

AGENDA ITEM: 16

SUBJECT: Harmful Algal Blooms

BOARD ACTION: Information Item

SUMMARY:

Cyanobacteria naturally occur in most waterbodies and perform many roles that are vital to aquatic communities, as a food source at the base of the food chain and as a key component to chemical cycling and dissolved oxygen concentrations. However, when conditions are favorable for growth, cyanobacteria can rapidly grow causing “blooms.” Cyanobacterial blooms sometimes result in negative impacts to the environment, and can pose health risks to humans, pets, wildlife and livestock and are thus termed harmful algal blooms (HABs). The harmful mechanisms can be from the production of toxins, called cyanotoxins, taste and odor compounds, or from the accumulation of biomass that causes anoxic or hypoxic conditions. Toxin-producing cyanobacteria have increased globally in geographic range, frequency, duration and severity in recent years. These increases have been attributed to a wide variety of factors such as increased nutrients, temperature, salinity, lower water residence time, water column stratification, and climate change. Many of these factors are ultimately intertwined, but generally increased nutrient loads, lower water residence time, and climate change are considered the most significant factors contributing to the global increase in HABs.

In California, HABs have been a recurring and escalating issue throughout the state in recent years. As a result, human, domestic animal (dogs and livestock, in particular), and wildlife health impacts are on the rise. As a result, the Water Boards (through SWAMP) developed the California Freshwater Harmful Algal Blooms Assessment and Support Strategy to develop a long-term vision and strategic plan to address cyanobacterial HABs. This informational item will provide an overview of HABs, the statewide and regional efforts and initiatives to address HABs, and the challenges faced by the Region.

RECOMMENDATION:

Not Applicable

REVIEWS:

Management Review:	Meredith Howard
Legal Review:	Jessica Jahr
Date:	5/6 December 2019
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Board Meeting City, State, Zip:	Rancho Cordova, CA 95670