlled by the CVP and SWP.

The 2018 revisions explicitly set the stage for reassigning responsibility for salinity control in the Delta. The 2018 revisions state:

"The State Water Board will amend DWR's and USBR's water rights to require the implementation of the interior southern Delta salinity water quality objectives consistent with this plan... The State Water Board may also consider the responsibility of others for implementing the interior southern Delta salinity objective based on implementation or completion of the Comprehensive Operations Plan." (App. K, p. 42 [italics added].)



Such a drastic change to the longstanding allocation of responsibility (and to the Plan Amendments) demands recirculation of the SED for public and stakeholder vetting.

This revision to the Plan Amendments does not exist in a vacuum and must be evaluated in context. Following the above revision to the WQCP, water right holders on the Three Tributaries by default will be providing additional flows that mitigate for the forthcoming impacts of the WaterFix, which will move the diversion points of SWP and CVP from the South Delta to north of the Delta directly from the Sacramento River, disabling the SWP's and CVP's historical capacity to control salinity in the Delta.<sup>68</sup> Once operational, the WaterFix will reduce essential fresh water flows through the Delta to Suisun Bay and San Francisco Bay by diverting clean water from the Sacramento River before it ever reaches the Delta. According to the WaterFix EIR/EIS, these reduced flows will result in worsened water quality throughout the Delta, including higher contaminant concentrations, increased algal blooms, and increased salinity—adversely affecting water for wildlife, habitat, residents and farmers.

The State Water Board failed in the Plan Amendment proceedings and SED to acknowledge that the WaterFix and the Project are interrelated. In fact, the Project (and Phase II projects) are necessary to provide increased flows to the Delta in order to replace flow from the Sacramento River that will be rerouted beneath the Delta by the WaterFix. And the State is fully aware of this fact. Foreseeably, the State Water Board may have to impose the upper range of 50% unimpaired flow requirement to mitigate for the impacts of the WaterFix, to the further detriment of agriculture, groundwater, and service providers in the Project area. Therefore, in addition to the need to recirculate the SED to analyze the above 2018 revision regarding salinity control, to pass CEQA muster, the SED must also augment its WaterFix cumulative impacts analysis to discuss this potential need for higher flows and the implications for consumptive users. (See SED, p. 17-5, 6.)

## II. CONCLUSION

As the second oldest irrigation district in the State, MID has a long, proud history that was instrumental to transforming its surrounding region to an economic and agricultural heart of California.<sup>69</sup> MID understands intimately the true detriment and loss that our community and family members, local businesses, and environmental resources will suffer should the Project be adopted with the careless and incomplete consideration described in this comment letter. MID urges the State Water Board to stop its efforts to push the Project through without proper, conscientious, and legally sufficient scrutiny.

Respectfully,



Ronda Azevedo Lucas  
General Counsel

<sup>68</sup> Atts. 108-115, 126; Atts. 116-119.

<sup>69</sup> Att. 120.



**INDEX OF ATTACHMENTS SUBMITTED IN SUPPORT OF  
MODESTO IRRIGATION DISTRICT'S COMMENT TO  
PROPOSED BAY-DELTA PLAN AMENDMENTS**

<b>Attachment</b>	<b>Description</b>
1	Correspondence re SALSIM Revisions for 2016 Draft SED and Bay-Delta WQCP Update from California State Water Resources Control Board to Tim O'Laughlin, dated October 11, 2017. [2 pages]
2	<i>Environmental Factors Associated with the Upstream Migration of Fall-Run Chinook Salmon in a Regulated River</i> ; article by Matthew L. Peterson, Andrea N. Fuller, and Doug Demko, North American Journal of Fisheries Management, published online December 21, 2016. [17 pages]
3	<i>Be Weir-y: Valley, Ag Getting Water Board-ed By Fish Flow Plans</i> ; article by Jeff Jardine, The Modesto Bee, dated October 15, 2016, updated October 15, 2016. [5 pages]
4	<i>California's Wasted Winter Rains</i> ; opinion article published in The Wall Street Journal, dated April 6, 2017. [1 page]
5	Chinook Salmon Production Summaries for All Races and Streams Report, 1967-1991 Baseline Period, 1992-2015 Doubling Period. [107 pages]
6	<i>State Water Board Knows It Can't Justify the Water Grab, But It Won't Matter</i> ; article by Mike Dunbar, The Modesto Bee, dated March 10, 2018. [4 pages]
7	Modesto Irrigation District Agricultural Water Management Plan-2015 Update, Prepared by Provost & Pritchard Consulting Group, dated December 2015. [296 pages]
8	2016 Stanislaus County Agricultural Report. [32 pages]
9	State of California Farmland Mapping and Monitoring Program, Important Farmland Map Categories, dated 2017. [4 pages]
10	The California Land Conservation Act of 1965, 2016 Status Report issued by the California Department of Conservation, dated December 2016. [88 pages]
11	State Water Resources Control Board Division of Water Rights Order Authorizing Changes in Place of Use and Purpose of Use, dated April 9, 1999, including License for Diversion and Use of Water, License 11058, dated July 28, 1980. [12 pages]

