STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL
BOARD SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Robert Schlipf)
MEETING DATE: November 14, 2018

ITEM **8**

SUBJECT: **Nutrient Watershed Permit Implementation and Our Strategy for Understanding and Addressing Nutrients in San Francisco Bay –** Status Report

CHRONOLOGY: April 2014 – Adoption of Nutrient Watershed Permit

DISCUSSION: This status report is the second of a two-part update on the implementation of the Nutrient Watershed Permit the Board issued to all municipal wastewater dischargers of nutrients to San Francisco Bay. This month, we will provide an update on (1) available treatment options to reduce nutrients from wastewater treatment plants, (2) the potential feasibility of using wetlands around the perimeter of the Bay and other strategies to manage nutrient discharges, and (3) the key tenets on which we intend to draft the next Nutrient Watershed Permit for Board consideration in 2019.

As described at the October Board meeting, San Francisco Bay has long been recognized as a nutrient-enriched estuary that has been resilient to the effects of nutrients. Because of concerns that San Francisco Bay may be losing its resiliency to high nutrient levels, the Board developed a Nutrient Management Strategy in 2012. As part of the Nutrient Management Strategy, the Board adopted the Nutrient Watershed Permit, which requires municipal wastewater dischargers to (1) track and monitor nutrient loads, (2) evaluate nutrient reduction options, and (3) fund monitoring, special studies, and modeling to improve our understanding of current and future nutrient loading to the Bay.

Last month, Dr. David Senn, Senior Scientist at the San Francisco Estuary Institute, summarized our current understanding of the fate and potential impact of nutrient discharges within the Bay and our strategy to answer scientific questions intended to guide management actions (e.g., our efforts to understand the factors that determine the Bay's capacity to assimilate nutrients without nutrient-related impairment).

The municipal wastewater dischargers have engaged an engineering firm, HDR, Inc., to evaluate available treatment options to reduce nutrients from wastewater treatment plants. At this meeting, Holly Kennedy, a professional engineer with HDR, Inc., will summarize the main findings of

the Nutrient Reduction Study completed in June 2018. The study summarizes nutrient reduction opportunities by treatment optimization, sidestream treatment, treatment upgrades, and other multi-benefit means (e.g., wetlands as treatment, water recycling).

The municipal wastewater dischargers also engaged the San Francisco Estuary Institute to evaluate the feasibility of using wetlands around the perimeter of the Bay in relation to other multi-benefit strategies to manage nutrient discharges. Ian Wren, a staff scientist with the nonprofit agency, San Francisco Baykeeper, will summarize the main findings of an analysis he conducted with researchers from the San Francisco Estuary Institute.

Finally, we will summarize how the above efforts led to us to develop key tenets for the next Nutrient Watershed Permit that we plan to bring for Board consideration in 2019.

Additional information regarding San Francisco Bay nutrients, the Nutrient Management Strategy, and the Nutrient Reduction Study is available at the links below:

San Francisco Bay nutrients: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/amendments/estuarynne.html

Nutrient Management Strategy: http://sfbaynutrients.sfei.org/

Nutrient Reduction Study: https://bacwa.org/wp-content/uploads/2018/06/BACWA_Final_Nutrient_Reduction_Report.pdf.

RECOMMEN-DATION: This is an information item. No Board action is necessary.