

Draft Charter Document - Process to Develop a Delta Nutrient Management Strategy

January 26, 2015

1.0 Introduction and Purpose of Document

In 2009, the California legislature passed the Delta Reform Act creating the Delta Stewardship Council. The mission of the Council is to implement the coequal goals of the Reform Act and provide a more reliable water supply for California while protecting, restoring, and enhancing the Delta ecosystem. The Council wrote and adopted a Delta Plan in 2013 to implement these goals. Chapter 6 of the Delta Plan deals with water quality and contains recommendations to implement the coequal goals of the Delta Reform Act. Recommendation # 8 states, in part,

“The State Water Resources Control Board and the San Francisco Bay and Central Valley Regional Water Quality Control Boards should prepare and begin implementation of a study plan for the development of objectives for nutrients in the Delta ... by January 1, 2014. Studies needed for development of ... nutrient objectives should be completed by January 1, 2016. The Water Boards should adopt and begin implementation of nutrient objectives, either narrative or numeric, where appropriate... by January 1, 2018.

In the Delta Plan, the Delta Stewardship Council identified a number of nutrient related research needs. In the spring of 2014, Water Board staff wrote a new five-year Delta Strategic Work Plan to help prioritize Delta activities and presented this as an information item at the February 2014 Board meeting. Item five in the Strategic Plan lays out tasks, schedule, and deliverables to begin implementing the nutrient recommendations in the Delta Plan.

To meet the requirements of Recommendation #8, the Central Valley Water Board has initiated a process to develop a nutrient management strategy for the surface waters of the Sacramento-San Joaquin Delta. This process is beginning with an effort to define and guide scientific research and planning to make appropriate policy determinations. Staff envisions that, if needed, nutrient objectives (either narrative or numeric) for surface waters and an implementation plan would be developed after completion of the research effort, if the science suggested that they are needed.

The purpose of this document is to: 1) establish goals, objectives, guiding principles and roles and responsibilities for a stakeholder-based process that involves a Stakeholder Technical and Advisory Group (STAG) and its Science Work Groups, 2) identify the nutrient-related concerns in the Delta that require examination, and 3) describe the technical work elements that the Central Valley Water Board will or has initiated to address several of these concerns.

2.0 Goals and Objectives

The overarching goal of this process is to develop a framework that will lead to effective nutrient management decisions and actions that achieve reasonable protection of beneficial uses in surface waters of the Sacramento-San Joaquin Delta. A key framing question for the overall nutrient research and management process is whether these problems are the result of long term changes in nutrient

loads and whether the management of nutrient loads can remedy the problem. The following describes the specific goals and objectives for the process:

- Implement a transparent process that provides for robust stakeholder input, effective decision making, and independent peer review of science and policy determinations, with Science Work Group draft products presented to the STAG for review and comment.
- Take scientifically defensible steps to develop a Delta nutrient management strategy that will provide reasonable protection of beneficial uses by developing attainable management goals.
- Fulfill the requirements of the California Water Code and address State and Federal anti-degradation policies.

3.0 Guiding Principles

The following guiding principles define the intentions and expectations of the participants leading, serving, and associated with the Delta nutrient management strategy process:

- The nutrient management strategy process (including planning and conducting scientific research and the possible subsequent development of nutrient objectives) shall be performed in an open, transparent, and efficient manner. The process shall support the appropriate involvement of all stakeholders affected by, and interested in, nutrient conditions in surface waters of the Delta. Excessive and time consuming “process” shall be minimized, with a focus on efficient interactions between affected stakeholders and technical specialists. Ground rules and governance documents will be adopted and used where appropriate in the process to encourage clarity of purpose and effective collaboration.
- The nutrient management strategy effort shall focus on the surface waters of the Sacramento-San Joaquin Delta (defined as the legal boundary of the Delta as referenced in Section 12220 of the Water Code). Wherever possible, elements of the process shall be consistent with and capitalize on current and future efforts in other nutrient management processes for San Francisco Bay, Coastal Estuaries, and the Sacramento-San Joaquin Delta. Leveraging of resources shall be a priority. Efforts will be made to communicate transparently and proactively with other stakeholder and technical activities in the Bay-Delta region to ensure efficiency and minimize overlaps and unnecessary duplication with other efforts.
- The process shall provide an avenue and incentives for developing and implementing nutrient management plans to achieve effective, attainable outcomes at the regional scale that address nutrient-related concerns (see Section 5.0 below). Information and tools shall be developed to help clearly define concerns, identify alternative hypotheses regarding the drivers for those concerns, assess a range of management alternatives to address the concerns, and establish effective implementation plans based on an understanding of management capabilities and resultant benefits.
- Effort shall be made to develop credible, feasible, scientific recommendations, created through collaborative discussions representing multiple interests, for managing the Sacramento-San Joaquin Delta and associated waterways (within the legal boundary of the Delta) to provide reasonable protection of beneficial uses.

