April 17, 2020

Delta Conveyance Scoping Comments
Attn: Renee Rodriguez
Department of Water Resources
PO Box 942836, Sacramento, CA 94236
Via email: DeltaConveyanceScoping@water.ca.gov

RE: Comments on the Notice of Preparation for the Delta Conveyance Project

The Friends of Stone Lakes National Wildlife Refuge herewith submit our comments on the preparation of an Environmental Impact Report for the Delta Conveyance Project. Stone Lakes National Wildlife Refuge (Stone Lakes NWR) is essentially ground zero for the project. The three intakes, the forebay and the haul roads will have major impacts on Stone Lakes NWR and its wildlife.

The Friends are a nonprofit organization dedicated to preserving and protecting the Stone Lakes NWR. The Stone Lakes NWR is the single largest complex of natural wetlands, lakes and riparian areas remaining in the Sacramento-San Joaquin Delta, and provides critical habitat for waterfowl and other migratory birds of international concern, as well as a number of endangered plant and animal species. Location at the south end of a large urban area increases the Refuge's importance as a stop on the Pacific Flyway migratory route. Stone Lakes NWR and its surrounding agricultural areas are home to several special status

species, including the tri-colored blackbird, greater sandhill crane, white-face ibis, long-billed curlew, Swainson's hawk, burrowing owl, giant garter snake and valley elderberry longhorn beetle.

The Stone Lakes NWR is recognized as one of the most threatened refuges in the country. Crop conversion to habitat unfriendly vineyards, high voltage power lines, a high-rise structure and a heliport at the refuge boundary, sea level rise, increased flooding and, most importantly, urbanization of foraging habitat loom large among those threats. The refuge is already imperiled and constrained by urbanization close to its northern and part of its eastern border. A project of the magnitude of the Delta Conveyance has the very real potential of diminishing the geographic range of some of the species the refuge is designed to protect, like the greater sandhill crane.

The Friends of Stone Lakes NWR has engaged with the Delta tunnels projects from the outset, beginning with negotiations on mitigation and enhancement measures for the Bay Delta Conservation Plan, then with the WaterFix project as a protestant during State Water Resources Control Board hearings, and now its successor, the equally euphemistic Delta Conveyance Project.

As we respond to this incomplete and premature Notice of Preparation, we are troubled by the still evolving project design. We are observing an inherent inconsistency in the way the various infrastructure components are handled. The launch shafts apparently went through a more involved effort to avoid impacts while also maximizing access to transportation corridors. Specific criteria to avoid refuges or preserved habitat were part of that effort. In contrast, the intakes continue to be located where the engineering worked best with seemingly no concern about avoiding any egregious impacts, and the haul roads transecting the Stone Lakes NWR are further evidence of that. The comments that follow elaborate on these and other concerns. We urge the preparers to give them serious deliberation.

A complete detailed description of the project should be prepared, including an engineering-level design of all necessary components of the entire proposed conveyance system, prior to initiation of any environmental review. Work of the Delta Conveyance Design and Construction Authority (DCA) with stakeholders reveals that the tunnel design continues to be evolving. Environmental analysis should not be initiated until project design is finalized enough to disclose and analyze the probable environmental effects.

The project alternatives must be expanded to include alternative means of achieving project objectives. Given the huge scope and considerable environmental impacts of the Delta Conveyance Project, the need to seriously evaluate alternatives that would accomplish most, if not all, of the tunnel proponents' objectives, remains imperative. Governor Newsom's call for development of a Water Resiliency Portfolio was a hopeful step in that direction. Unfortunately, the resulting, hastily prepared document fell well short of expectations, and the tunnel project remains as one on a list of several projects and programs.

We urge the Project proponents and the Department of Water Resources to provide a balanced analysis of alternative strategies and projects put forward in recent years. These would include, but not necessarily be limited to 1) the Sierra Club's Sensible Water Management Portfolio Smart Tunnel Alternative, particularly the strategies to increase irrigation efficiency and reduce San Joaquin Valley ag water demand; 2) John Garamendi's Little Sip, Big Gulp Alternative utilizing the Sacramento Deep Water Ship Channel and a shorter, pressurized pipeline to Franks Tract; 3) Robert Pyke's Western Delta Intake Concept; and 4) brackish water treatment in the south Delta prior to delivery to points south.

