

July 29, 2014

**VIA E-MAIL ONLY**

National Marine Fisheries Service  
650 Capitol Mall, Suite 5-100  
Sacramento, CA 95814

Attn: Ryan Wulff

Re: City of Stockton's Comments on Draft BDCP and Associated Draft EIR/EIS

Dear Mr. Wulff:

The City of Stockton (City) appreciates the opportunity to comment on the Draft Bay Delta Conservation Plan (BDCP or Plan) and associated Draft Environmental Impact Report/ Environmental Impact Statement (DEIR/EIS).

**I. INTRODUCTION**

The BDCP threatens to have significant impacts that would adversely affect the City and its residents. Water quality is the most significant concern that has not been adequately addressed in the DEIR/EIS. In fact, there is no analysis at all of potential changes to water quality at the location of the drinking water intake owned and operated by the City. Instead, the DEIR/EIS defers analysis of this issue to the future and even then the proposed mitigation does not avoid significant and unavoidable impacts and improperly shifts the burden to the impacted party to mitigate on their own through potential costly treatment measures. Other areas of significant concern include impacts to City roads, and economic and socioeconomic impacts, including impacts to its agricultural processing industry.

The City's Municipal Utilities Department provides potable drinking water to more than 47,000 residential, commercial, and industrial customers with a service population of more than 170,000. This accounts for approximately 55 percent of the Municipal and Industrial (M&I) potable water demand of the Stockton Metropolitan Area. One of the sources of water for treatment and delivery to City customers is the Delta Water Supply Project (DWSP) Water Treatment Plant (WTP). The DWSP WTP is a 30 million gallon per day facility that derives its source water from the Sacramento/ San Joaquin Delta at the southwest tip of Empire Tract under a water right issued by the State Water Resources Control Board (SWRCB).

In addition to providing potable drinking water, the City owns, operates, and maintains wastewater collection and treatment to the entire Stockton Metropolitan

Area population of 300,000 under a National Pollutant Discharge Elimination System (NPDES) permit issued by the Central Valley Regional Water Quality Control Board (Central Valley Regional Board). Wastewater treatment and discharge to the San Joaquin River has been, and will continue to be, an essential service to the residential, commercial, and industrial sectors of the City.

The City is greatly concerned with the current BDCP because of the uncertainty as to the future water quality and water supply impacts resulting from the yet-to-be-determined operation of the BDCP. Our review of the BDCP DEIR/EIS has revealed numerous critical flaws and omissions that must be brought to the attention of the BDCP project proponents and agencies with permitting authority or responsibility under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). Any BDCP project alternative that could harm the City's ability to serve its customers or increase costs to City residents is of concern to the City. As such, it is critical that any and all adverse impacts affecting the City be studied, acknowledged, and avoided or mitigated consistent with applicable law.

Unfortunately, the BDCP is so convoluted and compromised by omissions of analysis, lack of relevant data, and inaccuracies in the modeling of the BDCP's impacts in key areas, that the City is unable to adequately assess the Plan's impacts to its operations or the Delta ecosystem. As set forth in detail in these comments, the City's review of the BDCP and DEIR/EIS has revealed significant problems with the documents that render them inadequate under CEQA and NEPA. The City's comments on the BDCP and DEIR/EIS focus on issues of greatest concern and most immediate impact to the City and its residents. However, given the BDCP's enormous cost to state citizens, and the many unknowns about whether it will actually achieve any of the ecosystem benefits touted by its proponents, the City also is concerned about the Plan's ability to function as a habitat conservation plan (HCP) and, as a result, whether any of the significant environmental impacts and staggering costs can be justified.

For the BDCP and DEIR/EIS we first summarize our major concerns with these documents. We then present our detailed comments on the BDCP and DEIR/EIS. Because the BDCP states that the Plan and supporting documents are incorporated in the DEIR/EIS, our comments on the BDCP should also be considered comments on the DEIR/EIS. The City further adopts and incorporates by reference comments on the BDCP and DEIR/EIS of other affected Delta communities, affected Northern California water rights holders, and publicly owned treatment works, including comments of the Central Valley Clean Water Association, the Sacramento County Regional Sanitation District, Sacramento County, and North State Water Alliance.

## II. SUMMARY OF MAJOR CONCERNS

The City's review of the BDCP and DEIR/EIS is guided by several overarching principles. At a minimum, any ecosystem restoration and water supply reliability plan for the Delta and areas of the Delta must:

1. Not cause unmitigated adverse environmental, economic, or social impacts to the City;
2. Respect water rights and area-of-origin protections;
3. Have no adverse effect on the existing and future operations of the City's water supply and wastewater treatment facilities;
4. Fully mitigate any other adverse impacts of water conveyance facilities construction within the City, with City staff fully involved in the mitigation process for impacts within the City;
5. Protect the City's governmental prerogatives in the areas of its local land use authority, tax and related revenues, public health and safety, economic development, and agricultural stability;
6. Ensure voting membership for elected representatives from the City in BDCP governing bodies with decision-making authority in areas affecting City resources;
7. Be consistent with the City's land use planning and economic development;
8. Commit financial resources to maintain and enhance vital transportation, flood control infrastructure, and emergency response resources within the City and the Delta;
9. Accurately and objectively account for the multiple causes of the Delta's decline and not simply focus on one or a limited number, or rely on selective data or interpretations biased in favor of the BDCP.

To date, the BDCP and project proponents have failed to assure the City that these vital interests and concerns will be protected.

The residents and communities in the Delta will bear a disproportionate burden of the BDCP's numerous significant environmental and economic impacts. Substantial questions have been raised by many others about the BDCP's ability to meet any of the required standards for protecting listed species, and the BDCP depends on uncertain and speculative funding sources, which may result in those not benefiting

from BDCP's assurances having to shoulder some of the costs of the BDCP. As such, it does not meet any of the essential criteria for approval of an HCP or Natural Communities Conservation Plan (NCCP).

The DEIR/EIS fails to summarize and convey information essential to the understanding of project impacts in a manner reasonably calculated to inform the readers and decision-makers, in violation of NEPA's readability requirement and in violation of CEQA's requirement that the document adequately inform the public of the scope and potential impacts of a proposed project. The DEIR/EIS fails to provide sufficient, meaningful information about many of the project's adverse effects and it omits consideration of many impacts of concern to the residents of the City. The DEIR/EIS also fails to adequately address or answer basic questions regarding short- and long-term mitigation for many impacts of the BDCP. The most significant issues to the City include the following:

**A. Effects on the City's Water Supply**

Despite the fact that the City provided detailed comments on the Notice of Preparation (NOP) requesting evaluation of the BDCP effects on the DWSP WTP, the DEIR/EIS omits any analysis of the effects on this critical drinking water source for the City's residents. (See May 30, 2008 letter from City of Stockton to Delores Brown re: City of Stockton Comments on Notice of Preparation of an EIR/S for the Bay Delta Conservation Plan (attached hereto as Exhibit A).) As noted in our comments on the NOP, the City is concerned about the BDCP's effect on flows in the San Joaquin River and water quality. Information in the DEIR/EIS indicates the BDCP will substantially reduce flows in the San Joaquin River in the area of the City's intake and wastewater discharges. Reduced flows could adversely affect the quality of the City's drinking water supply.

The DEIR/EIS fails to recognize the City as a major diverter of water for municipal and industrial uses whose supply could be at risk by the BDCP. Because of the DEIR/EIS's lack of water quality analysis in the vicinity of the City's drinking water intake on the San Joaquin River, it is clear that the Department of Water Resources (DWR) and BDCP proponents cannot adequately predict the impacts of the BDCP to the City's drinking water supply.

The state policy regarding the Delta, as set forth in the Delta Reform Act of 2009, states, "it is the intent of the Legislature . . . to provide for a more reliable water supply for the state, to protect and enhance the quality of water supply from the Delta, and to establish a governance structure that will direct efforts across state agencies to develop a legally enforceable Delta Plan." (Wat. Code, § 85001(c).) The state's co-equal goals for the Delta call for "providing a more reliable water supply for California." (Wat. Code, § 85054.) This includes areas in the Delta, and reliable water supplies for all beneficial uses, including cities and farmlands. The BDCP and

DEIR/EIS fail to demonstrate the protection or enhancement of the quality of water supply from the Delta for users other than the BDCP proponents. It appears that rather than provide a thorough assessment of impacts and meaningful mitigation, the proponents have elected to declare impacts significant and unavoidable, with the intent of relying on a statement of overriding considerations, and leave impacted users to deal with the consequences. It is clear from the DEIR/EIS that the preferred project alternative serves only to satisfy the needs of the project proponents.

The DEIR/EIS states: "DWR's fundamental purpose in proposing the BDCP is to make necessary physical and operational improvements to the SWP system in the Delta to restore and protect ecosystem health, water supplies of the SWP and CVP south-of-Delta, and water quality within a stable regulatory framework, consistent with statutory and contractual obligations." What defines water quality within a stable regulatory framework? Is this water quality in the water supplies of the State Water Project (SWP) and Central Valley Project (CVP) south-of-Delta? What about existing in-Delta users? Viability of the City's DWSP was due in part to demonstrating through the CEQA process that its Delta diversion would not significantly impact other Delta users and to provide mitigation to protect the ecosystem. The BDCP and DEIR/EIS fail to provide a similar demonstration.

The DEIR/EIS also acknowledges:

The water rights of the SWP and CVP are conditioned by the State Water Board to protect the beneficial uses of water within the Delta under each respective project's water rights. In addition, under the Coordinated Operations Agreement, DWR and the United States Bureau of Reclamation (USBR) coordinate their reservoir releases and Delta exports to enable each project to achieve benefit from their water supplies and to operate in a manner protective of beneficial uses as required by their water right permits. It is the responsibility of the SWP and CVP to meet these obligations regardless of hydrologic conditions.

The Governor, Secretary of Interior, and policy leaders in the BDCP process have emphasized that the BDCP will not redirect any impacts to those in the Delta watershed. In their July 25, 2012 statement, the Governor and Secretaries confirmed that "State and U.S. governments will make sure implementation of BDCP will not result in adverse effects on the water rights of those in the watershed of the Delta, nor will it impose any obligations on water users upstream of the Delta to supplement flows in and through the Delta." The City is neither a party to nor a direct beneficiary of the BDCP, thus there must be no resultant impacts to its water supplies, economy, and environment.

For all these reasons, it is imperative the analysis of BDCP impacts demonstrates that beneficial uses have been protected. The DEIR/EIS fails to meet this objective.

The BDCP has the potential to affect the City's water supply and make it less reliable, but the DEIR/EIS does not provide information sufficient to evaluate this critical impact.

As noted, the water required to meet more than half of the Stockton Metropolitan Area's M&I potable water demand is supplied by two primary sources: (1) the City's DWSP WTP, which derives its source water from the Sacramento/San Joaquin Delta at the southwest tip of Empire Tract, and (2) contracted surface water and groundwater supplied by the City as well as the California Water Service Company (CalWater) and San Joaquin County (County). As stated above, the BDCP's potential to degrade the quality of the City's Delta drinking water source most certainly will have a significant negative effect on the ability of the City, CalWater, and the County to meet the potable water needs of Stockton residents and businesses. The only likely source alternative will be groundwater pumping from a state-declared critically overdrafted basin that also has elevated levels of Total Dissolved Solids (TDS).

The reason the City pursued contracted surface supplies and the DWSP was to protect the groundwater basin from further overdraft and reduce the amount of TDS that eventually is discharged to the Delta. If the DWSP supply water is decreased, the resulting TDS increases at the City's wastewater treatment facility will impact strides made in pollution prevention measures to limit salt discharged to the Delta. The impact could be far reaching by decreasing allocations of salt loading provided to industry thus reducing the City's ability to attract, grow, and encourage industry.

Groundwater has and will continue to be an integral part of the City's drought water supply. Efforts to protect the groundwater basin over the past 30 years have resulted in increases in groundwater levels on the order of 30 feet. If groundwater becomes a major source of supply to mitigate the project's impacts, then the Stockton Metropolitan Area will once again be negatively impacted by declining groundwater levels, saline intrusion, and increased TDS discharges to the Delta.

## **B. Effects on the City's Wastewater Treatment Facility Operation**

Reduced San Joaquin River flows also could have a significant impact on the City's operation of its wastewater treatment facility if flows necessitate higher levels of treatment. Many of the City's NPDES permit requirements are tied to San Joaquin River conditions and the Delta ecosystem. Changes in those conditions can affect the City adversely by leading to modifications of the permit that impose costs on its residents that would not otherwise occur. In addition, significant environmental effects can result from construction and operation of new or modified facilities to meet permit requirements. The DEIR/EIS fails to adequately characterize water quality impacts to the City and suggests that any future impacts will have to be dealt with by the injured party within its own treatment plant process. This approach improperly

defers analysis of possibly significant adverse effects caused by the BDCP, and shifts the burden of mitigating them to the City and other non-BDCP participants.

### **C. Other Significant Impacts**

Any adverse effects that require new water treatment processes or facilities, or new water supplies, will have an adverse economic impact on the City and its residents. The BDCP's significant adverse effect on Delta agriculture will also have substantial adverse socioeconomic impacts within the City, due to the resulting impact on agricultural processing jobs, and overall economic impacts from loss of farmworker jobs, farm income, and impacts on City businesses that depend on spending resulting from the Delta agricultural economy. Reduced economic activity will result in empty buildings, decreased investment, reduced tax revenues (which will further constrain the City's ability to maintain public infrastructure), and therefore physical blight through deterioration of physical and aesthetic conditions within the City.

The City also is concerned that the BDCP intends to shift the costs of mitigating adverse impacts of the existing South Delta and massive new North Delta diversions to the general public, instead of the water exporters and south of Delta residents whose diversions have contributed to the decline of aquatic species in the Delta and who, exclusively, will benefit from the water supply. Last, but not least, BDCP construction is likely to have significant adverse effects on City roads that are not adequately mitigated in the DEIR/EIS. Despite these impacts, the BDCP's governing framework does not give a meaningful voice to affected local governments, including the City.

As summarized above and discussed in more detail below, the proposed BDCP would have significant adverse effects on the City and its environment. The City therefore cannot and does not support the proposed BDCP.

## **III. COMMENTS ON THE BDCP**

### **A. The BDCP Fails to Satisfy HCP and NCCP Requirements**

The overwhelming evidence demonstrates the BDCP does not meet the criteria for issuance of incidental take authorization under the federal Endangered Species Act (ESA) or NCCPA because it will not adequately protect listed and threatened species and may, in fact, reduce the likelihood of their survival and recovery in the wild.<sup>1</sup>

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<sup>1</sup> See, e.g., May 15, 2014 Comments on BDCP of Delta Independent Science Board; February 26, 2014, letter to Charlton H. Bonham, Director, California Department of Fish and Wildlife, from California Advisory Committee on Salmon and Steelhead Trout Re: Recommendation to Deny Incidental Take Permit and Natural Communities Conservation Plan for Bay Delta Conservation Plan;

Further, despite the myriad of financial sources discussed in the BDCP, it is clear that there is not adequate funding available to implement its terms and conditions as required by the ESA.

**1. The BDCP Does Not Contain Sufficient Information About Necessary Conservation Measures**

In order for incidental take coverage to be authorized under the federal ESA, United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) both (as applicable) must find that a HCP will: (1) "to the maximum extent practicable, minimize and mitigate" the impacts of the taking; and (2) "not appreciably reduce the likelihood of the survival and recovery of the species in the wild." (16 U.S.C. §§ 1539(a)(2)(B)(ii), (a)(2)(B)(iv).) Similarly, for the California Department of Fish and Wildlife (CDFW) to approve an NCCP, the NCCPA requires, among other things, that:

- "The plan contains specific conservation measures that meet the biological needs of covered species and that are based on the best available scientific information regarding the status of the covered species and the impacts of the permitted activities on those species." (Fish & G. Code, § 2820(a)(6).)
- "The plan provides for the protection of habitat, natural communities, and species diversity on a landscape or ecosystem level through the creation and long-term management of habitat reserves or other measures that provide equivalent conservation of covered species appropriate for land, aquatic, and marine habitats within the plan area." (Fish & G. Code, § 2820(a)(3).)

These standards necessarily require that a proposed HCP/NCCP contain well-defined and specific conservation actions. Similarly, NEPA and CEQA require that the project analyzed in an environmental document be sufficiently well-defined to inform the public of what is proposed and of the projected environmental effects of implementing that project. Yet the BDCP and DEIR/EIS project description do not provide enough information about the project or its operations to satisfy ESA, NCCPA, or CEQA and NEPA standards, let alone to allow the City to evaluate effects on the City's operations or the environment. For example, nearly every project element other than the North Delta intake and tunnels is subject to further development following later EIRs, more studies, or uncertain adaptive management. There is no description of how SWP and CVP facilities upstream of the Delta actually would operate with the proposed tunnels. The "high outflow" scenario not only relies



on speculative water transfers, but also assumes that the CVP would accrue undefined obligations to the SWP under the Coordinated Operations Agreement. (BDCP, p. 3.4-19.) On the critical issue of what streamflows will be required for the BDCP to be permitted, the studies that would drive the decision tree's results "have not yet been determined." (BDCP, p. 3.4-32.) The structure and operation of the proposed Implementation Office and related groups, councils, and teams is unclear. (BDCP, ch. 7.) Moreover, Conservation Measures (CMs) 2 through 22 are discussed only at a programmatic level, leaving the City to guess at what the impacts of those measures might be.

