Algal Bloom Response

1. SCOPE AND APPLICATION

1.1. This method details the procedure to collect pertinent information from persons reporting an algal bloom and to coordinate potential response activities.

1.2. Use the following DEP SOPs and forms in conjunction with this SOP:

- SOP FS 7000, *General Biological Community Sampling* - FS 7110, *Phytoplankton Bloom Sampling* and FS 7240, *Algal Mat Sampling for Taxonomic Identification or Toxin Analysis* https://floridadep.gov/dear/quality-assurance/content/dep-sops
- DEP Algal Bloom Notification Form, AB-NOTIFY or the online Algal Bloom Reporting Form www.reportalgalbloom.com
- Cyanobacteria Bloom Response Field Data Sheet

2. PROCEDURE FOR INITIAL REPONSE TO AN ALGAL BLOOM REPORT

2.1. Notifications of potential bloom conditions are either received by a direct call to an office phone, a call to the DEP hotline (855-305-3903, established during the summer of 2016), or reported via online entry at www.reportalgalbloom.com (established during the summer of 2016).

2.2. For calls received, enter all relevant information directly into the online entry at www.reportalgalbloom.com (preferred method) or use the fillable, electronic DEP Algal Bloom Notification Form, AB-NOTIFY.

2.2.1. If the caller reports human health effects, discontinue any discussion of the health effects. Human health effects are covered by HIPAA and should be handled by the Florida Department of Health (DOH). Provide the caller with the County Health Department phone number for the caller's county or the searchable website (http://www.floridahealth.gov/programs-and-services/county-health-departments/find-a-county-health-department/index.html). After the call is complete, forward the report to the DOH Algal Bloom Contact.

2.2.2. If the caller reports effects on wildlife or fish kills, provide the caller with information to report directly to FWC or take the necessary information and report for them after the call is complete.

Online: https://public.myfwc.com/FWRI/FishKillReport/Submit.aspx

Phone: 1-800-636-0511.

2.2.3. Finish collecting information regarding the reported bloom.

2.3. Notify the Regional Operations Center (ROC) Administrator and designated ROC Algal Bloom Contact having jurisdiction over the water body being reported, along with a Cyanobacteria Bloom Response Team (CBRT, pronounced "see bert") member in Tallahassee (See the list below).

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- David Whiting, Deputy Division Director, Division of Environmental Assessment and Restoration
- Cheryl Swanson, Program Administrator, Biology Program
- Julie Espy, Program Administrator, Water Quality Assessment Program
- Marian Fugitt, Professional Geologist, Water Resource Management (Blooms affecting water bodies that are used as a source of drinking water)
- Kalina Warren, Environmental Administrator for CE, SW, S, SE
- Alicia Hogue, Environmental Administrator for TLH, NE, NW
- Jennifer Walters, Environmental Manager for Algal Taxonomy Lab (Notify when samples collected)
- Andy Reich, DOH Scientific Advisor and Algal Bloom Contact (Blooms with Human Health Effects)

Note: It is good practice to make sure the report has been received by the appropriate responders. For large, ongoing algal bloom response, the notification process and members notified may change slightly. For example, if the report is part of a larger algal bloom response already in effect, the ROC Contact may be checking the online entry report daily and CBRT members may only receive the updates and results.

2.4. The ROC Contact and/or the CBRT member will review the information. If not enough information was originally recorded from the call to plan a response, the ROC Contact or CBRT member will contact the person who reported the bloom to obtain the missing information.

2.5. The Harmful Algal Bloom Tracking Module of the DOH's Caspio database should be checked to see if a case has already been entered for this event. Case information should be recorded on the DEP Algal Bloom Notification Form. http://www.floridahealth.gov/environmental-health/aquatic-toxins/public-access-caspio.html

2.5.1. If a case exists, the District/ROC Contact, CBRT members, or Laboratory staff will add comments to the existing case regarding the additional report.

