

Algal Bloom Response

1. INTRODUCTION: Use the procedures in this SOP to collect pertinent information from persons reporting an algal bloom and to coordinate potential response activities.
 - Use the following SOPs and forms in conjunction with this SOPDEP-SOP-001/01 FS 7110 Phytoplankton Bloom Sampling - <http://www.dep.state.fl.us/water/sas/sop/sops.htm>
 - DEP-SOP-001/01 FS 7240 Algal Mat Sampling for Taxonomic Identification or Toxin Analysis - <http://www.dep.state.fl.us/water/sas/sop/sops.htm>
 - Cyanobacteria Bloom Contact Form - <http://www.dep.state.fl.us/labs/biology/hab/>
 - Cyanobacteria Bloom Response Field Data Sheet - <http://www.dep.state.fl.us/labs/biology/hab/>
 - Cyanobacteria Bloom Reporting Form - <http://www.dep.state.fl.us/labs/biology/hab/>
2. PROCEDURE FOR INITIAL RESPONSE TO AN ALGAL BLOOM REPORT
 - 2.1. Record the contact information of the person calling about a potential algal bloom. Forward the contact information to the designated District or Regional Operations Center (ROC) Algal Bloom Contact in the FDEP District having jurisdiction over the water body being reported or a Cyanobacteria Bloom Response Team (CBRT, pronounced “see bert”) member in Tallahassee (See the list below).
 - David Whiting, Deputy Division Director, Division of Environmental Assessment and Restoration
 - Lori Wolfe, Environmental Manager, Biology Section
 - Liz Miller, Environmental Manager, Biology Section
 - Cheryl Swanson, Environmental Manager, Biology Section
 - Julie Espy, Program Administrator, Water Quality Assessment Program
 - Marian Fugitt, Professional Geologist, Water Resource Management (for blooms affecting water bodies that are used as a source of drinking water)
 - 2.2. The District/ROC Algal Bloom Contact or CBRT member will contact the person who reported the bloom and record all relevant information using the “Cyanobacteria Bloom Contact Form” (Appendix A).
 - 2.2.1. If the caller reports human health effects in Question #7 of the “Cyanobacteria Bloom Contact Form”, advise the caller that the report is being forwarded to the Florida Department of Health (FDoH), discontinue the call, and forward the report to the FDoH. Human health effects are covered by HIPPA and should be handled by FDoH.

OR

If a District/ROC Algal Bloom contact takes the information; forward the information to a CBRT member.
 - 2.3. The CBRT member will review the information with the District/ROC contact. The CBRT member will then check the Harmful Algal Bloom Tracking Module of the

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FDOH's Caspio database to see if a case has already been entered for this event. If a case exists, the CBRT member will add comments to the existing case regarding the additional report. If a case has not been entered, the 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 CBRT may need to have a teleconference to decide what the appropriate response should be.
- 3.2. If it is determined that FDEP should/can respond to the bloom, the CBRT member will contact the District/ROC Cyanobacteria Contact person and request that staff perform a site visit and complete the "Cyanobacteria Bloom Reporting Form" and the "Cyanobacteria Bloom Response Field Data Sheet" (Appendix B).
- 3.3. Samplers will forward the completed field data sheet (pdf version is preferred) to the District/ROC Cyanobacteria Contact Person and CBRT member who reviewed the initial report, and the CBRT member updates the Harmful Algal Bloom Tracking Module with the site visit information.
- 3.4. The CBRT member then emails the other CBRT members from all agencies to coordinate further response.
- 3.5. If FDEP continues to be the primary responding agency, a FDEP CBRT member will update the case in the Harmful Algal Bloom Tracking Module as more information becomes available, providing input to Senior Management, and providing the Media Office with information as necessary to coordinate public outreach. The CBRT members should also provide feedback to the initial bloom report originator or the District/ROC Algal Bloom contact so that the District/ROC contact can provide feedback to the initial bloom report originator.

Appendix A

Case ID _____
e.g. DEP_2006JUN08_001
Agency_CallDate_Call # for day

Cyanobacteria Bloom Contact Form State of Florida

Date Call Received: _____ Time: _____ AM/PM (circle one)

Person who talked to caller & completed this form: _____

Caller's name: _____

Caller's Contact Phone #: _____
(This will only be used if we need additional information and will not be released without your permission)

Caller's Email Address: _____
(This will only be used if you request additional information related to this event)

Caller's Agency or Affiliation:

- ☐ Private Citizen
- ☐ DEP
- ☐ DOH
- ☐ DACS
- ☐ FWCC
- ☐ Other, please specify

Agency Receiving Call:

- ☐ DEP
- ☐ DOH
- ☐ DACS
- ☐ FWCC
- ☐ Other, please specify:

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9) Any other comments?