This lack of information prevents the BDCP from being adequate to support the issuance of any permits under the ESA and NCCPA. The available information about the decision tree would not support USFWS, NMFS, or CDFW making the specific determinations concerning the effect of the BDCP on the covered species under section 10 of the ESA and Fish and Game Code section 2820 that would be required for these agencies to issue the necessary permits for the North Delta diversions. For example, given that even the studies to support the decision tree are not defined, CDFW could not determine that the outcome of the decision tree would be a "specific conservation measure that meets the biological needs of the covered species and that is based on the best available scientific information," as required by Fish and Game Code section 2820(a)(6).

Similarly, the fact that the BDCP does not even identify the studies that will be necessary to resolve the decision tree causes the DEIR/EIS to be inadequate under NEPA and CEQA. The DEIR/EIS indicates that not even the hypotheses that would drive the decision tree studies have been determined, stating that the decision tree's first step would be as follows: "Clearly articulate scientific hypotheses designed to reduce uncertainty about what outflow criteria are needed . . ." (DEIR/EIS, p. 3-207.)

The DEIR/EIS attempts to navigate the decision tree's uncertainties by including an analysis for each of the decision tree's four possible outcomes. This expansion of the possible proposed-project scenarios only creates confusion, however, because the DEIR/EIS also says that the four decision-tree/Scenario H outflow regimes could be combined with any of the project alternatives, not just the proposed-project Alternative 4, to create a "hybrid alternative." (DEIR/EIS, p. 3-202.) The DEIR/EIS therefore presents a range of 36 different possible action alternatives, many of which are only addressed by the DEIR/EIS as being within "the bookends created by the entire range of alternatives addressed in the EIR/EIS." (DEIR/EIS, p. 3-202.) This application of the decision tree to expand the DEIR/EIS's scope means that the document actually does not identify for the public what project may actually be implemented.

Based on the information in the BDCP and DEIR/EIS, the City can only assume the ESA and NCCP permits for the BDCP will include the operational and flow criteria related to the high-outflow scenario in the application of the H4/high outflow standards as the default terms for BDCP operations, subject to possible change under the decision tree. (BDCP, p. 3.4-24.) The BDCP contains no meaningful description of how the H4/high outflow scenario would be implemented. Concerning the Delta outflow criteria that would be implemented in the H4/high outflow scenario, the BDCP states only the following:

March-May outflow targets are achieved using flow supplementation provided through an approved water transfer, by limiting CVP and SWP Delta exports to a total of 1,500 cfs, and finally, if these two water sources have been utilized, through releases from Oroville, with subsequent appropriate accounting adjustments between the SWP and the CVP. (BDCP, p. 3.4-19.)

Other than the 1,500 cfs limitation that could be imposed on CVP/SWP Delta exports, none of these key means of implementing the H4/high outflow scenario appears to be defined anywhere in the BDCP documents. Those documents do not identify the source and amounts of any transfer water that would contribute to meeting the H4/high outflow requirements. It is impossible to determine what resources could be affected by the water transfers that apparently would be necessary to implement the decision tree variant that is the most likely to be reflected in any ESA or NCCPA permits that would be issued in the near term.

Finally, even if it were possible for the decision tree to support adequate environmental analysis at this time, the BDCP appears to indicate that the decision tree's results could be substantially revised as a result of periodic review. (BDCP, pp. 3.4-354 to 3.4-355.) "Every 5 years, water facility operating criteria will be comprehensively reevaluated as part of the program-level assessment conducted by the Implementation Office, as described in Chapter 6, Section 6.3.5, Five-Year Comprehensive Review." (BDCP, p. 3.4-354.) While this portion of the BDCP points to Section 6.3.5 as explaining how this comprehensive review of operating criteria would occur, Section 6.3.5 actually contains no detail on that subject. (BDCP, p. 6-27.) Moreover, it is unclear what role stakeholders such as the City will have in the process of reviewing and adopting any revised operating criteria. The BDCP must be revised to ensure that any revised operating criteria are subject to public review and comment pursuant to NEPA and CEQA.

**2. The BDCP Fails to Demonstrate Adequate Financing and Unfairly Shifts the Burden of Mitigation for South Delta Diversions to Delta Residents**

Section 10 of the ESA requires the USFWS and NMFS to find that the applicant for an incidental take permit (ITP) will ensure that sufficient funding be available to implement an HCP. (*Southwest Center for Biological Diversity v. Bartel* (S.Dist. Cal. 2006) 457 F.Supp.2d 1070, 1105.) Indeed, an HCP cannot be approved without identification of secured funding sources to implement its conservation actions. In particular, an HCP must ensure that there is adequate funding and specify the sources of funding available to implement the HCP's steps to minimize and mitigate impacts to its covered species. (16 U.S.C. §§ 1539(a)(2)(A), (B).)

The BDCP does not meet this standard. It depends not only on funding from the current proposed statewide bond – which keeps shrinking and being redefined, is subject to amendment and general election vote, and has already been delayed at least four years – but also a second, as yet undefined, bond and equally vague federal funding. (BDCP, pp. 8-84 to 8-85, 8-109 to 8-110.) The Legislature at the end of June would not authorize even a modest water bond, only part of which would fund a portion of the BDCP. Moreover, Senate leadership, recognizing the lack of support for any financing of the twin tunnels, took great care in presenting the (failed) bond proposal not to link it to the BDCP.

Many of the funding sources identified in the BDCP are speculative and otherwise insufficient to support the issuance of “take” permits under section 10 of the ESA. Indeed, DWR's representatives acknowledged complete funding might not be available and have even discussed the possibility that the BDCP might need to be scaled back in the future in the event anticipated funding is not available.

Another defect in the BDCP is the assumption that funding responsibilities can simply be deferred to some future date. (BDCP, p. 8-2.) Without an understanding of who will pay and what funding is needed, there is no way to assess whether adequate funding exists sufficient to provide any regulatory assurances to the project proponents. Indeed, the BDCP itself admits that the BDCP is not intended to establish an allocation of costs or repayment responsibilities; instead, finance plans will be developed separately by “various funding agencies” through future discussions. (BDCP, p. 8-2.)

Moreover, the BDCP does not contain adequate assurances that the water agencies that would receive incidental take coverage are the only agencies that would be asked to contribute funding to the project. Of significant concern to the City is the fact that the BDCP attempts to impose costs of certain conservation measures on the general public when those costs should be borne by the water contractors receiving the BDCP's benefits. For example, the BDCP suggests that the water contractors

should be responsible for only 12.6 percent of the costs of CM 4. (BDCP, Table 8-41.) The rationale is that a small portion of restoration occurring under CM 4 is currently required by the USFWS Biological Opinion (BiOp) for the Long-Term Operational Criteria and Plan (OCAP). However, the BDCP fails to disclose that tidal restoration will also serve to mitigate the adverse impacts of relocating the diversion facilities to the North Delta. Without CM 4 (and CM 5), the relocation of pumping facilities to the North Delta would increase the frequency and severity of reverse flows in the Sacramento River. Restored tidal areas allow the incoming tide to dissipate and mask the effects of the new North Delta intakes. Indeed, many of the DEIR/EIS's impact analyses assume BDCP impacts would be reduced as a result of habitat restoration CMs. As such, the cost of CM 4 and other habitat conservation measures is more appropriately imposed on the contractors because CM 4 mitigates the operational impacts of the North Delta intake facilities.

The BDCP also is intended to serve as an NCCP under California law. The BDCP also fails to meet the funding mandates of the NCCP Act. The NCCP Act demands an Implementation Agreement detailing, among other things: (1) provisions "specifying the actions [CDFW] shall take . . . if the plan participant fails to provide adequate funding"; and (2) "mechanisms to ensure adequate funding to carry out the conservation actions identified in the plan." (Fish & G. Code, § 2820(b)(3).) The BDCP fails to comply with this mandate.

While the ESA and NCCPA demand that adequate funding be identified and available to implement the projects outlined in an HCP/NCCP, the BDCP fails to satisfy any funding requirement. Even the BDCP's reliance on funding from federal water contractors based upon the delivery of federal CVP water is flawed, as the United States Bureau of Reclamation (USBR) will not be a permittee and will not sign the Implementing Agreement. The remaining sources of funding identified in the BDCP are too speculative to support the issuance of an ITP. The lack of adequate funding to ensure implementation of the BDCP's mitigation and other conditions is a fatal flaw.

#### **B. Assurances Sought by the BDCP Violate the No Injury Rule of Water Code Section 1702**

The BDCP suggests that, if the terms and conditions of the Plan are being met, the federal government will not require additional conservation or mitigation measures, including land, water (including quantity and timing of delivery), money, or restrictions on the use of those resources. (BDCP, p. 6-28.) The BDCP recognizes that these assurances will not and cannot apply to the USBR, so it is only DWR that will receive the assurance that it will not be required to commit any additional (water) resources for the benefit of species covered by the Plan. However, the assurances the BDCP seeks contravene California water law, violating the "no injury" rule and disregarding the rule of priority of water rights.

As part of the construction of CM 1, DWR will need to file with the SWRCB Petitions for Change in Point of Rediversion of water under the SWP water right permits to add the North Delta intakes as an additional point of diversion for SWP water. If the USBR participates in the BDCP, the same will be true for the USBR's water right permits for the CVP, as CM 1 will not be feasible without including CVP water as part of the operations of CM 1. As defined in the current draft documents and their proposed assurances for project proponents, however, BDCP cannot meet the requirements for the SWRCB to approve the necessary Petitions for Change. Water Code section 1702 sets the key requirements for such petitions:

Before permission to make such a change is granted the petitioner shall establish, to the satisfaction of the board, and it shall find, that the change will not operate to the injury of any legal user of the water involved.

This requirement protects not only water users who hold their own water rights, but also those receiving water under contract. (*State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 674.)

There are many reasons why the BDCP cannot satisfy Water Code section 1702's "no injury" requirement. If DWR is correct in the BDCP, that constructing CM 1 relieves it of any further obligation to forego any storage or diversion of water for species covered by the BDCP, then any additional water required would have to be provided by other water right holders. As species may continue to decline in the foreseeable future, granting the water-right changes necessary to implement the BDCP, with the assurances that BDCP contemplates, could injure other legal users of water and could require other water users to forego diversions for the benefit of DWR's and USBR's diversions of water to BDCP proponents.

In addition to the foregoing, "area of origin" statutes<sup>2</sup> mandate that water use within the area of origin – in this case Northern California, or the Delta itself – not be reduced due to the export of water for use outside the area of origin. In fact, the water rights granted by the state for the operation of the SWP and CVP are conditioned upon compliance with area of origin laws. Any attempt to subvert the area of origin statutes, whether through a private HCP/NCCP process (via regulatory assurances) or through the CEQA/NEPA process, will result in clear violations of those statutes intended to protect areas of origin, including the protection from injury by export projects.

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<sup>2</sup> The area of origin statutes include Water Code sections 10500 et seq. and 11460 et seq.

**C. The BDCP's Governance Structure Does Not Provide an Effective Voice for the City and Other Affected Local Stakeholders**

The governance of the BDCP is an important element of the Plan because all the important decisions (i.e., adaptive management questions, facility design and construction, habitat restoration, conservation measures, etc.) will be made under the framework proposed by the BDCP. For a plan so far-reaching and impactful as the BDCP, and subject to so much change after its initial approval, it is important to have as much representative governance as possible. Unfortunately, this is not the case for the BDCP.

The proposed governance structure is notably lacking in any meaningful role for local stakeholders. The Stakeholder Council, which allows many stakeholders, including local counties and agencies, to convene and hold meetings on BDCP-related issues, has no authority in decision-making matters for the BDCP, even for issues that directly affect local counties and agencies. Moreover, only a small number of local government entities are included in the Stakeholder Council, and the City's participation is not guaranteed. Not only will not all local governments in the Delta be included, but those included will have no genuine voice because for disputed matters in BDCP governance, issues will be raised to the Authorized Entity Group and the Permit Oversight Group, the structure of which is biased in favor of water exporter interests.

The governance structure of the BDCP is being created by water exporter interests, gives decision-making authority to water exporter interests, and grants dispute resolution authority to water exporter interests. There must be a more balanced approach to governance that does not exclude local authorities. Furthermore, for governance actions that could affect local stakeholders, including the City, there needs to be a mechanism to allow those stakeholders to have an effective role in representing their interests in the decision-making process.

**D. The BDCP Fails to Comply With Delta Reform Act Requirements**

The Delta Reform Act requires the BDCP to meet specified criteria or it will not be eligible for state funding. (Wat. Code, § 85320(b).) Among those criteria are the requirements that the BDCP include a comprehensive review and analysis of all of the following:

- A reasonable range of flow criteria, rates of diversion, and other operational criteria required to satisfy the criteria for approval of a natural community conservation plan as provided in subdivision (a) of section 2820 of the Fish and Game Code, and other operational requirements and flows necessary for recovering the Delta ecosystem and restoring fisheries under a reasonable

range of hydrologic conditions, which will identify the remaining water available for export and other beneficial uses.

- A reasonable range of Delta conveyance alternatives, including through-Delta, dual conveyance, and isolated conveyance alternatives and including further capacity and design options of a lined canal, an unlined canal, and pipelines.
- The potential effects of climate change, possible sea level rise up to 55 inches, and possible changes in total precipitation and runoff patterns on the conveyance alternatives and habitat restoration activities considered in the environmental impact report.

To date, the BDCP has not included a comprehensive review and analysis of flows necessary for recovering the Delta ecosystem and restoring fisheries. While the BDCP does mention alternatives that DWR considered, the BDCP does not include a comprehensive review and analysis of those alternatives, as required by the Delta Reform Act. Rather, those alternatives are relegated to an appendix, with no meaningful consideration given in the environmental analysis or Plan itself. Further, the BDCP fails to include an appropriate analysis of the impacts of climate change on the system. While the BDCP recognizes that climate change will occur, it fails to discuss the likely reaction (operational and regulatory) and fails to adequately discuss and analyze the impacts of climate change on restoration activities in the Delta. And while effects on migratory fish and aquatic resources are addressed, they are not addressed adequately, as demonstrated by the comments of the Delta Independent Science Board in its review of the BDCP Effects Analysis, the California Advisory Committee on Salmon and Steelhead Trout, as well as comments by experts such as Dave Vogel and Rob Latour, prepared on behalf of organizations like the North State Water Alliance.

#### **E. The BDCP Fails to Account for and Describe Impacts of Integration of the BDCP Into the Delta Plan**

Water Code section 85320 provides that if the CDFW approves the BDCP as an NCCP and determines that the BDCP meets the requirements of that section, and the BDCP has been approved as an HCP pursuant to the federal ESA, the Delta Stewardship Council must incorporate the BDCP into the Delta Plan. The BDCP recognizes, in passing, that the BDCP will be incorporated into the Delta Plan, but fails to discuss the consequences of that incorporation. (BDCP, pp. 1-27 to 1-28.) Later in the document, however, there is a recognition that the BDCP may stand in the way of future projects. Indeed, the BDCP goes so far as to suggest future regulations might be prohibited if they are inconsistent with the Plan. (See BDCP, p. 6-46 [future projects and regulations must evaluate effects on the BDCP and be evaluated for consistency with the BDCP].) The BDCP and the Draft Implementing

Agreement suggest it will constrain future USFWS/NMFS consultations as well. (BDCP, p. 6-47; Draft Implementing Agreement for the BDCP, § 20.1.9.)

To the extent the BDCP will be a future measure of consistency, whether through the Delta Plan or otherwise, the BDCP and its accompanying DEIR/EIS must consider and evaluate the impacts of the BDCP on foreseeable future projects. The BDCP must, for example, analyze whether it will impact existing general plans in the Delta region, whether it will impact future transportation projects, recreational opportunities, and similar projects. Local agencies should have a full understanding of how the BDCP might impact the Delta and its residents, not just through the construction of physical facilities but also by any proscriptions on activities of various local agencies that may follow as the BDCP acts as a prohibition on future activities.

**F. Conservation Measure 19 (CM 19) – Urban Stormwater Treatment – Should Be Modified to Be Consistent With Other Related Regulatory Programs**

The City is defined as a large municipality as described in federal stormwater regulations. (See 40 C.F.R. § 122.26 (b)(4).) As such, the City is required to obtain an NPDES Municipal Stormwater permit for the area under its jurisdiction. The County of San Joaquin contains urbanized areas and areas of potential growth that are either enclosed within the City limits or surround the City. Due to the proximity of the County's urbanized areas to the City, the County's physical interconnection with the City's storm drain system, and the locations of County discharges relative to the City's system, the County is designated as a part of the large Municipal Separate Storm Sewer System (MS4) in accordance with Code of Federal Regulations, title 40, section 122.26 (b)(4)(iii). The City complies with the requirements of its NPDES permit by implementing various stormwater pollution prevention activities.

