

February 14, 2020

**VIA E-MAIL**

Attn: Heather Green  
California Department of Water Resources  
3500 Industrial Blvd  
West Sacramento, California 95691  
E-Mail: [FRPA@water.ca.gov](mailto:FRPA@water.ca.gov)

**Re: Comments on Lookout Slough Draft Environmental Impact Report**

Dear Ms. Green:

On behalf of Reclamation District No. 2060 (RD 2060), Reclamation District No. 2068 (RD 2068), the California Central Valley Flood Control Association (Association), and the North Delta Water Agency (NDWA), I am submitting comments on the California Department of Water Resources' (DWR) Draft Environmental Impact Report (DEIR) for the Lookout Slough Tidal Habitat Restoration and Flood Improvement Project (Project). While we are supportive of the Project's dual goals of habitat restoration and flood control enhancement, we have serious concerns regarding the DEIR's evaluation of the Project's environmental impacts under the California Environmental Quality Act (CEQA), in particular the Project's acknowledged impacts on the operations and maintenance (O&M) practices of the reclamation districts and agricultural diversions that are within the vicinity of the proposed Project.

NDWA has a statutory responsibility to ensure that the lands within its boundaries in the North Delta have a dependable supply of quality water. The Association represents over 75 agencies with the mission of promoting rural and urban flood management issues in the Central Valley. RD 2060 and RD 2068 provide flood control services to landowners within their respective districts and RD 2068 also provides water service. All four agencies are located in close proximity to the Project area, and thus are concerned about the impacts the Project will have on their own operations and the local environment.

**A. The DEIR Contains Inconsistent Statements Concerning Whether the Project Is a Public DWR Project or a Private EIP Project.**

The Project Description states that DWR is "the state agency carrying out the Proposed Project" and that DWR obligated to restore tidal marsh acreage as directed by Biological Opinions (BiOps) issued by the U.S. Fish and Wildlife Service and National Marine Fisheries Service in 2008 and 2009, respectively. (DEIR, pp. I-2, III-20-21.) However, the EIR identifies Ecosystem Investment Partners (EIP), as the "Applicant" carrying out the Project. (DEIR, p. VIII-2.) In this way, the DEIR is internally inconsistent as to which entity is the project proponent, for what

is inarguably a public project. This foundational flaw in the DEIR not only deprives the public of an understanding of who is carrying out the project, but also infects other portions of the DEIR related to required mitigation.

A lead agency is defined as “the public agency which has the principal responsibility for carrying out or approving a project.” (Guidelines, § 15367.)<sup>1</sup> A “‘private project’ means a project which will be carried out by a person other than a governmental agency, but the project will need a discretionary approval from one or more governmental agencies.” (Guidelines, § 15377.) An applicant is defined as “a person who proposes to carry out a project which needs a lease, permit, license, certificate, or other entitlement for use or financial assistance from one or more public agencies when that person applies for the governmental approval or assistance.” (Guidelines, § 15351.) If EIP is simply the entity hired by DWR to carry out a DWR project, that does not mean EIP is carrying out the project for purposes of CEQA analysis and mitigation responsibility. The distinction is important.

It is the lead agency that must “adopt a program for monitoring or reporting,” and the “the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.” (Guidelines, § 15097.) DWR “may delegate reporting or monitoring responsibilities to a ... private entity which accepts the delegation,” but it cannot transfer responsibility over mitigation to that party. (*Id.*) Mitigation Measures AG-1b, AIR-1, AIR-2, BIO-2, BIO-5B, BIO-5G, BIO-6, and HAZ-1 improperly place responsibility on third parties (i.e., construction contractors, EIP, or an unspecified entity) to implement mitigation measures. While DWR can contract with EIP or other entities to carry out or perform work required in mitigation measures, DWR remains responsible for mitigation of its own public project under CEQA. The EIR must be revised to clearly define the roles of DWR and EIP, and revise all mitigation measures to clarify that DWR is responsible for ensuring such mitigation measures are carried out.

Similarly, as the lead agency under CEQA, DWR must make decisions regarding the feasibility of specific mitigation measures. (See Pub. Resources Code, § 21002; Guidelines, § 15126.4(a).) The DEIR delegates authority for determining feasibility to EIP in certain mitigation measures. For example, Mitigation Measure AIR-1(b) allows either DWR or EIP to waive equipment requirements under unusual circumstances, including if it is technically infeasible to find a piece of off-road equipment that meets those requirements. (DEIR, p. II-16.) In BIO-5G, EIP is to implement avoidance activities for Valley Elderberry Longhorn Beetle “to the extent feasible.” (DEIR, p. II-31.) This puts the responsibility to determine feasibility of a particular part of a mitigation measure in EIP’s hands rather than DWR. The DEIR, and its mitigation measures, should be revised to ensure that DWR as lead agency and the project proponent, not EIP, has sole responsibility for determining whether a mitigation measure is feasible.

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<sup>1</sup> The CEQA Guidelines are found in title 14 of the California Code of Regulations, beginning at section 15000.

**B. The DEIR Does Not Fully Disclose, Analyze, or Mitigate Impacts Related to Agricultural Diversion and Reclamation District Water Supply Operations.**

According to the DEIR, the Project would “create, restore, and maintain ideal habitat conditions to encourage the proliferation of Delta Smelt and other sensitive fish species associated with unrestricted tidal freshwater ecosystems in the Delta” and would also “[p]romote suitable spawning habitat with appropriate water velocities and depths accessible for Delta Smelt within the Proposed Project and the immediate tidal sloughs surrounding the Project Site.” (DEIR, pp. II-2, III-22.) The DEIR, however, significantly downplays conflicts this will generate with O&M practices of the surrounding Reclamation Districts and agricultural diversions.

