SOLANO COUNTY WATER AGENCY

February 14, 2020

Lookout Slough DEIR
Attn: Heather Green
California Department of Water Resources
3500 Industrial Blvd.
West Sacramento, CA 95691

SCWA Comment Letter on Draft EIR for the Lookout Slough Restoration Project

Dear Ms. Green,

The purpose of this letter is to provide the California Department of Water Resources (DWR) comments on behalf of the Solano County Water Agency (SCWA). SCWA provides wholesale water supply to cities, special districts and State agencies in Solano County. Our agency boundary encompasses all of Solano County including portions of the legal Delta. The North Bay Aqueduct (NBA) portion of the State Water Project (SWP) delivers source water directly from the Cache Slough Complex (CSC) of the Delta to over 500,000 residents in Napa and Solano Counties includes the communities of Vacaville, Fairfield, Vallejo, Benicia, Napa, American Canyon, Calistoga, and Travis Air Force Base. While the NBA is owned and operated by DWR, SCWA has a longstanding interest in the Delta to ensure the NBA and other water supplies can provide reliable and high-quality water to the agricultural and municipal water users in Solano County.

While SCWA is supportive of habitat restoration in the Delta, the Agency is concerned that the Draft Environmental Impact Report (DEIR) for the Lookout Slough Restoration Project does not adequately address regional water quality concerns, biological impacts, and flood control impacts associated with the Project. Below is a more detailed summary of the Water Agency's concerns. The Agency is also a participant in the regional Water Quality letter for Napa, Solano, and Contra Costa counties, which also provides detailed water quality comments for the entire Tri-County region.

Concerns:

1.) Water Quality – Salinity & Bromide (Page IV.G-9)

As mentioned in the regional water quality letter, the DEIR discussion on salinity is sparse and lacking in sufficient detail to protect the municipal and agricultural beneficial uses in the Delta. No analyses, modeling results, or data are provided in the DEIR or Appendices for SCWA or our member agencies to proficiently assess the Project's Water Quality Impacts.

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In addition, there is also no discussion, analyses, or modeling of Bromide which is of critical importance to the NBA. In the North Delta, the NBA municipal users do not currently have significant issues with Bromide. However, major land use changes such as Lookout Slough, have the potential to enhance sea water intrusion upstream of Rio Vista, and elevate Salinity and Bromide above baseline concentrations. When municipal water supplies are treated (particularly with ozone) to meet drinking water standards, Bromide can form Bromate a known and regulated carcinogen, which can impact human health. Since most of the NBA water purveyors utilize ozone (to deal with high levels of organics), they would be highly sensitive to changes in Bromide above baseline conditions.

A more significant analysis of Salinity and Bromide is needed to evaluate and protect existing municipal and agricultural beneficial uses in the Delta, including the NBA, City of Vallejo's Pumping Plant, and Reclamation District 2068.

2.) Water Quality – Organic Carbon (Not Included).

Section G (Hydrology and Water Quality) of the DEIR does not include any discussion or analysis of Organic Carbon. While Organic Carbon may have ecological benefits, it can also have significant impacts on municipal water quality. In the drinking water treatment process, Organic Carbon can react with Chlorine to form a variety of Disinfection Byproducts including Trihalomethanes (THMs) and Haloacetic Acids (HAAs) which are carcinogenic and harmful to human health. The NBA water purveyors are highly sensitive to Organic Carbon levels, as users will often need to blend or switch water sources (if possible), or aggressively treat NBA source water to maintain safe high-quality municipal drinking water standards. Additionally, the NBA currently experiences the poorest water quality throughout the entire SWP in regards to Total Organic Carbon (TOC) levels, as illustrated by Figure 1. Major land use changes such as Lookout Slough, have the potential to export Organic Carbon and/or modify hydrodynamic process that may further degrade NBA municipal water quality.

Analysis of Organic Carbon is needed to evaluate and protect existing municipal water use in the Delta, including the NBA.