Attachment	Description
12	State Water Resources Control Board Division of Water Rights Notice of Petition for Long-Term Change Involving the Transfer of Up to 67,200 Acre-Feet of Water Per Year to the City of Modesto Under Modesto and Turlock Irrigation Districts' License 11058, dated January 8, 2004. [4 pages]
13	Modesto Regional Water Treatment Plant Phase Two Expansion Project Final Subsequent Environmental Impact Report prepared for Modesto Irrigation District and City of Modesto, prepared by Jones & Stokes, dated June 2005. [74 pages]
14	Final Environmental Impact Report for the Modesto Surface Water Treatment Plant prepared by URS Consultants, Inc. and Modesto Irrigation District, dated March 1990. [237 pages]
15	State Water Resources Control Board Division of Water Rights, WR Order 2005-0022-DWR In the Matter of License 11058, Petition for Long-Term Transfer Involving up to 67,200 Acre-Feet of Water Per Year from the Modesto Irrigation District to the City of Modesto, dated September 12, 2005. [6 pages]
16	<i>Why Emergency Drought Assistance Will Be Needed in California for Years</i> ; article by Tess Porter, News Deeply- Water Deeply web publication, published on June 5, 2018. [12 pages]
17	Participants in Stanislaus County's Temporary Water Assistance (TWA) Program for Dry Wells within MID Irrigation Boundary and Sphere of Influence Map, prepared by L. Heaton, dated April 10, 2018. [1 page]
18	<i>Homeowners Go Dry as Farmers Get Permits to Drill Hundreds of New Wells</i> ; article by J.N. Sbranti, The Modesto Bee, dated June 28, 2014 and updated June 30, 2014. [7 pages]
19	California Department of Water Resources Fact Sheet: Drought Impact on Private Wells, Groundwater Management and Local Impact, dated October 13, 2015. [2 pages]
20	The Board of Supervisors of the County of Stanislaus Board Action Summary, Office of Emergency Services, Board Agenda # *B-6, Approval to Accept the Twenty-Second Update on the Temporary Water Assistance Program and Continue the Countywide Proclamation of a Local Emergency Due to a Multi-year Water Shortage in California, dated April 4, 2017. [4 pages]

<b>Attachment</b>	<b>Description</b>
21	The Effect of Declining Groundwater Levels on Supply Well Operations Report to the California Department of Food and Agriculture prepared by the Center for Watershed Sciences at UC Davis, dated August 15, 2016. [73 pages]
22	California Department of Water Resources Map-Groundwater Level Change-Spring 2011 to Spring 2017, dated September 28, 2017. [1 page]
23	California Department of Water Resources Groundwater Information Center Map-Groundwater and Well Information Interactive Map, last accessed June 30, 2018. [1 page]
24	Modesto Subbasin's Application, Attachment 7: Disadvantaged Communities as Part of Department of Water Resource's Sustainable Groundwater Planning Grant Program, dated 2017. [20 pages]
25	California Department of Water Resources Groundwater Information Center Well Completion Reports. [2 pages]
26	Estimated Effects of the Substitute Environmental Document (SED) on Groundwater Elevation Changes as Measured in Wells for the Merced, Modesto & Turlock Groundwater Subbasins (Fall 2006- Fall 2016), prepared by Modesto Irrigation District on July 19, 2018. [1 page]
27	The Struggle for Water Justice in California's San Joaquin Valley: A Focus on Disadvantaged Unincorporated Communities Report, UC Davis Center for Regional Change, dated February 2018. [64 pages]
28	California State Water Boards' Small Community Wastewater Strategy, dated June 16, 2008. [34 pages]
29	City of Modesto 2015 Urban Water Management Plan, dated June 2016. [468 pages]
30	Stanislaus and Tuolumne Rivers Groundwater Basin Association Integrated Regional Groundwater Management Plan, dated 2005. [143 pages]
31a-31k	City of Modesto Urban Area General Plan, dated October 14, 2008 (Table of Contents, Chapters 1-8, Appendix A- Consolidated Plan, and Appendix B- Amendments).
32	Modesto Irrigation District Conservation Program Guidelines, dated August 2015. [13 pages]