For consistency purposes with other related regulatory programs, such as Phase I and II NPDES, we have the following suggestions for CM 19:

*Page 3.4-326, lines 14-16.* The City encourages the inclusion of the following language: "that will result in decreased discharge of contaminants to the Delta to the Maximum Extent Practical (MEP) and to the Maximum Extent Economically Feasible."

*Page 3.4-326, line 18.* The City encourages the inclusion of the following language: "that help restore native fish habitat to the Maximum Extent Practical (MEP) and to the Maximum Extent Economically Feasible."

*Page 3.4-326 lines 24-26 and Page 3.4-327, lines 1-24.* The City encourages the inclusion of the concepts which have been eloquently expressed in the "GAO's Report to Congressional Requesters" pertaining to the Clean Water Act dated



December 2013, specifically in regard to total maximum daily loads (TMDLs), non-point source issues, the concept of voluntary compliance, legal authority to mandate compliance, and funding limitations. A copy of that report can be found at <http://www.gao.gov/assets/660/659496.pdf>.

*Page 3.4-327, lines 17-24.* The City requests that all jurisdictions within the Delta Watershed Region, i.e., all areas that contribute to the problem at hand, be listed, thus ensuring that all jurisdictions north, south, east, and west will be on notice of their expected participation, both financial and staff-wise, for this worthy endeavor.

*Page 3.4-327, section 3.4.19.2.1, Funding and Treatment Actions.* The City encourages the consideration that funding for this worthwhile endeavor is allocated equally to all that have helped contribute to the degradation of local water quality and to those that directly benefit from this significant water resource statewide. Since nearly 75 percent of California's population is reliant upon the Delta Region for an adequate and reliable water resource, this project should be funded by all who will benefit from it equally. The water quality problems facing the Delta have been and are significantly exacerbated by the long-term diversion of local fresh water supplies from the Delta for use elsewhere throughout the state. Thus, it is suggested that either a statewide tax and/or bond initiative be passed to pay for the restorative nature of this invaluable endeavor, since the state's entire population will equally benefit from it (i.e., providing long-term stability to the state's precious limited water supply).

*Page 3.4-327, lines 39-40.* The City recommends that this list of reference sources be expanded to include website addresses and the following:

Low Impact Development Center: <http://lowimpactdevelopment.org/>

Central Coast Low Impact Development Initiative:  
[http://centralcoastlidi.org/Central\\_Coast\\_LIDI/Home.html](http://centralcoastlidi.org/Central_Coast_LIDI/Home.html)

Washington Stormwater Center: <http://www.wastormwatercenter.org/low-impact/>

Center For Watershed Protection: <http://cwp.org/>

*Page 3.4-328, lines 5-6.* The City recommends that the types of actions "and/or projects" that could be funded be expanded to include the following:

- Development of region-wide low impact development standards meeting the goals and objectives of this program that could then be included in any local development project that may have a potential beneficial impact.

- Provide funding for modest commercial and industrial redevelopment projects, including parking facility resurfacing projects directly abutting waterways for the inclusion of stormwater treatment devices.
- Provide funding for smart irrigation meters for properties abutting local waterways willing to replace an existing functioning irrigation timer, replacing at least 50 percent of existing "water thirsty" landscapes with native and drought tolerant landscapes that eventually lead to demonstrated water use reductions for a minimum of two years following complete installation.

The BDCP (p. 3.4-328, lines 24-26) requires implementing entities to implement an effective operation and maintenance plan for each facility that includes devices funded through this program. The City recommends that implementing entities also require private property owners who receive funding through this program to enter into a private stormwater treatment device operation and maintenance agreement with the implementing entity that is recorded with the title of the property, to ensure that the device(s) are maintained and operated in perpetuity to standards detailed within a required private stormwater treatment device operation and maintenance manual.

*Page 3.4-330, Table 3.4.19-1. Effectiveness Monitoring Relevant to CM 19.* The City encourages the inclusion of language that provides for a reduction in monitoring efforts for this worthwhile endeavor, if comparable monitoring is already being or will be conducted to meet the goals and objectives of a similar program (i.e., NPDES Phase I or II, and/or Areas of Special Biological Significance (ASBS) monitoring).

For the effectiveness management element of CM 19, would there be a process to appeal the decision of the Adaptive Management Team and/or Permit Oversight Group? If so, the City encourages that this process be formulated and documented herein at this time.

Overall, the City recommends the inclusion of funding for a public education and outreach element coupled with a public participation and involvement element. For example, funding to promote the Integrated Pest Management Program via Our Water Our World and/or similar programs.

**G. The BDCP's Discussion of Existing Conditions Is Misleading and Not Based on Current or Best Available Evidence or Science**

The BDCP contains extensive discussion of purported causes of ecological decline in the Delta other than the effects of the past and existing diversions of water to areas south of the Delta. These discussions are fraught with inaccuracies, omissions, and misleading statements regarding various conditions ranging from low dissolved oxygen (DO) to ammonia effects on aquatic species. To the extent the DEIR/EIS

relies on the inaccurate and incomplete information contained in the BDCP and supporting appendices, the DEIR/EIS impact analyses are not based on substantial evidence.

**1. Inaccurate Discussion of Low DO in Stockton Deep Water Ship Channel**

The BDCP's discussion of causes of low DO in the Stockton Deep Water Ship Channel (Ship Channel) is inaccurate and not based on current evidence. Specifically, on page 2-14, lines 1-14, the BDCP states:

Stockton Deep Water Ship Channel on the San Joaquin River. At that particular location the combination of low river flows, high concentrations of oxygen-demanding organisms (algae from upstream, bacterial uptake of effluent from the City of Stockton Regional Wastewater Control Facility, and other unknown sources), and channel geometry causes rates of biological oxygen demand to exceed rates of gas exchange with the atmosphere and results in a sag (locally depleted concentration) in dissolved oxygen concentration in the Stockton Deep Water Ship Channel (Lee and Jones-Lee 2002; Kimmerer 2004; Jassby and Van Nieuwenhuysse 2005). An oxygen diffuser experiment is currently being conducted in the Stockton Deep Water Ship Channel to meet total maximum daily load (TMDL) objectives for dissolved oxygen concentrations established by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) (2005) (above 6.0 milligrams per liter [mg/L]) from September 1 through November 30 and above 5.0 mg/L at all times). Low dissolved oxygen concentrations have also been documented in Old River near the Tracy Boulevard Bridge and occur in multiple dead-end sloughs near Stockton (e.g., Pixley Slough, Mosher Slough, and Five Mile Slough) (Central Valley Regional Water Quality Control Board 2009).

Since 2007, the City's tertiary treatment system at its Regional Wastewater Control Facility (RWCF) has been providing ammonia removal. The treated wastewater routinely provides wastewater with daily minimum DO values greater than the 5 mg/L and 6 mg/L DO water quality objectives (Figure 1) and carbonaceous biochemical oxygen demand (CBOD) in the non-detectable range (Figure 2).

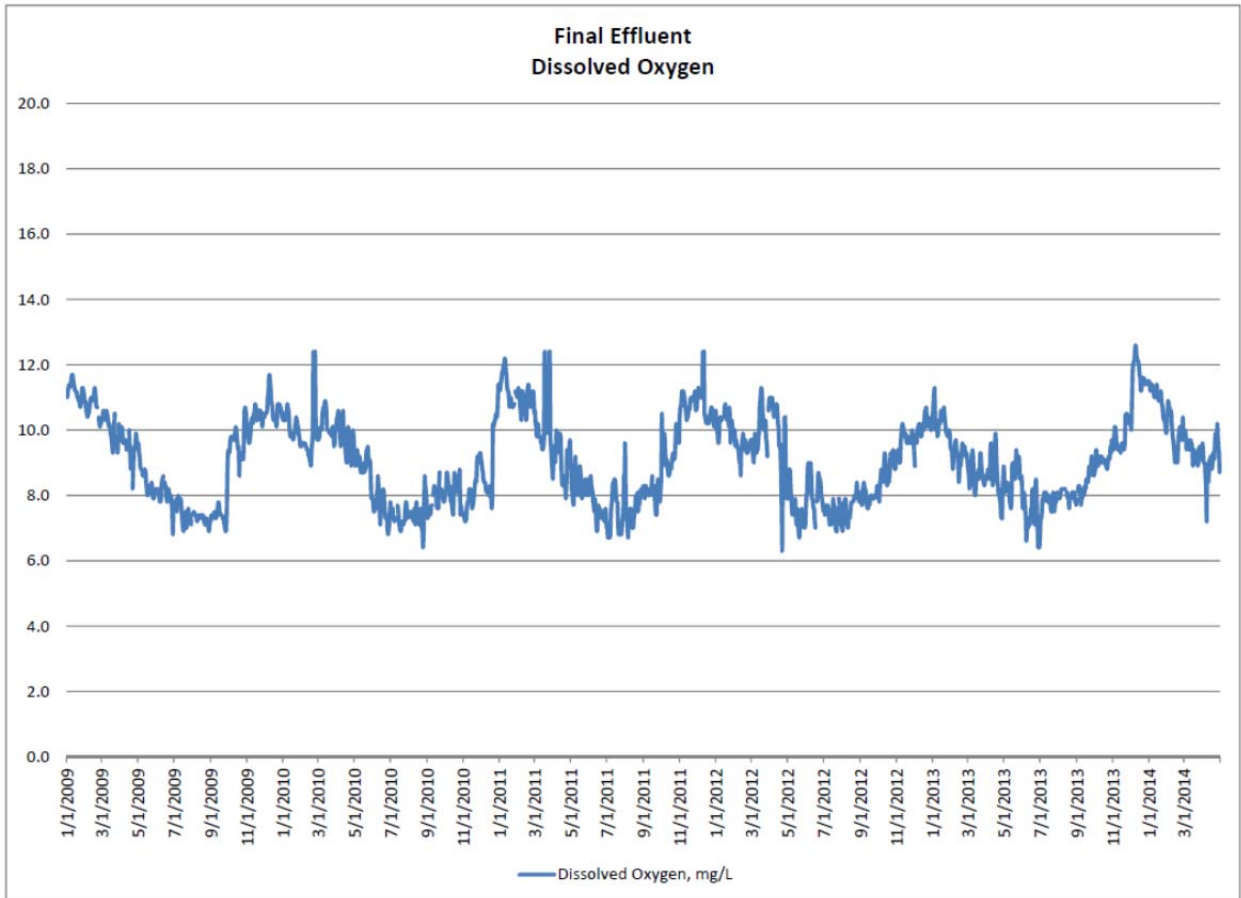


Figure 1. City wastewater effluent exceeds 6 mg/L on a daily basis since the upgrades to the tertiary plant in 2007. DO deficits in the Ship Channel are due to algal blooms upstream of the City's wastewater discharge point settling in the Ship Channel and creating demand. The responsibility for current algae concentrations appears to rest with increased use of fertilizers and agricultural and wetland activities in the watershed (Central Valley Regional Board Final Staff Report, 2005).

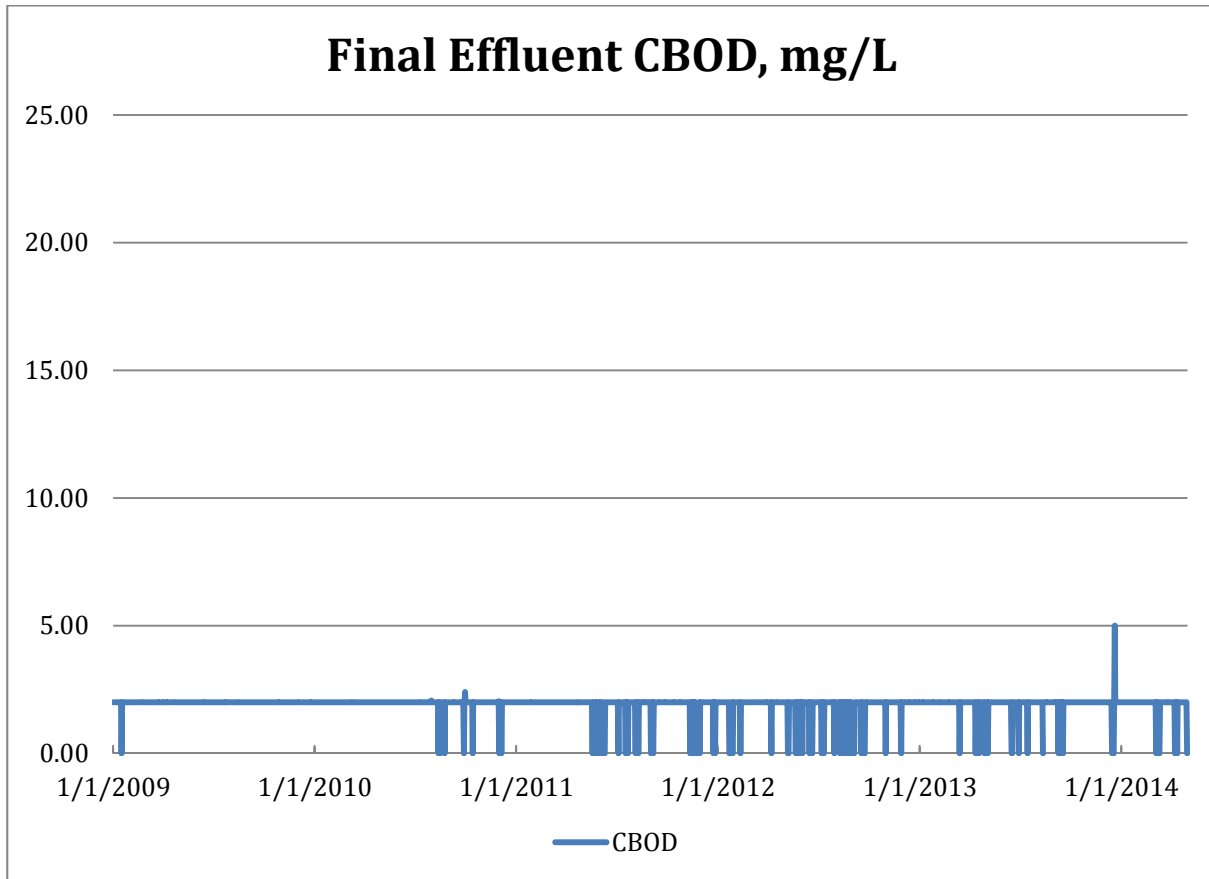


Figure 2. CBOD from the City indicate non-detectable quantities 99.999% of the time, confirming the Central Valley Regional Board's position that DO issues at the Ship Channel are due to increased use of fertilizers and agricultural and wetland activities upstream of the wastewater facility (Central Valley Regional Board Final Staff Report, 2005).

Attributing low DO content in the Ship Channel to the City's discharge is not accurate or based on current evidence. Algae and their byproducts are responsible for most of the oxygen demand in the Ship Channel. (Foe, et al., 2002, p. 18.) Further analyses also found a strong correlation between increased concentrations of chlorophyll-a upstream at Mossdale and decreased DO concentrations in the Ship Channel upstream. (Foe, et al., 2002, p. 20.) The responsibility for current algae concentrations appears to rest with increased use of fertilizers and agricultural and wetland activities in the watershed. (Central Valley Regional Board Final Staff Report, 2005.) The DEIR/EIS should be updated throughout to reflect upgrades at the City's RWCF, upgrades at the Ship Channel by the Port of Stockton (added aeration), and should be inclusive of other stressors as indicated by the Central Valley Regional Board.

BDCP Appendix 2A contains numerous inaccurate statements, based in part on outdated evidence, regarding the causes of low DO in the Ship Channel and the effect of ammonia and nitrate. The BDCP inaccurately attributes low DO to discharges from the City's RWCF.

On page 2A.3-15, lines 29-44, and page 2A.3-16, lines 1-2, the BDCP states:

Other contaminants of concern for Chinook salmon include, but are not limited to, mercury, copper, oil and grease, pesticides, herbicides, ammonia, and localized areas of depressed dissolved oxygen (e.g., Stockton Deep Water Ship Channel and return flows from managed freshwater wetlands). As a result of the extensive agricultural development in the Central Valley, exposure to pesticides and herbicides has been identified as a significant concern for salmon and other fish species in the Plan Area (Bennett et al. 2001). In recent years, changes have been made in the composition of herbicides and pesticides used on agricultural crops in an effort to reduce potential toxicity to aquatic and terrestrial species. Modifications have also been made to water system operations and discharges related to agricultural wastewater discharges (e.g., agricultural drainage water system lock-up and holding prior to discharge) and municipal wastewater treatment and discharges. Ammonia released from the City of Stockton Wastewater Treatment Plant contributes to the low dissolved oxygen conditions in the adjacent Stockton Deep Water Ship Channel. In addition to the adverse effects of the lowered dissolved oxygen on salmonid physiology, ammonia is toxic to salmonids at low concentrations. Actions have been implemented to remedy this source of ammonia, by modifying the treatment train at the wastewater facility (National Marine Fisheries Service 2012). Concerns remain, however, regarding the toxicity of contaminants such as pyrethroids that adsorb to sediments and other chemicals (e.g., including selenium and mercury, as well as other contaminants) on salmon.