3.) Water Quality – Modeling Results

In reviewing the DEIR and Appendices related to water quality, little to no information is provided on the RMA Water Quality Modeling, including calibration and validation efforts, boundary conditions, SWP-CVP operations, Delta agricultural extractions, and other key assumptions. Additionally, the DEIR makes several conclusions in regards to Salinity at the NBA and other Delta Intakes, but no additional analyses, figures, model results, tables, etc. can be found in either the DEIR or Appendix S to substantiate these results.

DWR needs to provide more transparent and detailed information on the Water Quality Modeling used to analyze and assess Project Impacts and Cumulative Impacts on water quality including Salinity, Bromide, and other constituents as needed.

4.) Water Quality – Modeling Confidence (City of Vallejo P.P.)

As part of the DEIR review, SCWA requested model output information from DWR. To determine model confidence, measured EC data was compared to modeled EC data. Figure 2 is a time series plot for July-2009 showing measured and modeled EC data for the City of Vallejo's Pumping Plant at Cache Slough. Figure 3 is a Scatter Plot showing the Measured vs Modeled EC data for the same time period. The corresponding $R^2 = 0.09$, which indicates very poor correlation. The two figures illustrate the

challenge of the RMA model to reasonably simulate EC during summer (i.e. baseline) conditions at the City of Vallejo's Pumping Plant location. This is important, as the Lookout Slough project is located in close proximity to this node, and is an indication of poor model confidence.
Additional model analyses, comparisons, and transparency on the model development is needed, to improve overall model confidence and ability to reasonably simulate Project Impacts and Cumulative Impacts on water quality, particularly in the CSC.

5.) Water Quality – BDCP Modeling Results on Cumulative Impacts

In 2015 extensive water quality modeling was conducted by DWR as part of the Bay Delta Conservation Plan (BDCP) – Recirculated DEIR (RDEIR). In Section 5.2.2.4 (Cumulative Impacts, Water Quality) of the RDEIR, Impact WQ-3 identifies the NBA as being negatively impacted by Bromide associated primarily with habitat restoration projects, as described below (excerpt from page 5-77 of the RDEIR).

"The primary driver of the adverse cumulative condition was the assumed amount and location of tidal habitat restoration to be implemented as part of the alternative. The amount of tidal habitat restoration assumed for Alternatives 4A, 2D, and 5A is substantially less than assumed for Alternative 4, such that it is not expected to significantly affect Delta hydrodynamics and source water fractions. However, a substantial amount of tidal habitat restoration is still anticipated to occur in the future as part of separate actions (e.g., the California Water Action Plan/EcoRestore), which could result in a greater portion of higher-bromide concentration water in the restored areas, thus contributing to elevated long-term average and drought period bromide concentrations in those areas. Thus, the cumulative condition for bromide is still considered adverse."

Since this was the conclusion in 2015 after extensive modeling efforts by DWR, this directly conflicts with DWR's more recent assessment on Cumulative Impacts on the Lookout Slough Project as "less than cumulatively considerable."

Since DWR was the lead applicant for both Projects, SCWA specifically requests that DWR address this major discrepancy between the BDCP and Lookout Slough Cumulative Impact assessments on the NBA.

6.) Biological Impacts - Endangered Species (Local Diversions)

One of the primary and worthwhile objectives of the Lookout Slough Restoration Project (Goals 1 & 2) is to improve food availability, rearing habitat, spawning habitat, and habitat elements for special status species such as Delta Smelt, salmonids, and other native fish. However, the DEIR and Appendices do not include any analysis, assessment, potential impacts, or recommended solutions to minimize impacts to existing agricultural and municipal users in the Delta and specifically within the CSC. Within the CSC, several public agencies including SCWA and Napa County Flood Control and Water Conservation District (via the NBA), City of Vallejo, and Reclamation District 2068 have major diversion facilities, as well as numerous private agricultural intakes. Figure 4 is a map showing the multitude of existing agricultural and municipal diversions within the CSC. Additionally, as part of Appendix E (Good Neighbor Checklist), DWR has not adequately addressed one of the key elements, which is "…are species on the project site expected to increase markedly in abundance and move from the site to neighboring lands or waterways?"

