

Proposal to the STAG

Developing a Prioritization Process and a Research Recommendation Document

The research recommendations identified by the Delta Nutrient Research Plan Science Work Groups will be more numerous than the funds made available to carry out the work. Water Board staff recommends that several groups such as the STAG, the Delta Stewardship Council and Water Board management be invited to independently rank the research. These separate sets of recommendations would all be considered when Water Board staff develops the final Nutrient Research Plan.

The purpose of this proposal is to inquire if the STAG is interested in developing an evaluation process to rank the identified nutrient research recommendations and provide a list of high priority projects.

Background: In 2013 the Delta Stewardship Council adopted the Delta Plan. The Plan identified a number of water quality problems that might result from long term shifts in nutrient concentrations, forms and ratios in the Delta. These water quality problems include increases in the biomass and distribution of invasive aquatic plants, increases in the frequency and magnitude of cyanobacteria blooms and decreases in algal biomass and algal species composition because of elevated ammonia levels and shifts in the ratio of nitrogen to phosphorus concentrations. The Delta Plan recommended that the Central Valley Regional Water Quality Control Board develop and implement a nutrient research plan to determine whether reductions in nutrient concentrations might eliminate any of these water quality problems. If nutrient reductions would ameliorate these problems, then the Central Valley Water Board should consider development of nutrient water quality objectives. Water Board staff along with several Independent Science Review Panels, and the Stakeholder and Technical Advisory Group (STAG) have identified the need for one or more linked hydrodynamic water quality models to provide a holistic understanding of the relative effect of nutrients on these problems and on the Delta ecosystem.

White papers are being prepared for each of the water quality problems identified above describing the relative importance of nutrients versus other factors in promoting the observed water quality problems. Regional Board staff assembled four Science Work Groups composed of local experts to review and comment on the white papers, and to determine whether, in their best professional judgment, the white papers represent an accurate assessment of the state of our knowledge about each water quality problem. In addition, two of the Science Work Groups are preparing Knowledge Gap documents for invasive aquatic plants and for cyanobacteria blooms. The white papers and Knowledge Gap documents include a list of recommended research. For the modeling and elevated ammonia concentrations and shifts in nutrient ratios efforts, no separate knowledge gap document will be prepared. Instead, the Science Work Group members themselves will recommend in the white paper the groups best

professional judgment about future research needs to resolve outstanding knowledge gaps and determine whether nutrient management is needed.

Proposal: Should the STAG accept this offer to rank the nutrient research, then Water Board staff expects the STAG to develop a formal written evaluation process. The evaluation process would be used to identify and rank the initial (3-5 year) research effort. The STAG would present Water Board staff and the Regional Water Board with a document describing the evaluation process and a list of high priority projects. The STAG may also wish to include recommendations on other aspects of the nutrient research plan including how it should be developed and implemented.

Next Steps: Below is a list of potential next steps should the STAG decide to accept this proposal and rank the nutrient research recommendations.

- STAG subcommittee writes a draft document outlining the evaluation process and criteria used to rank the research.
- The STAG reviews the draft evaluation document and decides whether to accept the proposed evaluation process.
- The STAG uses the evaluation process to prioritize future research and votes whether to accept the final list of high priority projects. This prioritized list will be made available to Water Board staff in time to help develop the Nutrient Research Plan.
- The STAG provides the Regional Water Board their recommendations on the initial research effort at the public hearing where the final nutrient research plan will be reviewed.