On page 2A.5-16, lines 16-20, the BDCP states:

Ammonia released from the City of Stockton Wastewater Treatment Plant contributes to low dissolved oxygen in the adjacent Stockton Deep Water Ship Channel. In addition to the adverse effects of the lowered dissolved oxygen on salmonid physiology, ammonia is toxic to salmonids at low concentrations. The treatment train at the wastewater facility has been modified to remedy this source of ammonia (National Marine Fisheries Service 2012).

On page 2A.6-13, lines 7-11, the BDCP states:

Ammonia released from the City of Stockton Wastewater Treatment Plant contributes to the low dissolved oxygen in the adjacent Deep Water Ship Channel. In addition to the adverse effects of the lowered dissolved oxygen on salmonid physiology, ammonia is toxic to salmonids at low concentrations. Actions have been implemented to remedy this source of ammonia, by modifying the treatment train at the wastewater facility (National Marine Fisheries Service 2012).

As noted, the BDCP and DEIR/EIS, including Appendix 2A, should be updated to reflect ammonia removal upgrades at the City's RWCF and inclusive of other stressors as indicated by the Central Valley Regional Board. Furthermore, ammonia concentrations do not reach toxic levels to Chinook salmon in this watershed.

By contrast, on page 3.4-287, lines 19-29, the BDCP states:

Since the approval of the DO TMDL Basin Plan Amendment in 2005, two actions have been implemented to alleviate low DO conditions in the DWSC. First, beginning in 2007 the City of Stockton added engineered wetlands and two nitrifying biotowers to the Stockton Regional Wastewater Control Facility to reduce ammonia discharges to the San Joaquin River. This action decreased the ammonia levels in facility effluent from approximately 30 to 35 mg/L to approximately 2 mg/L, thereby reducing biochemical oxygen demand in the DWSC. The ammonia was the biggest oxygen demand in the winter months and because nitrification treatments were initiated, DO concentrations in the DWSC have improved markedly during the winter months. However, other factors continue to contribute to DO depressions, including reduced river velocity through the Stockton DWSC as a result of increased channel capacity, and upstream contributions of organic materials (e.g., algal loads, nutrients, agricultural discharges).

The BDCP recognizes the work done by the City since 2007 in this statement but not in previous sections, as noted above. The BDCP needs to coordinate this information throughout the document and eliminate inconsistencies between the BDCP and DEIR/EIS and appendices that compromise the integrity of the CEQA/NEPA document.

## **2. Inaccurate and Incomplete Discussion of Impact of Ammonia/Nitrate and Nitrite on Aquatic System**

On page 2-15, lines 28-45, the BDCP states:

In the absence of other factors such as Potamocorbula, nutrients do not limit the development of primary producers in the Delta; instead, light levels within the water column appear to control primary productivity (Cole and Cloern 1984; Kimmerer 2004). Light penetration through the water column has an inverse exponential relationship with suspended particulate matter at a given depth. Therefore, the large majority of phytoplankton production occurs near the surface. If the current pattern holds and water clarity continues to increase in the Delta as it has done over the past few decades (Lehman 2000), higher phytoplankton production is expected. However, the growth rate, depth distribution, and extent of Egeria and other nonnative invasive aquatic plants may respond positively to increasing water clarity due to reduced particulate matter concentrations and their dense and extensive canopies may drive down light levels (Kimmerer 2004). High concentrations of ammonia and ammonium, which are derived primarily from wastewater treatment plants, may also contribute to reduced productivity in the Delta and bays of the Plan Area by suppressing the uptake of nitrate by diatoms and phytoplankton (Dugdale et al. 2007; Dugdale 2008). Elevated ammonium concentrations may also directly impair primary productivity (Parker et al. 2010). Glibert (2010) has found evidence that spatio-temporal patterns in ratios of ammonia, nitrate, and phosphate concentrations can explain spatial and temporal patterns in algal functional groups (i.e., diatoms, and flagellates), and cyanobacteria in the Delta, and may also explain zooplankton and pelagic fish abundance.

The first and last sentences in this passage contradict each other. In addition, Parker et al. (2010) also found that ammonia and effluent additions resulted in greater phytoplankton growth and added effluent resulted in increased primary productivity (<sup>14</sup>C-uptake rates) in many of the samples. If statistical analysis had been conducted on these data, the results would likely be insignificant. The body of work on this topic is growing, as evidenced by many of the citations in the BDCP documents. There is ongoing work and analysis that will continue to inform the ammonia/nitrate/nitrite effect on aquatic life. The studies cited do not provide a complete understanding of the impact of ammonia/nitrate and nitrite on the aquatic system.



The City supports ongoing efforts to develop a more comprehensive understanding of these impacts, taken in context with all of the other stressors in the Delta. These other stressors include, but are not limited to, variations in salinity caused by seasonal flow fluctuations and water exports, as well as seasonal changes in turbidity and clarity. We request that the BDCP look at this issue holistically and provide the funding necessary to mitigate all issues attributed to water quality changes due to water exports. The BDCP should pay for the development of a Delta nutrient management strategy modeled after the San Francisco Nutrient Management Strategy (San Francisco Bay Regional Water Quality Control Board, November 2012) in which the highest priority science questions are targeted, resources are allocated with wisdom, and all Delta water quality efforts become collaborated and coordinated to serve California through this new millennium. Engaging the San Francisco Estuary Institute (SFEI) and United States Geological Survey (USGS) as unbiased scientists should be funded by the BDCP in collaboration with other stakeholders to develop a comprehensive Delta nutrient management strategy.

The BDCP and BDCP Appendix 2A contain a number of inaccurate and/or misleading characterizations and conclusions regarding the evidence of ammonia effects on aquatic resources. To the extent the DEIR/EIS relies on this inaccurate information to support its impact determinations, the analysis and conclusions are flawed and not supported by substantial evidence.

*BDCP Appendix 2A, p. 2.A.1-14, lines 22-34.* The results from the cited papers indicate that ammonia can reduce phytoplankton nitrate uptake, but the resulting effects on diatom growth are not well understood, especially since phytoplankton (including diatoms) will also grow using ammonia as their nitrogen source.

*BDCP Appendix 2A, p. 2.A.1-14, line 40.* Warner et al. (2008) did not find evidence that ammonia from municipal wastewater treatment plants could cause delta smelt toxicity. The paper concluded: "Based on test results obtained in this and related studies, we conclude that average ammonia/ium concentrations reported for the Sacramento River immediately below SRWTP are about 3.6 times lower than the highest no observed effect concentration (NOEC) tested in this study, and are not likely to affect 7-d survival of 55-d old delta smelt larvae (Werner 2008)." This section suggests that ammonia is reducing food resources, but all the referenced papers investigate the effects of pesticides on zooplankton. This statement should begin, "Pesticides may affect delta smelt indirectly by . . ."

*BDCP, p. 3.3-126, lines 21-32.* Here the BDCP states:

Total ammonia levels may be another factor affecting covered fish species by inhibiting primary productivity (Ballard et al. 2009; Dugdale et al. 2007; Dugdale et al. 2012 in Parker et al. 2012; Glibert 2010; Glibert et al. 2011; Parker et al. 2012; Wilkerson et al.

2006), altering the phytoplankton species assemblage (Baxter et al. 2010; Glibert 2010), or altering the role of invasive species (Ballard et al. 2009). The primary source of total ammonia in the Delta is effluent discharged from wastewater treatment plants, and the primary contributing facility is the Sacramento Regional Wastewater Treatment Plant. The frequency, severity, and distribution of effects from total ammonia levels are the subject of ongoing research, but current science indicates a high likelihood that decreasing loading of total ammonia from the Sacramento Regional Wastewater Treatment Plant would have beneficial consequences for phytoplankton productivity and thus the productivity of the pelagic foodweb in and downstream of the Sacramento River in the Plan Area. Section 3.5.1, Ammonia Load Reduction, describes the analysis underlying this conclusion.

There is ongoing work and analysis that will continue to inform the ammonia/nitrate/nitrite effect on the Delta. As such, the studies cited do not provide a complete understanding of the impact of ammonia/nitrate and nitrite discharges on the aquatic system. The City supports the development of a Delta nutrient management strategy to develop a more comprehensive understanding of the impact of removing the Sacramento Regional Wastewater Treatment Plant ammonia loading from the Delta via an unbiased scientific group such as that developed for the San Francisco Bay Nutrient Management Strategy where the SFEI is the scientific lead and the USGS Regional Monitoring data are used to guide scientifically driven decision-making. Ammonia must be considered in context with all of the other stressors in the Delta, which include but are not limited to, variations in salinity caused by seasonal flow fluctuations and water exports, and seasonal changes in turbidity and clarity. It is imperative that the BDCP look at this issue holistically and mitigate all effects to the City.

### **3. Misleading Discussion of Toxic Substances**

On page 2-17, line 15, the BDCP states:

Return flows from wastewater treatment plants, island drainage, and groundwater seepage have introduced toxic substances into the Delta. Barriers and new channels that were constructed and are operated to maintain water quality (e.g., Head of Old River barrier, and Delta Cross Channel) have significantly altered flow, transport, and mixing of suspended particles, dissolved gases, and dissolved salts in the Delta.

Further, on page 3.3-128, lines 24-29 the BDCP states:

Exposure to toxins. Toxins from agricultural drainage and return flows, municipal wastewater treatment facilities, and other point and nonpoint discharges include mercury, selenium, copper, pyrethroids, and endocrine disruptors. These have the potential to affect fish health and condition and adversely affect salmon distribution and abundance. Sublethal concentrations may interact with other stressors (e.g., seasonally elevated water temperatures, predation, or disease) to increase the vulnerability of salmonids to stress, reduced fitness, or mortality.

Any discussion about "toxic substances" without regard to relevant concentrations gives the reader the impression that wastewater treatment effluent is toxic. This is not the case. Wastewater treatment plant effluent must comply with NPDES permit limits, which strictly regulates any potential toxicity. Each of these sections of the BDCP should be revised to provide a more thorough and accurate discussion of the nature of toxic substances.

#### **4. Inadequate Evaluation of Greenhouse Gas Emissions Relative to Wastewater Treatment**

The BDCP advocates for nutrient removal from wastewater and suggests that increased regulation of wastewater discharges will lead to beneficial environmental impacts. However, the DEIR/EIS does not appear to acknowledge that increased levels of wastewater treatment will result in increased emissions of greenhouse gases (GHGs), and that there will be a point of diminishing returns, after which the GHG emissions' impacts of increased nutrient removal exceed the benefits of the removal. The DEIR/EIS's evaluation of GHG emissions that will be created as a result of the BDCP implementation is flawed because the information on which it is based – *Appendix 2C Climate Change Implications and Assumptions* – does not account for these competing considerations.

The Water Environment Research Foundation Sustainability Report (Falk, et al., 2011) (WERF Report) investigated at what point the sustainability impacts of increased levels of nutrient removal outweigh the benefits of improved water quality. Within the report, GHG emissions were measured along with potential algal production as a water quality surrogate. The distribution of GHG emissions for pumping/mixing, aeration, cogeneration, N<sub>2</sub>O emissions, chemical manufacturing/delivery/use, deep well injection (Level 5), and sum of CH<sub>4</sub> emission and biosolids is provided in Figure 3 below.

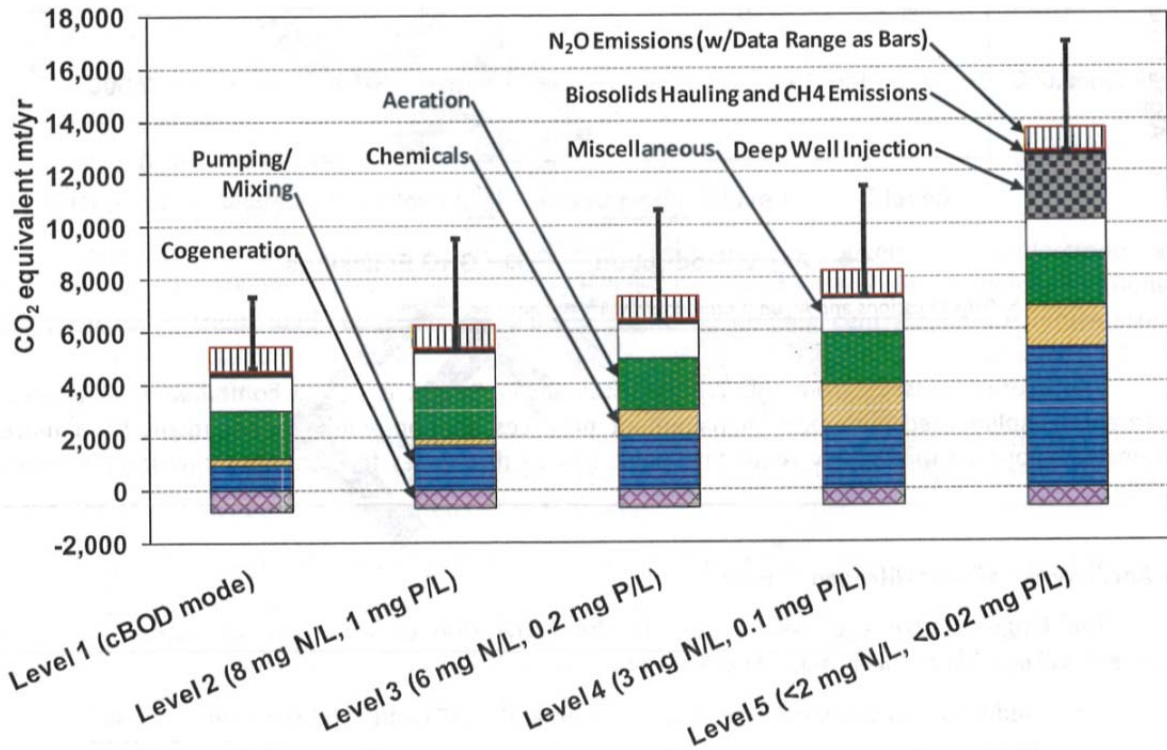


Figure 3. GHG Distribution per Treatment level.

The three largest contributors to GHG emissions are all energy related: aeration, pumping/mixing, and deep well injection (Level 5). The steady increase in emissions from Levels 2 to 4 is due to chemical demand for methanol to fuel denitrification, alum, and polymer. More chemicals are required for tertiary add-on solids separation processes with more advanced treatment. For example, the use of high rate clarification (assume dose of 50 mg/L alum; 2 mg/L polymer) increases chemical demand from Level 3 to Level 4 or 5. The least significant variables were methane and biosolids hauling. Besides GHG emissions, the impact on the receiving water body using the water quality surrogate is potential algal production. The algae production results in Figure 4 are on the primary y-axis (left-hand side) along with the GHG emission equivalents on the secondary y-axis (right-hand side). The algal savings are 95 percent from the Level 1 to 3. Both Levels 4 and 5 remove an additional 4 percent (99 percent total removal with respect to Level 1) with a corresponding doubling of GHG emissions from Level 3 to 5.

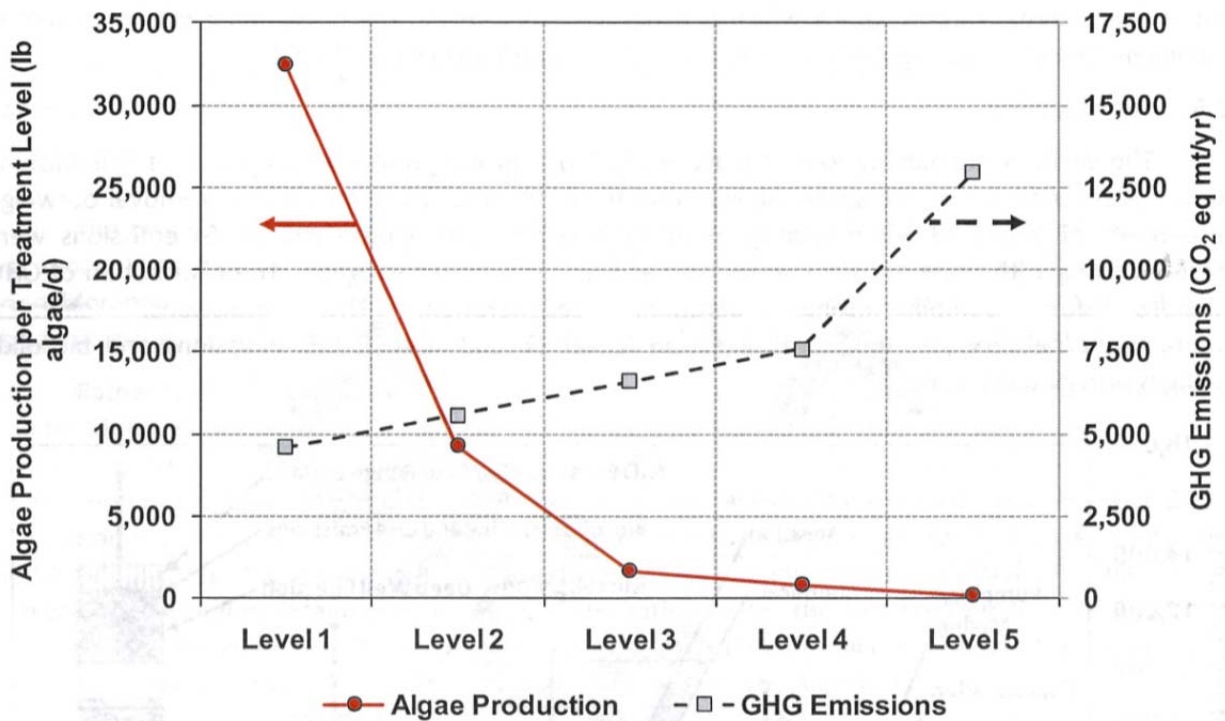


Figure 4. GHG Emissions and Algae Production per Treatment Level.