DWR needs to adequately and transparently address the Project Impacts to Local Diversions including the NBA, City of Vallejo, RD 2068, as well as private agricultural diversions. Additional support and funding is necessary for regional projects such as the NBA Alternate Intake Project and other regional solutions, to support and achieve co-equal goals for the entire Sacramento – San Joaquin Delta including the CSC.

7.) Biological Impacts – Invasive Species

One of the primary Goals of the Lookout Slough Restoration Project (Goal 1-F) is "to the greatest extent practical, avoid promoting conditions adverse to Proposed Project biological objectives, such as those that would favor establishment or spread of invasive exotic species." However, the DEIR does not provide any Post-Project solutions, mitigation strategies, or funding mechanisms to prevent the spread of invasive species. Additionally, at the January 22, 2020 public meeting neither EIP or DWR laid out a strategy of how to mitigate invasive species. For invasive plant species, DWR and EIP suggested that the Division of Boating and Waterways (DBW) could manage these species. However, DBW is currently overtaxed and responsible for managing Aquatic Invasive Species throughout the entire Sacramento – San Joaquin Delta. The California Department of Fish & Wildlife (CDFW) Lindsey Slough Restoration Project, is a great example of a "build and leave" project within the CSC, where consistent and dedicated Operation & Maintenance (O&M) funding and on-site personnel is critical for the project to succeed. Figure 5 is a photograph of the Restored Project 4-years after completion, which is choked with invasive floating Water Hyacinth as well as submerged Brazilian Waterweed. Without adequate O&M funding and availability of on-site personnel, the long-term outlook is likely to be similar for the Lookout Slough Restoration Project.

DWR needs to layout a detailed and transparent plan to provide dedicated O&M funding and on-site personnel to manage invasive species throughout the Project Site and meet the specified Project Goals. There should also be periodic accountability by an independent party, to ensure Project Goals are met.

8.) Flood Control – Levee Protections and Long-Term Funding

Another primary Goal of the Lookout Slough Restoration Project (Goal 3) is to "provide additional flood storage and conveyance within the Yolo Bypass to reduce the chance of catastrophic flooding and protect existing nearby infrastructure." In the DEIR and Appendices, many assumptions are made in regards to levee impacts including tidal dampening, wave runup reductions, benefits of emergent marsh vegetation, benefits of the PG&E access roads in reducing waves, roughness coefficients, etc. However, the DEIR does not provide any details on funding mechanisms, site repairs, and/or remedies if any of the assumptions are incorrect. Additionally, some of the core aspects of Yolo Bypass levee management are (a) continuous annual maintenance and (b) immediate repairs during and post Yolo Bypass Flood Events. However, the DEIR does not provide specific details on the funding mechanisms, including annual O&M Funding, Capital Funding when larger repairs are needed, and accountability of potential impacts to neighboring Reclamation Districts including RDs 2068, 2098, and 2060.

DWR needs to layout a detailed and transparent plan to provide dedicated O&M Funding, Capital Funding, and on-site personnel to meet core flood control and levee maintenance responsibilities as part of the Project. Similar to above, there should also be periodic accountability by an independent party, to ensure flood control responsibilities are met and ensure flood impacts are not translated to neighboring Reclamation Districts.

9.) Flood Control – Wind-Wave Generated Erosion (Page IV.G-26 to 28)

In regards to Wind-Wave Generated Erosion, the DEIR concludes that there are **"<u>less-than-significant</u>"** impacts, and indicates that DWR will take over O&M activities of the Cache/Hass Slough Training Levee and Cross Levee. However, DWR does not layout a detailed and transparent plan in regards to dedicated O&M Funding, Capital Funding, and accountability of potential impacts to neighboring Reclamation Districts.