First, the DEIR’s discussion concerning salinity and bromide does not reflect a reasonable, good faith disclosure and analysis as required by CEQA. (*Laurel Heights Improvement Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376 (“*Laurel Heights I*”).) Changes in salinity and bromide will impact operation of agricultural users and the drinking water supply of municipal water suppliers in the vicinity of the Project. The DEIR’s conclusion that impacts to municipal and agricultural water suppliers are less than significant is not supported by data, modeling, or analysis. (Guidelines, § 15384(b) [substantial evidence is defined as “facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.”].) Additional discussion of the deficiencies in the DEIR’s water quality analysis is provided in Section F below.

Second, it is unclear how the Project will account for impacts to fish species, including special status species, related to increasing endangered fish population density in an area with existing agricultural and municipal water diversions. Specifically, the DEIR does not analyze how the Project would make fish vulnerable to take via entrainment at longstanding water diversion facilities operated by other agencies, and whether this result in a need to relocate water facilities. As fish density increases, the risk of entrainment increases, and more individual fish may be subject to take water diversions than under existing conditions. However, the analysis in the DEIR is limited to the impacts that construction might have on fish species, and fails to acknowledge that the Project is proposing to increase fish habitat and population in an area where entrainment hazards exist—i.e., operational impacts.

The threshold of significance for impacts to utilities and service systems under Appendix G of the Guidelines—the threshold applied in the DEIR—requires evaluation of “[r]elocation . . . of water . . . facilities.” (DEIR, p. IV.A-21; Guidelines, Appx. G, XIX.) The DEIR’s analysis of impacts under this threshold, *provides no analysis whatsoever* regarding the potential for the Project to result in a need to relocate existing water diversion facilities of surrounding agricultural and municipal water users. (DEIR, pp. IV.A-21-22.) Instead, the analysis only focuses on the other portion of the threshold related to the need for new or expanded facilities. (*Id.*)

The DEIR also fails to impose feasible mitigation measures to address both sets of impacts—impacts to fish at the Project site resulting from existing water diversion facilities, and impacts related to the need to relocate existing water facilities to avoid impacts to fish. Moreover, there are significant economic costs associated with either adjusting operations at these water intakes,

adding screening devices to existing intakes, moving intakes to be further from endangered fish populations, or otherwise mitigating impacts to fish. These costs are not trivial and must be carefully considered when identifying and evaluating potential *feasible* mitigation measures. Where a Project's physical changes to the environment *cause* the economic or social impact, these impacts can be used to determine the significance of the physical change. (Guidelines, § 15131(b); see also *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180, 197.) CEQA also requires lead agencies to disclose and evaluate social or economic impacts of a project when such effects "directly or indirectly will lead to adverse physical changes in the environment." (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1205.) Analysis on both fronts is required here: how the Project's physical effects to the environment will cause economic or social impacts to agricultural and municipal water supplies, and how the Project will result in a need for agricultural and municipal water suppliers to modify operations, which in turn could lead to physical changes in the environment. Because impacts on local diverters were not disclosed or mitigated in the current DEIR, the DEIR must be revised and recirculated to disclose, evaluate, and mitigate these impacts. (Guidelines, § 15088.5; *Laurel Heights Improvement Assn. of San Francisco, Inc. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1130 ("Laurel Heights II").)

**C. The DEIR Does Not Fully Disclose, Analyze, or Mitigate Increased Risks Associated with Flood Operations.**

1. The DEIR fails to evaluate the Project's impacts on flooding, flood storage, and emergency access.

A project has the potential to cause environmental impacts where it may "[r]esult in inadequate emergency access" or "impede or redirect flood flows." (Guidelines, Appx. G, XVII, X.) The DEIR is essentially silent about the risks to flooding and changes in emergency access associated with the Project's construction and operation. The Project will result in the conversion of a county road (Liberty Island Road) into a full-height Federal Project Levee. This new levee is proposed to be capped by a gravel road; not by a road equipped for normal driving conditions. This change imposes new risks on the adjoining district, RD 2068. First, the existing operations plan for RD 2068 provides that in the event of high water which outflanks the RD 2068 levee, the District will cut the Liberty Island Road embankment, allowing water to flow down into RD 2098, at which point another relief cut is made to allow water to flow back into the Delta. Such a cut reduces the backwater effect in the District, allowing more time for evacuation and reduced damages. The Project will directly impact these operations, increasing the time required to evacuate people in an emergency, and more challenging to evacuate the thousands of cattle in this portion of the District. These impacts must be disclosed, analyzed, and mitigated in the DEIR.

The Project also proposes to make significant modifications to the flood storage capacity of U.S. Army Corps of Engineers Unit 109, which could result in the permanent loss of 40,000 acre-feet of storage. (DEIR, p. II-39.) The DEIR does not propose solutions to replace the potential loss of Unit 109 storage potential, nor does it propose mitigation for the removal of a potential 40,000 acre-foot loss of storage. This represents a permanent and irreversible modification in the Unit

109 operation, performance and level of flood protection afforded Unit 109. This is a significant impact, but is not disclosed, analyzed, or mitigated in the DEIR.