<b>Attachment</b>	<b>Description</b>
33	Annual Modesto Irrigation District Canal Demand Shortage. [1 page]
34	Annual Modesto Irrigation District Irrigation Delivery Shortage. [1 page]
35	Modesto Irrigation District Increase in Groundwater Pumping Due to Increased Surface Water Shortages. [1 page]
36	California Department of Water Resources Report, Drought and Water Year 2016: Hot and Dry Conditions Continue, Fall 2016. [8 pages]
37	Modesto Ground Water Contamination Superfund Site Profile, United State Environmental Protection Agency web page, accessed July 3, 2018. [2 pages]
38	California Department of Water Resources Map-Groundwater Basins Subject to Critical Overdraft, dated October 18, 2016. [1 page]
39	California Department of Water Resources Map-Groundwater Level Change-Spring 2007 to Spring 2017, dated June 8, 2017. [1 page]
40	California Department of Water Resources Map-Groundwater Level Change-Fall 2006 to Fall 2016, dated May 8, 2017. [1 page]
41	<i>Water Availability and Subsidence in California's Central Valley</i> , article by Claudia C. Faunt and Michelle Sneed, San Francisco Estuary and Watershed Science, Journal Volume 13, Issue 3, Article 4, dated September 2015. [9 pages]
42	<i>Estimating the Permanent Loss of Groundwater Storage in the Southern San Joaquin Valley, California</i> ; article by R.G. Smith, R. Knight, J. Chen, J.A. Reeves, H.A. Zebker, T. Farr, and Z. Liu, AGU Publications, Water Resources Research article, published online March 13, 2017. [16 pages]
43	Stanislaus County Ordinance Chapter 9.37 [9 pages]
44	Final Program Environmental Impact Report for Stanislaus County Discretionary Well Permitting and Management Program, dated June 2018. [526 pages]
45	Notice of Preparation, Program Environmental Impact Report for Stanislaus County Discretionary Well Permitting and Management Program, dated October 3, 2016. [2 pages]
46	California Department of Water Resources Website-Sustainable Groundwater Management Act (SGMA) Groundwater Management. [10

<b>Attachment</b>	<b>Description</b>
	pages]
47	Modesto Groundwater Subbasin Grant Application, Attachment 6- Project and Proposal Schedule for Modesto Groundwater Subbasin Groundwater Sustainability Plan, dated November 9, 2017. [5 pages]
48	Comments re Don Pedro Hydroelectric Project, FERC Project No. 2299 submitted by West Turlock Subbasin Groundwater Sustainability Agency, submitted to FERC on January 25, 2018 and filed January 29, 2018. [5 pages]
49	Groundwater Characterization and Recharge Study-Modesto LGA Project by TODD Groundwater, dated June 2016. [129 pages]
50	United States Fish & Wildlife Service San Joaquin River National Wildlife Refuge Final Comprehensive Conservation Plan, dated September 29, 2006. [211 pages]
51	Mapes Ranch Annexation, Easement, and Water Use Agreement, dated June 28, 1983. [27 pages]
52	Resolution 83-152, Amendment to Mapes Ranch Annexation, Easement, and Water Use Agreement, dated November 22, 1983. [48 pages]
53	Resolution 84-24, Annexation of Land into Modesto Irrigation District Territory (Mapes Ranch Annexation), dated March 13, 1984. [14 pages]
54	State of California Fish and Game Code, Division 3, Sections 2050-2100. [4 pages]
55	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, dated November 14, 2000. [534 pages]
56	Correspondence re Mapes Ranch Annexation, dated July 11, 1984. [13 pages]
57	California State Water Boards Fact Sheet re Phase II Update of the Bay-Delta Plan: Inflows to the Sacramento River and Delta and Tributaries, Delta Outflows, Cold Water Habitat and Interior Delta Flows, dated October 4, 2017. [12 pages]
58	California State Water Boards July 2018 Framework for the Sacramento/Delta Update to the Bay-Delta Plan. [35 pages]
59	California State Water Boards Scientific Basis Report in Support of New