As stated above, DWR needs to layout a detailed and transparent plan to provide dedicated O&M Funding, Capital Funding, and on-site personnel to meet core flood control and levee maintenance responsibilities. There should also be periodic accountability by an independent party, to ensure flood control responsibilities are met and ensure flood impacts are not translated to neighboring Reclamation Districts, to meet the "less-than-significant" impact stated in the DEIR.

<u>Mitigation Measures:</u>

As both a supportive and impacted public agency by the Lookout Slough Restoration Project, the Solano County Water Agency highly recommends that DWR consider the following measures, to help mitigate Project Impacts, develop regional collaboration, and move the Project forward.

A.) Water Quality Modeling, General – A more detailed and transparent analysis should be done to improve the RMA Water Quality Model for the Cache Slough Complex region. Modeling confidence needs to be improved, to allow for a more accurate, transparent, and reasonable assessment of Project Impacts and Cumulative Impacts by all interested parties.

B.) Water Quality, Organic Carbon – A detailed and transparent analysis on Organic Carbon should be done in regards to Project Impacts and Cumulative Impacts on municipal water quality. If uncertainties exist, they should be clearly stated and acknowledged in the final EIR.

C.) Water Quality, Salinity – A more detailed and transparent analysis on Salinity should be done in regards to Project Impacts and Cumulative Impacts on both agricultural and municipal water quality.

D.) Water Quality, Bromide – A detailed and transparent analysis on Bromide should be done in regards to Project Impacts and Cumulative Impacts on municipal water quality. In addition, detailed and transparent analyses are needed to identify why there are different outcomes associated with Cumulative Impacts from the BDCP vs the current Lookout Slough Restoration Project.

E.) Biological Impacts, Local Diversions – A detailed and transparent analysis is needed to reasonably assess both Project Impacts and Cumulative Impacts on local diversions including the NBA, RD 2068, City of Vallejo Pumping Plant, and other local agricultural diversions.
It is important to note that while the NBA represents about 2% of the SWP, the vast majority of SWP Biological Opinions and Eco Restore implementation is focused in the CSC and Suisun Marsh regions, directly impacting the NBA and Napa-Solano water purveyors.

F.) Biological Impacts, Regional Solutions – DWR as well as other State and Federal stakeholders, should help fund and commit tangible resources (including bond funds) to support regional multi-benefit projects such as the NBA Alternate Intake Project and others, to achieve and sustain co-equal goals for the Sacramento – San Joaquin Delta.

G.) Long-term Funding – DWR needs to provide specific details on long-term O&M Funding, Capital Funding, and On-Site personnel to provide both flood control and invasive species management.

H.) Independent Accountability – DWR needs to provide specific details on how to achieve periodic and independent accountability to meet both flood control and ecosystem Project Goals, as outlined in the DEIR.

Thank you for the opportunity to submit comments vital to the agricultural and municipal water users in Solano County. As mentioned above, SCWA has a longstanding interest in the Delta to ensure the NBA and other water supplies can provide reliable and high-quality water to the many agricultural and municipal water users in Solano County. The Water Agency looks forward to working collaboratively with DWR, to protect and sustain the Co-Equal Goals for the Sacramento – San Joaquin Delta, including the Cache Slough Complex and Yolo Bypass region. Should you have any questions, please don't hesitate to contact me by e-mail at RSanford@scwa2.com or by phone (707) 455-1103.

Sincerely,

Roland Sanford,
General Manager

CC: Phillip M. Miller, District Engineer • Napa County Flood Control & Water Conservation District
Bryan Busch, General Manager • Reclamation District 2068
Michael Malone, Director of Water • City of Vallejo

FIGURE 1 – TOC Concentration in the SWP

(Source: Figure 3-20, SWP 2006 Watershed Sanitary Survey Update)