2. The DEIR ignores the potential infeasibility of charging RD 2098 with responsibility for long-term operations and management of the Duck Slough Setback Levee.

The DEIR anticipates that RD 2098 would be responsible for implementing long-term operations and management of the Duck Slough Setback Levee, while DWR would be responsible for implementing long-term management and monitoring activities of the remainder of the Project site. It is unclear whether it is or will be feasible in the long run for RD 2098 to take over maintenance responsibility. The Project will reduce the acreage of farmable land in RD 2098, leaving little acreage and few landowners to meet the OMRR&R<sup>2</sup> obligations of RD 2098. DWR created a Levee Maintenance Agreement (LMA) budget spreadsheet as part of the supporting documents to the 2017 update to the Central Valley Flood Protection Plan. This spreadsheet is a tool to develop a budget for a LMA that addresses all of the things that should be considered to adequately budget for OMRR&R. The OMRR&R costs for the reconstituted RD 2098 should be calculated using this tool and it demonstrated that that residual property owners can bear that cost on a per acre basis. The DEIR should carefully consider whether RD 2098 will be capable, in the long term, of adequately implementing the mitigation set forth in the DEIR. (Guidelines, § 15364 [“‘Feasible’ means capable of being accomplished in a successful manner within a reasonable period of time, taking into account *economic*, environmental, legal, social, and technological factors”] [emphasis added].) It is important to note that failure to properly maintain this levee has consequences beyond Reclamation District No. 2098, as this key levee also provides protection to adjoining areas such as Reclamation District No. 2068.

If RD 2098 is not capable of conducting the required operation and management of Duck Slough Setback Levee, then the flood risk impacts this levee is intended to address remain significant and unavoidable. The DEIR must evaluate this risk. Alternatively, DWR might retain operation and management responsibility, which would ensure that the levee remains a viable mitigation measure. In that instance, the DEIR should be revised to clarify that DWR will retain responsibility for O&M on the Duck Slough Setback Levee. While it appears that certain modifications to the project or mitigation measures could address this issue, currently the DEIR is completely silent as to whether the issue even exists.

3. The Project will remove the sole means of access to the RD 2068 pumping plant.

A related impact to flood operations is the Project’s abandonment of Liberty Island Road and reduction of its capacity for truck and equipment traffic. According to Solano County, Liberty Island Road is a county road that cannot be removed as a public road unless properly abandoned under the law. The road is also the only route for trucks and equipment to reach a RD 2068 pumping plant as well as certain PG&E transmission equipment. The new gravel levee road is not designed to handle a significant level of truck or equipment traffic. No ramps have been

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<sup>2</sup> OMRR&R stands for Operation, Maintenance, Repair, Replacement, and Rehabilitation.

proposed to allow truck traffic to get to key equipment. And the levee road would be particularly impassable for large equipment, such as a crane truck, during flood events when attention to the pumping plant or PG&E facilities could be urgent.

4. The DEIR identifies threats to levees from rodents, but fails to provide any mitigation reduce impacts.

The Project Description section of the DEIR identifies impacts from rodents such as ground squirrels and nutria, which “pose a threat to levee integrity.” (DEIR, p. III-48.) The DEIR states that “[a]n appropriate rodent and damage repair program would minimize impacts to levee integrity,” yet the DEIR does not provide any detail concerning such a program, nor is such program required as mitigation. Other sections of the DEIR similarly refer to a “rodent abatement” program being undertaken either by DWR or RD 2098, but nothing further is provided. (DEIR, p. IV.G-27, III-47.) Nutria in particular require attention in in the DEIR, and yet they receive no analysis whatsoever. The California Department of Fish and Wildlife provides information on the destruction that nutria cause to wetland habitats, agriculture, flood protection infrastructure, and native plant communities.<sup>3</sup> “Potential levee and dike failures due to nutria burrowing have serious implications for flood protection, water delivery, and agricultural irrigation in California.”<sup>4</sup> The DEIR failed to evaluate impacts associated with nutria and other rodents, both to levees and to habitat. While CEQA does not require evaluation of effects of the *environment* on the Project, the lead agency must evaluate the Project’s potential to increase rodents within the vicinity of the Project, as well as the potential for failure of the habitat and infrastructure being built as part of the Project based on known existing conditions.

#### **D. The DEIR Does Not Adequately Disclose and Evaluate the Project’s Impacts to Biological Resources.**

1. The Project fails to evaluate or mitigate impacts associated with invasive species after initial Project construction.

The DEIR states that construction activities may encourage establishment of invasive species in the Project area, but fails to evaluate impacts associated with *the operational phase* of the Project, and how increases in invasive species after Project construction might affect fish species, water quality, and the ecosystem. The only mitigation measure proposed to address these impacts, Mitigation Measure BIO-4, is focused *solely* on protocols *prior to* the start of construction. (DEIR, p. IV.D-56.) There is no discussion of how invasive aquatic weeds, like water hyacinth, whose presence in the Delta is widely known, might increase once the Project is complete and additional tidal channels formed. Water hyacinth “plants propagate by budding and by setting abundant seed -- and those seeds fall to the bottom of the water, where they can stay *viable in the muck for many years*. Even if they didn't set seed, the plants would be a

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<sup>3</sup> <https://wildlife.ca.gov/Conservation/Invasives/Species/Nutria/Infestation>

