

DEPARTMENT OF THE ARMY
Corps of Engineers, Portland District
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CENWP-OD-SR
Regulation
No. 200-1-3

23 July 2008

Environmental Quality
BLUE-GREEN ALGAE IN RECREATIONAL WATERS

HISTORY. This regulation provides new policy.

1. PURPOSE. This publication provides policy, guidelines, and procedures along with the assignment of responsibilities for the response to harmful blue-green algae blooms in the Portland District.

2. APPLICABILITY. This policy is applicable to all Operating Projects with Corps-Managed recreation areas within the Portland District's jurisdiction. These guidelines will apply to Corps-Managed Projects in Washington State until suitable Washington State guidelines are developed for harmful blue-green algae blooms.

3. REFERENCES.

a. Required Publication. Oregon Department of Human Services (ODHS), Public Health Advisory Guidance for Toxigenic Cyanobacteria in Recreational Waters, <http://oregon.gov/DHS/ph/envtox/docs/bgadecisioncriteria.pdf>

b. Related Publications.

(1) Oregon Department of Human Services, Cyanobacterial and Their Toxins (presentation) Dave Stone

(2) Toxic Cyanobacteria Blooms, A Field /Laboratory Guide, Dr. M. A. Crayton, Pacific Lutheran University

4. DEFINITIONS.

a. Blue-green algae: (also called cyanobacteria) are simple, (usually) one-celled photosynthetic organisms that lack a membrane-bound nucleus.

b. Blue-green algae bloom: a visible concentration of algae.

c. Recreational area: a developed area of Corps-managed land that provides direct access to a water body for the purposes of public recreation.

d. Outgrant: a legal document such as a lease, easement, license or permit which authorizes Federal agencies, state or local governments, private organizations, or individuals to use Army (military or civil) controlled real property and administers those interests with regard to real property.

e. Public health advisory: is an informational advisory issued by Oregon Department of Human Services (ODHS) or county health agency to warn the public that certain activities can threaten an individual's health. Once issued by the health agency, the advisory can be reproduced or used by the US Army Corps of Engineers in Corps publications.

5. RESPONSIBILITIES.

a. Portland District recreational areas will:

(1) comply with Oregon Department of Human Services (ODHS) Public Health Advisory Guidance for Toxigenic Cyanobacteria in Recreational Waters.

(2) educate and advise the public about hazards associated with harmful blue-green algae blooms.

b. Operating Projects will:

(1) identify blooms in recreational areas and adjacent water bodies,

(2) determine if bloom contains cell density of harmful blue-green algae necessary to advise public,

(3) seek public health advisory from ODHS,

(4) coordinate with other agencies' operations and technical staffs that share responsibilities for the water body,

(5) post advisory signs at recreation areas where harmful blooms may be encountered,

(6) provide information, as necessary, to the public, and

(7) develop a notification list for each water body.

- c. Public Affairs will coordinate:
 - (1) public outreach efforts and
 - (2) communication with other agencies' public affairs staff and news media organizations.
- d. Water Quality will provide technical support when requested.
- e. Real Estate will advise all recreational area outgrantees of the Portland Districts' policy regarding blue-green algae at the initiation and / or renewal of outgrant agreements.

6. TRAINING. Operating Project and District personnel involved in blue-green algae identification, sampling, and public outreach efforts are recommended to have initial and refresher training.

a. Initial Training. Initial training must include: blue-green algae identification and ecology, personal protective equipment, identification of blooms, sampling techniques, sample protocol, signage information, and criteria for posting and lifting advisories.

b. Refresher Training. As blue-green algae-related information, State or local processes or requirements change, or the need for refresher training is recognized.

7. PROCEDURES.

a. Harmful Algae Bloom Identification.

(1) Operating Project personnel shall regularly observe the water body adjacent to recreational areas looking for indication of an algae bloom.

(2) Once visual observation determines a bloom is in progress, water samples shall be taken at a site of maximum human-health impact. Samples shall be taken according to procedures described in the District's "Harmful Blue-Green Algae Analytical and Quality Assurance Procedure" available from CENWP-OD-SR. The following are examples.

- (a) Designated swim beach(s)
- (b) Recreational area shorelines
- (c) Point of maximum scum accumulation

(3) Samples shall be examined in-house or submitted to an expert in algal taxonomy to identify blue-green algae species and to determine cell counts according to procedures. Procedures are specified and experts are listed in the District's "Harmful Blue-Green Algae Analytical and Quality Assurance Procedure" available from CENWP-OD-SR.

(4) Species and cell count data shall be evaluated according to the ODHS Guidelines. (See link provided in 3.a.)

(5) The Operating Project should monitor the blue-green algae bloom regularly in order to determine when the bloom has dissipated as described in ODHS Guidelines in “Lifting Advisories” included in ODHS Guidelines. (See link provided in 3.a.)

b. Notification procedures. Following determination of a harmful algae bloom in a Corps-managed recreation area or adjacent water body the following contacts shall be made immediately:

(1) copies of species and cell count laboratory data shall be sent to ODHS to alert ODHS of the need to issue a public health advisory,

(2) stakeholders designated by the project shall be notified of the harmful algae bloom in the water body,

(3) Portland District Public Affairs,

(4) Operations Division, and

(5) water body specific notification names and phone numbers listing. (Available by contacting CENWP-OD-SR.)

c. Posting Advisories.

(1) Once a public health advisory for a Corps-managed recreation area or water body has been issued by ODHS the following shall occur:

(a) Signs shall be placed on bulletin boards at all Corps recreation areas on the impacted water body. These signs shall provide information necessary to properly inform the public about the harmful algae bloom. A sample sign design may be obtained by contacting CENWP-OD-SR.

(b) Portland District Public Affairs Office shall issue a press release to the media in the area of the impacted water body.

(c) Signs shall be provided to recreation area outgrantees on the impacted water body for posting.

(d) At a minimum signs shall include:

- the water body where the bloom was observed,
- the statement “avoid water contact”,

- the agencies participating in the advisory (ODHS, Corps etc), and
- contact information for ODHS, County Health Department, Corps Project Office, and Corps Public Affairs Office.

(2) If a Corps recreational area outgrantee notifies the Corps of an algae bloom that has an ODHS Health Advisory on a water body where the Corps manages recreational areas, the Project shall post signs to inform the public of the hazards associated with the bloom.

d. Lifting Advisories.

(1) The project shall follow ODHS Guidelines “lifting advisories” process to determine if the bloom is no longer present. (See link provided in 3.a.)

(2) After the project determines that the bloom is no longer present, per ODHS Guidelines “lifting advisories” (link provided in 3.a.), the following shall occur:

(a) ODHS shall be notified of the status of the bloom and provided with required information in order to withdraw the public health advisory,

(b) stakeholders shall be notified that the bloom is no longer present,

(c) Portland District Public Affair Office shall be notified and will issue a press release,

(d) Operations Division shall be notified, and

(e) signs at recreational areas will be removed.

FOR THE COMMANDER:

/s/
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