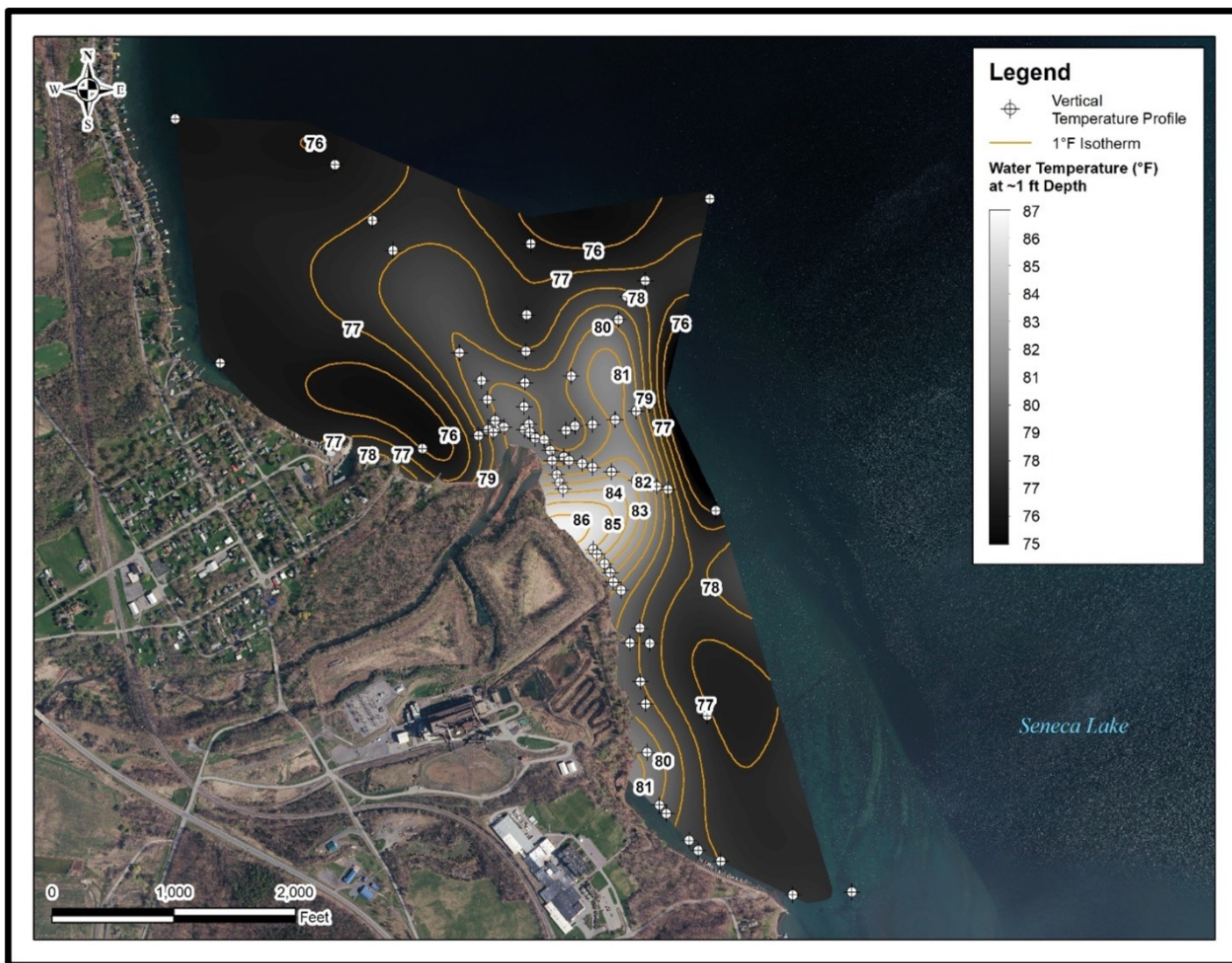


Water Front- Peter Mantius

Environmental politics in New York's Finger Lakes

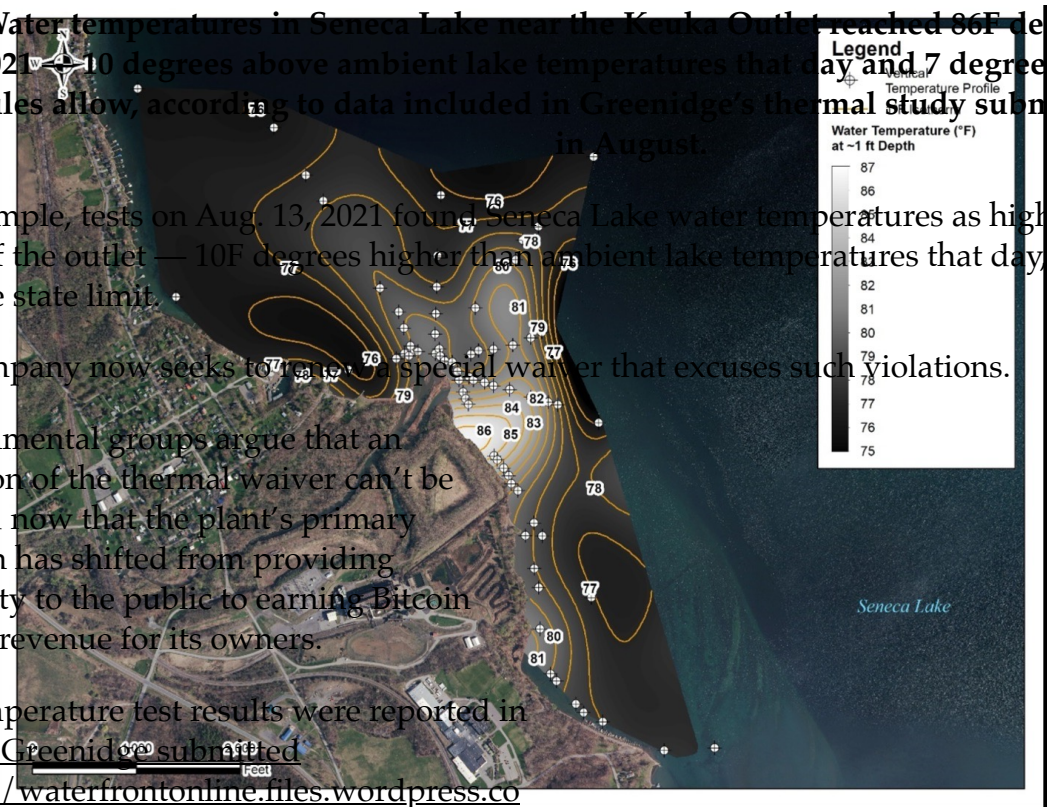
Greenidge's Warm Water Discharges Heated Seneca Lake Beyond State Limits; But DEC Waiver Excuses Violations

Peter Mantius / [October 7, 2022](#)[October 8, 2022](#) / [Uncategorized](#)



DRESDEN, Oct. 7, 2022 — Massive discharges of warmed water from the Greenidge Generation power plant into Keuka Outlet and Seneca Lake exceeded state water quality standards in all eight temperature surveys conducted between June 2021 and April 2022.

Water temperatures in Seneca Lake near the Keuka Outlet reached 86F degrees on Aug.13, 2021 — 10 degrees above ambient lake temperatures that day and 7 degrees more than state rules allow, according to data included in Greenidge's thermal study submitted to the DEC in August.



For example, tests on Aug. 13, 2021 found Seneca Lake water temperatures as high as 86F degrees just south of the outlet — 10F degrees higher than ambient lake temperatures that day and 7F degrees higher than the state limit.

The company now seeks to raise a special waiver that excuses such violations.

Environmental groups argue that an extension of the thermal waiver can't be justified now that the plant's primary function has shifted from providing electricity to the public to earning Bitcoin mining revenue for its owners.

The temperature test results were reported in a study Greenidge submitted (<https://waterfrontonline.files.wordpress.com/2022/10/greethermalstudyaug2022.pdf>).

August 31 to the state Department of Environmental Conservation. It was obtained by WaterFront under the Freedom of Information Law.

The tests were conducted on eight days in June and August last year and March and April this past spring, as ASA Analysis & Communication and Najarian Associates reported in the study data Greenidge provided.

The state prohibits sources of artificial warming, like Greenidge, from raising surface lake temperatures more than 3F degrees (<https://waterfrontonline.files.wordpress.com/2022/10/rulesstatethermal.pdf>).



Table 4-2 Ambient surface temperatures and area exceeding 3 °F temperature rise criterion during each tri-axial survey.

