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January 15, 2020

California Department of Water Resources  
1416 Ninth Street  
Sacramento, California 95814  
Attn: Katherine Marquez  
*Delivered Via Email: [Delta\\_Soil\\_ISMND@water.ca.gov](mailto:Delta_Soil_ISMND@water.ca.gov)*

**Re: Comments on IS/MND for Soil Investigations for Data Collection in the Delta**

Dear Ms. Marquez:

The following comments on the IS/MND for Soil Investigations (drilling) for Data Collection in the Delta are submitted on behalf of both the CA Central Valley Flood Control Association (CCVFCA/Association) and the North Delta Water Agency (NDWA/Agency). Based on our review, the document fails to properly analyze or mitigate impacts related to flood control infrastructure or water supply and quality impacts.

I. AGENCY BACKGROUND

A. Central Valley Flood Control Association

In existence since 1926, the Association was established to promote the common interests of its membership in maintaining effective flood control systems for the protection of life, property, and the environment. Association members include reclamation and levee districts, plus cities and counties with flood management responsibilities along the Sacramento and San Joaquin Federal Projects and non-Project levee systems within the Sacramento-San Joaquin Delta.

The Delta is unique, and dealing with levees and drainage issues is complicated. These levees are a comprehensive interconnected system that is absolutely critical to public health and safety, in addition

to providing for the protection of the region's transportation, agriculture, business, homes, and even water conveyance.<sup>1</sup>

Authorized by Congress in 1917, the Sacramento River Flood Control Project (SRFCP) is a system of "Project levees" and flood bypasses designed and built by the U.S. Army Corp of Engineers (USACE/Corps) so the individual segments and elements will function as integrated flood control system to facilitate farming and protect people and property in the Central Valley Basin, including the Delta. The San Joaquin Flood Control Project was subsequently constructed by the USACE.

Collectively, the facilities, lands, programs, conditions, and mode of O&M for the State-federal flood protection system in the Central Valley are referred to as the State Plan of Flood Control (SPFC).<sup>2</sup> The Central Valley Flood Protection Board authorizes use of the SPFC facilities by issuing encroachment permits only *if the project is compatible with the flood system and will not hamper the State's O&M responsibilities.*

There are more than 1,600 miles of State-federal Project levees in the Central Valley, of which approximately 380 miles are located in the Delta. Approximately 700 miles of additional Delta levees are classified as "non-project."

The Association's specific interest is assuring that the activities proposed in the Delta drilling IS/MND will not in any way impede, diminish, or impair the ability of local flood control agencies to perform their maintenance, operation, repair, and floodfighting duties or compromise the structural integrity of levee or drainage infrastructure located in the Project area. These flood control facilities are integrated and dependent on each other to operate as a system to protect people and property year-round, but particularly during flood events, and their public safety function must not be compromised.

#### B. North Delta Water Agency

The Agency was formed in 1973 by a special act of the Legislature to represent northern Delta water users in negotiating a water supply and quality contract with both the United States Bureau of Reclamation and California Department of Water Resources in order to mitigate the water rights impacts of the Central Valley Project and the State Water Project. In 1981 the NDWA and the Department of Water Resources (DWR/Department) executed the *Contract for the Assurance of a Dependable Water Supply of Suitable Quality* (1981 Contract).

NDWA has an ongoing statutory mandate under California law to assure that the lands within the North Delta have a dependable supply of water of suitable quality sufficient to meet present and future beneficial uses.<sup>3</sup> Representing nearly one-half of the legal Delta, the Agency's boundaries encompass approximately 300,000 acres. This includes all of that portion of the Sacramento-San Joaquin Delta, as

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<sup>1</sup> DWR A Framework for Department of Water Resources Integrated Flood Management Investments in the Delta and Suisun Marsh (September 24, 2013)

<sup>2</sup> Public Resources Code (PRC) Section 5096.805 (j). A complete description of these assets and resources has been compiled by DWR into the *State Plan of Flood Control Descriptive Document*.