Attachment	Description
	and Modified Requirements for Inflows from the Sacramento River and its Tributaries and Eastside Tributaries to the Delta, Delta Outflows, Cold Water Habitat and Interior Delta Flow, dated 2017. [427 pages]
60	Modernizing the System: California WaterFix Operations, California WaterFix Policy Paper, The Metropolitan Water District of Southern California, dated July 2017. [32 pages]
61	Merced River Water Rights Holders- Spreadsheet
62	Merced River Water Rights Holders- Map
63	San Joaquin River Water Rights Holders- Spreadsheet
64	San Joaquin River Water Rights Holders- Map
65	Stanislaus River Water Rights Holders- Spreadsheet
66	Stanislaus River Water Rights Holders- Map
67	Tuolumne River Water Rights Holders- Spreadsheet
68	Tuolumne River Water Rights Holders- Map
69	<i>A Historic Day: Salmon Return to the San Joaquin River After 62 years;</i> Expert Blog by Monty Schmitt, dated November 15, 2012. [7 pages]
70	<i>For First Time in 60 Years, Spring-run Chinook Salmon Reproduce in San Joaquin River;</i> article by Brianna Calix, The Fresno Bee, dated January 31, 2018. [9 pages]
71	Settlement Agreement between Natural Resources Defense Council, et al., Kirk Rodgers as Regional Director of the United States Bureau of Reclamation, et al., and Orange Cove Irrigation District, et al., CIV No. S-88-1658, dated September 13, 2006. [80 pages]
72	Friant Water Users Authority Summary of the Stipulation of Settlement (CIV No. S-88-1658) [7 pages]
73	New Don Pedro Proceeding P-2299-024 Settlement Agreement, dated 1995. [36 pages]
74	1995 Settlement Agreement Flow Schedule. [1 page]
75	Code of Federal Regulations, Title 33- Navigation and Navigable Waters,

<b>Attachment</b>	<b>Description</b>
	Section 208, Don Pedro Flood Control, dated July 7, 2017. [13 pages]
76	Flow Data at San Joaquin River Confluence. [4 pages]
77	San Joaquin River Flow by Wet Year and Month. [1 page]
78	San Joaquin River Flow-Friant Vernalis Flow Breakdown. [2 pages]
79	40% UIF Monthly San Joaquin River Flow. [5 pages]
80	State Water Resources Control Board Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem Report, dated August 3, 2010. [191 pages]
81	Letters from D. Lee Forsgren, Deputy Assistant Administrator, United States Environmental Protection Agency to Casey Hashimoto, General Manager of Turlock Irrigation District and John Davids, Assistant General Manager Water Operations, Modesto Irrigation District regarding EPA temperature guidance, dated June 27, 2008. [2 pages]
82	2016 Lower Tuolumne River Annual Report submitted jointly by Modesto Irrigation District and Turlock Irrigation District to FERC on March 30, 2017. [300 pages]
83	Turlock Irrigation District Update of Water Year Classification Index and Flow Schedule under Project 2299 submitted to FERC on April 14, 2017. [6 pages]
84	Don Pedro Hydroelectric Project Modeling Tool Updates Workshop Meeting Notes and Presentation Materials submitted jointly by Modesto Irrigation District and Turlock Irrigation to FERC on August 16, 2017. [69 pages]
85	Historic Properties Study Report for the Don Pedro Hydroelectric Project under Project 2299 submitted by HDR Engineering to FERC on October 9, 2017 and filed on October 11, 2017. [2 pages]
86	Comments re Don Pedro Hydroelectric Project, FERC Project No. 2299 submitted by Stanislaus Regional Water Authority, submitted January 19, 2018 and filed January 22, 2018. [2 pages]
87	Comments re Don Pedro Hydroelectric Project, FERC Project No. 2299 submitted by City of Turlock, submitted January 16, 2018 and filed January 22, 2018. [3 pages]