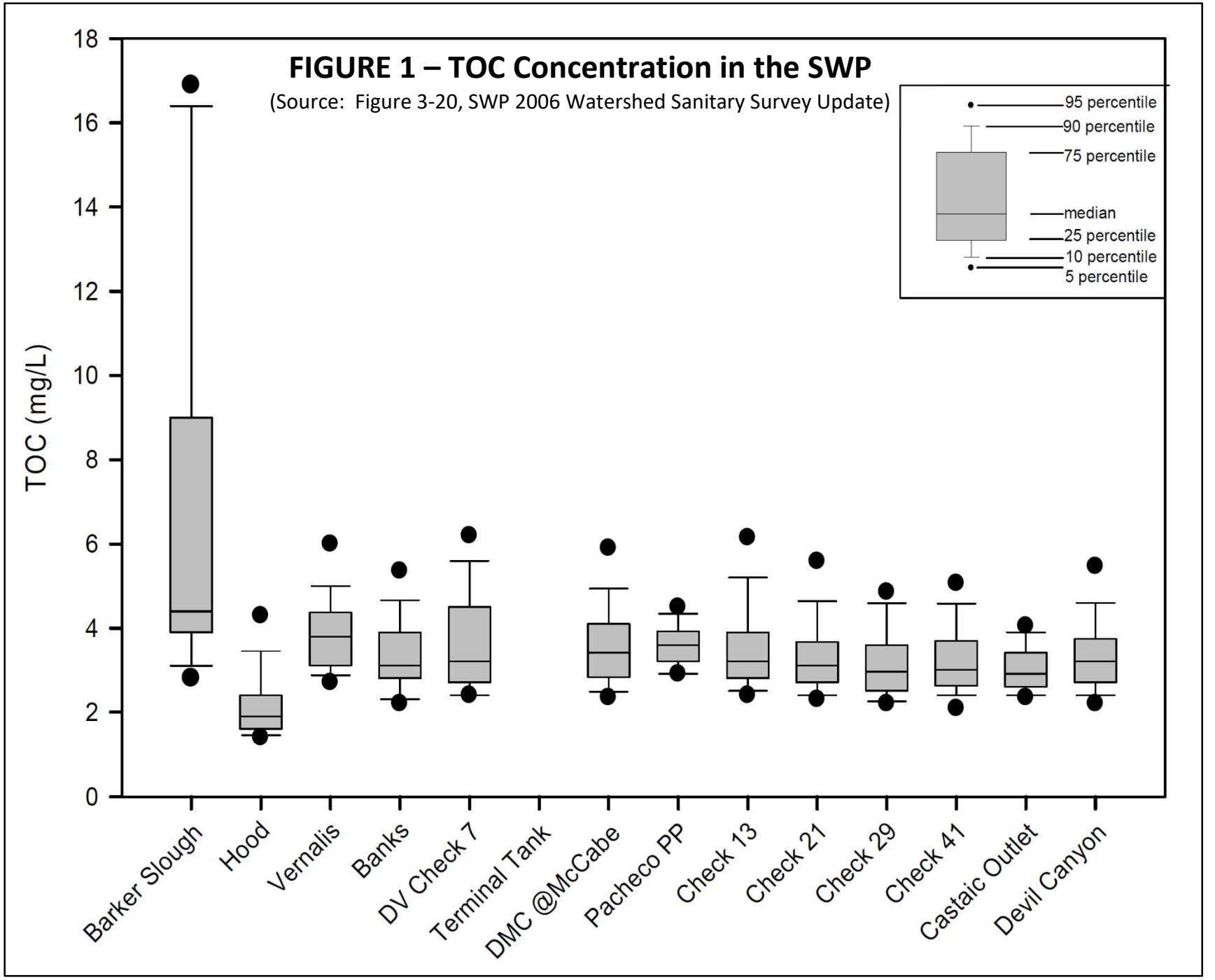