<sup>3</sup> North Delta Water Agency Act, Chapter 283, California Statutes of 1973.

defined in Water Code Section 12220, situated within Sacramento, Yolo and Solano Counties, including New Hope Tract, Canal Ranch and Staten Island in northeastern San Joaquin County.

There are hundreds of underground domestic wells in the Project Area providing water supply to homes and businesses, and thousands of diversion pipes supplying surface water to agricultural water users. The water quality of these local water supplies must not be impaired by the drilling activities proposed in the IS/MND that may introduce contaminants like drilling solvents or nearby surface water with higher levels of salinity than the underground aquifer.

The Agency's specific interest is assuring that any drilling operations proposed by the Project shall avoid interference with local infrastructure and not impair the water quality of agricultural and municipal water supplies.

## II. FLOOD CONTROL IMPACTS

We have reviewed the draft IS/MND<sup>4</sup> and note that it appears to propose drilling on or adjacent to levees, but fails to analyze or mitigate impacts to levees or to identify measures to ensure local reclamation districts can continue to perform levee maintenance and floodflighting activities in the Project Area. The Association offers the following comments and suggested revisions to the IS/MND:

### A. Maps of Drilling Locations

The maps are not specific enough to determine the location of the proposed drilling, relative to the levees. If the borings are proposed on the levees or within 10 feet of the landside or waterside toe, each Local Maintaining Agency (LMA) will need to be consulted to gain permission for borings on the levee systems they are responsible for performing O&M. This should be done through the Central Valley Flood Protection Board (CVFPB) encroachment permit process. This will require each LMA to endorse the application and they may provide conditions for work on their levee system or within their right of way. The USACE will also need to approve drilling in the levee or adjacent to the toe of the levee under their Section 408 authority.

### B. Responsible Agencies

Unnamed Table, Page ii, Item #10: The California Department of Water Resources (DWR) should be aware that the CVFPB and LMAs must be recognized as Responsible Agencies in the Project Area under CEQA (CEQA Guidelines Section 15381). The IS/MND should be updated to reflect their official status under CEQA. We also request that DWR include the CVFPB and LMAs in future planning processes in the Delta, and that DWR provide these Responsible Agencies an opportunity to review and comment on all future CEQA documentation in advance of public release.

### C. Environmental Checklist

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<sup>4</sup> See MBK Technical Memorandum dated January 14, 2020 with associated resume of reviewing engineer, Gilbert Cosio.

Environmental Checklist, Page iii: Based upon Comments II-E and II-F below, the CVFPB and LMAs that are in the Project Area recommend that DWR consider that there exist potentially significant impacts in the resource areas of “Geology and Soils” and “Hydrology/Water Quality” that may require Mitigation, and that these boxes should be checked when the IS/MND is revised.

#### D. Flood Control Permits

Regulatory Requirements, Permits, and Approvals, Page 2, Section 1.2, final bullet: As stated in the IS/MND, “Various encroachment permits, as needed”, and discussed in Comment II-B above, the IS/MND should specifically list the USACE, CVFPB, and local RD Permits and Approvals and state that the corresponding agencies are Responsible Agencies on this project, as they have discretionary approval for the proposed actions.

#### E. Levee Soils

Section 3.7 Geology and Soils, Page 148, Checklist Question #3 “Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?”: The response statement in the IS/MND is “No Impact. DWR geologists considered the suitability of the geologic units for soil investigation in their siting of proposed Impact Areas. If the soil is deemed unstable by a geologist during the reconnaissance site visits required as part of the Proposed Project, or at any time thereafter, the Impact Area will be moved to decrease potential of on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Because the Proposed Project requires avoidance of these types of risks/impacts, no impact is anticipated as a result of the Proposed Project.”

The RD/LMAs that are in the Project Area and the CVFPB should be consulted to confirm DWR’s conclusions on the potential negative impacts drilling may have on the levee system. As it is currently not disclosed as a potential impact, and the detail of the boring locations is not clear, we consider this to be potentially significant and have concerns that it is not being adequately addressed. For example, what type of drilling rigs will be used – percussion, rotary, or sonic? What is the level of vibration created by each type of rig that will be used in the Project Area? What is the radius of the vibration created by each drilling rig? These details should be disclosed in the IS/MND. Once this information is provided, local flood control agencies may require additional mitigation measures to be inserted in the encroachment permit.