2.5.2. If a case has not been entered, the District/ROC Contact or CBRT member will create a new case in the database.

3. PROCEDURE FOR FOLLOW-UP TO AN ALGAL BLOOM REPORT

3.1. Depending upon the size, location, and severity of the bloom, the ROC Administrator, ROC Contact, and/or CBRT member may need to have a teleconference to decide what the appropriate response should be.

3.2. If it is determined that DEP should/can respond to the bloom, the ROC Administrator and/or CBRT member will request that staff perform a site visit and complete the "Cyanobacteria Bloom Response Field Data Sheet" (Appendix A).

3.3. Site visit staff will save completed field data sheets on a network drive (pdf version is preferred). Site visit information will be entered into the appropriate response tool (for

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example, Survey 123). The designated ROC Contact will be responsible for ensuring timely entry.

3.4. As information and results become available, Laboratory staff will provide updates to Senior Management, to the Communications Office as necessary to coordinate public outreach, to the response tools (Survey123), and to the Harmful Algal Bloom Tracking Module of the DOH's Caspio database.

3.5. The ROC Contact, Administrator, or CBRT member should provide feedback to the initial bloom report originator or post publicly as appropriately determined for the particular bloom. Site visits and sample results are posted to the map accessed through the Algal Bloom Monitoring and Response Site, www.algalbloomupdate.com

4. REFERENCES

4.1. SOP FS 7000, General Biological Community Sampling

4.1.1. FS 7110, *Phytoplankton Bloom Sampling*

4.1.2. FS 7240, *Algal Mat Sampling for Taxonomic Identification or Toxin Analysis*

Appendix of Changes

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Appendix A

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET (7-6-06 V2)

WATERBODY	DATE (M/D/YY):	TIME: (AM)	**Case ID#**:

COUNTY:	LOCATION:	NEAREST TOWN/CITY:

Visit Type: ☐ Initial ☐ Recon ☐ Sampling ☐ Follow-

Samples collected: ☐ yes ☐ no

Samples submitted to:

Photos Taken: ☐ yes ☐ no

Sample collection method: Single Grab: ☐ Grab Composite: ☐ Depth integrated composite: ☐

Sample & Analysis types: Aqueous: ☐ Surface Scum: ☐ Benthic mat: ☐ Tissue: ☐

Algal ID & enumeration: ☐ Nutrients: ☐ Chl-a: ☐ AGP: ☐ Turbidity: ☐ Toxin: ☐ _____ Specify

Estimated size of bloom:

Impounded: ☐ yes ☐ no

Lake/Estuary Typical depth _____ m deep

Inflows: ☐ yes ☐ no

Outflows: ☐ yes ☐ no

Stream/River/Canal _____ m wide

Typical Transect _____ m deep _____ m deep _____ m deep

Water velocity _____ m/s _____ m/s _____ m/s

Left bank Middle Right bank

Canopy Cover: Open : ☐ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐

Description of Bloom/ Present Weather conditions

Latitude _____ Degrees _____ Minutes _____ Seconds

Longitude _____ Degrees _____ Minutes _____ Seconds

Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map)

Sketch bloom area on the attached map. Indicate wind direction.

Last rain event _____

Rainfall amount _____

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (µmho/cm) or Salinity (ppt):			Secchi (m)
Top								
Mid-depth								
Bottom								

System Type: Stream: ☐ (1st - 2nd order, 3rd - 4th order, 5th - 6th order, 7th order or greater) Lake: ☐ Wetland: ☐ Estuary: ☐ Other: ☐ _____

Water Odors (check box) : Normal: ☐ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐ _____

Water Surface (check box): Clear: ☐ Scum: ☐ Globs: ☐ Slick: ☐

Water Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐

Bloom Color (check box): Green: ☐ Red: ☐ Brown: ☐ Other: ☐ _____

Notes

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

VISIT TEAM:

AGENCY:

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