- Appropriate and effective modeling tools are recognized to be a necessity for the Delta nutrient management effort. Such tools, which include both conceptual and analytical models, must be selected/developed to enable understanding of nutrient dynamics and effects and the role of other factors and environmental variables in nutrient-related concerns, predict the effectiveness of various management scenarios, and develop sound policy determinations.
- Science Work Groups may be formed by the STAG and Regional Board staff to provide advice to the Central Valley Water Board regarding future research needs and would be charged with developing specific technical information to guide the development of appropriate nutrient management strategies.
- Independent peer review will be sought throughout the process, including of the science supporting any final nutrient management proposals and associated implementation.
- The process shall remain adaptable and flexible in order to respond to advances in scientific understanding over time.
- Significant time and funding is needed to support the above described process. Participants are committed to work together to secure adequate funding and/or to allocate adequate time for the process to be completed.

4.0 Process Description

The Delta nutrient management strategy development process shall consist of the following key parties:

- Central Valley Water Board staff
- Stakeholder and Technical Advisory Group (STAG)
- Science Work Groups
- Facilitator
- Independent Science Review Panel

The roles and responsibilities of parties involved in the process are as follows:

Central Valley Water Board and staff: Staff will be responsible for implementing the process described in this charter and carrying out tasks outlined in the 2014 Delta Strategic Work Plan under the nutrient study plan, maintaining the integrity of the stakeholder process, and ensuring active information sharing to enable stakeholder review of and input to key documents produced within the process. Staff will be responsible for making recommendations to the Central Valley Water Board on research needs, the application of research study results, and the need for nutrient objectives after considering input from the STAG, Science Work Groups, and Independent Science Review Panel. The Central Valley Water Board will make all decisions in a public forum.

Stakeholder and Technical Advisory Group (STAG): The STAG is responsible for providing productive input representing the range of different interests involved in, and who may be affected by, the development and implementation of a Delta nutrient management strategy. The STAG will provide stakeholder input and recommendations to Water Board staff on technical, policy, and implementation issues. In that role, the STAG will also review and comment on work plans and technical work products produced by the Science Work Groups and Water Board staff. The Central Valley Water Board will seriously consider all recommendations and input received from the STAG. However, the Central Valley

Water Board and its staff are not obligated to accept or support all stakeholder recommendations or input. All final decisions will be made by the Central Valley Water Board in a public meeting.

STAG participants will be responsible for expressing the core interests of their respective constituencies, while at the same time working toward solutions that address multiple interests. For example, in the event a participant has concerns with or rejects a proposal, they are expected to suggest an alternative that attempts to bridge the gap among interests. Participants are also expected to voice their concerns and comments about specific proposals as soon as possible, rather than waiting until a final recommendation has been developed. Participants who are unable to join consensus recommendations may take the opportunity to communicate their differences in a section of any final document(s). At all times, participants shall ensure they are providing input to represent their prescribed role and constituency. The Ground Rules and Governance documents that will be created by the STAG will provide the process to be followed when a consensus cannot be reached within the STAG.