Our Subject Matter Experts (SME) recommend a requirement that any exploration should be backfilled, as per specifications reviewed and approved in advance by LMA District Engineers. Additionally, our SME recommends a requirement to obtain county drilling permits. We also request that DWR and their contractors provide a plan for review and approval by LMA District Engineers in order to address potential hydrofracturing of peat soils during exploration and the potential loss of drilling fluid, should fluid be used.

#### F. Levee Integrity

Section 3.10 Hydrology and Water Quality, Page 162: Checklist Table Item C is missing a fourth subsection. As per the *2019 CEQA Guidelines, Appendix G*, the missing subsection is “iv) impede or redirect flood flows.” We request that DWR update the IS/MND to include this missing item, and to provide a written response to evaluating and mitigating impacts to levee and drainage facilities. For example, we request that should artesian conditions be encountered during any exploration by DWR and/or its contractors that they will implement a pre-approved plan for how to proceed without destabilizing the integrity of the levee and state the conditions under which DWR will discontinue the exploration.

#### G. Data Sharing

The Association requests that DWR work with the LMAs in the Project Area and share the data acquired in order for the LMAs to have the additional information on the subsurface conditions of their levee system.

### III. WATER SUPPLY IMPACTS

The absence of describing the context in which local water supplies are accessed and used, results in the IS/MND failing to properly disclose the level of significant impacts imposed on agricultural and municipal water users in the Plan Area. The absence of any adverse impacts to in-Delta water users is a glaring omission. The IS/MND should describe the impacts to groundwater used by homes and businesses, surface water diversion and groundwater sub-irrigation used by agriculture, and surface water diversions and treatment plants used by municipal/drinking water. The IS/MND must be revised to add a more robust description of water supply access and use in the Plan Area and insert disclosure of impacts and mitigation measures to avoid interference with local water quality and disruption of existing water supply infrastructure.

#### A. Agricultural Water Supply

Irrigation of farmland in the Delta relies on both diversion of surface water and pumping of groundwater. There are thousands of individual diversion pipes, primarily agricultural siphons located in the Delta channels,<sup>5</sup> and many groundwater wells that will need to be protected from drilling operations proposed in the Project. The IS/MND provides an inadequate analysis of the project’s impacts to water supply and quality, water diversion infrastructure, or water channels and embankments. DWR should commit to immediately repair any damage to existing water supply infrastructure, including underground wells, caused by the Project and be required to provide alternative water source (temporary or permanent) if necessary.

#### B. Domestic Water Supply

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<sup>5</sup> See enclosed map of Delta Points of Diversions printed from the State Water Resources Control Board Division of Water Rights [website](#).

The primary source of domestic water for homes and businesses located in the Project Area is groundwater from individual wells. Counties require permits for these wells and therefore have a database of their location, but the IS/MND fails to mention or mitigate for protection of this water supply infrastructure. The location of existing agricultural and municipal water wells should be documented in the IS/MND and drilling near these water wells should be avoided. In addition, DWR should commit to immediately repair any damage to existing water supply infrastructure, including underground well caused by the Project and be required to provide alternative water source (temporary or permanent) if necessary.

### C. Delta Water Quality

Before government reservoirs began withholding much of the Sacramento River system's high winter flows, the Delta channels stored sufficient fresh water to sustain water quality in the northern Delta throughout and often beyond the irrigation season.

The IS/MND must acknowledge the potential for drilling operations to become contamination vectors for local water wells and mitigate these adverse impacts and consider whether the damage to water users from drilling activities is a violation of California's "No Injury Rule" or standards in CEQA and NEPA governing disclosure, weighting of impacts, and cumulative effects on environmental and human resources.

To avoid contamination of existing domestic and agricultural water supply wells from drilling rig solvents or mixing with nearby surface water that may have higher levels of salinity, the drilling operations should stay away from underground wells.