<sup>4</sup> *Id.*



menace: they can form floating mats six feet thick, shutting off light and depriving native organisms of nutrients, then turning the local water quite acidic when they decompose.”<sup>5</sup>

For example, the DEIR must disclose and evaluate how DWR will manage invasive species during the operational phase of the Project, performance criteria for such removal, such as potential impacts to water quality (oxygen levels) or habitat function for special status fish. In the Project Description, the DEIR mentions briefly that the Project includes long-term management of aquatic invasive species through spraying or mechanical removal, but no detail is provided whatsoever. (DEIR, p. III-49.) This is not sufficient. The DEIR must evaluate whether the Project will make the Project site more amenable to aquatic invasive species, disclose any impacts associated with increases on and in the vicinity of the Project site, adopt *as mitigation* a program to monitor and remove invasive species based on objective success criteria, and evaluate impacts to fish and other sensitive species resulting from the mitigation technique selected.

In addition, the DEIR’s analysis of Project impacts to special-status plant species—which identifies impacts to four special status plants and imposes a mitigation ratio of 1:1 under Mitigation Measure BIO-2—contains *no analysis* of how invasive species may impact the mitigation plantings of sensitive species *after* Project construction. (DEIR, p. IV.D-53.) The DEIR concludes that any impacts to special status species attributable to invasive species are addressed through Mitigation Measure BIO-4, but again this only relates to pre-construction work and does not address post-construction success of mitigation plants to compensate for the loss of sensitive plant species.

The DEIR should be recirculated to identify and analyze operational impacts associated with invasive aquatic species and propose feasible mitigation and monitoring for the management of invasive species during project operation. In such mitigation, DWR should evaluate the potential impacts of aquatic herbicides on fish and other native species rather than proposing to use all legally permitted herbicides, as Mitigation Measure BIO-4 does.

## 2. Mitigation for impacts to riparian forest are inadequate.

The Project will result in 24.8 acres to sensitive Great Valley mixed riparian forest, and the DEIR recommends imposition of Mitigation Measure BIO-1 to mitigate losses to riparian habitat at a mitigation ratio of 1.1:1 for “temporarily impacted” riparian habitat. There is no discussion, however, of the biological equivalency of the mitigation relative to the functions and values of the riparian impacts. The DEIR also does not provide *any discussion* of the success rate of new riparian vegetation plantings, nor any success criteria or monitoring of riparian mitigation. Mitigation Measure BIO-1 states DWR should “[a]void a long-term net loss of riparian habitat” but this falls short of providing clear, objective, success criteria for the riparian vegetation, nor does it provide any monitoring period for which the success criteria will be reviewed and applied. Further, typical projects mitigate losses to native riparian habitat at *no less than* a 3:1 ratio. If this ratio is not possible on-site, off-site mitigation should be provided. The DEIR must explain what the success criteria are for the mitigation and should explain why a higher, more

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<sup>5</sup> <https://www.kcet.org/redefine/5-invasive-plants-currently-messing-up-californias-delta>

typical, mitigation ratio was rejected from consideration. Below are proposed revisions to this mitigation measure.

**REVISED Mitigation Measure BIO-1:** Prior to commencement of Project construction, DWR shall obtain all necessary permits for impacts to riparian resources. Impacts to riparian habitat shall be mitigated at a minimum of a 3:1 ratio. Mitigation shall be accomplished by one or more of following options: on- or off-site habitat restoration; purchase of credits from an in-lieu fee program; and/or purchase of credits from a mitigation bank. A habitat mitigation and monitoring plan shall be prepared and shall include, at a minimum, the following information:

- Location and detailed maps of the mitigation and revegetation areas.
- An evaluation of the existing function and values, and a description of the function and values to be achieved through compensatory mitigation.
- Detailed plant and seed mix requirements.
- Detailed planting plan.
- Specific and measurable three-year success criteria.
- Three-year maintenance and monitoring requirements.

As it stands, the DEIR fails as an informational document and does not adequately disclose and mitigate for impacts to riparian vegetation. (See *Concerned Citizens of South Central Los Angeles v. Los Angeles Unified School Dist.* (1994) 24 Cal.App.4th 826, 841.) Instead, it states a conclusion that a small ratio of riparian habitat mitigation will reduce the Project's impacts, but does not support that conclusion with facts or analysis, which is inconsistent with CEQA's requirements for adequate mitigation. (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 522.)

3. The DEIR fails to mitigate for permanent impacts to Western Pond Turtle nesting habitat.

As acknowledged in the DEIR, Western Pond Turtles "prefer to nest on unshaded upland slopes" and that the Project site currently contains "suitable basking sites and friable soils capable of supporting reproduction for this species." (DEIR, p. IV.D-37.) The DEIR confirms that the Project will result in a reduction in the "quantity of nesting habitat" based on "exposure to winter flooding." (DEIR, p. IV.D-72.) Despite this conclusion, the DEIR does not provide *any calculation* of the total loss of nesting habitat, does not evaluate how this loss of habitat might impact the species, and does not evaluate the need for or impose *mitigation* for the loss of nesting habitat. The only mitigation imposed addresses temporary impacts during construction, a completely separate impact. Given these substantial deficiencies in analysis and mitigation, recirculation is required. (Guidelines, § 15088.5; *Laurel Heights II*, 6 Cal.4th at 1130.)