10) Would you like to be contacted with the results of the investigation? (circle one) **Yes** **No**

If **yes**, and caller gave no email, get a mailing address: _____

Thank you for reporting this problem.

After call follow up

Agency assigned to follow up on this case:

☐ DEP ☐ DOH ☐ DACS ☐ FWCC ☐ Other, please specify:

Person contacted: _____

Date contacted: _____

Appendix B

Case ID _____
e.g. DEP_2006JUN08_001
Agency_CallDate_Call # for day

Cyanobacteria Bloom Reporting Form State of Florida

Lead Person & Agency assigned to follow up on this case:

☐ DEP ☐ DOH ☐ DACS ☐ FWCC ☐ Other, please specify:

Lead Person's Contact Phone #: _____

Lead Person's Email Address; _____

1) Case Type (check all that apply)

- ☐ Human Health (DOH must be contacted)
- ☐ Animal Health (Pet/Livestock)
- ☐ Fish Kill
- ☐ Other, please specify

2) a) Was DOH Contacted? (circle one) **Yes** **No**

If Yes,

b) Who was contacted: _____

c) Date contacted: _____

d) How contacted:

☐ Phone ☐ Email ☐ In person ☐ Other, please specify:

3) a) Was a cyanobacteria bloom confirmed? (circle one) **Yes** **No** **Verification not done**

If yes,

b) Who did the verification? _____

c) How was the bloom verified as a cyanobacteria bloom? _____

d) Was the bloom dominated by a HAB species? (circle one) **Yes** **No**

Dominant species _____

Other principal species _____

4) a) Were cyanotoxins present? (circle one) **Yes** **No** **Verification not done**

If yes,

b) Who did the analysis? _____

c) Analysis performed: _____

d) Concentration(s) in sample(s) collected: _____

e) Method MDL and PQL? _____

f) Other analytical results available (e.g. nutrients or chlorophyll-*a*)? (circle one) **Yes** **No**

g) Additional analytical results: _____

****Append analytical chemistry report to this form.**

5) a) Is agency action needed? (circle one) **Yes** **No**

If yes,

b) Agency to take action (check all that apply)

☐ DEP ☐ DOH ☐ DACS ☐ FWCC ☐ Other, please specify:

c) Action to be taken:

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6) Was the person who called in the bloom report informed of the results?

(circle one) **Yes** **No** **Did not want follow-up**

If yes,

Date caller informed of results: _____

Method of informing caller:

☐ Phone ☐ Email ☐ Mail (USPS) ☐ Other, please specify:

Person who informed caller: _____

7) Additional Comments:

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 & Analysis types: Aqueous: ☐ Surface Scum: ☐ Benthic mat: ☐ Tissue: ☐		Sample collection method: Single Grab: ☐ Grab Composite: ☐ Depth integrated composite: ☐						
Algal ID & enumeration: ☐ Nutrients: ☐ Chl-a: ☐ AGP: ☐ Turbidity: ☐ Toxin: ☐ _____		Specify						
Estimated size of bloom:		Impounded: ☐ yes ☐ no		Stream/River/Canal _____ m wide				
Lake/Estuary Typical depth _____ m deep		Inflows: ☐ yes ☐ no		Typical Transect _____ m deep _____ m deep _____ m deep				
Outflows: ☐ yes ☐ no		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/ Latitude _____ Longitude _____ Present Weather conditions Degrees Minutes Seconds Degrees Minutes Seconds								
<i>Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map)</i> <i>Sketch bloom area on the attached map. Indicate wind direction.</i>								
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: ☐ Globbs: ☐ Slick: ☐ Water Clarity (check box): Clear: ☐ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐ Bloom Color (check box): Green: ☐ Red: ☐ Brown: ☐ Other: ☐ _____								
Notes					Abundance: Periphyton ☐ Absent ☐ Rare ☐ Common ☐ Abundant ☐ Fish ☐ Aquatic Macrophytes ☐ Iron/sulfur Bacteria ☐			

VISIT TEAM:	AGENCY:
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