

Urgent: Action Needed! We now know that DEC has allowed a Cargill consultant to run seismic testing on >20/38ths of Cayuga Lake from 8 August to the "end of the month" without requiring Cargill to apply for a permit.

John Dennis, a co-founder of CLEAN, was out in his kayak doing a HABs survey on Sunday when he spotted what appeared to be Bay Geophysical's seismic research vessel pulling a pneumatic air gun array and the single string of hydrophones that is used to implement 2D seismic studies of underground rock formations. A photograph of a Bay Geophysical doing a 2016 seismic study in front of Cayuga Power can be seen here: baygeo.com.

On Sunday (the 11th of August) the roughly 300 yard-long string of hydrophones was followed by both a 12-foot robotic vessel with Honda outboard and by two men in a white minder boat with dark green awning. The research vessel itself looks like a short black barge with a large reel with orange cable mid-deck and a windowed grey cabin up-front. Underwater pneumatic blasts were occurring just behind the back of the boat at a rate of one every five seconds.



Hilary Lambert of the Cayuga Watershed Network subsequently learned from contacts at the Dept of Environmental Conservation (DEC) that the testing started August 8 and will run through the end of the month. According to David Lemon, DEC Region 7 Fisheries Manager, “Testing will be conducted in 30’ of water or greater and they will utilize an air cannon placed below the surface of the water. The area covered will span most of the lake from Long Point south.”

This testing suggests that Cargill may be planning to expand Cayuga Salt Mine which now lies under about one fifth for the lake to more than half of the lake. Just as the current three-week barrage of pneumatic explosions--timed at one every five seconds when happening--is undoubtedly bad news for our endangered Lake Sturgeons and other fish, any further mining under

the lake is not good news for Cayuga Lake. When the mine floods, billions of gallons of saturated brine, about 7 times the salinity of seawater is likely to begin leaking into the lake for more than 200 years!

The DEC has not required Cargill to apply for any permit, despite the fact that during the fracking boom, DEC required gas companies to apply for permits to run seismic on state lands. CLEAN's attorney, Douglas Zamelis, wrote to the DEC on 15 August, "We respectfully maintain that a plain reading of 190.8(ad) requires a permit for seismic testing of State lands underwater and we see no appreciable difference between the need to regulate state lands that are under water from those that are not." However, we don't see DEC requiring a permit for this round of seismic. It's time to show DEC their gross indifference to the fate of our lake is unacceptable.

According to this site, <https://www.fws.gov/midwest/sturgeon/biology.htm> 19 out of 20 states that are native habitat for lake sturgeon have listed that species as threatened or endangered.

"Potential effects of anthropogenic sound sources on marine animals range from disturbance that may lead to displacement from feeding or breeding areas, to auditory damage, tissue trauma and mortality (Popper and Hawkins, 2012). Alternatively, some marine species may experience no effect of exposure to intense sources, particularly if the received frequency does not exceed hearing thresholds (Popper and Hastings, 2009). The area over which anthropogenic noise may adversely impact marine species depends upon multiple factors including the extent of sound propagation underwater, its frequency characteristics and duration, its distribution relative to the location of organisms, and the absolute sensitivity and range of spectral hearing among species (Slabbekoorn et al., 2010; Popper and Hawkins, 2012). Marine seismic surveys typically involve the use of airgun arrays that are towed behind vessels and produce high intensity, low-frequency impulsive sounds at regular intervals."

Several countries have adopted precautionary principles in their approvals process for seismic survey activities based on potential impacts to fish and invertebrates (e.g. St Lawrence Seaway in Brêthes et al., 2004; Canada in Department of Fisheries and Oceans (DFO), 2004; Norway in Dalen et al., 2007). These policies restrict the timing, location, and duration of seismic exploration and can often be a source of conflict between various stakeholders (Lewandowski, 2015).

The testing will likely impact fish and other aquatic species. If you are on the lake over the next few weeks please document any fishkills you come across. Take photos of any dead fish, estimate numbers of dead fish, and collect samples, ideally for autopsy analysis at Cornell. Please contact us at clean.cayugalake@gmail.com to let us know if a) you have seen or collected any dead or injured fish and/or b) you might be interested in joining a demonstration against the current seismic testing, and/or c) send us a copy of any message you have sent to any of the officials listed below.

CLEAN continues to pressure the DEC to require Cargill to conduct a comprehensive environmental impact study before they are allowed to expand their operations under our lake. The thinning bedrock north of the current mines pose a substantial risk of collapse and salinization of our lake and drinking water supply. Cargill is progressing in the construction of a new mining shaft on the east shore of the lake across from Taughannock Park. In ten years time, this location could resemble the ugliness of Portland Point. This development both the safety of our water resources and the viability of the vibrant ecotourism dynamic that is centered on Cayuga Lake and Taughannock Park.

Speak up, please write, call, or e-mail:

- **Basil Saggos, Commissioner, New York State Department of Environmental Conservation, 625 Broadway, Albany, NY 12233 tel: 518-402-8545**
- **Assemblyman Steve Englebright, Chair of Assembly Environmental Conservation Committee, 149 Main Street East Setauket, NY 11733 tel: 631-751-3094. Albany Office. LOB 621. Albany, NY 12248 tel: 518-455-4804. E-mail: EngleS@nyassembly.gov**
- **State Senator Pamela Helming, Legislative Office Building, Room 946, Albany, NY 12247 Phone: 518-455-2366 Pamela Helming <ABero@nysenate.gov>**

Clean the Lake.
Protect the Lake.