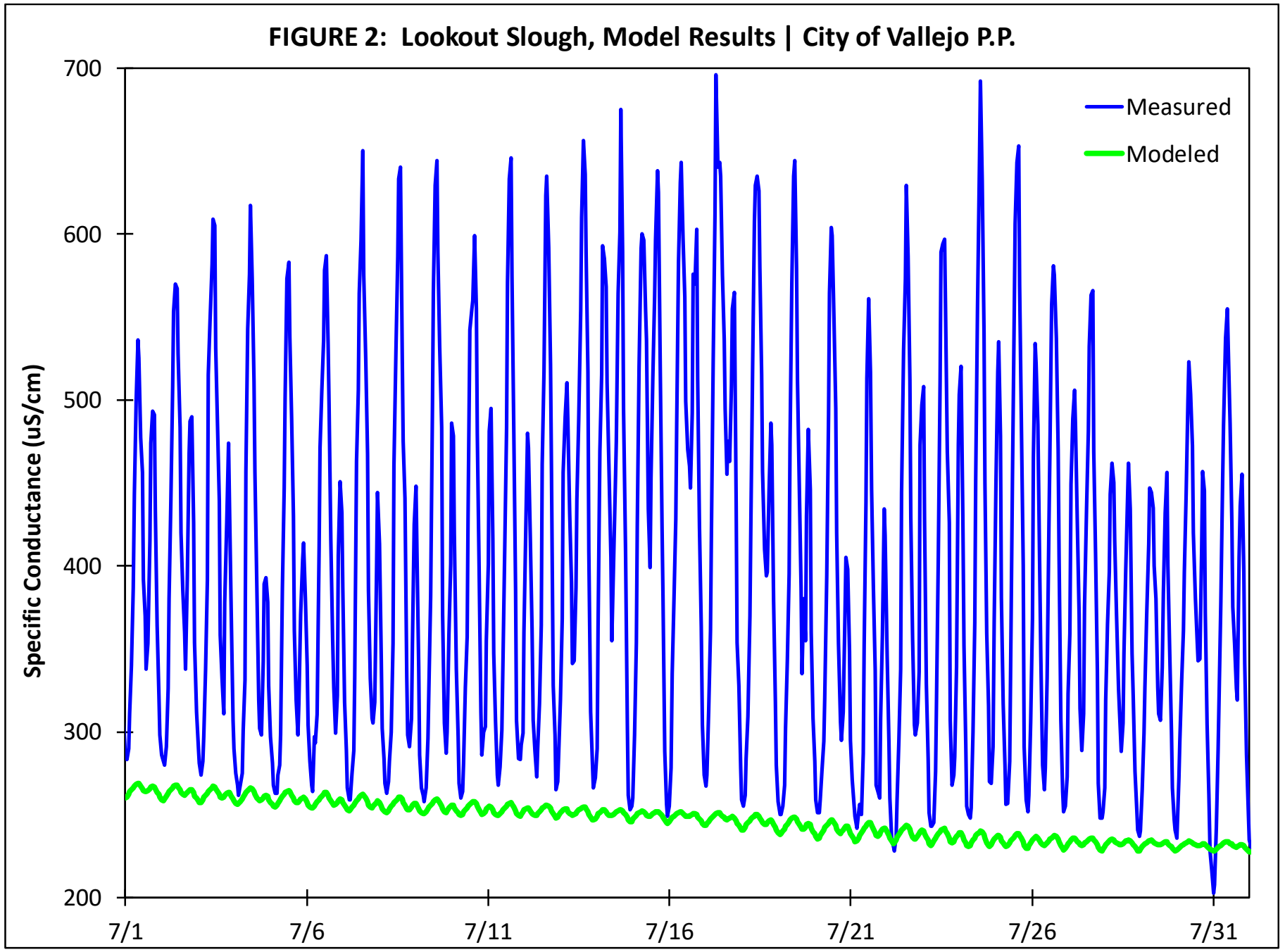


