

Dear Friends of Cayuga Lake,

December 2019



Seasons greetings! As we reach the end of 2019, it is becoming impossible to deny that climate change will play a major role in shaping our future. With global temperatures projected to increase above the 1.5°C threshold within the coming decade, significant changes in weather patterns and rising sea levels are predicted. The local water supply has already begun to show signs of distress. Nutrient loading from runoff and elevated temperatures are the driving force behind the harmful algal blooms which are plaguing all of the Finger Lakes. CLEAN is actively campaigning to protect Cayuga Lake from on-going contamination from agriculture, salt mining, and the coal ash landfill at Cayuga Power.

An important step in addressing the climate crisis is recognizing the urgent need to transition, as soon as possible, from last-century technologies to net-neutral, sustainable technologies and lifestyles. Cargill's salt mining under Cayuga Lake has been a fool's errand since the day it started in 1984: highly-profitable for an out-of-state corporation but posing unacceptable

risks to Cayuga Lake since the day this mining started. Two million tons of road salt extracted from under our lake grosses Cargill about \$110M annually. That's gross income of about \$3.9B since mining under the lake began in 1984.

In 1994 the Retsof Salt Mine, then the largest salt mine in North America, collapsed. The mine was located 65 miles northwest of Cayuga Salt Mine. A so-called rubble chimney connected the flooding salt mine to the surface within days of the mine collapse. A similar collapse in Cayuga Salt Mine could connect the mined out voids to the water column of Cayuga Lake. Once flooded, brine seven times the salinity of seawater might begin venting into the lake for decades, if not hundreds of years. It is willfully ignorant of the history of salt mine failures for the NYS Dept of Environmental Conservation to permit this mining operation to jeopardize our precious source of drinking water, required for the survival of future generations, all for the sake of profiting an out-of-state corporation and perpetuating the use of antiquated road salt technology.

In 2017, CLEAN launched its efforts to stop the expansion of the salt mine by demanding that Cargill not be permitted to construct a new shaft (Shaft #4) to allow the expansion of mining northward. As mining under the lake progresses northward, Cargill encounters twin risks: the bedrock thins and a series of geological anomalies exist at the center of the lake. Aware of these risks, Cargill has shifted it's main mine access panel--known as NW3--to beside the east shore of the lake, but they apparently have gotten DEC permission to mine under Anomaly C. The area of this anomaly--located under the middle of the lake north of Taughannock Park--, may gross Cargill >\$100M when a 1000-foot setback from the anomaly is included. As if this is a script from a grade B novel, it is the same rock mechanics expert, Gary Petersen, who was supervising the design of the two panels that failed at Retsof in 1994, who is advising Cargill that it is OK to mine both into the 1000-foot setback zone and under Anomaly C itself. For reasons not explained to the public (or to DEC?), Cargill agreed not to mine under

Anomaly D or its setback zone, which are located 2/3rds of a mile to the south of Anomaly C.

Even as Cargill continues to drill the pilot hole for Shaft #4, CLEAN is fighting to stop the construction. CLEAN's legal team submitted to the Third Appellate Division in Albany our Appeal Brief and the Record on Appeal on December 13th. Our Appeal argues that the Judge erred in finding for Cargill and the Dept of Environmental (DEC) and that the DEC, under State Environmental Law, ought to have ordered an Environmental Impact Statement prior to allowing Cargill to construct Shaft #4.

The buildout on the site of Shaft #4, has many surrounding residents alarmed at the industrialization of the site. It is of great concern that the Lansing Town Board permitted the construction of this site on land that is zoned as agricultural and located within the viewshed of Taughannock Falls State Park. If you are a Lansing resident and would like to join other residents in voicing your concerns, please send an email to CLEAN.CayugaLake@gmail.com to be included in a neighborhood letter.

In response to the ongoing mine-shaft construction activities occurring near private residences in Lansing, CLEAN has expanded its well monitoring efforts to nearly a dozen private water wells. These wells are located in the vicinity of the construction and may be vulnerable to contamination when drilling fluids and drilling mud are cycled through the Marcellus and other gas-bearing and radioactive strata and then past the drinking water aquifer. Leakage into Shaft #4 may begin to draw down the local aquifer.

To assess the integrity of wells near Shaft #4 CLEAN researchers have installed nearly a dozen data loggers which record the level, temperature, and specific conductivity of the water. Changes in a well's water level, specific conductivity or temperature could signal a shift in the quality or

source of inflow to the well. In conjunction with the data loggers, CLEAN is also conducting a rigorous water quality screening for potential contaminants. This baseline data, which CLEAN began collecting in order to establish baseline values in advance of the shaft construction, will be used to detect possible contamination of these private wells as a result of Shaft #4 construction. Already, relatively high levels of methane have been detected in some wells.

Cargill is also understood to be monitoring water quality in some neighboring wells, but only two wells that they studied in 2015 are still being monitored by Cargill in 2019. And to our knowledge Cargill conducted no well water baseline study prior to their drilling of Corehole 18 in 2013.

Thanks to a grant from the Park Foundation CLEAN expects to launch a long-term project to monitor and publicize land surface deformation caused by the mine. Subsidence monitoring enables landowners to seek damages in the event their properties are damaged by mine-related subsidence. If you own property near Cayuga Salt Mine or near Shaft #4, and you are interested in participating in the subsidence study, please email CLEAN.CayugaLake@gmail.com for more information.

Reminder: Please visit the CLEAN website at <http://cleancayugalake.org/> and sign the petition to DEC Commissioner Seggos urging the DEC to require remediation of the Coal Ash Landfill at Cayuga Power Plant.

CLEAN needs your help! If you are interested in adding your energy into our campaigns to protect the lake, please contact us at CLEAN.CayugaLake@gmail.com and include information about yourself and what volunteer opportunities you are interested in committing to. Please consider becoming involved to help our organization grow.

We appreciate your continued support. Tax-deductible donations can be made to CLEAN [here](#).

Thank you,
Cayuga Lake Environmental Action Now

Clean the Lake.
Protect the Lake.