## **E. The DEIR Does Not Adequately Evaluate Project Impacts to Agriculture.**

1. The DEIR must evaluate the Project's impacts to agricultural water diversions.

As stated previously, the DEIR fails to consider the impacts that the Project will have on existing water diversions in the vicinity of the Project site. Many of these water diversions provide water



supplies for local agricultural uses. Although the DEIR recognizes several Delta Protection Commission (DPC) and Solano County policies governing the support and maintenance of agricultural production in the Delta, including the avoidance of conflicts between agricultural and non-agricultural uses, the local water purveyors might be required to adjust their operations in order to avoid negative impacts on fish species.

Additionally, water quality and water level impacts resulting from the Project might reduce the ability for local agricultural entities to meet their water needs. This, in turn, could reduce agricultural productivity in the area. The potential impacts to agriculture from changed operations at water intakes are directly foreseeable impacts on the physical environment due to the Project. (*Bakersfield Citizens for Local Control*, 124 Cal.App.4th at 1205.) These impacts have not been analyzed or mitigated in the DEIR. The DEIR should consider the impacts of the Project on local water diverters and analyze how those impacts might have adverse effects on the physical environment. In proposing potential mitigation, DWR should remember that it cannot unilaterally require action of these local diverters, and should consider the economic feasibility of any proposed mitigation measure.

As explained in Section B, the DEIR lacks any analysis concerning impacts related to relocation of water facilities. (DEIR, p. IV.A-21-22; Guidelines, Appx. G, XIX.) Because the impacts on agriculture via the Project's effects on local water diversions have not been identified, analyzed, or mitigated in the DEIR, the DEIR must be recirculated to adequately inform the public of the analysis and provide an opportunity for the public to weigh in on these impacts and proposed mitigation. (Guidelines, § 15088.5; *Laurel Heights II*, 6 Cal.4th at 1130.)

2. The "Good Neighbor" checklist hides potential impact areas.

The DEIR states that DWR evaluated the Project's potential impacts on agriculture through the use of its "Good Neighbor" checklist. The DEIR states this is located in Appendix B to the DEIR (it is actually found in Appendix E). The analysis in the checklist, however, is insufficient to establish whether the identified Project effects could rise to a level of significance. Specifically, Appendix E is the only location where potential impacts on agricultural diversions in the Project area related to increased abundance of fish species are mentioned. (DEIR, Appx. E, p. 5.) CEQA requires that the information and data underlying an EIR must be presented in a way that is sufficient to inform the public about the project. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442 (*Vineyard*).) Thus, "information 'scattered here and there in EIR appendices' or a report 'buried in an appendix,' is not a substitute for 'a good faith reasoned analysis.'" (*Ibid.*, quoting *California Oak Found. v. City of Santa Clarita* (2005) 133 Cal.App.4th 1219, 1239.)

Moreover, the analysis of the potential impacts to agricultural diversions in the Project area due to increased fish abundance is cursory, merely stating that "[l]imited studies suggest that small irrigation diversions in the Delta *may not have a large impact* on listed species and that small local agricultural water diversions in the waterways surrounding the Proposed Project are likely to have minimal effects on listed fish species . . ." (DEIR, Appx. E, p. 5 (emphasis added).) These limited studies are not identified, nor is the conclusion that diversions "may not have a

large impact” on fish presented in a way that allows comparison to the relevant thresholds for significance.

The DEIR does not disclose or evaluate whether the Project will attract more birds to the area through creation of the tidal habitat, and how this may harm nearby agricultural operations. A significant increase in certain bird species (e.g., Canadian Geese and starlings) would damage nearby crops, specifically Winter Wheat or other winter forage crops. Birds already cause extensive damage to crops in California and the Delta specifically.<sup>6</sup> The DEIR must evaluate whether the Project will attract increasing numbers of birds to the area, evaluate the potential environmental and related economic impacts to adjacent farmland, and mitigate for those impacts. (See Guidelines, § 15131(b); *Christward Ministry*, 184 Cal.App.3d at 197; *Bakersfield Citizens for Local Control*, 124 Cal.App.4th at 1205.)

The checklist also introduces the potential impact that the neighboring landowners’ use of pesticides might impact the functioning of the Project itself. It is critical that the Project not result in a future restriction on existing agricultural users application of legally permissible pesticides and herbicides to maintain their crops and economic viability of their lands. Appendix E states that the use of pesticides will not impact fish, despite the fact that Cache Slough is listed on the 303(d) list as impaired for several pesticides. There is no evidence provided to support this conclusion. Impact conclusions must be supported by substantial evidence, which is defined as “facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.” (Guidelines, § 15384(b); *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 831.) Mere conclusory statements and unsubstantiated narrative will not suffice.

3. Mitigation Measure AG-1a lacks objective performance standards and criteria.

CEQA requires that all mitigation measures include “specific criteria or standard of performance,” rather than a generalized goal. (*San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 670; see also *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 95 (CBE).) Mitigation Measure AG-1a states that DWR will install irrigation infrastructure to convert “all or part” of a specific property to Prime Farmland. This mitigation measure is vague and does not commit DWR to a measurable criteria or performance standard. Additionally, the DEIR fails to analyze impacts of the proposed mitigation, including the proposed construction of the irrigation infrastructure and farm buildings and housing on the property.

In addition, the DEIR should include an analysis of the other impacts associated with conversion of privately-owned farmland to habitat uses in this Project. Specifically, DWR might be responsible for compensating landowners whose properties are damaged by the construction and operation of this government-backed Project. In this context, it is imperative that the mitigation measures adopted are adequate and include clear performance standards.

