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California Freshwater Harmful Algal Blooms Assessment and Support Strategy

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ABSTRACT

Harmful algal blooms (HABs) and algal toxins have increased globally in geographic range, frequency, duration, and severity in recent years. These increases have been attributed to various anthropogenic factors; the most significant include climate change, nutrient loading, and water residence time. HABs are problematic because they can affect multiple beneficial uses including recreation, aquatic life, and drinking water by reducing aesthetics, lowering dissolved oxygen concentration, causing taste and odor problems, and producing potent toxins. In recent years, cyanobacteria blooms and their associated toxins have gained national attention due to the severity of issues in the Midwest, and resulted in the release of health advisory values for drinking water by U.S. Environmental Protection Agency. In California, toxic HABs caused by cyanobacteria (CyanoHABs) have been a recurring and escalating issue throughout the state, particularly in the Klamath River watershed, Clear Lake, Pinto Lake, Sacramento and San Joaquin River Delta, Lake Elsinore, and East San Francisco Bay Area lakes. Additionally, Copco and Iron Gate Reservoirs, the Klamath River, and Pinto Lake were placed on the State's 303d list due to impairment caused by cyanotoxins. In 2012, the State's Surface Water Ambient Monitoring Program (SWAMP) sponsored a statewide workshop in response to the growing concern about cyanotoxins. One of the key recommendations from the workshop was to develop a statewide long-term vision and strategic plan to address CyanoHABs and other freshwater HABs.

Full text:
http://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/925_CaliforniaFreshwaterHABAssessment.pdf