

# bloomWatch! Monitoring Cyanobacteria Blooms with a Smartphone

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#### bloomWatch!

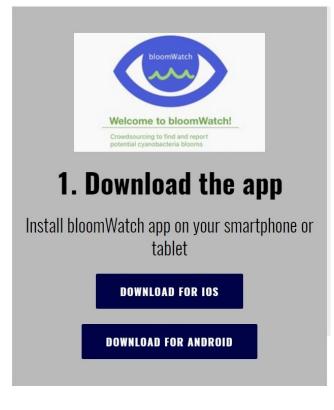
• bloomWatch enables citizen scientists to
help document potentially harmful blooms by
submitting a photograph and other information from
a smartphone or tablet. The app can report
geographical location automatically and anyone can
view observations submitted through the app in
multiple ways, including a map view, on <a href="CitSci.org">CitSci.org</a>.

# Why Create an App?

- An increase in blooms has strained State resources.
- Citizen groups wanted help tracking blooms.
- bloomWatch was developed with the help of NEIWPCC's HAB Workgroup and the CMC.
- This app uses crowdsourcing to find and report potential HABs.



- Download the app for iOS and Android
- Available in the Apple App
   Store
- Available in the Google Play Store
- It's Free!!!









• The 'About' tab offers general information on blooms, the app, and the CMC

#### Crowdsourcing to find and report potential cyanobacteria blooms



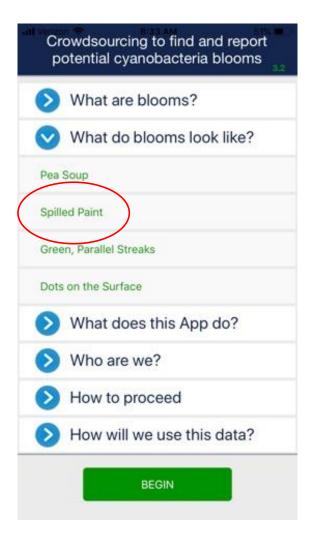
#### What are blooms?

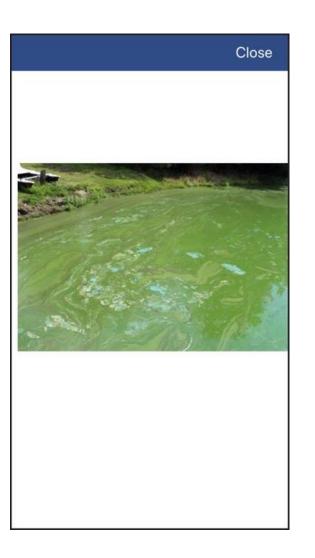
Cyanobacteria (sometimes referred to as bluegreen algae) are tiny organisms that can be found in diverse environments ranging from deserts to oceans. Under certain conditions cyanobacteria can spread quickly, forming dense "blooms" on a waterbody's surface. These blooms are a big problem because many cyanobacteria species produce toxins that are dangerous to humans and wildlife.

#### Potential negative impacts include:

- \* Skin irritations
- \* Illness
- \* Loss of plant and animal life
- \* Loss of aesthetic appeal
- \*Loss of recreational opportunities
- \* Reduction in property values
- What do blooms look like?
- What does this App do?
- Who are we?
- How to proceed