Attachment	Description
88	Comments re Don Pedro Hydroelectric Project, FERC Project No. 2299, submitted by Stanislaus and Tuolumne Rivers Groundwater Basin Association on January 25 2018 and filed January 26, 2018, with enclosures including: Modesto Irrigation District 2015 Agricultural Water Management Plan; Oakdale Irrigation District 2015 Agricultural Water Management Plan; Map of STRGBA GSA Agencies; and 2005 Integrated Regional Groundwater Management Plan for the Modesto Sub-basin. [512 pages]
89	Filing of Stakeholder Letters re Don Pedro Project Relicensing, FERC Project 2299, submitted jointly by Modesto Irrigation District and Turlock Irrigation District to FERC on January 26, 2018. [17 pages]
90	Comments re Don Pedro Hydroelectric Project, FERC Project No. 2299, submitted by City of Hughson to FERC on January 22, 2018 and filed January 29, 2018. [2 pages]
91	Copy of Turlock Irrigation District and Modesto Irrigation Districts' request to the California State Water Resources Control Board for a Clean Water Act Section 401 Water Quality Certificate for the Don Pedro Hydroelectric Project, submitted to FERC on January 29, 2018. [6 pages]
92	California State Water Resources Control Board's General Comments and Preliminary Conditions on FERC's Notice of Ready for Environmental Analysis for Don Pedro Hydroelectric Project P-2299, et al., dated January 29, 2018. [12 pages]
93	Don Pedro Hydroelectric Project, FERC No. 2299 Amendment of Application, Attachment 5, Exhibit E-Environmental Report and Appendix E-2: Fire Prevention and Response Management Plan jointly prepared by Turlock Irrigation District and Modesto Irrigation District, dated September 2017. [36 pages]
94	Comments re Don Pedro Hydroelectric Project, FERC Project 2299, submitted by City of Ceres to FERC on January 16, 2018 and filed on January 29, 2018. [3 pages]
95	Comments re Don Pedro Hydroelectric Project, FERC Project 2299, submitted by Johnson Farms to FERC on January 27, 2018 and filed on February 13, 2018. [2 pages]
96	California State Water Resources Control Board's Comments on Ready for Environmental Analysis and Preliminary Terms and Conditions for Don Pedro and La Grange Hydroelectric Projects, dated February 8, 2018 and filed February 15, 2018. [13 pages]

Attachment	Description
97	California State Water Resources Control Board's Request for Water Quality Certification for the Relicensing and Licensing of the Don Pedro and La Grange Hydroelectric Projects, FERC Projects 2299 and 14581, dated February 15, 2018 and filed with FERC February 21, 2018. [3 pages]
98	Filing of Documents into the Record for FERC Project 2299, jointly submitted to FERC by Turlock Irrigation District and Modesto Irrigation District, dated February 27, 2018. Attachment A includes: BLM Handbook H-8320-1; National Park Service Draft Comprehensive Management Plan and Environmental Impact Statement; Stanislaus National Forest, Forest Direction Plan, March 2017; Tuolumne Wild and Scenic River Study- Final EIS (1979). [671 pages]
99	Reply Comments of the Bay Area Water Supply and Conservation Agency re Projects 2299 and 14581, dated March 15, 2018. [15 pages]
100	2017 Lower Tuolumne River Annual Report, jointly submitted to FERC by Modesto Irrigation District and Turlock Irrigation District on March 30, 2018. [385 pages]
101	Motion for Stay of Proceedings by the United States Department of the Interior, U.S. Fish and Wildlife Service, and United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, served on FERC June 14, 2018. [6 pages]
102	Memorandum to Public Files by Jim Hastreiter re Request for Model Simulation Information, dated June 18, 2018. [2 pages]
103	Answer of Turlock Irrigation District and Modesto Irrigation District to Agencies' Motion for Stay of Proceedings, dated June 19, 2018. [5 pages]
104	<i>Hundreds Rise in Defense of the Region's Rights to Water</i> ; article by Mike Dunbar, The Modesto Bee, dated October 22, 2016. [11 pages]
105	Indicators of Climate Change in California Report issued by Office of Environmental Health Hazard Assessment of California Environmental Protection Agency, dated May 2018. [351 pages]
106	State Water Resources Control Board Resolution No. 2017-0012, Comprehensive Response to Climate Change, dated March 7, 2017. [9 pages]
107	California State Water Resources Control Board Comments on the Draft Bay Delta Conservation Plan, Draft Environmental Impact

