August 3, 2018
For more information, contact:
Robert Goulding, DPW Public Information Manager
802-540-0846

FACT SHEET ON CYANOBACTERIA ("BLUE-GREEN" ALGAE) BLOOMS IN BURLINGTON

- **North Beach closed due to presence of blooms**
- **All other beaches are open and available for recreation**

Today (8/3/18), Burlington Parks, Recreation & Waterfront saw visual indications of cyanobacteria at North Beach, resulting in a closure. North Beach has historically been more vulnerable to these blooms due to the orientation of shoreline to the prevailing winds and its proximity to the Winooski River, which carries nutrient loads into the Lake. Given understandable public concern and interest in the state of our beaches, we want to offer some information on these algae-blooms.

CYANOBACTERIA ("BLUE-GREEN" ALGAE) BLOOM CLOSURES

- Parks, Recreation and Waterfront conducts visual inspections of the beaches everyday during recreation season
- Upon the presence of cyanobacteria ("blue-green algae"), a beach will be closed
- Beaches are re-opened when there is no longer a physical presence of cyanobacteria and an on-site toxin screening is negative

RECENT COMBINED SEWER AND WASTEWATER INFRASTRUCTURE CHALLENGES

- We understand the public's concern that these blooms may be related to our recent infrastructure challenges
- The science shows that these recent discharges alone have not significantly increased the input of nutrients into Lake Champlain
- Blooms are a longer term challenge we all must work through, and are the result of long-term, wide scale nutrient inputs from all land use sectors in the Lake Champlain basin. Wastewater sources account for approximately 3% of this load.
- There is phosphorus in a combined sewer overflow. EPA estimates that for every 1,000,000 gallons of CSO approximately 6 lbs of P is released. We are working to reduce the # of gallons of CSO we have for a number of reasons, phosphorus control included. However, other tributaries contribute an even greater phosphorus load to the Basin – for instance, the Winooski River in 2016 discharged over 100 mT (220,000 lbs) over the course of the year. This shows clearly why cleaning up Lake Champlain needs an all hands on deck approach to solving these problems.

- The City will continue to work with surrounding communities on protecting the health of Lake Champlain
- We continue taking corrective action now and for the long-term to ensure our infrastructure performs to modern standards and that we continue reducing our footprint on the Lake

OTHER FACTORS CONTRIBUTING TO BLOOMS

- As mentioned above, long-term, wide-scale nutrient inputs into the Lake contribute to blooms.
- Lake temperature and the orientation of shoreline to prevailing winds are also contributing factors
- Overall, Burlington Bay has relatively low densities of cyanobacteria in the water column – but with the typical winds out of the south west, we do get accumulations of the bacteria on our beaches that face that way.
- It has been a very warm summer and lake temps are and have been well within the range that supports formation of blooms. Burlington Free press just published an article that July 2018 was the hottest month on record since 1921 (21 days above 85 degrees)
- Anecdotal evidence suggests that it is not abnormal for Burlington to have beach closures due to cyanobacteria as early as early July.

To learn more about cyanobacteria, please visit Vermont Department of Environmental Conservation's cyanobacteria webpage, http://dec.vermont.gov/watershed/lakes-ponds/learn-more/cyanobacteria

###