

Lake George, New York Water Contamination Issue

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In 2016, Million Dollar Beach was closed due to increased levels of bacteria. Increased amounts of E. coli and other human bacterial contamination found in the East Brook Confluence that runs into the lake, contaminating Lake George.

- Breaks in storm drains and sewage collection systems.
- Debris/ pollution in the lake and pathogens from animal droppings in water.
- Runoff from polluted tributary (East Brook Confluence)



https://www.dec.ny.gov/docs/water_pdf/17lgpollrep.pdf

Effects

Negative effects include:

- ❖ Beach closed for swimming as E. coli and germs within E. coli pose health risks to humans and animals.
- ❖ Eutrophication can occur where there is overgrowth of algae and other bacteria. Overgrowth of algae can block the sun, hindering other plants from getting sunlight, disrupting the ecosystem.
- ❖ Increased bacteria could kill fish and other plant life further disrupting the ecosystem.



https://www.dec.ny.gov/docs/water_pdf/17lgpollrep.pdf

Hydrologist

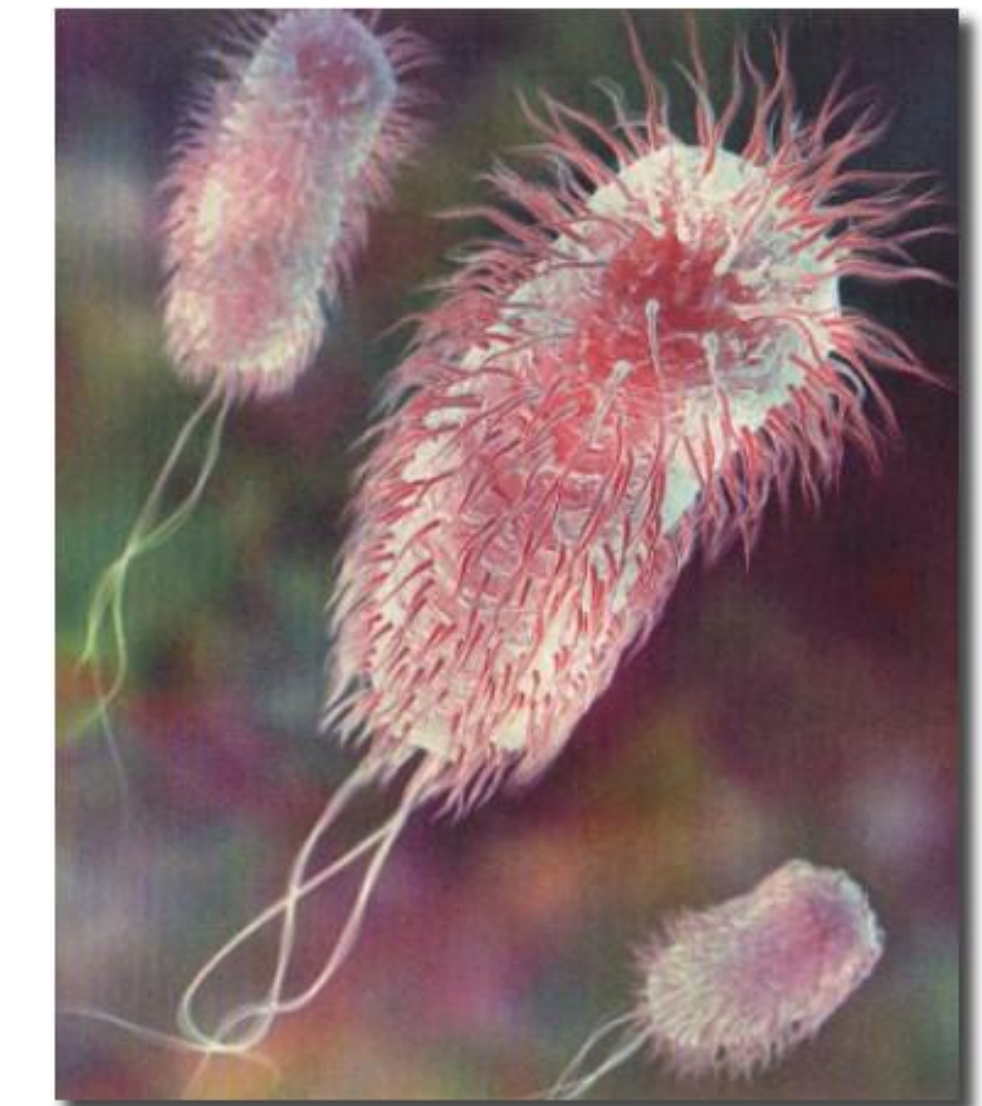
Caldwell Sewer District is used in Lake George and inspected in the investigation.

- ❖ East Brook Confluence was discovered to be main point of contamination into the lake.
- ❖ Major potential cause of bacterial contamination is storm drains and sewage systems.
- ❖ Important to protect people swimming in the lake.
- ❖ Important to clean drinking water, that some in town get from Lake George.

Solutions

- ❖ Dye test water periodically to catch future contamination.
- ❖ Repair/Install new...
 - ❖ Storm drains
 - ❖ Sewage collection systems
 - ❖ Pump stations
 - ❖ Manholes
- ❖ Clean the lake of debris and animal droppings and other pathogens.
- ❖ Test, treat, and filter the water.
- ❖ Town of Lake George was granted:
 - \$343,000 Clean Water Infrastructure Grant
 - \$100,000 engineering planning grant,
 - \$120,000 Water Quality Improvement Project Grant from D.E.C. and New York State Environmental Facilities Corporation..

E.coli



<https://www.usgs.gov/media/images/e-coli-bacteria-microscopic-organism-indicates-fecal-contamination>

Emergency Management

- ❖ Test water levels for E.coli and other bacteria in order to repair storm and sewage drain systems and possibly create a filtration system to treat the water.
- ❖ By repairing storm drainage/sewage collection systems and cleaning the water, it will protect the Town/Village of Lake George from future potential bacteria contamination.
- ❖ This will keep the lake clean for beachgoers, plants, animals, wildlife, and most importantly clean drinking water.

Sources

- J. W., & Witham, J. (2021, July 15). The battle against Lake George Beach closures. Adirondack Explorer. Retrieved November 4, 2022, from <https://www.adirondackexplorer.org/stories/lake-george-beach-closures>Lake George beach report. Lake George Beach Report - NYS Dept. of Environmental Conservation. (n.d.). Retrieved November 4, 2022, from <https://www.dec.ny.gov/lands/109877.html>Lake George Association. (2022, October 27). \$600,000 in grants now available for septic system <https://www.usgs.gov/mission-areas/water-resources/science/nutrients-and-eutrophication#:~:text=Eutrophication%20is%20a%20natural%20process,and%20clogging%20water%2Dintake%20pipes>.The Jefferson Project at Lake George. (n.d.). Your window into the data driving our science-based approach to protecting Lake George. The Jefferson Project at Lake George Data Dashboard. Retrieved December 8, 2022, from <https://jefferson>