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

STAFF SUMMARY REPORT (Rebecca Nordenholt and Kristina Yoshida)
MEETING DATE: March 11, 2020

ITEM: 8

SUBJECT: **Update on the Regional Surface Water Ambient Monitoring Program (SWAMP)** – Information Item

DISCUSSION: The purpose of this agenda item is to inform the Board of the Surface Water Ambient Monitoring Program (SWAMP). Rebecca Nordenholt and Kristina Yoshida, the Regional SWAMP coordinators, will provide an overview of SWAMP and highlight monitoring conducted in the San Francisco Bay Region.

Each Regional Board implements SWAMP monitoring programs to address regional water quality concerns. The primary goal for SWAMP in the San Francisco Bay Region is to monitor and assess water quality in the region's watersheds to determine if beneficial uses (e.g. water contact recreation, commercial and sport fishing, etc.) are protected. Because the Regional Monitoring Program samples the San Francisco Bay intensively, regional SWAMP efforts have been focused on assessing water quality conditions in creeks and rivers.

The SWAMP mission is to provide resource managers, decision makers, and the public with timely, high-quality information to evaluate the condition of all waters throughout California. To protect our public water resources, SWAMP monitoring helps assess attainment of beneficial uses in all waterbody types, including streams, lakes, wetlands, and estuaries. SWAMP was created in 2000 in response to a State legislative mandate to create a unifying program that coordinates all water quality monitoring conducted by the State and Regional Water Boards. SWAMP is implemented at both the statewide and regional level.

Statewide SWAMP supports quality assurance, data management, and contract management elements of program. Additionally, there are four statewide SWAMP programs that were developed to answer questions about spatial and temporal trends throughout the state:

1. The Bioaccumulation Monitoring Program addresses whether fish found in California's streams, lakes, and coastal areas are safe to eat;
2. The Bioassessment Program assesses the health of streams and rivers by surveying aquatic life (insect and algae) living in a waterbody;
3. The Stream Pollution Trends Monitoring Program examines trends in sediment toxicity and sediment contaminant concentrations as it relates to land use;
4. The Freshwater Cyanobacteria Harmful Algal Bloom Program addresses harmful algal blooms originating from cyanobacteria in freshwater systems throughout California. Harmful algal blooms and the toxins they produce can affect multiple beneficial uses including water contact recreation, aquatic life, and municipal and domestic water supply.

To complement these statewide programs, each Region has developed a Regional SWAMP program focused on local data needs. The monitoring objectives of our Regional program include:

- Developing useful data for evaluating water bodies for the Integrated Report which includes impairment determinations for the 303(d) list;
- Generating data and associated information for the development of indicators, indices, and water quality benchmarks that can be used to make management decisions; and
- Support TMDL development and measure water quality improvement from adopted TMDLs.

Recent regional SWAMP projects that will be highlighted in this agenda item include:

- Bioassessment to evaluate the overall health creeks and rivers based on the living organisms found in the creek as well as composition of benthic macroinvertebrates in-stream and riparian physical habitat;
- Fine sediment impairment assessment to support the development and tracking of sediment Total Maximum Daily Loads (TMDLs) designed to protect spawning habitat for fish;
- Monitored possible impacts to water quality following the 2017 North Bay fires;
- Bacteria monitoring and source analysis in watersheds to support TMDL development in Petaluma River, as well as impairment assessments in impaired water bodies such as San Geronimo Creek and Pomponio Creek; and
- To support an impairment assessment and nutrient source assessment to evaluate eutrophication in the Livermore Valley.

RECOMMEN-DATION: This report is presented for information purposes only- no action is needed.