The overall message from the WERF Report is that a combination of Level 3 treatment and best management practices on non-point sources might be a more sustainable approach than solely regulating point source discharges for achieving comparable water qualities. The BDCP DEIR/EIS must assess all impacts to GHG emissions including excessive treatment levels for water and wastewater treatment plants along the Delta that could result from the BDCP's focus on "other stressors." If, as a result of the BDCP, the City were required to increase its treatment requirements, all anticipated treatment requirements, such as reverse osmosis, cooling and up to and including Level 5 treatment levels, the increased cost and environmental impacts associated with increased treatment, including mitigation for GHG emissions, must be fully mitigated by the BDCP.

#### IV. COMMENTS ON THE BDCP DEIR/EIS

The DEIR/EIS fails to address the City's most significant concerns about the BDCP's potential impacts, including key issues raised in the City's comments on the NOP. The DEIR/EIS fails to adequately provide the requisite accurate environmental documentation necessary for the citizens of Stockton and public decision-makers to reach an informed and thoughtful decision about the BDCP's environmental impacts

in and around the City, and whether the BDCP will realistically address the significant issues facing the Delta and California's water supply needs.

Due to the vast length of the DEIR/EIS and number of related documents (including appendices and ancillary studies) that constitute the DEIR/EIS, it was not feasible for City staff to conduct a detailed review of the analysis of all alternatives in the time provided for public review and comment. Therefore the City's comments focus largely on the analysis and impacts of the preferred project, Alternative 4. To the extent other alternatives are the same or substantially similar to Alternative 4, the City's comments on the DEIR/EIS and/or its objections to Alternative 4 apply equally to those other analyses and alternatives. Similarly, the City's discussion of proposed mitigation measures focuses on language used in mitigation as presented to mitigate impacts of Alternative 4. To the extent that the same or substantially similar mitigation measures are proposed for other alternatives, these comments apply equally to that mitigation.

#### **A. The Project Description Is Too Vague to Permit Meaningful Review**

As noted above, the BDCP and DEIR/EIS project description do not provide enough information about the project or its operations to permit the City to evaluate effects on the City's operations or the environment. The California Supreme Court has explained that, under CEQA, "[a]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." (*Concerned Citizens of Costa Mesa v. 32nd District Agricultural Assn.* (1986) 42 Cal.3d 929, 938 (*Concerned Citizens of Costa Mesa*)). This same standard applies under NEPA. (See also 40 C.F.R. § 1501.2(b); *Sierra Club v. Babbitt* (E.D. Cal. 1999) 69 F.Supp.2d 1202, 1217-1218 [project description with insufficient detail does not permit sufficient public comment and violates NEPA].) The project description in the DEIR/EIS fails to satisfy these requirements because it, as with the BDCP itself, contains a very large number of crucial uncertainties, vague descriptions, and analytical gaps.

All elements of the BDCP – even the proposed new North Delta diversion and tunnels – are presented as conservation measures that would benefit at least some of the covered species. Yet, under the BDCP's terms discussed above, essentially all of those conservation measures are subject to being "modified, replaced, or supplemented" as a result of the adaptive management process. According to the BDCP, those conservation measures could be changed by the agreement of the BDCP's proponents and the resources agencies, without further public involvement. With the entire BDCP being subject to high levels of possible change and uncertainty, with project changes apparently possible at any time, and without further environmental review, there is no way the BDCP can satisfy CEQA's requirement that a project description be "accurate, stable and finite." (*Concerned Citizens of Costa Mesa, supra*, 42 Cal.3d at p. 938.) To satisfy CEQA and NEPA's informational requirements, both the BDCP and DEIR/EIS must be revised to provide meaningful

detail about the project and recirculated for public review before any decisions can be made concerning permitting and implementation of the BDCP.

## **B. The Incorporation of Mitigation Measures in the Project Description Violates CEQA**

The DEIR/EIS improperly incorporates many necessary mitigation measures into its project description, characterizing them as “environmental commitments,” and relies on this tactic to conclude potential project impacts would be less than significant or otherwise reduced. (DEIR/EIS, Appendix 3B, p. 3B-1.) However, characterizing the “environmental commitments” as part of the project violates CEQA. In fact, the “environmental commitments” are designed to reduce or eliminate numerous project impacts, including significant impacts to air quality, water quality, fish and aquatic resources, public health, and a host of other impact areas and thus should be treated as mitigation measures.

There is hardly a resource area for which environmental commitments were not claimed to be factored into the impact analysis. (See DEIR/EIS, Table 3B-1, pp. 3B-2 to 3B-6.) Despite their apparently critical role in reducing the BDCP's impacts, the “environmental commitments” are not even described in the DEIR/EIS itself or evaluated as part of the impact analyses, but are relegated to one of the many appendices. (See DEIR/EIS, Appendix 3B [stating that environmental commitments “will not be restated in the impact analysis for each resource chapter but instead will be incorporated by reference.”].) Whether characterized as part of the project description or mitigation, burying the environmental commitments in an appendix subverts CEQA's informational mandate by denying the public the opportunity to review and understand them in the context of the DEIR/EIS analysis. Merely assuming their implementation will reduce impacts, without any analysis or evidence to support those assumptions, also prevents the public from understanding the full scope of the impact of the proposed actions or commenting on the effectiveness of the environmental commitments as mitigation.

The DEIR/EIS misleadingly tries to downplay the significance and uncertainty associated with these environmental commitments by characterizing them as “design features, construction methods, and other BMPs” that “tend to be relatively standardized and are often already compulsory. They represent sound and proven methods that can avoid or reduce the potential effects of an action, for example installation of sedimentation barriers and other stormwater protections during grading – in contrast to mitigation measures that would be necessary to be included as part of project approval to offset the environmental effects of the proposed action.” (DEIR/EIS, p. 4-13, lines 4-12). However, examination of Table 3B-1, where the commitment titles are linked to generic issue areas, reveals that the environmental commitments are not limited to design features or construction methods or BMPs, and are not limited to “proven methods” to avoid or reduce environmental impacts.

Indeed, the commitments are applied to some of the project's most serious impacts, including impacts to endangered species and human health.

For example, the environmental commitments include "Develop and Implement Fish Salvage and Rescue Plans," and "Develop and Implement a Barge Operations Plan" that will address sensitive resources, responsibilities, avoidance, performance, and contingency measures. (DEIR/EIS Appendix 3B, p. 3B-3.) Because such plans are not developed, and involve the exercise of substantial discretion by the project proponents themselves during implementation, they are *not* similar to compliance with adopted standards such as building codes, which have been vetted through the code adoption or other regulatory processes. Further, characterizing these measures as "commitments" is inaccurate and misleading because not only are they not set forth in the project description but there is no firm commitment that they be implemented. (See Appendix 3B [stating "[t]he BDCP proponents will see to it that these measures will be implemented *as appropriate*, depending on the location of construction and surrounding land uses."] (*Id.*, p. 3B-1).)

The air quality impact analysis provides a particularly telling example of how the incorporation of the "environmental commitments" into the project description resulted in a failure to evaluate or disclose actual project impacts. With respect to construction emissions, the DEIR/EIS states, "[e]missions estimates include implementation of environmental commitments (see DEIR/EIS, Appendix 3B, *Environmental Commitments*)." (DEIR/EIS, p. 22-48, lines 13-15.)<sup>3</sup> Not only does the DEIR/EIS thus fail to disclose the total amount of hazardous pollutant emissions and GHGs that would be released by the project, but it does not even provide for a reasonable comparison, should the reader choose to scour the appendices to try to unearth the estimated reductions from the environmental commitments, as they are provided in different units: "Although emissions are presented in different units (pounds and tons), the amounts of emissions are identical (i.e., 2,000 pounds is identical to 1 ton)." (DEIR/EIS, p. 22-48, lines 15-16.)

Moreover, the commitments themselves are inadequate as mitigation because they are fraught with uncertainties and off-ramps that would allow for no or undefined mitigation to occur, or have the potential to result in new significant effects that are not analyzed in the DEIR/EIS but subject to possible future environmental review. As but one example, the measure 3B.1.19 Disposal and Reuse of Spoils, Reusable Tunnel Material (RTM) and Dredged Material (DEIR/EIS, Appendix 3B, pp. 3B-34 to

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<sup>3</sup> See also "Construction Emissions Approach and Threshold": "Project-level GHG reduction measures (CO-1 and CO-2) included in the CAP have also been incorporated into the project design as environmental commitments (see Appendix 3B, *Environmental Commitments*)." (DEIR/EIS, p. 22-44, lines 18-20.)



3B-40) is proposed to occur somewhere over a 10 mile radius of the construction sites. (See DEIR/EIS, p. 3B-35, lines 10-11.) No detail is provided about the possible location of these disposal sites, but the DEIR/EIS acknowledges that disposal might occur in wetlands and vernal pool areas, which would be a significant impact. Nor is any information provided regarding the volume of RTM decant liquids that will need treating, the proposed method for treating them, or where they would be disposed of. Lacking any information about the specific sites that are likely to be available for spoils storage and disposal, or any information about the treatment of decant liquids, and what specific assumptions were used in applying this environmental commitment to the analysis of project impacts, it is impossible for the City to assess the scope of potential impacts to agricultural lands, wetlands, water quality, and other important resources.

The environmental commitments are plainly mitigation measures. CEQA requires that mitigation measures be separately identified and analyzed. This analytical procedure is necessary in order for the lead agency: (1) to make required findings regarding potentially significant project impacts; (2) to determine whether mitigation measures are required; (3) to adequately evaluate the range or efficacy of required mitigation measures or project modifications; and (4) to trigger the required adoption of an enforceable mitigation monitoring program. The DEIR/EIS's failure to discuss the significance of project impacts apart from these proposed mitigation measures is a fatal "structural deficiency in the EIR" which resulted in a failure to disclose the full scope of project impacts and to consider whether other possible mitigation measures would be more effective. (*Lotus v. Dept. of Transportation, et al.* (2014) 223 Cal.App.4th 645.) The same tactic, employed by the California Department of Transportation, was rejected by the California Court of Appeal, which found it to be a "short-cutting of CEQA requirements" that subverted CEQA's purpose by omitting material necessary to informed decision-making and public participation; in short, it "preclude[d] both identification of potential environmental consequences arising from the project and also thoughtful analysis of the sufficiency of measures to mitigate those consequences." (*Ibid.*)

In order for the public to understand the full scope of the BDCP's impacts, the DEIR/EIS must be revised to clearly describe the environmental commitments in the context of the individual impact analyses, and explain exactly how and to what degree they are expected to reduce project impacts. Impacts must be measured and quantified without consideration of the environmental commitments, before any determination is made regarding their effect. This analysis and supporting evidence must be included in the body of the DEIR/EIS, and the document must be recirculated for public review and comment.

**C. The EIR Uses an Inflated Baseline That Fails to Incorporate Relevant Existing Conditions**

**1. Inflating Existing Exports Minimizes Impacts**

The DEIR/EIS is unclear what level of exports was used for the existing conditions simulation, but it appears to have relied on full CVP and SWP contract deliveries. If this is the case, then the baseline likely has been inflated with respect to assumptions about the amount of water exports occurring under both existing conditions and the No Project Alternative, which has the effect of minimizing project impacts. With regard to SWP deliveries, it is well recognized that SWP contracts are written for far more supply than has ever been, or ever will be, delivered. (*Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (2003) 106 Cal.App.4th 715.) Moreover, SWP deliveries have declined significantly in recent years since various regulatory constraints were adopted, including the federal biological opinions.

Appendix 3D (p. 3D-6), Table 3D-1, *Summary of SWP and CVP Operations Included in Existing Conditions and No Action Alternative for the BDCP EIR/EIS*, states that the existing conditions with respect to SWP water demands are “[b]ased on full/variable Table A amounts including transfers through 2008,” as well as other factors. It is not clear whether the existing conditions are based on an average of actual deliveries over a period of record (Inception of SWP through 2008? Some other period?), or a single year (2008?), or whether they were based on the full Table A amounts. If the existing conditions have been inflated over conditions representative of actual deliveries within the past five years, based on maximum exports, then the BDCP impacts necessarily will have been minimized.

What is the evidence supporting the amount of contract deliveries assumed in the existing conditions simulation? An accurate baseline would have relied on the lower exports allowed under the constraints of existing water quality and fisheries standards, including the fall X2 salinity standard and 2008 Delta Smelt Biological Opinion.

**2. The DEIR/EIS's Use of a Future Baseline Results in a Failure to Evaluate Potentially Significant Impacts of Concern to the City**

For hydrologic impacts, none of the alternatives was evaluated using an actual Existing Conditions model scenario. Unlike typical CEQA analysis, where alternatives are imposed on Existing Conditions, the alternatives were only evaluated against hypothetical future conditions representing river hydrology as it is projected to exist in 2060. These long-term baseline conditions incorporate assumptions about changing conditions that will not be felt for decades, including (for NEPA analysis) the impacts of climate change, and future upstream water demands due to growth north

of the Delta. By contrast, the BDCP water diversions will take effect in the near term, and the high level of new water exports from the North Delta have the potential to have a significant impact on river levels and water quality in and above the Delta. Without an evaluation of impacts against current conditions, the City has no way to evaluate the nature and extent of potential impacts to its water supply and operation of its water and wastewater treatment facilities. In this respect, the use of an exclusive future baseline omits key information necessary to informed decision-making and renders the EIR inadequate.

#### **D. The DEIR/EIS Fails to Examine a Reasonable Range of Alternatives**

The alternatives selected do not represent a reasonable range because all the alternatives are designed to further the BDCP proponents' goal of maximizing water supply reliability, and no alternatives are designed to meet the co-equal goal of recovery of species. Moreover, despite the fact that many of the conservation measures will have significant impacts, the DEIR/EIS evaluates no alternatives to any of the conservation measures other than CM 1.

The Delta Stewardship Council (DSC), in its July 11, 2013, comments on the second administrative draft EIR/EIS, suggested the EIR evaluate an alternative conservation measure that would provide a more natural Delta flow regime, as a means of lessening the BDCP's impacts on in-Delta water quality. (See July 11, 2013, Letter to Russell Stein from Dan Ray.) Other experts have emphasized that enhanced flow and flow modifications to mimic the natural hydrograph are the single most important action that can be taken to improve water quality and fisheries habitat in the Delta. Such an alternative could be achieved not only through reduced Delta exports but also by water transfers or releases from new surface storage projects.

The original planning principles of the March 2009 Draft BDCP to divert more water in the wetter periods and less in the drier periods is not reflected in the current BDCP alternatives; rather, there is a clear presumption that will not occur. BDCP project alternatives should include storage both north of the Delta, to allow for measured releases to mitigate for Delta water quality degradation due to the project diversions, and south of the Delta, to store Delta diversions in the wetter periods for use in the drier periods. Current BDCP alternatives fail to achieve this responsible and obvious balance of water supply management.

The DEIR/EIS also fails to consider any alternative that would reduce the BDCP's significant effect on agricultural land. As suggested by the DSC, the DEIR/EIS should consider an alternative designed to minimize agricultural land losses, such as emphasizing restoration of tidal marsh at Suisun Marsh. This alternative has the potential to mitigate both loss of agricultural land as well as the BDCP's adverse water quality effects by dampening saltwater intrusion into the Delta.

The failure to evaluate alternatives that would avoid or substantially lessen the significant impacts of any conservation measures other than CM 1, or one that would reduce the BDCP's significant effect on agricultural lands, violates CEQA's mandate that an EIR evaluate a reasonable range of alternatives to the project or to its location that would feasibly attain most of the project's basic objectives while reducing or avoiding any of its significant effects. The BDCP and DEIR/EIS should be revised to include a full discussion of project alternatives that meet these objectives and be recirculated for public review.