FIGURE 2: Lookout Slough, Model Results | City of Vallejo P.P.



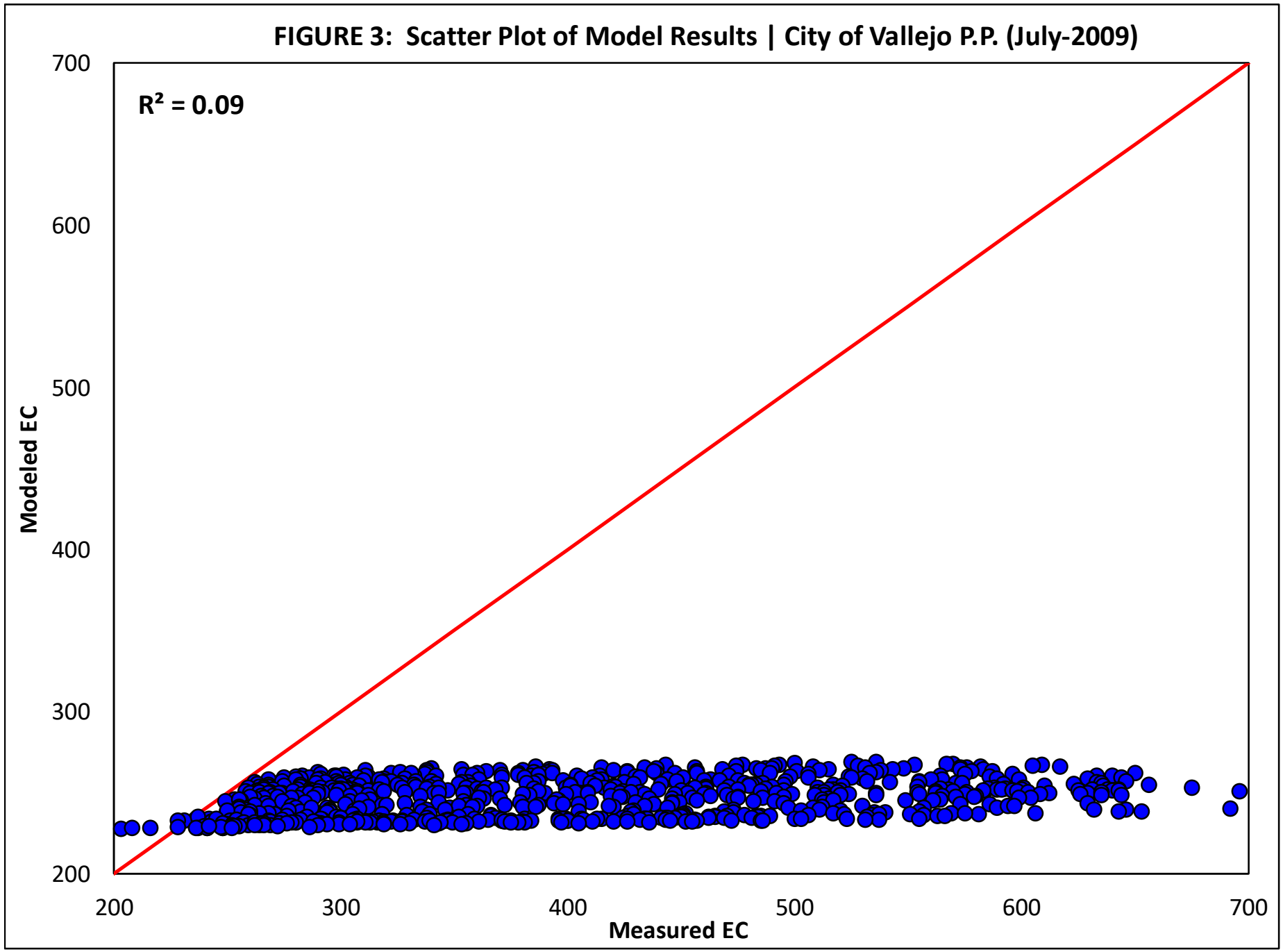


FIGURE 3: Scatter Plot of Model Results | City of Vallejo P.P. (July-2009)
R² = 0.09
Modeled EC
Measured EC
700
600
500
400
300
200
200
300
400
500
600
700

FIGURE 4: Existing Municipal and Agricultural Diversions in the Cache Slough Complex