Survey Date	Ambient Surface Temperature (°F)	Criterion Temperature (°F)	Total Heat Addition Prior 24 Hours (MBTU)	Area Outside Criterion (acres)
6/25/2021	63.6	66.6	7,000	38.4
6/26/2021	63.8	66.8	7,100	5.6
8/13/2021	76.5	79.5	12,300	49.6
8/14/2021	75.7	78.7	13,600	27.5
3/29/2022	38.1	41.1	5,500	7.8
3/30/2022	38.1	41.1	5,300	4.3
4/25/2022	43.6	46.6	13,800	46.8
4/26/2022	42.2	45.2	19,100	227.5

The Greenidge study shows its discharges caused exceedances of that limit across areas of the lake that ranged in size from from 4.3 acres on March 30 to 227.5 acres on April 26.

Warm water discharges tend to kill or disrupt fish and other aquatic life. They are also suspected of contributing to toxic algal blooms that

poison lake water.

The state also enforces limits on artificial increases in water temperatures within designated trout streams, including Keuka Outlet.

Between June and September the trout stream limit is 2F degrees. The limit rises to 5F degrees for the months October through May. The Greenidge study says the company failed to comply with either restriction. But its thermal waiver excused the violations.

The waiver is included in Greenidge's 2017 water permit, which allows warm water discharges of up to 134 million gallons a day. That permit expired Sept. 30.

When the company filed a brief application to renew that permit in January, it also asked the DEC to renew the waiver. The agency is reviewing the study and has made no decision on extending the waiver or renewing the permit.

The DEC said in a statement today that it is still reviewing the Greenidge study. When that review is finished, the agency will decide whether to require a new or expanded variance study. Variance requests, the statement said, are evaluated on the basis of "the facility's thermal impact on the receiving water's biota, not the primary function of the facility, to ensure protection of public health and the environment."

Under state law, the conditions of Greenidge's expired water permit continue indefinitely as the agency weighs the renewal application (<https://waterfrontonline.files.wordpress.com/2022/10/renewalapplicationjan12.pdf>). That includes the thermal waiver, which was based on the plant's last thermal study in 1977, according to the environmental law group Earthjustice.

Earthjustice, working with the environmental advocates at Seneca Lake Guardian, argue that the waiver is no longer appropriate after the plant's conversion in 2020 to a Bitcoin mining operation. It continues to sell electricity to the public on occasion, but its Bitcoin operation runs 24-7-365.

"This cryptomining facility cannot rely on a 45-year-old justification completed for a coal-fired power plant providing electricity for public benefit and consumption as support for a continued thermal variance," Jill W. Heaps of Earthjustice wrote in an Aug. 26 letter (<https://waterfrontonline.files.wordpress.com/2022/10/earthjusticetoepaaug26-1.pdf>) to officials at the DEC and the federal Environmental Protection Agency.

In June, the DEC rejected Greenidge's bid to renew its air permit after finding that its operation conflicted with the state's 2019 climate act. The plant continues to operate — and emit greenhouse gases — as it appeals that decision.

CATCH AND RELEASE ANGLERS | NEW YORK STATE | Department of Environmental Conservation

HELP NEW YORK'S TROUT AND SALMON BEAT THE SUMMER HEAT

Trout and salmon are coldwater species and experience physical stress when stream temperatures climb above 70°F. Taking the following precautions can help protect New York's trout and salmon resources:

- Avoid catch-and-release fishing for heat-stressed trout.** Trout already weakened by heat stress are at risk of death no matter how carefully they are handled.
- Don't disturb trout where they have gathered in unusually high numbers.** It is likely that these fish are recovering from heat stress in a pocket of cold water.
- Go to Plan B!** Consider fishing waters less likely to get too warm or fishing for a more heat-tolerant species, like smallmouth bass.
- Fish Early.** Stream temperatures are at their coolest in the early morning.

Greenidge's warm discharges pushed Keuka Outlet water temperatures beyond the state limits for trout streams.



Yvonne Taylor

Last month the company failed to meet the state deadline for installing fish screens on its water intake pipe. The DEC granted an extension into early 2023.

“The DEC has already rejected one of Greenidge’s permits because of the threats it poses to our climate,” said Yvonne Taylor, co-founder and vice president of SLG. “Now we have real proof that this gas-guzzling crytomine is warming our lake, threatening our local economic engine.