There are also water quality stations located throughout the Plan Area, including seven monitoring stations specified in the NDWA 1981 Contract, that drilling should stay away from. If water quality is degraded by the Project drilling operations, then DWR should commit to providing alternative water source.

## IV. CUMULATIVE IMPACTS

The investigative drilling proposed in this Project is intended to inform DWR regarding activities they have planned in the Delta, particularly the alignment and location of facilities associated with the construction of a new water conveyance facility to export water from the Delta (formerly known as WaterFix). Since the EIR for WaterFix was withdrawn in 2019, this proposed drilling Project is premature and appears to be piecemealing activities that should be analyzed in a full EIR/EIS developed for the conveyance project. By breaking components into phases, DWR is avoiding its obligation under CEQA to provide a more robust analysis of adverse impacts of the project as a whole and to consider and disclose cumulative impacts of the phased projects.

Based on the glaring omissions in terms of potential impacts to flood control infrastructure and to water quality and supply in the Project Area identified in our comments herein, the IS/MND is insufficient as it

appears to gloss over and ignore significant issues related to the Project activities. The document further fails to provide adequate, enforceable mitigation measures and monitoring programs to minimize or avoid cumulative impacts.

In addition, it has come to our attention that DWR has mailed notices to some landowners where drilling may occur, but not to all landowners where drilling operations are intended. We are concerned that DWR is piecemealing this Project into even smaller components, instead of analyzing all of the drill sites as one Project and considering the cumulative impacts of drilling at all locations, then damage from the drilling may be more extensive than outlined herein and possibly irreversible.

## V. CLOSING

In closing, the Association requests the IS/MND be revised to 1) provide more detail on specific location of drilling sites proposed on or near a levee, drainage canals/pipes, underground wells, or diversion pipes and pumps; 2) acknowledge impacts that drilling activities may have on existing water supply sources and infrastructure as well as the potential for causing contamination or degradation of water quality; 3) describe the type of drilling rigs, including the vibrations intensity and radius; 4) acknowledge the CVFPB and local reclamation districts as Responsible Agencies; 5) add a section that describes soil and geology impacts to levees and flood flows; and 6) to include the following Mitigation Measures necessary to reduce significant impacts to water quality and supply and to flood control infrastructure as well as the operation, maintenance, repair and floodfighting activities performed by local districts:

1. DWR shall obtain permit approvals from the USACE, CVFPB, and local RD/LMA for any drilling activities on a levee or within its right-of-way on both the landside and waterside, and shall comply with all permit terms and conditions imposed by these agencies.
2. DWR shall obtain county drilling permit for each exploration location.
3. For drilling on any project or non-project levee or within its right-of-way, DWR shall consult with local RD/LMA, and also with CVFPB if it's a SPFC Project levee, regarding Mitigation Measures necessary to reduce impacts to levees and drainage facilities, as well as any changes in hydrodynamics, water quality, and soils/geology that could increase flood risks.
4. DWR shall develop a plan to be pre-approved by local RD/LMA on how to proceed with drilling if artesian conditions are encountered near levee during drilling exploration, including identifying the circumstances that will require DWR to discontinue the exploratory drilling at that location.
5. DWR shall provide all data collected from drilling operations on or adjacent to levees to the local reclamation district.
6. To protect local water supply and quality in the Plan Area, DWR shall identify locations of all existing underground water wells and surface water diversion pipes, and prohibit exploratory drilling activities near those locations. DWR should commit to repair damage to any water

supply or water quality monitoring facilities damaged during activities associated with this Project. The IS/MND should also acknowledge the potential for drilling operations to become contamination vectors for local water wells and add mitigation measures to prevent degradation of agricultural and municipal water supplies, including providing alternative water sources if necessary.

We look forward to your response regarding our requested revisions to the IS/MND, particularly the addition of mitigation measures necessary to reduce adverse impacts to flood protection infrastructure and OMRR&R activities and water supply and quality in the Project Area. Once these impacts are properly disclosed and appropriate mitigation measures are added, we urge you to recirculate the revised document for public review and comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Melinda Terry". The signature is fluid and cursive, with the first name "Melinda" written in a larger, more prominent script than the last name "Terry".

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