Alternatives to infrastructure components of the Delta Conveyance Project must be evaluated. The scope of the project is of such huge magnitude that individual tunnel intakes, the forebay, the tunnel alignment, the tunnel construction launching sites, the southern terminus infrastructure and the electrical transmission lines—all have alternatives with varying degree of environmental impact. The alternative sites for and design of these components should be informed not just by engineering and cost considerations, but by their relative environmental impacts. The analysis of alternatives in the EIR should reflect this, particularly with respect to intake alternatives and alternative tunnel construction launching sites

Site and Design Alternatives to the Tunnel Intakes Must Be Evaluated. Information disclosed during the DCA Stakeholder Meetings reveals that the intake locations were solely determined by engineering considerations. In particular, no consideration has been given to terrestrial impacts in conjunction with the placement of fish intakes. The environmental analysis needs to evaluate location and design alternatives that take into account both terrestrial and aquatic impacts as opposed to optimizing engineering considerations.

For example, the current project design places all intake infrastructure immediately behind a levee surfaced on both sides with concrete. Setting the road, intake support structures and settling ponds back from the levee would allow retaining and/or reestablishing the riparian corridor.

Site alternatives to the tunnel construction launches must be evaluated. Discussion at the DCA Stakeholder Meetings reveals that ongoing analysis is underway to determine where tunnel boring stations will be placed along the alignment. Disregarding for the moment our concerns in Paragraph 1 regarding preparing the EIR in advance of a still-evolving project, the environmental analysis needs to consider alternatives that fully take into account the terrestrial species impacts of these alternatives. See the attachment on criteria and methodology for conducting this analysis.

Impacts of pressurized flow in tunnels must be evaluated. The proposed project currently proposes one tunnel with capacity for up to 6000 cfs of water that would apparently not be pressurized. It is reasonably foreseeable that post-environmental review modifications will be sought to increase potential water volumes by pressurizing the water flow. The environmental document must recognize that the proposed tunnel could be pressurized in the future to increase the amount of water pumped from the Sacramento River and evaluate the environmental impacts of the increased amount of water drawn through the intakes.

WaterFix environmental commitments must be included as part of project. The WaterFix tunnel project included a number of environmental commitments that were a product of extensive discussions with stakeholder groups associated with Stone Lakes NWR. These measures provided significant mitigation for impacts on terrestrial species, most notably greater sandhill cranes and Swainson's hawks. These environmental commitments must be included as part of the project, preferably as mitigation measures for the current tunnel project.

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Approach to traffic impact analysis must be reconsidered. The traffic analysis for the Waterfix project postulated the "worst case scenario" for trip generation, the peak level of construction related trips on any one segment. That analysis resulted in significant levels of trips on some segments, as much as ten trips per minute, or one trip every 6 seconds. The study did not distinguish between heavy trucks and other vehicles, though it is presumed that heavy trucks would

constitute the majority of vehicles. The analysis did not provide any information regarding the length of time that peak traffic periods would be expected over the many years of tunnel construction. The analysis focused on congestion levels without giving adequate consideration to the impacts associated with a preponderance of semi-trailer trucks on the two-lane rural environment.

These inadequacies need to be addressed in a more refined and complete traffic analysis for the Delta Conveyance Project. It is encouraging that presentation materials at the DCA Stakeholder meetings provide more specific information regarding the daily volume of traffic sequenced over the 15-year construction period. This information needs to be included in the EIR. The assumptions for generation of heavy truck traffic and the duration of peak traffic also need to be included in the analysis of impacts.

In addition, we are very concerned that the DCA Stakeholder meeting materials identify Hood Franklin Road as a main haul road for project construction activities. The Friends have provided detailed comments regarding the significant effects on both wildlife and recreation that using Hood Franklin Road for this purpose would cause, given that it bisects the refuge and is the access to Refuge Headquarters and the Blue Heron Trail. These impacts must be evaluated along with a greater range of mitigation measures.

New haul roads must be fully described and evaluated. The DCA is considering the construction of new haul roads to support the construction of the intake structures along the Sacramento River. Several of these roads would be within or adjacent to the legislative boundary of the Stone Lakes NWR. The proposed roads must be accurately mapped. Details regarding the construction of these roads must be provided including road width, proposed surfacing, right-of-way acquisition, timing of construction, and post-construction use of roads and right-of-way.

The new haul roads would dramatically shift construction-related traffic away from the River Road to lessen impact on properties and communities along the river and transfer it to the terrestrial species the Stone Lakes NWR is trying to protect. The tradeoffs between these impacts must be fully acknowledged and identified.