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<sup>6</sup> <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1045&context=icwdmbirdcontrol>

**F. The DEIR Does Not Adequately Evaluate Water Quality Impacts.**

The EIR states that the Project site was selected based on the “salinity, turbidity, and water temperatures that are known to support all life stages of Delta Smelt.” (DEIR, p. III-35.) Yet, the EIR provides very little analysis of how the Project could result in changes to salinity, turbidity, and water temperatures as a result of Project construction and operation.

1. The DEIR does not adequately analyze Project impacts related to salinity, bromide, and water temperature.

The DEIR acknowledges that “[s]alinity for municipal, agricultural and fish and wildlife uses is of particular concern in the tidally influenced Delta” and that “[a]ny failure of Delta levees and subsequent island flooding draws saline water into the Delta.” (DEIR, p. IV.G-4.) The DEIR also concedes that the Project could “alter the salinity regime in the Delta” and that increased “salinity could negatively impact drinking water quality.” (DEIR, p. IV.G-22.) Here, the Project is proposing to purposefully breach levees and flood current dry areas, and yet the analysis of Project impacts to salinity changes is slim.

The DEIR evaluates the Project’s impacts on salinity using results from a simulation for 2009, but the selection of a single year does not account for uncertainties and variations found in the hydrologic conditions in the Delta. (DEIR, p. IV.G-22.) The standard technical analyses for CALFED storage projects involve a longer simulation period (either 1922-2003 or 1976-1991) that covers a wide variety of hydrological conditions to evaluate the potential consequences of a project that would change Delta hydrodynamics. Specifically, these longer simulation periods include droughts and wet-year periods of varying magnitude and length to better demonstrate existing conditions in the Delta. A proper impact analysis requires a longer simulation of the project under varying hydrologic conditions to better understand how the Project will impact salinity over time. (*Communities for a Better Environment v. South Coast Air Quality Dist.* (2010) 48 Cal.4th 310, 321 [the relevant environmental setting, or baseline, against which to evaluate a project’s impacts is the “real conditions on the ground”].)

Additionally, the DEIR states the predicted net increase in electrical conductivity (EC), a common measure of salinity, is “very slight,” although the DEIR does not explain how the net increase was calculated, nor whether the data used to calculate the net increase was based on EC measurements taken on a daily, monthly, or other time interval. (DEIR, p. IV.G-23.) The DEIR refers to salinity objectives set forth in applicable water quality control plans and water rights decision D-1641, but never states what that objective is nor what the current salinity levels in the Project area are. Without this information, the public cannot follow the line of reasoning from the data to DWR’s conclusion that the impacts to agriculture based on salinity would be less than significant. CEQA requires further explanation such that the public can follow “the analytic route the agency traveled from evidence to action.” (*Laurel Heights I*, 47 Cal.3d at 404.)

The analysis is even thinner when it comes to the DEIR’s evaluation of the Project’s impacts on salinity for drinking water purposes. The analysis fails to demonstrate whether the Project would have adverse impacts to salinity with regard to drinking water standards. Both the agricultural and drinking water salinity impact discussions are conclusory, and neither refer to supporting

information or reports in a way that facilitates a reader locating this information. CEQA requires that relevant information related to potential impacts on the environment be presented in the EIR itself, not hidden away in an appendix or report, in order to fulfill the goals of CEQA as a means of agency accountability. (*Vineyard*, 40 Cal.4th at p. 442.)

The Project creates tidal marshland, which has the effect of widening the Yolo Bypass floodplain in the Project area. The DEIR correctly states that salinity increases in areas with shallower water and less shade, where more evaporation occurs. However, the DEIR does not discuss the potential salinity impacts of the changed hydrology of the Project area, specifically whether evaporation will increase at the Project site, which would increase salinity in the area.

The DEIR also does not mention whether the Project would result in increased seawater intrusion into the Project area, which would bring with it increased levels of salinity and other constituents such as bromide. Bromide salts are rarely found in typical fresh surface waters, but do appear in seawater. As a result, coastal groundwater and soils have higher bromide concentrations due to seawater intrusion.<sup>7</sup> When drinking water purveyors disinfect water higher in bromide with ozone, the treatment can result in the creation of carcinogenic compounds, including bromate. Many drinking water purveyors in the Project vicinity use ozone as a disinfectant, and thus are very sensitive to changes in bromide concentrations. The Project's impacts on bromide levels in the Project area, and whether those changes might cause water suppliers to change their treatment systems should be disclosed, analyzed, and properly mitigated.

Similarly, the DEIR states that groundwater levels of Total Dissolved Solids (TDS), an alternative measure of salinity, in the Project area exceed the current objectives for drinking water and/or agricultural use. If surface water salinity increases, this could increase TDS levels in groundwater such that the water is no longer suitable for current uses due to the interconnectedness between groundwater quality and surface water quality in the Project vicinity. (See DEIR, p. IV.G-6.)

As to water temperature, DEIR includes a conclusory assertion that the Project will not cause significant impacts in the Project area, stating that the increased solar radiation under the Project would be offset by shade from marsh vegetation. The DEIR does not include any data on the potential increase in temperature due to increased solar radiation, nor does it quantify how much effect vegetation will have on reducing any temperature increases. The DEIR also lacks any information about whether the purported offset is sufficient to satisfy Basin Plan temperature objectives. The EIR must include facts and analysis, not mere conclusions. (Guidelines, § 15384(b); *Santiago County Water Dist.*, 118 Cal.App.3d at 831.)