Attachment	Description
	Report/Environmental Impact Statement for the Bay Delta Conservation Plan and the Implementing Agreement for the Bay Delta Conservation Plan, dated July 29, 2014. [36 pages]
108	California Department of Water Resources application to the State Water Resources Control Board for a Water Quality Certification for the State's California WaterFix program (Clean Water Act Section 401 Application), dated September 23, 2015. [32 pages]
109	California State Water Resources Control Board 2015 Public Notice for Changes in Water Rights for the California WaterFix Project and Notice for 401 Application. [38 pages]
110	Petition for Change to the Water Rights Necessary for California WaterFix, jointly submitted to the State Water Resources Control Board by the California Department of Water Resources and the U.S. Bureau of Reclamation, dated August 25, 2015. [39 pages]
111	2017 WaterFix Notice of Determination, dated July 21, 2017. [4 pages]
112	Addendum and Errata for the August 25, 2015 Petition for Change to the Water Rights Necessary for California WaterFix Project, jointly submitted to the State Water Resources Control Board by the California Department of Water Resources and the U.S. Bureau of Reclamation, dated September 11, 2015. [51 pages]
113	California Water Boards Fact Sheet, "California WaterFix-Water Right Change Petition and Water Quality Certification Process (Updated May 2018)". [5 pages]
114a-114s30	Biological Assessment for the California WaterFix dated July 2016 (Table of Contents, Chapters 1-7, Figures, and Appendices).
115a-115j	California WaterFix Biological Opinion (Appendices A1, A2, B, C, D, E, F, G, H, and Final Biological Opinion, dated June 2017)
116	The Bay Delta Conservation Plan Shared Responsibility for Implementation of Conservation Measures, dated April 19, 2013. [7 pages]
117	Water for Habitat Opportunities February 19, 2014 Consolidated Version-Chart-Potential Water for Enhanced Environmental Flows/Adaptive Management (SAMF) [3 pages]
118	San Joaquin, Merced, Tuolumne, and Stanislaus Rivers Water Rights Spreadsheets.



Attachment	Description
119	<i>Dry Southern California Offers Northern Farmers Top Dollar for Water</i> ; article from <a href="https://www.nbcnews.com">https://www.nbcnews.com</a> article dated March 18, 2015 and accessed on July 1, 2018. [10 pages]
120	<i>The Greening of Paradise Valley, The First 100 years (1887-1987) of the Modesto Irrigation District</i> ; by Dwight H. Barnes, dated March 7, 1987. [233 pages]
121	Estimated Effects of the Substitute Environmental Document (SED) on Groundwater Elevation Changes for the Merced, Modesto & Turlock Groundwater Subbasins (Spring 2005 - Spring 2015), prepared by Modesto Irrigation District on July 19, 2018. [1 page]
122	San Joaquin River Restoration Program-Restoration Flows web page, accessed July 25, 2018. [3 pages]
123	State Water Resources Control Board Order WR 2016-0017-EXEC, Order Denying Reconsideration, dated July 21, 2016. [6 pages]
124	State Water Resources Control Board Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, dated May 1995. [55 pages]
125	State Water Resources Control Board Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, Final Environmental Impact Report, dated November 1999. [920 pages]
126	United States Department of the Interior, Fish and Wildlife Service, Final Biological Opinion for the California WaterFix, dated June 23, 2017. [547 pages]
127	California State Water Resources Board, Division of Water Rights Order Approving Change and Instream Flow Dedication re Petition for Change submitted by U.S. Bureau of Reclamation in the Matter of Permits 11885, 11886 and 11887 and License 1986, dated October 21, 2013. [129 pages]

