

LU.4: UNDERSTANDING AND MITIGATING THE IMPACT OF ALGAL BLOOMS ON AIR QUALITY

Overview: Algal blooms can produce airborne nitrogen compounds like nitrogen oxides that contribute to the formation of other air pollutants such as ground-level ozone, a component of smog which can restrict visibility. Wind and weather can carry ozone many miles from urban to rural areas.⁵ The goal of this strategy is to better understand, and where feasible, mitigate the impact of algae blooms on air quality. While the District, the City of Stockton and the Central Valley Regional Water Quality Control Board (CVWB) have committed to extensive interagency cooperation and action in this Stockton Community Emissions Reduction Program (CERP), additional opportunities may present themselves in future discussions involving the CSC, the public, the City, and the District, especially as implementation of the CERP progresses.

This measure is the District's commitment to continue to work with local, water-focused organizations, CVWB, the Port, the City, and academic institutions to facilitate discussions between the community and the involved agencies to better understand, and where feasible mitigate, the impact of algae blooms on air quality. Currently, CVWB has developed a workgroup called the California Cyanobacteria and Harmful Algal Bloom (CCHAB) Network. The CCHAB Network includes federal, state, and local agencies, tribes, academia, and non-governmental organizations working to develop a comprehensive coordinated program to address the causes and impacts of harmful algal blooms (HABs) in the state.⁶ As part of the coordinated program, the State Water Resources Control Board's Surface Water Ambient Monitoring Program (SWAMP) developed the Freshwater HAB Program.⁷ The Central Valley Water Board participates in the statewide Freshwater HAB effort by:

- Collecting information on blooms
- Sampling and analyzing HABs
- Providing information on blooms to local waterbody managers and health officers
- Conducting outreach and education to the general public
- Collaborating with academia and interested stakeholders to better understand the causes of HABs

Implementing Agency: SJVAPCD, Central Valley Regional Water Quality Control Board, and City of Stockton

Strategy Type: Partnership

Quantifiable Emission Reductions: Minimize emissions from algal blooms.

⁵ EPA. *Nutrient Pollution. The Effects: Environment*. Retrieved 11/9/2020
<https://www.epa.gov/nutrientpollution/effects-environment>

⁶ Central Valley Regional Water Quality Control Board. *Nonpoint Source Program Cyanobacteria and Harmful Algal Blooms (HABs) in the Central Valley*. Retrieved 11/9/2020
https://www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/1807_clnut/2018_0718_clnut_mtg_cy_ano_hab_trifold.pdf

⁷ Central Valley Regional Water Quality Control Board. *Nonpoint Source Program Cyanobacteria and Harmful Algal Blooms (HABs) in the Central Valley*. Retrieved 11/9/2020
https://www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/1807_clnut/2018_0718_clnut_mtg_cy_ano_hab_trifold.pdf