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<sup>7</sup> Davis, S. N., J. T. Fabryka-Martin, et al. (2004). "Variations of bromide in potable ground water in the United States." *Ground Water* 42(6): 902-909. <http://onlinelibrary.wiley.com/doi/10.1111/j.1745-6584.2004.t01-8-.x/abstract>

2. The DEIR fails to adequately evaluate mercury or methylmercury as a potential water quality impact.

The DEIR acknowledges that methylmercury exists in sufficiently high concentrations in the Cache Slough Complex to have triggered a Federal Clean Water Act Section 303(d) listing for this pollutant. “Waters of the Proposed Project Site are therefore considered impaired due to the presence of methylmercury.” (DEIR, p. IV.G.-10). The DEIR also notes that a total maximum daily load (TMDL) for mercury and methylmercury has been established, and that current fish tissue concentrations of methylmercury are above the level set in the TMDL. (DEIR, p. IV.G-5.) These acknowledgments suggest a need for a reasonable analysis of the potential of the proposed project to exacerbate this impairment. The DEIR appears to take a step in this direction, claiming that its analysis of methylmercury is based on “best scientific information” (DEIR, p. IV.G.-14). But there is no analysis of the mechanisms that contribute to mercury methylation or the potential of the landscape changes proposed by the Project to affect these mechanisms. Instead, the DEIR simply reports that DWR is conducting ongoing studies to determine whether tidal wetlands “are a source or a sink of methylmercury.” (DEIR, p. IV.G-15), and concludes that these studies show “that tidal wetlands do not export mercury or methylmercury in large amounts, although seasonal differences occur and imports and exports are heavily influenced by flow and whether a wetland is associated with a floodplain.” (DEIR, p. IV.G-15.)

This is the extent of the analysis. The DEIR stops short of applying what has been learned by the referenced DWR studies to the landscape changes being proposed for the Project site. Without this exercise, the DEIR falls well short of the reasoned analysis required under CEQA to dismiss methylmercury as a water quality impact of concern. CEQA requires that EIRs include an informed discussion of potential impacts. “The fact that precision may not be possible, however, does not mean that no analysis is required. . . an agency must use its best efforts to find out and disclose all that it reasonably can.” (*Laurel Heights I*, 47 Cal.3d at p. 399 [internal quotations omitted]; see also *Banning Ranch Conservancy v. City of Newport Beach* (2017) 2 Cal.5th 918, 938.)

3. The DEIR does not evaluate water quality impacts associated with water hyacinth and other invasive aquatic plants.

In the Sacramento-San Joaquin Delta, water hyacinth is a major invasive species that has modified ecosystem functioning and vegetation communities.<sup>8</sup> In recent years, the impacts on the Delta from water hyacinth have increased.<sup>9</sup> Floating aquatic vegetation increased from 323 hectares in 2004 to over 2590 hectares in 2014 (a change from 1.3 to 10.6% of the area of the Delta) due to recent droughts, milder winters, and delays in implementing control programs. Control efforts are crucial to maintaining the ecological functions of the system.<sup>10</sup> In addition,

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<sup>8</sup> Tobias, V.D., Conrad, J.L., Mahardja, B. et al. *Biol Invasions* (2019) 21: 3479. <https://doi.org/10.1007/s10530-019-02061-2> (citing Khanna et al. 2012).

<sup>9</sup> *Ibid.*

<sup>10</sup> *Ibid.*



water hyacinth prefer slower-moving water velocities. Water hyacinth colonies have demonstrated negative impacts on temperature, dissolved oxygen, and turbidity, both of which negatively impact fish species such as Delta Smelt and Chinook salmon.<sup>11</sup>

Despite the well-known impacts on water quality as a result of the presence of water hyacinth, the DEIR fails to note this as a potential water quality impact of the Project. To the extent that the Project, either during construction or during Project operation, creates more habitat suitable for colonization by water hyacinth, it is reasonably foreseeable that this colonization will negatively impact water quality in the Project area. This impact should be discussed, analyzed, and properly mitigated to avoid adverse water quality impacts, particularly to parameters crucial to fish survival, such as temperature and dissolved oxygen. Because the impacts of invasive aquatic plant species on water quality was not identified or analyzed in the DEIR, the DEIR must be recirculated and mitigation proposed for these impacts. Recirculation is required to inform the public of the true potential impacts and proposed mitigation related to invasive species' impacts on water quality. (Guidelines, § 15088.5; *Laurel Heights II*, 6 Cal.4th at 1130.)

**G. The DEIR's Mitigation for Air Quality Impacts Improperly Allows Unilateral Waiver of Mitigation Requirements Based on Undefined "Unusual Circumstances."**

Mitigation Measure AIR-1 states "[e]quipment requirements may be waived by the project director of EIP or DWR" based on unknown "unusual circumstances." (DEIR, p. IV.C-13.) This standard is not sufficiently clear and objective to constitute adequate mitigation. (*San Joaquin Raptor Rescue Center*, 149 Cal.App.4th at p. 670; see also *CBE*, 184 Cal.App.4th at p. 95.) The specific conditions under which a waiver may be issued should be clearly set forth in the mitigation measure. Furthermore, it is unclear whether the air quality impacts associated with the Project would actually be mitigated below the level of significance if the equipment requirements were waived. The DEIR should analyze this potential impact and explain whether waiver changes the determinations of whether construction equipment will have a significant effect on the environment. Finally, as stated above, EIP cannot have control over determining whether or not mitigation is feasible as DWR must make this determination as the lead agency.