**INDEX OF ATTACHMENTS RESUBMITTED IN SUPPORT OF  
MODESTO IRRIGATION DISTRICT'S COMMENTS DATED MARCH 17, 2017**

<b>Attachment</b>	<b>Description</b>	<b>Disk</b>
1	Agreement for Mitigation of Impacts to Contra Costa Water District from Construction and Operation of Bay Delta Conservation Plan/California WaterFix (March 24, 2016)	RS-1
2	<i>Amended and Restated Treatment and Delivery Agreement Between Modesto Irrigation District and City of Modesto</i> (October 11, 2005)	RS-1
3	American Farmland Trust, <i>California Agricultural Vision: Strategies for Sustainability</i> (December 2010)	RS-1
4	Cal. Water Code § 85320(b)(2)(C) (Deering 2018)	RS-1
5	CALFED Bay-Delta Program, CALFED Independent Science Board, <i>Projections of Sea Level Rise for the Delta</i> (September 6, 2007)	RS-1
6	California Global Warming Solutions Act of 2006 (a.k.a. AB 32), Cal. Health & Safety Code § 38500 et seq. (Lexis 2018)	RS-1
7	Clean Energy and Pollution Reduction Act of 2015, Senate Bill 350 (2015)	RS-1
8	Executive Order No. 12898, 59 Fed. Reg. 7629 (February 16, 1994), <i>as amended by</i> EO No. 12948 (February 1, 1995)	RS-1
9	<i>Fourth Agreement Between the City and County of San Francisco, the Turlock Irrigation District and the Modesto Irrigation District</i> (June 1966)	RS-1
10	In re Federal Energy Regulatory Commission Relicensing Proceeding for the Don Pedro Project (Project No. 2299) et al., <i>Amendment to the Final License Application to Don Pedro Project</i> (October 11, 2017) (132 files), <i>as supplemented by</i> filings dated November 27, 2017 (2 files), December 13, 2017 (1 file), May 14, 2018 (25 files), June 19, 2018 (1 file) and July 11, 2018 (2 files).	RS-2
11	Matella, M.K and Merelender, A.M., <i>Scenarios for Restoring Floodplain Ecology Given Changes to River Flow Under Climate Change: Case from the San Joaquin River, California</i> . DOI: 10.1002/rra.2750 (February 2014)	RS-1
12	Modesto Irrigation District, <i>Official Statement, Fifteenth Issue, New Don Pedro Dam Bonds</i> (August 1, 1967)	RS-1
13	State of California Air Resources Control Board, <i>Climate Change Scoping Plan: A Framework for Change</i> (December 2008).	RS-1

Attachment	Description	Disk
14	State of California California Climate Action Team, Coastal and Ocean Working Group, <i>State of California Sea-Level Rise Interim Guidance Document</i> (March 2013)	RS-1
15	State of California California Climate Action Team, Coastal and Ocean Working Group, <i>State of California Sea-Level Rise Interim Guidance Document</i> (October 2010)	RS-1
16	State of California Delta Protection Commission, <i>2006-2011 Strategic Plan</i> (July 27, 2006)	RS-1
17	State of California Delta Stewardship Council, Delta Science Program, <i>The Vernalis Adaptive Management Program (VAMP): Report of the 2010 Review Panel</i> (May 11, 2010)	RS-1
18	State of California Department of Fish and Wildlife (formerly Department of Fish and Game), <i>Unity, Integration and Action: DFG's Vision for Confronting Climate Change in California</i> (2011)	RS-1
19	State of California Department of Fish and Wildlife, <i>Salmon Simulator As Implemented for the San Joaquin River System</i> (February 2014)	RS-1
20	State of California Department of Fish and Wildlife, <i>Salmon Simulator As Implemented for the San Joaquin River System User's Manual</i> (June 2013)	RS-1
21	State of California Department of Forestry and Fire Protection, <i>An Adaptation Plan for California's Forest Sector and Rangelands</i> (Rev. December 11, 2008)	RS-1
22	State of California Department of Transportation, <i>Addressing Climate Change Adaptation in Regional Transportation Plan: A Guide for California MPOs and RTPAs</i> (February 2013)	RS-1
23	State of California Department of Transportation, <i>Caltrans Activities to Address Climate Change</i> (April 2013)	RS-1
24	State of California Department of Water Resources, <i>Administrative Draft Supplemental to the Bay Delta Conservation Plan / California WaterFix Final Environmental Impact Report/Environmental Impact Statement</i> (June 2018) (148 files)	RS-1
25	State of California Department of Water Resources, <i>Bay Delta Conservation Plan / California WaterFix Final Environmental Impact Report/Environmental Impact Statement</i> (released December 2016, certified July 21, 2017) (261 files)	RS-3
26	State of California Department of Water Resources, California Data Exchange Center, <i>Don Pedro Reservoir (DNP)</i> , website visited March 15, 2017	RS-1
27	State of California Department of Water Resources, <i>California Water Plan Update Highlights</i> (2009)	RS-1
28	State of California Department of Water Resources, <i>2012 Central Valley Flood Protection Plan</i>	RS-1

