

Hello State Drinking Water Administrators;

We are a group of students from Worcester Polytechnic Institute (WPI) working with the Massachusetts Department of Environmental Protection (MassDEP) to address the needs of drinking water administrators regarding cyanobacteria contamination of drinking water drawn from wells under the influence of surface water. The MassDEP would like to request your participation in the following survey.

This purpose of this survey is to gather more information on cyanobacteria through any relevant experiences administrators have had with cyanobacteria outbreaks. We plan to develop educational materials for public water suppliers in MA who oversee wells that are under the influence of surface water based on these responses. We feel that this study is quite timely and relevant given the growing frequency and severity of cyanobacteria outbreaks, especially considering the events in Toledo, OH this past summer. This study has been approved by WPI's Internal Review Board and any data collected will be kept confidential. At the conclusion of this survey, we will distribute the results anonymously back to the members of ASDWA by email.

Thank you for your responses,

Cara Berner  
Deanna Clark  
Samuel Flibbert  
Kate Piotrowicz

The WPI Cyanobacteria Project Team

Respondent Contact Information:

Name of State:  
Respondent Name:  
Phone Number:  
Email Address:

## SURVEY QUESTIONS

1. Is there a water quality monitoring program for cyanobacteria in your state? If yes, please attach a document to your response email or provide a link to a website further describing said program.

Yes No Don't know

Link:

*For questions 2-9, if multiple noteworthy instances have occurred, please log your responses on the Excel spreadsheet attached to the email through which you received this survey.*

2.
  - a Have any surface water bodies in your state experienced significant cyanobacteria blooms?  
Yes No Don't know
  - b If yes, where are these bodies of water located? If you answered question 2a with no or don't know, proceed to question 12.
3. Have any of these blooms affected the water quality of nearby wells? If no or don't know, proceed to question 9.  
Yes No Don't know
4. Is this water quality issue a recurring problem in this location?  
Yes No Don't know
5. What was the distance from the toxic surface water bloom to the affected well?
6. What was the pumping rate of the affected well?
7. What was the type of subsurface material?
8.
  - a Did the affected well need to be treated and/or taken off-line?  
Yes No Don't know
  - b If the affected well was taken off-line, what corrective measures were taken before the well was placed back on-line?
9. Did you inform the public about this cyanobacteria outbreak?  
Yes No Don't know

10.

- a Which topics pertaining to cyanobacteria would you like to know more about?
- b Which of these formats would you be interested in receiving educational materials on cyanobacteria through? Please rank all that apply from most interested (starting with the number 1) to least interested.

Newspaper:

Website:

Social Media:

Online Video:

Radio:

Television:

Mail:

Flyer:

Email:

Other:

11.

- a Please provide the contact information of any water suppliers involved in the cases mentioned in your responses who could provide us with any further insight. These people may be contacted for a follow-up phone interview if willing.

Name:

Job Title:

Phone:

Email:

Connection to cyanobacteria incidence:

- b Would you be willing to take part in a follow-up phone interview?  
Yes No

*Thank you for your participation in this survey.*

*Please only answer the following questions if you answered no or don't know to question 2a.*

12.

- a Cyanobacteria flourish under high water temperatures, little to no water flow, neutral to slightly basic pH, and high concentrations of nitrogen and phosphorous. Are there any man-made or naturally occurring factors at play that may be preventing bodies of water in your state from reaching these conditions?  
Yes No Don't know
- b If yes, please describe the factors that you believe are preventing these conditions.

13.

- a Which topics pertaining to cyanobacteria would you like to know more about?
- b Which of these formats would you be interested in receiving educational materials on cyanobacteria through? Please rank all that apply from most interested (starting with the number 1) to least interested.  
Newspaper:  
Website:  
Social Media:  
Online Video:  
Radio:  
Television:  
Mail:  
Flyer:  
Email:  
Other:

14. Would you be willing to take part in a follow-up phone interview?

Yes No Don't know

*Thank you for your participation in this survey.*