All STAG meetings are open to the public and will be advertised through a Lyris list. STAG meetings may be held in various formats including in-person, virtual web-based meetings, and/or conference call settings. STAG meetings are convened by Central Valley Water Board staff or by STAG Members on an as-needed basis to provide input at key points in the process. Attendance lists, agenda, meeting summaries, and all documents considered at STAG meetings will be posted no later than two weeks after the meeting on the Central Valley Water Board web site at:

http://www.waterboards.ca.gov/centralvalley/water_issues/delta_water_quality/delta_nutrient_research_plan/index.shtml.

Participants in the STAG defined the following interest group categories:

- Water supply (including State and Federal Contractors, Dept. of Water Resources, Bureau of Reclamation)
- Drinking water (including municipal water agencies, State Water Board Division of Drinking Water)
- Waterways (including ports, marine operators, CA Dept. Boating and Waterways)
- Resource/wildlife management (including state and federal agencies)
- Mosquito abatement
- Large POTWs
- Small POTWs
- Stormwater (Phase I and Phase II)
- Irrigated agriculture
- Confined animal feedlot operations (CAFOs) (including dairies and feeding operations)
- Environmental groups

Each interest group will designate one primary and one alternate representative for that category. Representatives will be responsible for attending STAG meetings, ensuring two-way communication with their constituencies so that STAG discussions are well informed, and participating in a more formal decision process if general consensus cannot be reached.

Routine decisions that arise between STAG meetings will be made by an Administrative Subcommittee of the STAG, made up of a small number of representatives from a cross section of interest groups. The Administrative Subcommittee will report to the STAG on its activities at each meeting and as needed (via

email) between meetings. The Administrative Committee will also recommend when a meeting of the full STAG seems warranted because of progress made by the Science Work Groups, the need to make more substantive decisions, or other factors.

Science Work Groups: Science Work Groups will be tasked with addressing specific charges related to the concerns described below (Section 5.0). These charges will provide the overall structure for each Science Work Group as they address the specific concerns prioritized by the Central Valley Water Board and the STAG. The Science Work Groups will prepare white papers that summarize current understanding and recommend further research needed to resolve unanswered questions. These products will form the basis of the Central Valley Water Board's 2015 Nutrient Research Plan, which will guide the key technical work needed to meet the goals and objectives of the Delta nutrient management process. The Central Valley Water Board will seriously consider all recommendations and input received from the STAG. However, the Central Valley Water Board and its staff are not obligated to accept or support all stakeholder recommendations or input. All final decisions will be made by the Central Valley Water Board in a public meeting.

Central Valley Water Board staff, with input from the STAG, will recruit a core group of scientists for each Science Work Group, who will have the primary responsibility for reaching consensus and preparing white papers and other products. Science Work Groups will operate under the consensus process described for the STAG and their meetings will be publicly announced and open to all who wish to attend, listen, and participate. However, Science Work Groups will have the flexibility to deliberate in private for a portion of their meeting time to assist them in fulfilling their respective charges and to develop recommendations that reflect the group's best professional judgment. Attendance lists, agendas, meeting summaries and all documents considered at Science Work Group meetings will be posted no later than two weeks after the meeting on the Central Valley Water Board web site at: http://www.waterboards.cea.gov/centralvalley/water_issues/delta_water_quality/delta_nutrient_research_plan/index.shtml. Additional work groups may be formed, as needed.

The Science Work Groups may be comprised of:

- Technical specialist staff and administrative support staff from SFEI
- Technical specialist staff from SCCWRP
- STAG Members
- Acknowledged, topic-specific technical advisors from:
 - Academia
 - Regulatory agencies
 - Local, state, and federal agencies and/or agency partnerships
 - NGOs or consultants

Science Work Group rosters have been constructed to foster coordination with related efforts in San Francisco Bay and the Delta.

Facilitator: Responsible for third party neutral facilitation for certain aspects of the process. The facilitator shall:

- Serve as a professional and neutral facilitator, assist in preparing STAG meeting agendas, manage dialogue in meetings, and oversee the provisions of this Charter.

- Design, implement and refine (as needed) Ground Rules and Governance documents that include a consensus-seeking process.
- Ensure that all points of view held by process participants are heard and that the interests of each participant's constituencies are considered.
- Provide assistance to participants requesting help with communications.
- Memorialize and distribute meeting discussions and outcomes in a neutral and unbiased manner.
- Provide facilitation services to Science Work Groups, as appropriate.

Independent Science Review Panel: Responsible for providing independent review and critique of technical documents as requested by Central Valley Water Board staff with input from the STAG. The Panel shall endeavor to provide a robust and effective peer review function. Panel members shall have no relationship with or interest in Delta nutrient process outcomes and will not make final decisions on either the research plan or other aspects of the management strategy. Their role is to provide expert input and recommendations. The Central Valley Water Board and other process participants will seriously consider all recommendations and input received from the Panel. However, the Central Valley Water Board staff is not under an obligation to accept and support Independent Science Review Panel recommendations or input. In such instances, Central Valley Water Board staff shall provide their rationale in writing for not supporting Panel recommendations and shall provide opportunity for discussions in a public setting.

5.0 Nutrient-related Concerns in the Delta

The Central Valley Water Board prepared the nutrient section of the 2014 Delta Strategic Plan in response to the recommendations of the Delta Stewardship Council's 2013 Delta Plan. The Delta Plan identified concerns about ammonium, nutrient ratios, harmful algal blooms, nonnative aquatic macrophytes and dissolved oxygen as related to the Delta food web and Delta ecology. The STAG has voiced additional concerns about the potential effects of nutrients on drinking water supplies derived from the Delta. The STAG has also supported the need for robust computer modeling tools to understand the effects of changing nutrient concentrations, forms and ratios on the Delta ecosystem and to predict the outcomes and expectations of future management decisions.

The initial nutrient related work will focus on addressing concerns about decreases in phytoplankton biomass and changes in species composition, harmful algal blooms, non-native aquatic macrophytes and the development of robust computer modelling tools. The nutrient work has been restricted to these four topics because of limited Water Board staff resources. After completion of a Nutrient Research Plan for these topics, Water Board staff will organize, with input from the STAG, Science Work Groups for low dissolved oxygen in back sloughs and for the potential effect of nutrients on drinking water supplies. White papers and research recommendations for these two topics will be reviewed by the STAG and Independent Science Review Panel and amended into the Nutrient Research Plan. In preparation for these follow-on efforts, a subcommittee of the STAG has organized itself to begin laying necessary groundwork for the drinking water issue. Membership in this subcommittee will be coordinated through the facilitator and the subcommittee will report periodically to the STAG on its efforts.

The Central Valley Water Board has received contract funds to begin addressing two of these concerns by preparing white papers on the physical and environmental factors, including nutrients, responsible for determining the abundance and distribution of macrophytes and blue green algae in certain areas of

the Delta. Both white papers will also identify data gaps that must be better understood before conclusions can be reached as to whether nutrient management might be beneficial in the Delta. Contracts for these two white papers were executed prior to the formation of the STAG and the STAG will work with the Central Valley Water Board to determine how best to integrate these efforts into the overall process described in this charter.

6.0 Schedule

The schedule for this work is laid out in the 2014 Delta Strategic Work Plan.

- **2014-2015** – Central Valley Water Board staff and Science Work Groups will prepare draft and final white papers for use in developing the 2015 Nutrient Research Plan. Draft white papers and a draft Nutrient Research Plan will be available for review by the STAG and the Independent Science Review Panel.
- **2015** – Central Valley Water Board staff will present the final 2015 Nutrient Research Plan to the Central Valley Water Board and Delta Stewardship Council for their review and comment and begin soliciting funding to carry out the studies.
- **2015-2017** – Carry out the nutrient related studies.
- **Winter 2017** – Central Valley Water Board staff will write a recommendations report, after consulting with the STAG and Science Work Groups, summarizing the new information and evaluating whether nutrient management strategies can effectively address water quality in the Delta. The Independent Science Review Panel will be asked to review the results of all nutrient studies and the conclusions of the recommendations report.
- **Spring 2018** – Central Valley Water Board staff will present the conclusions in the recommendations report, along with the comments of the Independent Science Review Panel, to the Central Valley Water Board and will report on these, if requested, to the Delta Stewardship Council.
- **Summer 2018** – If the Central Valley Water Board determines that nutrient objectives or other policy changes are needed to implement effective nutrient management, then Central Valley Water Board staff will develop study plans and a schedule for obtaining the remaining information for the associated regulatory process and Basin Plan Amendment. The schedule will include a date for presenting a draft nutrient Basin Plan Amendment (if needed) to the Central Valley Water Board for adoption.