**H. Critical Attributes of the Proposed Project Remain Vague, Contributing Further to the DEIR's Failure to Evaluate the Project's Impacts.**

CEQA is premised on the need for an accurate, stable, and consistent description of the proposed project. (Guidelines, § 15124.) Consequently, "project" is defined broadly as "an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" and that is "directly undertaken by any public agency." (Pub. Res. Code, § 21065; *Laurel Heights I*, 47 Cal.3d at 396.) The reason for this broad interpretation is simple—without an accurate project description, decision-makers and the public cannot undertake "an intelligent evaluation of the potential environmental effects of a proposed activity." (*McQueen v. Bd. of Directors* (1988) 202 Cal.App.3d 1136, 1143.)

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<sup>11</sup> *Ibid.*



Several aspects of the Project remain vague, which causes the project description to be defective and results in an inadequate analysis of environmental impacts. For example, the DEIR states that sand will only be placed “if feasible.” (DEIR, p. III-36.) There is no information provided concerning how DWR will evaluate if sand placement is feasible, what impacts would result with or without the sand as it pertains to impacts on water quality and the success of the project in creating suitable habitat for Delta Smelt. The DEIR notes that “[t]he only known structural feature used by Delta Smelt are sandy substrates required for spawning” and that the species requires “open, unvegetated, shallow, subtidal (less than 9 feet) waters with sand or pebble-sized substrate within freshwater sloughs.” (DEIR, p. IV.D-32.) Given the necessity of sandy substrates to Delta Smelt, the DEIR must provide a clear statement of when sand will be placed, and disclose, evaluate, and mitigate environmental impacts stemming from an inability to place sand.

The DEIR also contains extremely little information concerning the placement of soil excavated from the Project site. Cumulatively, the Project will “necessitate excavation of approximately 5,255,000 cubic yards of soil.” (DEIR, p. III-36.) The DEIR states that this material “would be re-used on site *as appropriate* based on soil types and beneficial re-use needs” and that “[s]ome of the material from the degradation of the Shag Slough Levee and the excavation of the tidal channels would be placed within proposed marsh plain to eliminate hauling the material over long distances.” (DEIR, p. III-36 [emphasis added].) Other sections also call into question how much of the excavated soil will be able to be placed on site. (DEIR, p. IV.A-13 [“some of the material . . . would be placed within the proposed marsh plain to eliminate hauling the material over long distances].) Thus, it is entirely unclear whether placement on-site is feasible or how DWR will go about determining whether placement is “appropriate,” or what volume of material will need to be off-hauled. While certain portions of the DEIR reference placement of certain amounts of fill taken from the excavated soil (e.g., 712,000 cubic yards of tidal channel excavations will be used for the Duck Slough Setback Levee), placement of the bulk of the 5.255 million cubic yards is not identified.

Given that the purpose of the Project is to inundate areas and excavate new channels, it is entirely unclear how this volume of excavated soil will be utilized solely on-site, without any need for off-hauling. There is also no statement concerning soil testing prior to re-placement of the soil. If there is a possibility that DWR will have to off-haul some (or most) of this material, the EIR must evaluate impacts associated with increased material movement as it relates to air quality and greenhouse gases. Currently, the Air Quality section assumes *no removal of excavated soil whatsoever*, it only evaluates off-hauling of other construction debris and materials. (DEIR, p. IV.C-11.)

#### **I. The DEIR Improperly Concludes Several Impacts Are Less than Significant Without Mitigation.**

Section IV.A of the DEIR lists those impact categories for which DWR screened from further analysis in the Initial Study based on the conclusion that the impacts were less than significant without mitigation. In discussing several categories of impacts, however, the DEIR relies on mitigation adopted in other sections of the DEIR to conclude that the impacts are less than significant, or rely on “project features” that are in fact mitigation measures in violation of *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 655-656. For example, in discussing impacts related to “substantial soil erosion or loss of topsoil,” the DEIR relies on

future “O&M measures to minimize the impact of erosion on the Cache/Hass Slough Training Levee and assure long-term stability.” (DEIR, p. IV.A-6.) The O&M measures, however, are not identified, evaluated, or imposed as mitigation. The DEIR’s analysis of consistency with the Delta Plan also repeatedly relies upon mitigation measures to make a finding of consistency. (See, e.g., DEIR, p. IV.A-13 [referencing Mitigation Measure AG-1], p. IV.A-14 [referencing invasive plant species mitigation and Mitigation Measure AG-1].) As discussed in Sections B and E, the DEIR also completely avoids analysis of whether the Project will result in the need to relocate nearby water facilities due to both changes in water quality as well as the potential for water facilities to entrain fish that are attracted to the Project site.

It is clear that many impacts that were “screened from further analysis” should indeed be fully evaluated, and many require mitigation measures to remain less than significant.

### **Conclusion**

DWR’s focus on accelerating the timeline for Project implementation is coming at the expense of adequate environmental analysis and engagement with adjacent reclamation districts, agricultural operators, and other local stakeholders. We urge DWR to revise and recirculate the Draft EIR to address the areas of concern and unaddressed impacts identified above.

Sincerely,

DOWNEY BRAND LLP



Arielle O. Harris

cc: Lower Sacramento/Delta North Regional Planning Area

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