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.
    1.1 Use the following SOPs and forms in conjunction with this SOP (available at: http://www.dep.state.fl.us/labs/biology/hab/
        - AB-16: Sampling for Cyanobacteria Blooms
        - Cyanobacteria Bloom Contact Form
        - Cyanobacteria Bloom Response Field Data Sheet
        - Cyanobacteria Bloom Reporting Form

2. PROCEDURE FOR INITIAL REPONSE 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 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, Administrator, Biology Section
        - Lori Wolfe, Environmental Manager, Biology Section
        - Liz Miller, Environmental Manager, Biology Section
        - Marian Fugitt, Professional GeologistWater Resource Management (for blooms affecting water bodies that are used as a source of drinking water)

    2.2 The District 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).

        2.2a. 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.

        2.2b. If a District Algal Bloom contact takes the information; forward the information to a CBRT member.

    2.4 The CBRT member will review the information with the District contact. The CBRT member will then check the Harmful Algal Bloom Tracking Module of the 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 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 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 Algal Bloom contact so that the District 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

1) Why are you calling?

2) When did you see the bloom?Date_____ApproximateTime_____AM/PM
(circle one)

3) Where was the bloom? (Using MapQuest, Google Map, or some other online/GIS tool, mark the location & extent of the bloom on the map, print, and attach to this form)

4) How much of the water was covered by the bloom?

5) What color was the water?

6) What color was the algae?

7) You do not need to give specific details in answer to this question. Please just answer yes or no. Do you (or anyone with you) have any adverse health symptoms? (circle one) **Yes No**

   If no, continue with question 8.

   If yes, person taking call **must contact DOH immediately** and forward the case to DOH for further follow-up.

8) Describe any other adverse events related to your visit.

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 Addresss; _____

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*)? **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

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 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):			Secch (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	Commo	Abundant
Periphyton	☐	☐	☐	☐
Fish	☐	☐	☐	☐
Aquatic Macrophytes	☐	☐	☐	☐
Iron/sulfur Bacteria	☐	☐	☐	☐

VISIT TEAM:

AGENCY: