From: Mussen. Timothy <mussent@sacsewer.com>
Sent: Sunday, May 11, 2025 1:03 PM
To: Delta Council ISB <disb@deltacouncil.ca.gov>

Subject: Sacramento Area Sewer District Comments on the Delta Independent Science Board Draft Prospectus on Contaminant Monitoring in the Sacramento – San Joaquin Delta to Inform Environmental Management

To Whom it May Concern:

The Sacramento Area Sewer District (SacSewer) appreciates the opportunity to review and provide comments on the Delta Independent Science Board's (Delta ISB) Draft Prospectus on "Contaminant monitoring in the Sacramento San Joaquin Delta to inform environmental management" (Draft Prospectus). As the Sacramento region's sewage collection, treatment, and resource recovery utility, SacSewer provides essential services to more than 1.6 million residents across a 386-square-mile service area. SacSewer owns and operates the EchoWater Resource Recovery Facility (EchoWater Facility), one of the largest and most advanced water resource recovery facilities in the nation, treating an average of 151 million gallons of wastewater daily. In 2023, SacSewer completed its $1.7 billion, decade-long upgrade to the EchoWater Facility, an expanded tertiary treatment facility. The EchoWater Facility removes 99% of ammonia and 89% of nitrogen from wastewater.

SacSewer is a recognized leader in environmental stewardship and sustainable water management and is deeply committed to the health of the Delta ecosystem. SacSewer's Scientific Research team provides scientific support to a wide range of research evaluations, studies, and collaborations, with the goal of better understanding the current and future effects of our discharge on the Sacramento-San Joaquin Delta, as well as other factors affecting the ecological health of the watershed. We have the following comments for consideration in developing the final Prospectus.

1. Purpose (page 1): The Draft Prospectus indicates that the Delta ISB's review of current Delta contaminant monitoring programs will "…focus on data collection, synthesis, interpretation, and emerging scientific methodology." It would be helpful for the review's prospectus to clarify that assessing emerging scientific

methodologies is a related but separate effort from reviewing a monitoring program's effectiveness at collecting, synthesizing, and interpreting data. This distinction is appropriate because monitoring programs typically use standard methods to evaluate the status and trends of parameters over time. Emerging and novel methods are not commonly used in monitoring programs because their results cannot be directly compared to historical data to evaluate trends. Rather, emerging scientific methods are useful tools for identifying and assessing the effects of new stressors that could be included in future monitoring. Please consider that it is not a deficiency of an existing monitoring program to focus on established techniques and standard methods that directly inform the monitoring program's goals.

2. Review Approach and Products (page 5): Specific goals of the Delta ISB's review include "1) Assess current contaminant monitoring programs to determine the degree to which they are able to provide a comprehensive picture of the ecological risks of contaminants in the Delta." and "2) Understand how monitoring can better inform decision making, i.e. how monitoring data are used in designing and taking management actions." We ask the Delta ISB to consider how these goals of the review may or may not be consistent with the goals of monitoring programs in the Delta. The management questions being addressed by monitoring programs in the Delta are likely to be focused on particular management goals and, therefore, are unlikely to "provide a comprehensive picture of the ecological risks of contaminants in the Delta." It would be helpful for the Delta ISB's review to identify the intended goals of different monitoring programs and comment on whether or not each monitoring program is achieving its stated goals. The Delta Regional Monitoring Program (Delta RMP), as an example, developed monitoring programs for several types of contaminants to address specific management and assessment questions. These questions were developed in coordination with Delta regulators (i.e., the State Water Resources Control Board [SWRCB] and Central Valley Regional Water Quality Control Board) and stakeholders (e.g., stormwater dischargers, agricultural representatives, and Publicly Owned Treatment Works [POTWs]) specifically to inform regulatory decisions. We recommend reviewing the management goals of different monitoring programs in the Delta and their ability to assess management questions and inform regulatory decisions.

   Alternatively, it would be helpful for the Delta ISB Prospectus to define what is meant by "a comprehensive picture of the ecological risks" and to clarify how this could be determined. What is the spatial and temporal extent, to what species, for what effects, and what contaminant interactions with other stressors (e.g., physical

habitat, temperature, hypoxia, invasive species, pathogens, HABs, etc…) need to be included in a monitoring program to provide a comprehensive picture of the ecological risk of contaminants in the Delta?

3. Review Approach and Products (page 5): Part 2 of the Delta ISB's review will focus on evaluating "…current contaminant monitoring programs in the Delta using relevant documents on chemical pollutants (e.g. San Francisco Estuary Institute, 2023, Drewes et al. 2023, Fong et al. 2016) and available scientific information on wastewater treatment effluents and stormwater/irrigation runoff." It would be helpful for the Delta ISB prospectus to distinguish sources of contaminants (e.g., POTW discharge, stormwater, and agricultural runoff) from the media to which aquatic organisms and aquatic-dependent wildlife are exposed (e.g., surface water and sediments). Data from sources of contaminants (e.g., effluent concentrations prior to dilution in receiving waters or stormwater pulses) do not necessarily reflect environmentally relevant concentrations or typical periods of exposure. Beneficial Uses are evaluated based on environmentally relevant media and exposure concentrations. For consistency, it would also be helpful for all potential contaminant sources referenced in the review's approach (page 5) to be described under the scope of the review (on page 6) by either listing "agricultural runoff and stormwater" in addition to "wastewater treatment effluents" or to clarify if the term surface water is intended to include agricultural runoff and stormwater sources.
4. The reference in footnote 2 (page 3) for SWRCB 2015 describes the State Water Board's listing policy, but the text associated with this footnote describes listing decisions. Please reference the 2024 Integrated Report and 303(d) list to describe the most recent listing decisions for the Delta.
5. SacSewer staff have extensive experience protecting the waterway from regulated compounds, monitoring contaminant concentrations, and evaluating the effects of multiple stressors in the Delta waterway. We have also been highly active in the Delta RMP with staff serving as POTW representatives in both the Steering Committee and Technical Advisory Committee since the program's inception. SacSewer would welcome the opportunity to share our understanding and thoughts on contaminant monitoring in the Delta with the Delta ISB as part of Task 1 – Interviews with experts involved with water quality regulation, contaminant monitoring, and risk assessment in the Delta.

We appreciate the Delta ISB's decision to review contaminant monitoring programs in the Delta and to provide recommendations on how to increase their utility in management and decision-making. We welcome any questions you have regarding our comments and look forward to discussing your findings in the future.

Sincerely,

Timothy Mussen, Ph.D.
Acting Chief Scientist
Sacramento Area Sewer District