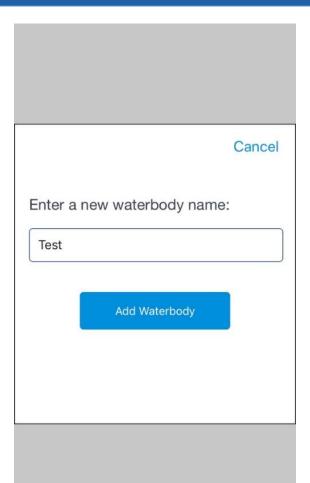




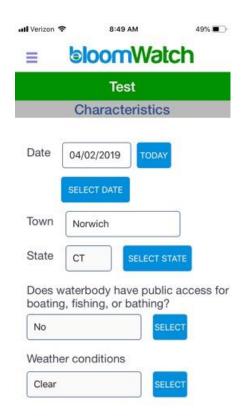






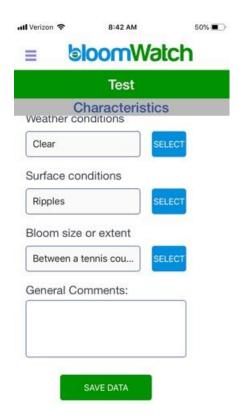






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#### Test

Photo Capture
Up to three photographs may be taken per site

Photo 1: Attempt to capture the areal extent of the bloom, (waterbody wide, along the shoreline, etc.). If additional description is necessary, enter it in the box below.

Use the camera or gallery icon below to take or select a photo







#### Test

#### **Photo Capture**

Photo 2: Attempt to capture a photo from standing position to the water a distance of 10-30 feet. If additional description is necessary, enter it in the box below.

Use the camera or gallery icon below to take or select a photo







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#### Test

8:42 AM

50%

#### **Photo Capture**

Photo 3: Attempt to get a close up photo of bloom (picture of bloom material from three feet away or in a clear glass container at arm's length). If additional description is necessary, enter it in the box below.

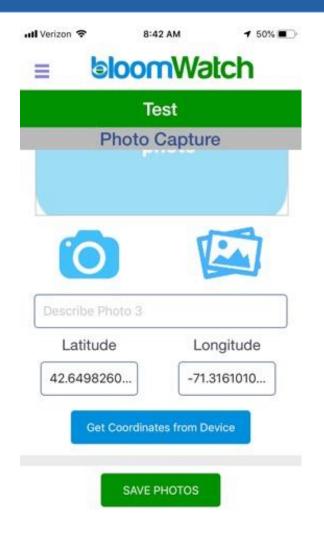
Use the camera or gallery icon below to take or select a photo



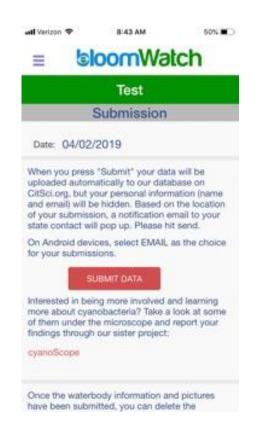


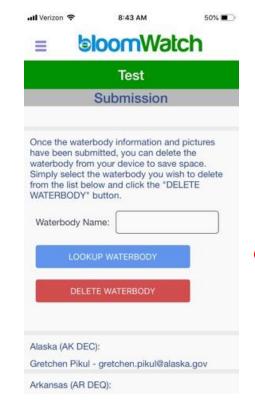






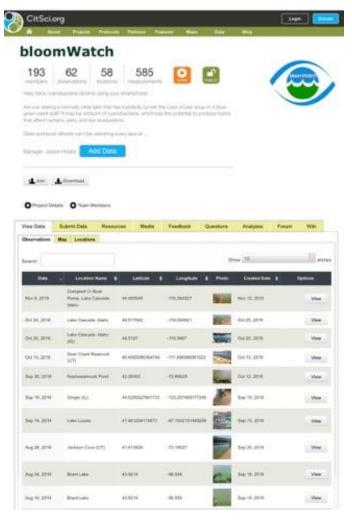










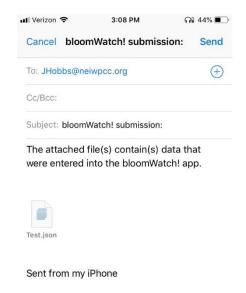






#### Benefits

- When you submit, an option to email NEIWPCC will appear.
- NEIWPCC informs the State Contact.
- bloomWatch acts as an additional resource for States.





#### Benefits

- State Benefits:
  - State contact is notified of a potential bloom.
  - Notifications may come from unmonitored areas.

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