#### **E. The DEIR/EIS Fails to Evaluate Impacts to the City's Drinking Water Supply**

As discussed above, the DEIR/EIS fails to evaluate the BDCP's effects on the City's DWSP WTP. Water quality is the most significant concern to the City that has not been adequately addressed in the DEIR/EIS. Because of the lack of water quality analysis contained in the DEIR/EIS in the vicinity of the City's drinking water intake on the San Joaquin River, it is clear that DWR and BDCP proponents cannot adequately predict the impacts of the BDCP to the City's drinking water supply.

The City's concerns about the BDCP's potential to diminish the quality or quantity of its surface water supply are heightened by uncertainties, unaddressed in the DEIR/EIS, about how the BDCP will affect future flow requirements and, thus, the exercise of water rights in and north of the Delta. Water supplies for all beneficial purposes in the Delta and Northern California depend upon the exercise of water rights and contracts. As a result, the Legislature expressly recognized that water rights and area of origin provisions in Northern California shall not be impaired or diminished as a result of any program or project in the Bay-Delta. (Wat. Code, § 85031.) Water right contracts and area of origin priorities must be recognized and fully implemented by state and federal agencies to ensure that reliable supplies are available for all water uses and needs in our region. These water rights also provide a solid foundation for the operation of the state and federal water projects, thus helping to advance active water management throughout California.

The DEIR/EIS omits any discussion of water supply impacts to water rights holders such as the City on the theory that, "[t]he [BDCP] alternatives would modify the operations of the SWP and CVP facilities but would not modify the operations of water resources facilities owned and/or operated by other water rights holders. Therefore, the water supply analysis addresses impacts to DWR, Reclamation, and SWP and CVP contractors, as opposed to other water rights holders, as the BDCP does not include any regulatory actions that would affect any such water rights holders." (DEIR/EIS, p. 5-43, § 5.3.1.) There is general recognition that increasing water flows through the Delta will promote a healthier Delta. Future use of this water could be subject to a review as a "covered action" within the scope of the Delta Plan, to see if it is consistent with the BDCP. This could produce a scenario where Delta

exports will still be allowed, while a Delta user's water supply uses are restricted in order to maintain the regulatory required Delta outflow (i.e., changes in reservoir operation and/or water supply availability). The operational changes to upstream reservoirs, and impacts to upstream water supply, are not adequately addressed in the DEIR/EIS and are unclear at this point.

## **F. Specific Comments on DEIR/EIS Sections**

### **1. Chapter 5: Water Supply**

See comments above. The DEIR/EIS analysis of water supply impacts must be broadened to include an analysis of the effect on current and future supplies of water rights holders in and north of the Delta, not just south of the Delta.

### **2. Chapter 7: Groundwater**

The DEIR/EIS reports cones of depression related to groundwater pumping near the major pumping centers such as Stockton and also that there is an observed groundwater inflow from the Delta toward pumping areas in the Stockton area. (DEIR/EIS, p. 7-8.) The DEIR/EIS incorrectly states that the City relies mostly on groundwater. Since 1977, the Stockton Metropolitan Area water suppliers, including the City, have and continue to invest in conjunctive use water supply projects that source water from the Calaveras, Stanislaus, Mokelumne, and San Joaquin Rivers resulting in surface water sources contributing up to 90 percent of potable water supply to the Stockton Metropolitan Area. This investment totaling hundreds of millions of dollars by the Stockton urban area water users was and continues to be done in part to control historical salinity intrusion into the groundwater basin. The DEIR/EIS fails to adequately describe, explain, or mitigate potential impacts of the BDCP on these already-impaired groundwater resources. Though the DEIR/EIS acknowledges the potential contribution of climate change resultant sea-level rise, it does not explicitly present a cumulative analysis of the impacts on Stockton-area groundwater resources from the combination of the BDCP and sea-level rise. The City asserts that the BDCP may exacerbate an existing saltwater intrusion problem through the modification of the natural hydrostatic condition. The DEIR/EIS should evaluate the potential for this impact to occur.

As discussed above, the DEIR/EIS also should evaluate potential impacts to the groundwater basin and the City's drought water supply if the BDCP has the effect of reducing the City's surface water supply and causing an increase in groundwater pumping.

### **3. Chapter 8: Water Quality**

Water quality is the most critical issue of concern to the City that has not been adequately addressed in the DEIR/EIS. Throughout, the DEIR/EIS discussion of

water quality impacts is conclusory and omits discussion and evidence to support the impact determinations. It fails to evaluate impacts at the City's drinking water intake, despite available background data from that location and despite requests from the City in its comments on the NOP that the DEIR/EIS conduct this analysis. The BDCP will result in numerous significant impacts to water quality yet most are left unmitigated, or the responsibility for mitigating BDCP-caused water quality impacts and compliance problems is improperly shifted to Delta communities.

*Failure to Use Relevant Data from Appropriate Monitoring Location*

The DEIR/EIS relies on data from, and provides information about water quality effects at, a DWR monitoring station at Buckley Cove. The Buckley Cove location is far south (almost ten miles) of the City's intake, which is more highly influenced by the poorer San Joaquin River quality, rather than the northern rivers, such as the Mokelumne and Sacramento. In other words, Buckley Cove cannot be considered to be representative of the water quality available at the City's intake. Evaluation of water quality changes at locations other than the City's intake is not an evaluation of impacts to the City's water supply or its quality. The City has been collecting water quality data in the stretch of the San Joaquin River near its intake for over 30 years. Despite being on notice about the City's significant concerns about water quality effects in the area of its intake, the BDCP proponents did not obtain or use any of this data in preparing the DEIR/EIS. Moreover, DWR maintains a water quality station less than one-half mile from the City's intake. It was unreasonable for the DEIR/EIS to not have used data from that water quality station in order to more accurately evaluate impacts to the City's drinking water supply. It is not possible for the project proponents or the City to determine how the BDCP will affect water quality conditions at the City's intake until a Delta Simulation Model run is conducted for our intake site proximity. In order to satisfy CEQA's informational mandate, the DEIR/EIS must be revised to properly analyze impacts to the City's drinking water source at the diversion point on the San Joaquin River and recirculated for public review and comment.

*Failure to Address Federal Antidegradation Policy Requirements*

Under the federal antidegradation policy, "major federal actions" that affect water quality trigger the application of the federal antidegradation policy and requirements. Those requirements prohibit actions that would lower water quality in areas where existing water quality objectives are not attained. (U.S. Environmental Protection Agency (USEPA), Region 9, 1987, Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12, June 3.) The BDCP plainly qualifies as a major federal action that will affect water quality. However, the DEIR/EIS fails to adequately articulate or address the federal antidegradation requirements, which place significant constraints on the BDCP and associated mitigation.

The "key questions" to be addressed by the surface water quality impact assessment (DEIR/EIS § 8.4.1, p. 8-127, lines 37-40 and p. 8-128, lines 1-4) do not adequately address the requirements of the federal antidegradation policy. The "key questions" add a threshold consideration ("to cause or substantially contribute to significant adverse effects on the beneficial uses of water in these areas of the affected environment") that does not exist in the federal antidegradation policy. As such, the evaluation contained in the DEIR/EIS fails to properly address the fact that significant degradation of water quality in 303(d) listed waters is prohibited under the federal policy. For example, the DEIR/EIS fails to address the acknowledged degradation of electrical conductivity (EC) that will occur in 303(d) listed areas such as Suisun Bay and portions of the Delta in light of the federal policy. Moreover, the proposed EC mitigation measures (WQ-11, WQ-11a, and WQ-11b) that are described in the DEIR/EIS are inadequate in that they will not ensure that the EC levels will be maintained in 303(d) listed waters.

*DEIR/EIS, p. 6-8, Influence of Delta Diversions:* The City is described as having a new facility being constructed near the City of Stockton. The City's intake and water treatment plant are complete and currently divert water from the Delta for municipal uses.

*DEIR/EIS, p. 8-31, Table 8-6, Major Diversions:* The City's Delta Water Supply Project Intake is not listed here under Major Diversions.

*DEIR/EIS, p. 8-44:* The Bay-Delta Water Quality Control Plan (WQCP) contains chloride objectives for municipal and industrial water supply beneficial uses protection, including a maximum mean daily concentration of 250 mg/L year-round at the five major municipal water supply diversion locations. The City's DWSP Intake is not listed here. Equal protection for the City's drinking water intake should be analyzed and protected under the BDCP operations plan.

*DEIR/EIS Appendix 3D, p. 3D-85:* The description of the City's DWSP should be changed from "would develop" to "is" a new supplemental water supply.

*WQ-5: Effects on bromide concentrations resulting from facilities operations and maintenance (CM 1)*

The DEIR/EIS identifies significant unavoidable water quality resulting from excessive bromide concentrations. Bromide levels are of concern for the City's Water Treatment Plant. For assessing Delta bromide effects, the DEIR/EIS chose Buckley Cove as the location representative of the City's intake on the San Joaquin River. Modeled increases are shown for bromide at Buckley Cove. (See, e.g., DEIR/EIS, pp. 8-418, 8-709.) However, in most cases, there is no evidence or analysis regarding bromide effects at Buckley Cove, let alone the City's intake, despite the

fact that the San Joaquin River already is high in bromide and the BDCP would reduce flows, which could substantially increase bromide concentrations.

As noted, Buckley Cove is approximately 9.5 miles from the City's intake and should not be considered representative of the City's intake. What would the bromide concentration level increases be at the City's Delta Intake? The BDCP must evaluate the effects of changes in bromide levels at or near the City's intake on the San Joaquin River, including effects on consumers of water and on City operations. Further, if treatment plant upgrades may be necessary due to increased levels in bromide due to the BDCP, significant environmental and economic impacts need to be evaluated and mitigated by the BDCP, not left to the City to address.

For Alternative 4, the preferred project, changes in bromide concentrations are discussed only with regard to the No Action Alternative. (See DEIR/EIS, p. 8-148, lines 32-43.) There is no discussion of the change in bromide concentrations from existing conditions, as required by CEQA, except a general comparison (relative change) between existing conditions and the No Action Alternative. It is entirely unclear what the BDCP-related change from existing conditions would be. The failure to include this information, and provide it in a form that is meaningful to the average reader, violates CEQA. Even assuming that water quality conditions at Buckley Cove are representative of conditions at the City's drinking water intake nearly ten miles away, the failure to include any intelligible summary of or data regarding the BDCP's effects on bromide violates CEQA's informational mandate.

Not only does the DEIR/EIS fail to adequately analyze or mitigate the impact, but it also defers the analysis and mitigation to a post-project timeframe. This experimental approach is contrary to the intent or legal requirements of CEQA. The justification that exact restoration areas are not currently known is insufficient, especially since these very details will determine the presence and magnitude of any forthcoming impacts.

*WQ-7: Effects on chloride concentrations resulting from facilities operations and maintenance (CM 1)*

This impact is identified as being significant and unavoidable under all project alternatives. The discussion of chloride impacts compared to existing conditions (DEIR/EIS, p. 8-424) is very difficult to understand and lacking any mention of impacts at Buckley Cove or the City's intake. The discussion of different models is hard to follow; it states that chloride increases are uncertain due to impacts of CM 4, and "may be greater than indicated herein and would affect the western Delta assessment locations the most which are influenced to the greatest extent by the Bay source water." (DEIR/EIS, p. 8-424, lines 22-24.) Which specific locations would be affected? Is Buckley Cove one of the affected "western Delta assessment locations" cited? What would the effect be on the City's intake?



The discussion concludes that the BDCP will have substantial adverse effects on municipal and beneficial uses through reduced opportunity for diversion of water with acceptable chloride levels. (DEIR/EIS, p. 8-426.) Specifically, the DEIR/EIS concludes that "Relative to Existing Conditions, all of the Alternative 4 H1-H4 Scenarios would result in substantially increased chloride concentrations in the Delta such that frequency of exceeding the 150 mg/L Bay-Delta WQCP objective would approximately double." (DEIR/EIS, pp. 8-428 to 8-429.)<sup>4</sup> While it did evaluate specific increases at two pumping plants – Antioch and Contra Costa – the DEIR/EIS provides no information or analysis regarding specific effects at the City's DWSP intake. This discussion does not provide enough information for the City to assess the degree of impact at its intake.

To address this impact, the DEIR/EIS proposes to provide additional evaluation and modeling following initial operation, and proposes to work with Delta water purveyors to identify means to minimize impacts. This is an unacceptable attempt to address project impacts by deferring the disclosure and consideration of impacts, as well as the formulation of mitigation, to some later date. Further, there are no assurances that mitigation will ever happen. In order to satisfy CEQA and NEPA's informational purposes, further water quality analysis is required to determine project operational impacts to Delta drinking water intakes, including the City's, prior to BDCP approval.

*WQ-11: Effects on Electrical Conductivity Concentrations Resulting from Facilities Operations and Maintenance (CM 1)*

This impact is identified as significant and unavoidable under all project alternatives. It appears from the DEIR/EIS discussion that there would be significant increases in electrical conductivity (EC) concentrations at various Delta locations, especially during drought periods (DEIR/EIS, p. 8-437), and that these increases will have significant adverse effects on agricultural beneficial uses. (DEIR/EIS, p. 8-439.) However, the City is unable to assess the significance that project-related EC effects will have on its drinking water intake because the DEIR/EIS contains no discussion of how the BDCP will affect EC levels at either Buckley Cove (the DEIR's stated surrogate for the City's intake) or the City's intake. As with chloride in Impact WQ-7, mitigation is proposed to occur after the North Delta Intakes commence operation. Again, this is unacceptable to the City.

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<sup>4</sup> The discussion of impacts compared to the No Action Alternative (DEIR/EIS, p. 8-424, lines 27-40) reveals a notable – 3 percent – increase at Buckley Cove, which is attributed only to operational components of Alternative 4, and presumably does not include the additional adverse effects from CM 4 noted above. Again, no information is provided regarding the effects at the City's intake.

On page 8-436, the DEIR/EIS states the following regarding EC:

The effects on lower San Joaquin River EC would be somewhat different. Elevated EC in the San Joaquin River can be sourced to agricultural use of irrigation water imported from the southern Delta and applied on soils high in salts. This accumulation of salts is a primary contributor of elevated EC on the lower San Joaquin River. Tributary flows generally provide dilution of the high EC agricultural drainage waters. Depending on operational scenario, long-term average flows at Vernalis would decrease about 6% (as a result of climate change and increased water demands) relative to Existing Conditions, and would increase about 0.1% relative to the No Action Alternative (Appendix 5A). These decreases in flow, alone, would correspond to a possible increase in long-term average EC levels. The level of EC increase cannot be readily quantified but, based on estimated increase in bromide and chloride concentrations, to which EC is correlated, would be relatively small and on the order of about 3% relative to Existing Conditions, and less than 0.1% relative to the No Action Alternative. However, with the implementation of the adopted TMDL for the San Joaquin River at Vernalis and the ongoing development of the TMDL for the San Joaquin River upstream of Vernalis and its implementation, it is expected that long-term EC levels will improve. Based on these considerations, substantial changes in EC levels in the San Joaquin River relative to Existing Conditions or the No Action Alternative would not be expected of sufficient magnitude and geographic extent that would result in adverse effects on any beneficial uses, or substantially degrade the quality of these water bodies, with regard to EC.

This discussion lacks evidence or analysis that would explain why or how the predicted substantial changes in EC levels would not be expected to be of sufficient magnitude to result in adverse effects to beneficial uses. CEQA defines significant effect as a substantial adverse change, and the DEIR/EIS says the BDCP change would be substantial. The Delta is currently 303(d)-listed for EC, a federal Clean Water Act listing which is made when beneficial uses are impaired and water quality objectives are not attained. The projected increased concentrations associated with CM 1 represent significant degradation in water quality and further impairment of already impaired beneficial uses in the Delta.

The assumption that the BDCP's adverse effects on EC levels would be mitigated through the TMDL does not address how or whether the BDCP would hamper the success of the TMDL, and no information is provided regarding when or to what degree the TMDL is expected to improve EC levels. Even assuming the TMDL is successful, it is probable that there will be a disconnect between the time BDCP

impacts occur and the total improvement hoped for under the TMDL is realized, such that there is at a minimum a temporary impact on beneficial uses from elevated EC levels. Without any information about the predicted timing or extent of TMDL-related improvements, however, or the BDCP's effect on achieving those improvements, there is no way to gauge the significance or duration of the BDCP's effect on EC levels and beneficial uses.

