



## DEPARTMENT OF THE ARMY

SOUTH PACIFIC DIVISION, U.S. ARMY CORPS OF ENGINEERS  
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CESPD-PDO

OCT 01 2019

MEMORANDUM FOR See Distribution

SUBJECT: Policy Guidance for Public Notification/Monitoring of Cyanobacteria

1. This policy memorandum represents the guidance and procedures for notification and monitoring of cyanobacteria at Civil Works Water Resources Projects where the South Pacific Division (SPD) Districts have operations and maintenance responsibilities and where the guidance pertains to activities which are within specific project authorities. The guidance below does not apply to those situations when a third party is responsible for water quality.
2. Public safety is a top priority and must be supported by all District offices. District Operations Division Chiefs and Operations Project Managers must give public notification and monitoring of cyanobacteria the highest priority.
3. Cyanobacteria, also known as blue-green algae, are primitive photosynthetic single celled bacteria that are naturally found in water based ecosystems. Both physical and chemical factors contribute to the formation and persistence of cyanobacterial blooms in freshwater systems, including: light availability, water temperature, alteration of water flow, vertical mixing, and nutrient loading. When nutrients (phosphorus and nitrogen) are present in concentrations above what would occur naturally, the algae can "bloom," or grow very quickly to extreme numbers. Not all cyanobacteria blooms are harmful, but some species have the potential to produce cyanotoxins that can cause serious illness or death in people, pets, and wildlife. The greatest risk to human health comes from coming into contact with or ingesting the toxins produced by cyanobacteria while engaging in primary contact recreational use (all water body types designated for swimming, bathing, surfing, or similar water contact activities). Children and pets are most at risk while engaging in recreation in the water because they are more likely to accidentally or intentionally swallow lake water.
4. Determining if a cyanobacteria bloom is toxicogenic can only be done by conducting toxin testing. The South Pacific Division does not test cyanobacterial blooms for toxicity because testing is unreliable and results may be misleading. Instead the South Pacific Division will focus on educating the public on potential risks involved with any cyanobacteria bloom.
  - a. Water sampling can be unreliable in determining the toxin level in the entirety of the bloom. Cyanobacteria concentrations often rapidly change due to wind or other factors.
  - b. Currently there are few readily available analytical methods to quantify cyanobacterial toxicity and identify the profile of microcystin variants with a water sample.
  - c. Testing results can take several days, providing unreliable real-time levels to the public. During the several day waiting period of results, bloom toxicity can change.

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- d. Providing a warning system to the public in which advisories are only enacted when toxins are identified using lab results, can provide and unrealistic expectation for safety of USACE to maintain, given changing environmental factors, changing bloom characteristics and staffing availability.

5. District Operations Division Chiefs and Operations Project Managers shall have a Cyanobacteria Notification/Monitoring Policy and work with Local, State, and Federal agencies to ensure accurate reporting.

- a. Districts will coordinate media announcements through their local Public Affairs Office (PAO).

- b. Operations Project Managers are responsible for reporting and monitoring confirmed cyanobacteria blooms following the reporting procedures as outlined in Enclosure 1. Monitoring for cyanobacteria blooms will be conducted by USACE field personnel. Monitoring will be visual inspection of natural water sources visible during normal patrol and operations. If any USACE staff or volunteers suspect a bloom or a bloom is reported (directly to USACE staff, identified through media channels, etc.), the Operations Project Manager will confirm and continually monitor the bloom.

6. The Operations Project Managers focus will be on educating the public of the potential risks involved with any cyanobacteria blooms. Education efforts will be focused at project entry points, launch/boat ramps, and swimming areas with the posting of enclosed advisory (Enclosure 2).

7. As with all policy guidance, it is important to understand the limits of authority specific for the Civil Works Water Resources Project in question. Certain SPD project authorities place responsibility with other entities for water quality monitoring. Where that is the case, Operations Project Managers are to coordinate with the responsible entity. Determination of the appropriate entity to perform monitoring shall be coordinated with District Offices of Counsel.

8. I thank you for your continued safety efforts. It is our responsibility to do as much as we can to provide for public safety. Questions concerning the guidance in this memorandum should be referred to Tori White, CESPD-PDO (415) 503-6530 or Phil Smith, CESPD-PDO (559) 831-7027.

***Building Strong!***

2 Encls  
1. Monitoring and Notification  
2. Blue-Green Algae Watch

  
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