The new haul roads would transect the Sone Lakes NWR and adjacent waterfowl foraging areas. Based on the experience of Stone Lakes NWR staff, the new haul roads will flush many waterfowl. As one example, sandhill cranes fly between

roost sites on the refuge to foraging areas adjacent to the proposed haul road as well as foraging areas farther west in Yolo County. The EIR must identify waterfowl roosting and foraging sites, particularly with respect to the fully protected greater sandhill cranes, and evaluate the potential impact of haul road traffic on their movement. This analysis should be conducted in conjunction with the potential impact of birds being flushed into any proposed new power lines along the road

Reusable tunnel material surfactant issues must be addressed. The NOP indicates that the project will sample reusable tunnel material (RTM) as it is removed during the boring process to determine if it can be reused, and if not, how it will be disposed. The project proponents have to date refused to disclose the composition of chemical surfactants used with the boring machines. In the absence of any information as to whether or not the surfactants pose a hazard to humans or wildlife, it must be assumed that all RTM is hazardous and will need to be transported to safe disposal areas. This conclusion is consistent with the independent technical review panel of leading tunnel experts' (retained by the DCA) findings in December 2019. The project must include information that satisfactorily demonstrates that the surfactants will not pose a significant adverse impact, or analyze the environmental effects of disposing all RTM outside of the Delta.

Transmission line impacts must be included. The prior EIR/EIS for the WaterFix project did not include a full analysis of the impacts associated with providing electrical power to the project, both during construction and tunnel operation. This was left to a supplemental analysis. The EIR for this project needs to include a full description of both the temporary and permanent transmission facilities for the project and evaluate their impacts.

Crane foraging habitat must be included in transmission line impacts. In evaluating the impacts of transmission lines on waterfowl, particularly greater sandhill cranes, foraging habitat is equally important as roosting habitat. The analysis must use mapped data on moderate to high probability foraging areas proximate to roosting sites in considering the potential for species take associated with power line contact.

Impacts of tunnel muck material storage site on adjacent Swainson's Hawk preserve must be evaluated. The "RTM Storage area" shown in DCA Stakeholder meeting materials between Franklin Blvd and Interstate 5 is just to the south of a

Swainson's Hawk mitigation site. Activity at this site could impact hawk nesting and foraging and must be evaluated.

Growth inducing aspects of freeway interchange improvements must be evaluated. The DCA is also contemplating improvements to Interstate 5 interchanges at Hood Franklin Road and Twin Cities Road, as well as a completely new Interchange at Lambert Road. Any proposed improvements must be evaluated for their growth inducing impacts, particularly in relation to freeway related commercial development such as truck stops.

Impact of tunnel facilities within Stone Lakes NWR boundary must be considered. We continue to be concerned about the potential placement of the forebay, pumping facilities and, particularly, transmission lines within the legislative boundary of the Stone Lakes NWR. (See 57 Fed.Reg. 33007 (July 24, 1992).) It is the longstanding goal of the Fish and Wildlife Service and Refuge supporters to acquire and restore habitat within the entire boundary. The proposed conveyance facilities within the boundary would interfere with the ability of the Fish and Wildlife Service to implement its goals for the Refuge, as described in the Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan. The EIR must identify and evaluate the potential impact of the project on realizing these goals and plans, and mitigate accordingly. Please see attached map of Stone Lakes NWR.

Instead of showing the boundary approved by Congress, maps by DWR and the DCA appear to only show the areas of Stone Lakes NWR that are already in public ownership. Maps in the Draft EIR that show the location of refuges, preserves and habitat conservation plan areas in the document must show the Stone Lakes NWR legislative boundary, not just lands in fee or easement ownership. All lands within the Refuge boundary may be managed to carry out the approved purposes of the Refuge, and thus could be potentially bought for public ownership.

Encroachments, development and disturbances within the Refuge boundary undermine Congressionally approved directives as well as the ability to carry out the Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan. Permanent conversion of land within the Refuge's legal boundary by the project prevent the future use of Refuge lands for wildlife conservation. All analysis of impacts on the Refuge must begin with a correct boundary, not a truncated partial map.

We also note also that the map in the Stakeholder Engagement Meeting documents for February 26, 2020 inappropriately identifies the vernal pool complex within the Stone Lakes NWR boundary as being west of Interstate 5. It is east of the interstate highway.

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In conclusion, we urge the Department of Water Resources as lead agency to acknowledge the importance of Stone Lakes National Wildlife Refuge, its wetlands and wildlife; to take heed of our comments; to thoroughly assess alternatives and impacts; and to fully mitigate those impacts.

The Friends of Stone Lakes NWR will continue to engage with DWR and the DCA as this project moves through the review process. We remain available to provide information and discuss our concerns regarding this major project.