*Impact WQ-15: Effects on Nitrate Concentrations Resulting from Facilities Operations and Maintenance (CM 1)*

There are numerous problems with the DEIR/EIS's treatment of nitrate impacts. The DEIR/EIS states that modeling shows long-term flows on the San Joaquin River decreasing – by as much as 6 percent under Alternative 1A – which would lead to increases in nitrate concentrations. (DEIR/EIS, p. 8-262, line 15; p. 8-449.) The DEIR/EIS goes on to say that if these flow reductions lead to inadequate dilution for wastewater treatment plants, the issue will be addressed through the NPDES permitting process for the wastewater treatment plants.<sup>5</sup> The DEIR/EIS thus recognizes that impact would be caused by the BDCP-related decrease in flows but assumes any water quality impairments that would result are problems of the wastewater treatment plants and would be addressed through their permits. (See DEIR/EIS p. 8-263, lines 1-3 [“The NPDES permit renewal process would address this and thus there would not be substantial degradation of water quality”], and similar statement at p. 8-449, line 31.) Not only does this naked conclusion provide no evidence or analysis to substantiate the conclusion that BDCP-related changes in flows that lead to nitrate exceedances would not substantially degrade water quality, but the determination that significant adverse water quality effects from BDCP-related

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<sup>5</sup> Specifically, the DEIR/EIS on page 8-449, lines 19-31, states: “The other areas in which nitrate concentrations will be higher than the modeling results indicate are immediately downstream of other wastewater treatment plants that practice nitrification, but not denitrification (e.g., City of Rio Vista Beach WWTF, Town of Discovery Bay WWTF, City of Stockton RWCF). For all such facilities in the Delta, the Regional Water Boards have issued NPDES permits that allow discharge of wastewater containing nitrate into the Delta, and under these permits, the State has determined that no beneficial uses are adversely affected by the discharge, and that the discharger's use of available assimilative capacity of the water body is acceptable. When dilution is necessary in order for the discharge to be in compliance with the Basin Plans (which incorporate the 10 mg/L-N MCL by reference), not all of the assimilative capacity of the receiving water is granted to the discharger. Thus, limited decreases in flows are not anticipated to result in systemic exceedances of the MCLs by these POTWs. Furthermore, NPDES permits are renewed on a 5-year basis, and thus, if under changes in flows, dilution was no longer sufficient to maintain nitrate below the MCL in the receiving water, the NPDES permit renewal process would address such cases. In summary, any increases in nitrate-N concentrations that may occur at certain locations within the Delta would not be of frequency, magnitude and geographic extent that would adversely affect any beneficial uses or substantially degrade the water quality at these locations, with regard to nitrate.”

flow reductions would be addressed through modification of third party NPDES permits improperly shifts the burden of mitigating the BDCP's significant impacts to dischargers.

This discussion is also inaccurate in its statement that the regional water quality control boards have issued NPDES permits that allow discharge of wastewater containing nitrate into the Delta, that no beneficial uses are adversely affected by the discharge, and that the discharger's use of available assimilative capacity of the water body is acceptable. This is an incorrect statement in light of the current position of the Central Valley Regional Board relative to nutrient loading to the Delta. The City, in its recently adopted NPDES permit for the RWCF, is now obligated to enhance treatment to reduce nitrate plus nitrite concentrations to 10 milligrams per liter. In the public hearing on the City's draft permit, it was clear that the Central Valley Regional Board was not concerned with nitrate levels relative to primary drinking water standards; rather, its focus was on preventing taste and odor impacts in finished water in Delta water export areas despite the scientific data and analysis that demonstrate that the current RWCF discharge of nitrate/nitrite to the San Joaquin River does not adversely affect beneficial uses.

No information or analysis is provided to explain how these project impacts would be "addressed" in the NPDES permit renewal process. The analysis fails to address how NPDES permits might be modified, whether such modifications are, in fact, feasible, and what the resulting changes in wastewater treatment plant operations and associated environmental impacts might be. How would wastewater treatment plant operations have to change to avoid water quality degradation from BDCP-related flow decreases? Would new facilities or treatment processes have to be implemented? What environmental impacts would be associated with such facilities or processes? As noted in our comments regarding climate change, above, additional treatment is likely to result in significant increases in GHG emissions, and other impacts from construction and operation of additional treatment, and those impacts must be considered in the DEIR/EIS. What is the anticipated cost of compliance? All of this information must be provided so the public can determine the degree to which the BDCP would affect water quality or the environment as a result of flow reductions that lead to substantial water quality degradation.

*WQ-18: Effects on Organic Carbon Concentrations to Municipal Water Intakes Resulting from Implementation of CM 2–CM 22*

This impact is identified as significant and unavoidable. (DEIR/EIS, p. 8-457.) The proposed mitigation is to design wetlands to minimize effects on drinking water intakes. This proposed mitigation is vague, lacking in performance standards or other measurable success criteria, and does not provide assurances as to the effects on the City's drinking water intake.

*WQ-22: Effects on Pesticide Concentrations Resulting from Implementation of CM 2-CM 22*

This impact is identified as significant and unavoidable. The DEIR/EIS discloses a significant increase in the percentage of source water from the San Joaquin River at Buckley Cove, the BDCP's chosen surrogate for the City's drinking water intake impacts, in the months of July and August. These months are the height of the summer irrigation season, when pesticide levels could be expected to be highest due to agricultural runoff. Despite the fact that the ratio of source water with relatively high pesticide concentrations will increase substantially, the DEIR/EIS concludes, without any evidence or analysis, that the impact would not be adverse because the percentage of San Joaquin River source water is less than in other months. (See DEIR/EIS, p. 8-466, lines 1-5 ["Despite these San Joaquin River increases, the resulting net San Joaquin River source water fraction for July and August would remain less than all other months. As a result, these modeled changes in the source water fractions are not of sufficient magnitude to substantially alter the long-term risk of pesticide-related toxicity to aquatic life, nor adversely affect other beneficial uses of the Delta."].)

This conclusion ignores CEQA's mandate that an EIR evaluate the significance of the project's effect compared to existing conditions. The evidence shows a significant adverse change (substantial increase in lower quality water likely to have higher levels of pesticides) during the peak irrigation season. The DEIR/EIS contains no evidence to show how the concentration of pesticides will differ during these months from existing conditions or any analysis of how the increase will affect drinking water or other beneficial uses, including fish and wildlife. No information is provided about aquatic species that may be present during these months that may be at sensitive juvenile life stages (e.g., larval, smolt) and thus more susceptible to harm from increased pesticide concentrations.

The proposed mitigation to implement integrated pest management — *Mitigation Measure WQ-22 — Implement a Least Toxic Integrated Pest Management Program* — is vague and does not provide assurances as to the effects on the City's drinking water intake. Specifically the mitigation measure does not contain any performance standards or other measurable criteria concerning the timing of application of pesticides, minimization of health risk to humans, non-target organisms, or the aquatic ecosystem. As such, there is no way for the public to understand how success of the measure will be determined and what kind of results can be expected in terms of water quality concentrations, other than that overall use of pesticides may (or may not) be lower.

### *Water Temperature Impacts*

On page 3.3-128, lines 30-39, the BDCP states:

Increased water temperature. Higher water temperatures cause physiological stress, reduced growth rates, prespawning mortality, reduced spawning success, and increased mortality of salmon (Myrick and Cech 2001). Temperature can also indirectly influence disease incidence and predation (Waples et al. 2008). The installation of the Shasta Temperature Control Device in 1998 and improved reservoir management are believed to be important factors contributing to the increase in adult winter-run Chinook salmon abundance in the early 2000s. However, climate change patterns, which are expected to increase water temperatures in upstream reaches of the Sacramento River important to this run, in combination with current stressors, may adversely affect the long-term health and viability of Sacramento River winter-run Chinook salmon (Crozier et al. 2008).

Besides flow changes, another potentially adverse effect of the BDCP on the City is changes in ambient river water temperature. The RWCF operates under NPDES permit requirements which, among other things, disallow discharges of effluent that exceed natural receiving water temperature by more than 20°F. Any changes to river temperature could affect the City's ability to comply with the thermal discharge requirements in its NPDES permit. If the San Joaquin River were to become colder as a result of BDCP operations, there is a possibility that the City would be required to build cooling towers to cool its effluent before it is discharged to the San Joaquin River. Construction and operation of cooling towers would cost tens of millions of dollars and have a significant adverse financial impact on the City and its ratepayers. Construction and operation of the cooling towers also would have associated environmental impacts that are not considered in the BDCP DEIR/EIS.

Conversely, any significant *increase* in river temperature could harm sensitive fish species. The BDCP itself identifies the importance of understanding how BDCP operations will impact temperatures. The City is aware of the evidence developed by Sacramento Regional County Sanitation District experts demonstrating that the DEIR/EIS temperature modeling contains fatal errors that make the modeling data useless for determining temperature impacts on the Delta. The BDCP's use of inaccurate data is a fatal flaw in the modeling of temperature impacts that invalidates both the model results and the temperature impact analysis in the BDCP and the DEIR/EIS. Due to these flaws in the model, there is no substantial evidence to support the DEIR/EIS's analysis of temperature effects to fish and there is no way for the City to evaluate temperature impacts to its operations.

The BDCP must be revised to accurately evaluate and clearly disclose the BDCP's effects on river temperatures and mitigate all impacts to temperature, including cooling of wastewater discharge.

#### **4. Chapter 13: Land Use**

Presently, agricultural facilities in the project area rely on local groundwater resources for irrigation and livestock watering. As the DEIR/EIS states that the BDCP will impact these local groundwater resources, the long-term economic viability of these lands for agricultural use remains in question. Should these lands become unviable for agricultural use, their conversion to urban development may be likely. In such a scenario, the BDCP would be responsible for the conversion of the agricultural lands to urban development (or other use), which is inconsistent with the multitude of land use documents recognized by the DEIR/EIS. The DEIR/EIS should require additional study throughout the life of the project to determine if the BDCP is indeed causing the premature conversion of agricultural uses to urban development, and require mitigation for future BDCP-related loss of agricultural land, not just conversions directly resulting from facility construction or habitat restoration.

#### **5. Chapter 14: Agricultural Resources**

##### *Lost Agricultural Production Caused by Project Construction*

Temporary and short-term construction of facilities would convert approximately 1,315 acres of Important Farmland and 837 acres of land subject to Williamson Act contracts or in 38 Farmland Security Zones to other uses. Physical structures would also permanently convert approximately 4,975 acres of Important Farmland, including 4,281 acres of Prime Farmland, 158 acres of Farmland of Statewide Importance, 339 acres of Unique Farmland, and 197 acres of Farmland of Local Importance, and 3,080 acres of land subject to Williamson Act contracts or in Farmland Security Zones to other uses. (DEIR/EIS, pp. 14-109, 14-111.)

In addition, the DEIR/EIS fails to analyze and disclose whether agricultural operations in the Delta will remain viable once the activities contemplated by the BDCP are complete. The BDCP will result in the permanent removal of a significant amount of prime farmland from production, construction activities will "temporarily" remove a significant additional amount of prime farmland from production, and direct and indirect impacts from construction-related activities will adversely affect even more prime farmland. Drainage patterns will likely change, water quality will likely change, and growers could be faced with buyers finding alternate sources of supply with land out of production for extended periods of time. In addition, the BDCP's proposed restoration of some Delta islands could put other islands at risk of flooding, further threatening local agriculture. With a significant amount of farmland removed from production or production otherwise adversely affected, the DEIR/EIS must analyze

and disclose whether the prolonged adverse affects on agriculture in the Delta will result in any permanent loss of agriculture in the region.

The loss of this farmland and the BDCP-related long-term impact on agricultural operations has the potential to have a significant impact on the economy of the City, which is the home to several large agricultural processing businesses and whose residents work in or provide services to the Delta agricultural community.

The mitigation measures proposed to address the BDCP's conversion of agricultural lands are neither measurable nor enforceable. Mitigation Measure AG-1a (DEIR/EIS, p. 14-39) prescribes certain actions to "reduce adverse effects and/or significant effects . . . if the measures are applicable and feasible." Several of these prescribed actions do not generate a predictable outcome, but instead generate only a variable process with variable outcomes. For example, AG-1a states: "The plans *should* include a framework that *encourages* adaptive management with regard to agricultural land management." (DEIR/EIS, p. 14-42, emphasis added.) Real and measurable results cannot be measured if the plan is not required to include the framework, including defined performance standards, or if the framework does not require adaptive management. According to AG-1a, an acceptable outcome would be a plan with (or without) a framework that does (or does not) encourage adaptive management, and with no specified performance standards by which success can be gauged. Such non-committal language is inadequate for proper mitigation of identified environmental impacts.

#### *Salinity Impacts to Crops*

Impact AG-2 discusses effects on agriculture as a result of changes in salinity (as EC), but there is no discussion of EC increases other than at Emmaton and the San Joaquin River. Has there been an evaluation of EC increases in other Delta community areas, and is there an adverse effect to agricultural intakes and agricultural production?

The discussion of impacts also appears to be internally inconsistent. The discussion at DEIR/EIS page 14-122 first describes the increase in frequency with which EC objectives will be exceeded (lines 1-35), but then says that following implementation of Scenarios H1-H-4, there would be a decrease in the number of days in which the EC objective is exceeded. This apparent inconsistency should be explained.

Also, the analysis is based on a comparison with the No Project Alternative, which relies on future baseline water quality conditions. Impacts to EC levels, and potential adverse crop effects, will occur immediately upon operation of the new intake structures, and the BDCP has the potential to result in significant adverse impacts to agricultural water salinity levels in the short- and near-term. In order to understand potential adverse impacts to agricultural water supplies, an analysis must be provided



that compares BDCP-related water quality changes to the existing conditions in the Delta and Sacramento and San Joaquin Rivers, considering current hydrology. Basing an analysis solely on a future baseline that includes changes due to climate change and upstream diversions that will not occur in full for decades, results in a failure to evaluate potentially significant adverse changes that will occur in the intervening decades.

#### *Agricultural Land Mitigation*

Mitigation Measure AG-1 calls for the purchase of agricultural conservation property interests as mitigation for the BDCP's significant impacts to agricultural lands. What evidence is there that sufficient agricultural land of comparable quality to the land being destroyed is or will be available for mitigation purposes, within the affected project area? What are the estimated costs of this mitigation land, and how will acquisition of the interests be funded? Will purchase of the property interests be required to occur prior to destruction of existing agricultural land and operations by construction of the BDCP facilities?

If land that is acquired for agricultural mitigation is allowed to be "double counted" as satisfying biological mitigation objectives, how will the lead agencies ensure that the total mitigation acreage is equal to the total land lost by the BDCP? Depending on the lands selected, allowing mitigation land to be counted as mitigating multiple impacts could result in a net loss of total resources if the BDCP results in a loss of land with biological resource value (e.g., Swainson's hawk foraging land) that is not also Important Farmland, and mitigation credit for the Swainson's hawk habitat loss is allowed to occur on land that is being protected to satisfy farmland mitigation requirements for loss of other farmland that did not qualify as Swainson's hawk foraging habitat.

### **6. Chapter 16: Socioeconomics**

The socioeconomic analysis in the BDCP EIR/EIS fails to properly analyze the dramatic socioeconomic impacts of the BDCP on the Delta region, and makes no mention of impacts that are likely to occur in the City. The analysis does not use the best available evidence to evaluate BDCP impacts, and displays bias by quantifying and emphasizing favorable effects while relegating large unfavorable effects to short, qualitative discussions. For example, this chapter does not use or differentiate the praised and peer-reviewed Economic Sustainability Plan (ESP) generated by the Delta Protection Commission (DPC) for any of its data or project impact analysis. The ESP is merely referenced and summarily dismissed even though in some areas, like agricultural productivity data, the ESP data is more current and accurate than that used in the DEIR/EIS. Similarly, the DEIR/EIS fails to quantify the economic impacts on agriculture of CMs 2-22, stating the lack of quantification is "because the information required as input to the IMPLAN model was not available" even though

other assessments – including the BDCP August 2013 Statewide Economic Impact Report – found data to quantify and estimate extremely large negative impacts of implementing the BDCP CMs 2-22 on agriculture production in the Delta.

Further, in several important areas, the impact analysis is incorrect or omits important evidence that the BDCP will have more severe adverse socioeconomic effects. Likewise, the DEIR/EIS omits, or uses inadequate evidence, to establish the baseline for impact analysis on issues of locally vital socioeconomic concerns to the Delta. This has the effect of distorting the analysis to minimize the BDCP's true impacts. Specifically, the DEIR/EIS does not provide adequate evidence relating to total Delta agricultural revenue, temporary and permanent loss of Delta agricultural production during construction, then operation and maintenance of the isolated conveyance facility, and long-term loss to the City's agricultural processing industry. The DEIR/EIS recognizes that, "[c]ommercial agriculture and the associated agricultural service, packing, processing, marketing, insuring and transportation activities are critical components of the Delta region's economic and social character." (DEIR/EIS, p. 16-23, lines 13-15.) Despite this recognition, and recognition that much of this economic activity is centered in cities, such as Stockton, the DEIR/EIS provides only a generic summary of the BDCP's "regional economic effects." (See, e.g., DEIR/EIS Table 16-20, p. 16-55.) There is no analysis of the relative effect on the City's economy, despite its role as a major center of agricultural-dependent business in the Delta. There are many agricultural processing, packing and shipping, and other (e.g., insurance) businesses within the City that could be adversely affected as a result of the impacts to agriculture from the BDCP (loss of agricultural production in areas surrounding the City). The BDCP could have adverse socioeconomic impacts as a result of adverse effects to agriculture-dependent businesses, agricultural recyclers, and their labor force who reside in the City. There is a trend of agricultural industries leaving the City, and the BDCP could exacerbate this trend. Reduced economic activity will result in empty buildings, decreased investment, reduced tax revenues, which will further constrain the City's ability to maintain public infrastructure, and therefore physical blight through deterioration of physical and aesthetic conditions within the City.