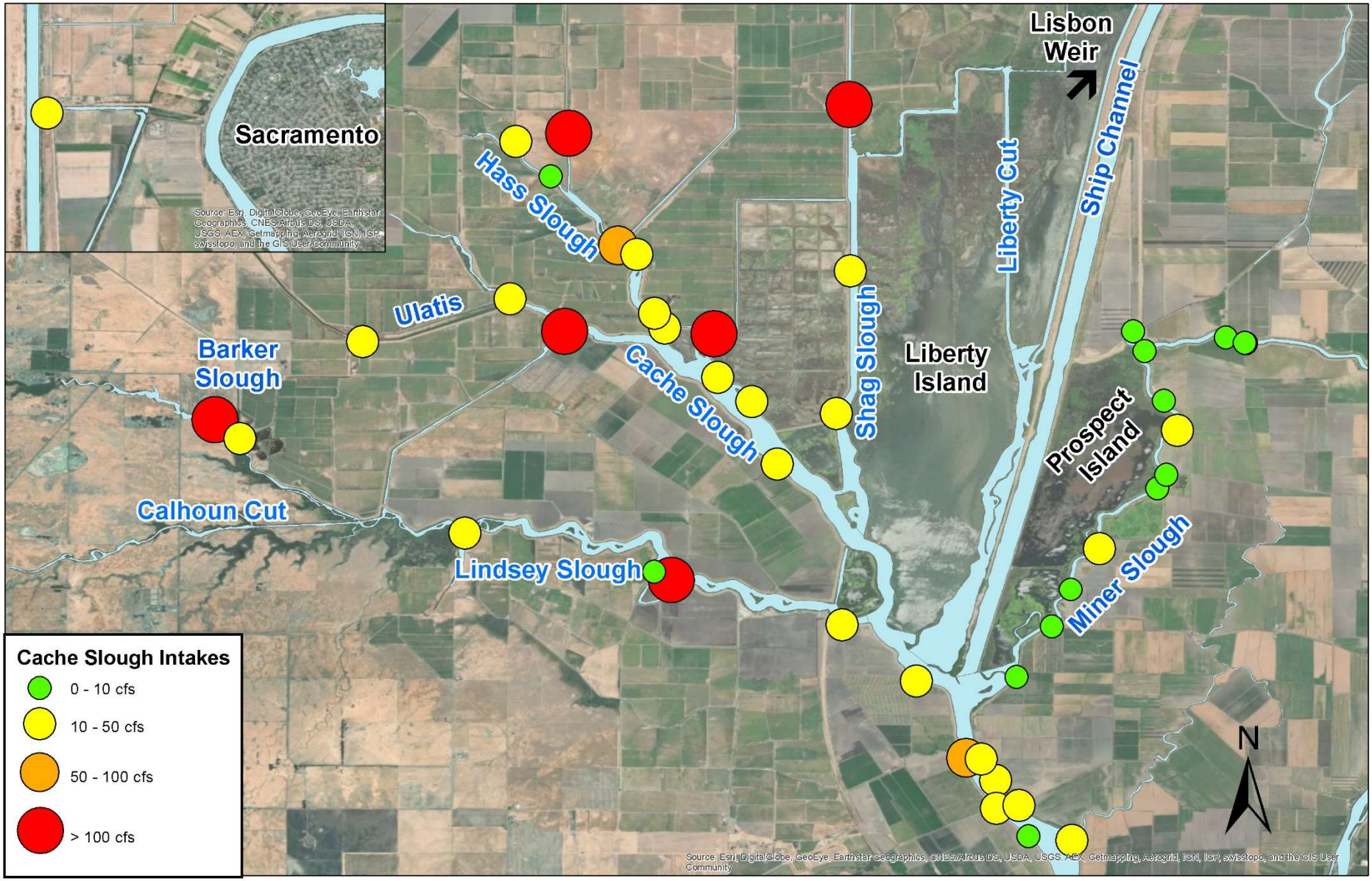


FIGURE 5 – DFW Lindsey Slough Restoration Project
(Photo taken 11/8/2018, Water Hyacinth in Foreground)