It is recognized that additional funding will be required to address (a) research needs identified in the three white papers and (b) white papers and research needs associated with the other nutrient issues of concern (noted in Section 5.0). Central Valley Water Board staff is preparing a fact sheet and budget estimate to assist in the funding solicitation. Stakeholders have stated their willingness to support the effort to obtain adequate funding for the overall process.

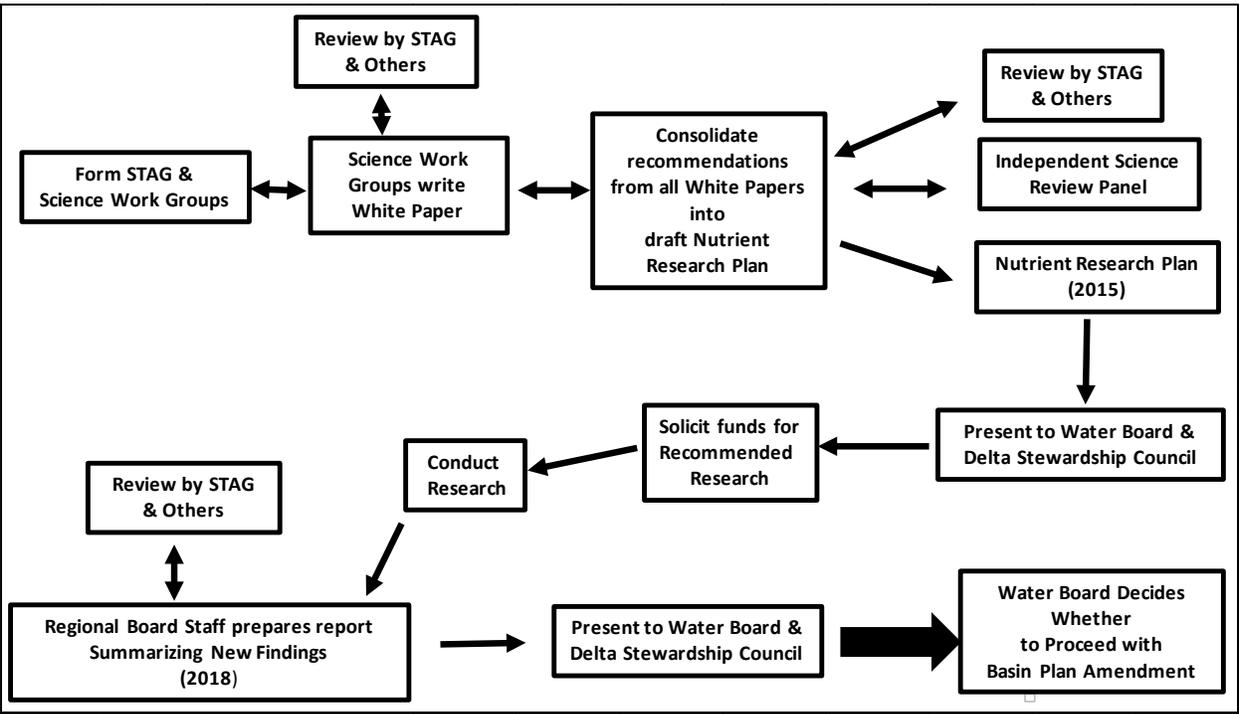


Figure 1. Tasks and schedule for developing and implementing the Nutrient Research Plan as outlined in the 2014 Delta Strategic Work Plan. Water Board staff will solicit input at the 2018 Regional Water Board Meeting whether nutrient objectives are needed in the Delta.