Attachment	Description	Disk
29	State of California Department of Water Resources, <i>Managing an Uncertain Future: Climate Change Adaptation Strategies for Water</i> (October 2008)	RS-1
30	State of California Department of Water Resources, <i>Notice of Determination regarding Addendum to the Bay Delta Conservation Plan / California WaterFix Final Environmental Impact Report/Environmental Impact Statement</i> (January 2018) (1 file)	RS-1
31	State of California Department of Water Resources, <i>Progress on Incorporating Climate Change into Planning and Management of California's Water Resources, Technical Memorandum Report</i> (July 2006)	RS-1
32	State of California Emergency Management Agency, State of California Natural Resources Agency, <i>California Adaptation Planning Guide</i> (July 2012)	RS-1
33	State of California Natural Resources Agency, <i>2009 Climate Change Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-08</i> (2009)	RS-1
34	State of California Natural Resources Agency, <i>Safeguarding California: Reducing Climate Risk</i> (July 2014)	RS-1
35	State of California Office of the Governor, Executive Order B-30-15 (April 29, 2015)	RS-1
36	State of California Office of the Governor, Executive Order S-13-08 (November 14, 2008)	RS-1
37	State of California Office of the Governor, Executive Order S-3-05 (June 1, 2005)	RS-1
38	State of California State Water Resources Control Board, <i>Resolution no. 2017-0017: Comprehensive Response to Climate Change</i> (March 7, 2017)	RS-1
39	State of California, Office of the Attorney General, <i>Addressing Climate Change at the Project Level</i> (Rev. January 6, 2010)	RS-1
40	Transcript of <b>December 12, 2016</b> Public Hearing (Volume 1 of 1) re: State Water Resources Control Board, <i>Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> (September 15, 2016)	RS-1

Attachment	Description	Disk
41	Transcript of <b>December 16, 2016</b> Public Hearing (Volume 1 of 1) re: State Water Resources Control Board, <i>Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> (September 15, 2016)	RS-1
42	Transcript of <b>December 19, 2016</b> Public Hearing (Volume 1 of 2) re: State Water Resources Control Board, <i>Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> (September 15, 2016)	RS-1
43	Transcript of <b>December 19, 2016</b> Public Hearing (Volume 2 of 2) re: State Water Resources Control Board, <i>Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> (September 15, 2016)	RS-1
44	Transcript of <b>December 20, 2016</b> Public Hearing (Volume 1 of 2) re: State Water Resources Control Board, <i>Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> (September 15, 2016)	RS-1
45	Transcript of <b>December 20, 2016</b> Public Hearing (Volume 2 of 2) re: State Water Resources Control Board, <i>Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> (September 15, 2016)	RS-1
46	Transcript of <b>December 5, 2016</b> Public Hearing (Volume 1 of 1) re: State Water Resources Control Board, <i>Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> (September 15, 2016)	RS-1
47	Transcript of <b>January 3, 2017</b> Public Hearing (Volume 1 of 1) re: State Water Resources Control Board, <i>Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> (September 15, 2016)	RS-1
48	Transcript of <b>November 18, 2016 Public Hearing</b> (Volume 1 of 1) re: State Water Resources Control Board, <i>Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> (September 15, 2016)	RS-1



Attachment	Description	Disk
49	Transcript of <b>November 29, 2016</b> Public Hearing (Volume 1 of 1) re: State Water Resources Control Board, <i>Draft Revised Substitute Environmental Document in Support of Potential Changes to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary</i> (September 15, 2016)	RS-1
50	U.S. Department of Interior, Bureau of Reclamation, <i>West-Wide Climate Risk Assessment: Sacramento and San Joaquin Basins Climate Impact Assessment</i> (September 2014)	RS-1
51	U.S. Department of Interior, Bureau of Reclamation, <i>SECURE Water Act Section 9503(c) - Reclamation Climate Change and Water 2016</i> , Chapter 8 (March 2016)	RS-1
52	United Nations Environment Programme and World Meteorological Organization, Intergovernmental Panel on Climate Change, <i>IPCC Second Assessment: Climate Change 1995, a Report on the Intergovernmental Panel on Climate Change</i> (1995)	RS-1
53	Verhille et al., <i>High Thermal Tolerance of a Rainbow Trout Population Near Its Southern Range Limit Suggests Local Thermal Adjustment</i> , <i>Journal of Conservation Physiology</i> (Volume 4 2016)	RS-1
54	<i>Water Quality Standards for Surface Waters of the Sacramento River, San Joaquin River, and San Francisco Bay and Delta of the State of California</i> , 59 Fed. Reg. 810 (U.S. Environmental Protection Agency January 6, 1994) (proposed rule)	RS-1

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**Sent:** Friday, July 27, 2018 3:33 PM  
**To:** LSJR-SD-Comments; WQCP1Comments  
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