The DEIR/EIS also fails to quantify the economic impacts on agriculture of CMs 2-22, even though other assessments have found these measures to have extremely large negative impacts on agriculture production in the Delta. The DEIR/EIS fails to quantify large and permanent losses in economic activity while focusing on temporary economic impacts of construction activity. The habitat conservation measures (CMs 2-22) would impact substantially more agricultural land than the proposed conveyance project (CM 1), and multiple reports have found that CMs 2-22 would cause a larger direct decrease in agricultural production than the proposed conveyance project itself. The DEIR/EIS states that these impacts were not quantified "because the information required as input to the IMPLAN model was not available." This statement is obviously false, as the available data was sufficient for

the BDCP itself to produce estimates in its August 2013 Statewide Economic Impact Report.<sup>6</sup>

The BDCP Statewide Economic Impact Report estimates an \$89 million annual loss in Delta agricultural production from CMs 2-22. Similarly, the DPC found the habitat measures in CMs 2-22 would reduce agricultural production by \$32-132 million annually depending on the locations used for conservation.<sup>7</sup> These estimates are only the direct effects, and do not include indirect and induced (i.e., multiplier) effects from the lost income from decreased agricultural production or effects on value-added processing such as tomato processing. Using multipliers from the DPC ESP, the total economic impact of CMs 2-22 could be an annual loss of between \$100-400 million in economic output for the five-county Delta region.<sup>8</sup> Thus, even the lowest and most optimistic estimate of the economic impact of CMs 2-22 on Delta agricultural production is a very significant effect.

The DEIR/EIS estimates of total Delta agricultural revenue are significantly lower than other, more recent assessments. The DEIR/EIS estimated revenue from Delta agriculture at \$697 million in 2007, whereas the DPC ESP estimated it to be \$795 million in 2009. No explanation is provided for the discrepancy in these estimates, and it appears the DEIR/EIS simply relied on the numbers that would reflect more favorably on the BDCP by minimizing its actual impacts. Since the DEIR/EIS's estimates of baseline economic activity in the Delta are too low, its estimates of the impacts of BDCP actions on the Delta economy are also likely to be too low, and no estimates were made for impacts in the City.

The DEIR/EIS underestimates permanent loss of agricultural production during operation and maintenance of the isolated conveyance facility at only \$3.8 million. (DEIR/EIS, p. 16-174.) Based on the analysis in the DPC ESP, the actual gross revenue loss for an estimated 4,500 acres permanently removed from production due to the isolated conveyance facility would be \$5-8 million. These figures are only based on the land directly removed from production. Impacts resulting from disruption and damage to transportation, support, and processing infrastructure

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<sup>6</sup> See page 5.1-16 of the Statewide Economic Impact Report available at [http://baydeltaconservationplan.com/Libraries/Dynamic\\_Document\\_Library/Draft\\_BDCP\\_Statewide\\_Economic\\_Impact\\_Report\\_8-5-13.sflb.ashx](http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Draft_BDCP_Statewide_Economic_Impact_Report_8-5-13.sflb.ashx).

<sup>7</sup> See page 145 of the Economic Sustainability Plan, or Figure C, page 14 of Executive Summary of the Economic Sustainability Plan.

<sup>8</sup> The DPC ESP estimated that the \$795 million in lost direct Delta agricultural production results in \$2.6 billion in total economic impact in the five Delta counties considering direct impacts as well as value-added manufacturing such as wineries, an output multiplier of approximately 3.3. The range of \$100-400 million in total annual economic impacts is based on applying this multiplier to the range of \$32-132 million loss in direct revenue from CMs 2-22.

during construction and operation of the facility would add to these totals. In addition, agriculture in the Delta will be harmed from increased levels of salinity resulting from the operation of the Delta tunnels. The DEIR/EIS water quality chapter claims that BDCP impacts on salinity will be minimal based on the BDCP's modeling, but these results are strongly disputed. Furthermore, the state has repeatedly violated current water quality standards in the Delta or relaxed standards in dry years such as 2014. Given this history of weak enforcement in the current system, the tens of billions of dollars borrowed to build the isolated conveyance system, and the fact that this debt will be repaid from revenues of water sales from the Delta, the risk of the BDCP actually operating differently than described in the DEIR/EIS and serious degradation of Delta water quality through excessive North Delta diversions is great. The DPC ESP modeled plausible scenarios where increased salinity as a result of the tunnels could reduce agricultural gross revenue in the Delta by \$80 million per year. The DEIR/EIS should acknowledge a risk that losses to Delta agriculture from implementing the BDCP could be 20-25 times greater than estimated in the DEIR/EIS.

As a result of these deficiencies, this section of the DEIR/EIS needs to be revised and recirculated to quantify all project-related socioeconomic impacts that will occur within the City.

## **7. Chapter 19: Transportation**

The BDCP would have significant effects on roadways within the City from heavy construction traffic. Not only would people be affected by traveling with a heavy increase in construction traffic, but pavement conditions would deteriorate to a point of disrepair. Construction impacts to roadways would be significant, and roadways may need to be reconstructed. If the BDCP were to proceed, close coordination with the City on the nature and extent of mitigation would be required.

### *Impacts to Physical Condition of Roadways*

The DEIR/EIS appropriately recognizes that BDCP construction traffic is likely to substantially degrade Delta roads. However, the analysis of construction impacts does not address the full scope of the BDCP's impacts to the City's roads, and mitigation is not adequate to avoid or substantially lessen significant impacts.

### *Impact TRANS-2*

The DEIR/EIS suggests that the only roadway segments that will be damaged by the BDCP are those identified as being in presently unacceptable condition (as in Tables 19-10 and 19-26). Mitigation is limited to impacts to road segments identified in those tables, namely roads with currently unacceptable road conditions that have traffic added to them. This approach fails to account for impacts to presently

acceptable roadways that will substantially deteriorate as a result of BDCP traffic. These impacts also need to be recognized and mitigated. Any construction traffic that will be added to both these types of roadways, due to the nature of heavy loads, is expected to break down pavement conditions significantly.

Due to the heavy volume of construction traffic, and the nature of that traffic (heavily laden trucks), the BDCP would likely result in significant deterioration of roadways that are presently in acceptable condition. This is especially true due to the unique road construction conditions in the Delta, which make it unreasonable to evaluate only roads that have a PCI less than 55. Roads in the Delta generally are built on spongy sub-base, and their structural section usually is inadequate for heavy traffic such as construction trucks. Adding construction traffic to these roadways will cause them to rapidly deteriorate to unusable conditions. Impacts will not be limited to roadways that are identified in the DEIR/EIS (Table 19-26) as currently deficient. Road deterioration can result in additional traffic delays, damage to vehicles, and increased safety hazards. The analysis should be revised to evaluate potential effects to the Delta's entire roadway network, including all roads within City limits, as existing conditions would be greatly impacted by the extensive construction work.

*Mitigation Measures TRANS-2a and b*

These measures call for prohibiting or limiting construction activity on existing physically deficient roadway segments if feasible. While this is a good idea, it may not be feasible.

*Mitigation Measure TRANS-2c*

This mitigation measure addresses the effect of construction traffic on roadways that currently have unacceptable pavement conditions by improving the physical condition of affected roadways. Mitigation Measure TRANS-2c is too narrowly focused to adequately mitigate the BDCP's impacts to City roads. As shown in Table 19-5 – *Existing Pavement Conditions in the Study Area* – the pavement conditions on the affected City roadway segments in the study area – 8 Mile Road – are unacceptable. (DEIR/EIS, p. 19-20.) Furthermore, the few that are classified as acceptable have a Pavement Condition Index (PCI) rating on the border of unacceptable. Adding construction traffic to these roadways will make them deteriorate to unusable conditions. Furthermore, any roads used, whether they have an existing pavement deficiency or not, are expected to deteriorate due to the nature of construction activity. Roadways with a current PCI slightly higher than 56 out of 100 may be considered “acceptable,” but they are very close to becoming unacceptable. As noted above, the introduction of significant amounts of heavy construction traffic will quickly cause them to deteriorate into the unacceptable category. Mitigation Measure TRANS-2c fails to account for or mitigate significant impacts to these roadway segments. All roadways that will carry construction traffic will be affected

(including side roads) and should be subject to this mitigation measure, not just the roads identified in the Pavement Conditions tables such as Tables 19-10 and 19-26.

Due to the lengthy construction period, the BDCP proponents not only should be required to restore roadways to pre-construction condition or better at the end of the construction period, but they should also be required to perform routine maintenance on substandard or damaged roadways prior to and throughout construction activities to ensure that roads remain safe and in acceptable condition for other users, including emergency vehicles. As drafted, this mitigation measure requires restoration of roads to their "pre-construction" condition. This seems impractical. For roads that are presently deficient, or on the verge of being deficient, the DEIR/EIS should explain how the contractor ultimately will restore these roads to an "unacceptable" condition. Rather than "restoring" roads to an unacceptable condition, at the end of construction activities, the BDCP proponents must deliver acceptable roadways back to the City as determined by the City.

Finally, regarding the BDCP proponents' obligation to pay the BDCP's "fair share" of road repair costs, mitigation measure TRANS-2c states: "The fair share amount would be *either* the cost to return the affected roadway segment to its preconstruction condition." (DEIR/EIS, p. 19-182, emphasis added.) Either the word "either" is misplaced, or the measure has omitted an alternate means of calculating fair share amount. Please clarify and correct what is intended.

#### *Impact to Levels of Service Within the City*

The BDCP relies on local and regional roadways near the City. As these roadways become increasingly congested by the BDCP construction traffic, non-project traffic would likely seek out alternative routes to avoid the identified increase in vehicular traffic. In particular, the increased number of vehicle trips on Interstate 5 through Stockton would modify the ordinary traffic flow and cause local residents to pursue cut-through or shortcut routes through the City. Because the City relies on Interstate 5 for its own traffic modeling purposes, local roadways are not sized to support overflow traffic from Interstate 5. The DEIR/EIS should consider the impacts on local roadways resulting from increased traffic on Interstate 5 or other regional roadways.

Further, the BDCP will reduce the Level of Service (LOS) for Segment CT53 through the City to an unacceptable level. This roadway segment is also identified as having deficient pavement conditions. The proposed Mitigation Measure TRANS-1b does not adequately address the undeniable impact that the project will have on the roadway. Rather, it provides vague, optional direction without mandatory follow-through or implementation. As written, Mitigation Measure TRANS-1b could be satisfied with absolutely no mitigation of the impact if the project proponent considers modification to hours infeasible – the mitigation measure requires action only if such

action is determined to be feasible. However, the criteria for feasibility are not provided and the discretion for weighing convenience, costs, and other considerations is left to the project proponent in their determination of feasibility. This is an unacceptable mitigation measure and does not adequately mitigate the impact as required by CEQA.

Total vehicle trips is an inadequate measure of true traffic impact in this case because the project will use an inordinate proportion of heavy-load vehicles, heavy equipment, trailers, and tractor-trailer combinations. These vehicle trips cause greater traffic congestion impacts and conflicts than typical passenger vehicles and also cause far greater road surface damage. The composition of the anticipated trips needs to be studied and an appropriate model needs to be used to analyze the unique nature of these additional trips. Similarly, this composition needs to be the basis for a road surface damage analysis, as discussed above regarding Mitigation Measure TRANS-2c, since the BDCP will substantially increase the number and type of vehicle trips that exceed the roadway design specifications.

## **8. Chapter 20: Public Services and Utilities**

### *Effects on Fire Protection and Emergency Response Services*

The DEIR/EIS claims the BDCP will not have a significant impact on public service demands. This determination is not supported by evidence or analysis. The City's Fire Department has confirmed that any major emergency occurring within the City (such as an accident involving BDCP construction trucks) or to the west of the City would require response by the City's emergency service units, which would affect their ability to serve their primary jurisdiction. Depending on the severity of the emergency, impacts to the City's ability to provide services could be significant.

## **9. Chapter 22: Air Quality**

The DEIR/EIS identifies numerous adverse health effects caused by exposure to pollutants that will be emitted during construction and operation of the BDCP, including adverse effects from particulate matter, ozone, NO<sub>2</sub>, and CO. (See DEIR/EIS, pp. 22-4 to 22-6.) The DEIR/EIS acknowledges significant construction emissions that would exceed the San Joaquin Valley Air Pollution Control District's (SJVAPCD) thresholds for NO<sub>x</sub> and potentially expose sensitive receptor to significant health threats, including diesel particulate matter (DPM) and PM<sub>2.5</sub> exceedances from a proposed concrete batch plant that would be located near the Byron Highway. (See *Impact AQ-4: Generation of Criteria Pollutants in Excess of the SJVAPCD Thresholds During Construction of the Proposed Water Conveyance Facility*, DEIR/EIS, p. 22-238, and *Impact AQ-12: Exposure of Sensitive Receptors to Health Threats in Excess of SJVAPCD's Health-Risk Assessment Thresholds*, DEIR/EIS, p. 22-250.) The DEIR/EIS states, "Mobile and stationary construction

equipment exhaust, employee vehicle exhaust, and dust from clearing the land would generate emissions of ozone precursors (ROG and NO<sub>x</sub>), CO, PM<sub>10</sub>, PM<sub>2.5</sub>, and SO<sub>2</sub>." (DEIR/EIS, p. 22-224, lines 35-36.) As discussed above, emissions estimates include implementation of environmental commitments (see Appendix 3B, Environmental Commitments), making it impossible to know the actual extent of air quality and human health impacts that might be felt near construction sites, along project-related transportation routes within the City, and elsewhere in and around the Delta. The analysis needs to be revised to account for project emissions prior to implementation of environmental commitments and clearly disclose whether any thresholds would be exceeded within the City, either from heavy construction traffic within the City or if project construction emissions are transported to the City from prevailing winds.

Moreover, the DEIR/EIS does not provide any information about the potential for these BDCP emissions, other than particulate emissions, to result in adverse health effects. Despite the acknowledged potential for adverse effects from pollutants such as ozone, NO<sub>x</sub>, CO, and others, the DEIR/EIS's assessment of adverse health effects appears to have been limited to an evaluation of risks from particulate matter exposure, including DPM. (See DEIR/EIS, p. 22-35, lines 10-11, and *Impact AQ-12: Exposure of Sensitive Receptors to Health Threats in Excess of SJVAPCD's Health-Risk Assessment Thresholds*, DEIR/EIS, pp. 22-250 to 22-251 [failing to evaluate health effects of BDCP emissions for any pollutants other than particulate matter].) The DEIR/EIS does not evaluate or explain whether the BDCP's emissions of pollutants other than particulate matter would have adverse health effects on residents of San Joaquin County or the City. To satisfy CEQA's informational mandate, the DEIR/EIS must include an analysis that correlates the BDCP's emission of air pollutants, both from construction activity and heavy truck traffic, to its impact on human health on residents of the City and greater Delta. (*Sierra Club v. County of Fresno* (2014) 226 Cal.App.4th 704.) That analysis must explain whether the BDCP-related levels of emissions from *all* pollutants that have the potential to cause adverse health effects, not just particulate matter or TACs, will, in fact, have adverse effects on sensitive receptors.

## V. CONCLUSION

Both the BDCP and DEIR/EIS fail in their fundamental purpose. As stated by its proponents, the purpose of the BDCP is to improve the reliability of water supplied through the Sacramento-San Joaquin Delta while improving ecosystem health and ensuring long-term protection of threatened and endangered fish species. The BDCP falls far short of these goals. Further, the DEIR/EIS is fundamentally deficient.

"[T]he purpose of an EIR is not only to protect the environment but to demonstrate to the public that it is being protected." (CEB, Kosta & Zischke, *Practice Under the Environmental Quality Act*, 2d ed. § 1.18 at p. 1-16 (3/14 update), citing *County of*



*Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.) Because no analysis was provided on the issues raised in the City's comments on the NOP, including no analysis of water quality effects at the location of the City's water intake and wastewater discharge location, the City was unable to understand what the impacts would be on the issues of greatest concern.

The failure to provide sufficient information about the BDCP or credible evidence and objective analysis to support the DEIR/EIS's impact determinations has deprived the public of a meaningful opportunity to understand and comment on the project's substantial adverse impacts and thus failed to meet its fundamental purpose under CEQA. The burden of producing a comprehensible project and supporting analysis should not fall on the public. Instead, the BDCP proponents must provide an adequate and comprehensible public draft EIR/EIS for public comment. Correcting these errors will require the addition of significant new information and, thus, the DEIR/EIS must be revised and recirculated for public review. (CEQA Guidelines, § 15088.5a.) Once the significant flaws in the BDCP and DEIR/EIS are addressed and the BDCP and DEIR/EIS are recirculated for public review and comment, the City, and the rest of the public, will be in a better position to understand the true impacts of the BDCP and, in turn, provide detailed comments to help inform the draft plan and DEIR/EIS.

Very truly yours,



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