“Enough is enough. Greenidge has to shut down for good.”

The Sierra Club and other environmental groups have sued Greenidge and the DEC over company’s water discharge permit, alleging that the agency’s decision to waive an environmental impact statement broke state environmental law. The suit claimed an EIS was required to allow public input into questions about fish screens, warm water discharges and toxic algal blooms, or HABs (harmful algal blooms).

The court rejected all their claims.

In that case, Gregory Boyer, a SUNY-ESF biochemist, filed an affidavit (<https://waterfrontonline.files.wordpress.com/2022/10/boyeraffadavitapr2018-1.pdf>) stating that “adding large volumes of heated water in the Dresden bay area of Seneca Lake could result in increased HABs outbreaks in that area....”

The DEC promptly filed a motion to strike Boyer’s affidavit from the court record as “untimely and inappropriate,” which the court did (<https://waterfrontonline.blog/2018/05/25/judge-says-hell-discount-affidavits-linking-water-discharges-from-power-plant-with-toxic-algae-blooms/>).

The agency’s filing referred to Boyer, who is also director of the Great Lakes Research Consortium at the university in Syracuse, as a “quasi-expert.”

Boyer co-authored a peer-reviewed 2009 study (<https://waterfrontonline.files.wordpress.com/2022/10/boyerpeer.pdf>) that found that water warmed by 4C degrees (centigrade), or roughly 8F (Fahrenheit), led to higher growth rates of toxic microcystis, which HABs generate, in five of six experiments.

“We have done other experiments that suggest temperature effects are quite complicated in regard to toxicity, but the raised temperatures (in Dresden Bay) do remain a concern,” Boyer said in an email today.

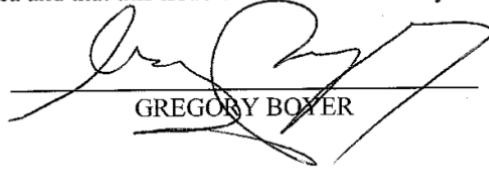
Several HABs with high toxins were reported in the Dresden Bay vicinity in 2017 and 2018, but data has been spotty since the DEC discontinued funding for toxicity testing around 2019.



Gregory Boyer

GREGORY BOYER, being duly sworn, deposes and says:

I have reviewed the attached affidavit I gave last year and I continue to be of the opinion that adding large volumes of heated water in the Dresden bay area of Seneca Lake could result in increased HABs outbreaks in that area and that this issue deserves further study.



GREGORY BOYER

Sworn to before me this
26th day of April, 2018

HABs were present around Dresden in 2019, but none were reported in that area in 2020, when Seneca Lake in general had a very light HABs year.

On Oct. 13, 2021, Greenidge said in a press release: "There

is zero evidence that Greenidge's operation is increasing the likelihood of HABs or threatening any aspect of aquatic life in Seneca Lake."

A few days earlier SLG had paid for a toxicity test of a suspected HABs at Arrowhead Beach in Dresden, which was reported on Oct. 6, 2021. Toxins measured at 899 micrograms per liter (<https://waterfrontonline.files.wordpress.com/2022/10/habsoct62021.pdf>), roughly 45 times the state's threshold for "high toxin."

But other sections of Seneca Lake many miles from Dresden also reported HABs. And Seneca Lake Pure Waters Association officials have said they presume most confirmed HABs outbreaks on the lake fall in the state's "high toxin" category.

Dale Irwin, Greenidge's president, did not respond to emailed questions.

Published by Peter Mantius

I am a journalist who lives in Watkins Glen, NY. I write about the environment and politics on my website, Waterfrontonline.blog. For more detail on my background, see the "Peter's Bio" section on that site. [View all posts by Peter Mantius](#)

2 Comments

1. **Laura Mantius** says:[October 10, 2022 at 2:40 am](#)
Oh yes , this story really gets it ! Good art too !

^ [Reply](#)

2. **Ellen L Campbell** says:[October 14, 2022 at 1:45 pm](#)
Solid proof that DEC is ignoring their own requirements!!! Corruption in plain sight. How can they continue to pretend that they are the environmental protection arm of NYS? Please don't give up the fight just because you are tired. Please let me know when the next rally is in front of the DEC. How can we get more media to show these results?

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