Sincerely,

Chris Tooker
President, Friends of Stone Lakes National Wildlife Refuge

cc: Delta Conveyance Design and Construction Authority
Osha Meserve, Soluri and Meserve Law Corporation

Attachment 1
Friends of Stone Lakes NWR Comment Letter
Delta Conveyance Project Notice of Preparation
April 17, 2020

Terrestrial Species Criteria for Refining Launching Site Placements

The most important criteria to include would be diversity and density of terrestrial species with a focus on listed species, but not to the exclusion of other species. However, it would be a mistake to simply add a couple of new criteria items to the engineering rubric currently being utilized to identify "acceptable" siting locations. Doing so would likely result in an outcome similar to the intake locations, where the engineering was the primary driver for the selection of placements that worked well mechanically, but were/are extremely destructive to both aquatic and terrestrial species. We recommend that a far more comprehensive approach be utilized for siting the launching shafts and their extensive infrastructure, one that exhibits sensitivity to the important issues and concerns represented by the stakeholders in the SEC. So, beyond comments and suggestions about how to integrate terrestrial species concerns into the decision process, we will also be discussing more broadly how the decision process should work.

The approach utilized in the launching shaft selection process presented to the stakeholders at the last meeting represents a reasonable foundation for a framework that could be robust enough to incorporate addition of criteria addressing stakeholder concerns. But, it would be a potentially large mistake to just add a bunch of new criteria suggested by stakeholders, weight them, and then generate a new map. With all of the new criteria, the underlying decision process of balancing all of the additional factors becomes extremely complicated, and a single new map that attempts to incorporate all of the new criteria into one depiction representing more refined siting possibilities would seem to be nothing short of magic to all but the most informed GIS experts and modelers. Therefore, we recommend that a series of additional maps be generated for informational and illustrative purposes. The first series of maps would depict sitting possibilities based on the ten to fifteen mile spacing between launching shafts coupled with the criteria specific to one stakeholder category, excluding engineering concerns. This would provide an understanding of shaft placements in the absence of the engineering concerns. The second series of maps would depict the stakeholder category considered along with engineering concerns. The third would be a single map depicting the engineering concerns along with all of the stakeholder category concerns. This approach would allow a non-expert modeler to see the compromises and tradeoffs that were made in a visual format and would allow each stakeholder to see how their concerns fit into the larger decision.

A program like ESRI GIS hotspot analysis should be used to identify hotspots and then a decision making tool, like MARXAN, should be used to run a huge number of permutations to expose possible efficiencies – this should be done for all three

classes of additional maps that we are suggesting. The stakeholders should be provided all information used for weighting criteria, the decision-making software utilized, and what specific data/GIS layers were used. For the terrestrial species aspect of this process, we would like to be able to technically analyze your process so we can determine if further refinements might improve the final outcomes. To this end we will need access to the same data and GIS layers that you will use. This will also allow us to comment on possible terrestrial species data gaps.

This type of multifaceted approach, which weaves in the concerns of the stakeholders with those of the engineers, should be utilized for all considerations of the siting of any of the conveyance infrastructures. This approach would integrate stakeholder concerns while providing illustrative visual maps that demonstrate that integration.

Returning to the terrestrial species criteria, there is a lot to capture when considering diversity and density. Diversity would encompass what species are using the landscape in question, with a special focus on listed species. The CNDDB, eBird, Stone Lakes National Wildlife Refuge census data, Cosumnes River Preserve census data, Staten Island census data, Audubon Christmas counts, literature review, SSHCP and SJMSCP species data, and habitat based analysis should all be used to distill species occurrence information into GIS layers, if they are not already in a layer, to determine which species are likely using a given portion of the landscape. The weighting of factors in this category needs to consider two components: diversity hotspots, and important habitat for specific species, which could include occurrence of very rare or no take species, nesting, roosting, or important foraging areas.

Density in the broadest sense would need to capture the numbers of individuals in a species, and across species, using a particular part of the landscape. But we must also concern ourselves with additional components like the numbers of nesting, roosting, and foraging individuals in and between species. Large numbers of nesting, roosting, or foraging species indicate the potential importance of one piece of land over another. Additional terrestrial species criteria would need to include: important corridors, as well as important locations for migratory species use.

The weighting of the various criteria is a crucial part of effectively balancing the important components that need to be considered. This reality suggests that additional maps would be very helpful in determining what the most effective weighting system should be such that the maps generated appropriately address the need for properly balanced criteria driving the prioritization of the landscape for siting. So, for the terrestrial species, having separate initial maps for diversity, density, corridors, and migratory hotspots that are subsequently blended into a single map, would be very useful in determining if the blended map appropriately highlights the most important areas to avoid. If it did not, the weighting could be appropriately adjusted.

As a final comment, though stakeholder representatives that are appropriate for their specific concerns people the SEC, they are not necessarily versed in what would make effective criteria to map to make sure their issue/s is being appropriately considered. As such, we feel that it is a responsibility of the DCA and DWR to provide additional expert input on what the most appropriate criteria would be to fully capture stakeholder concerns.