



Cayuga Lake Watershed Intermunicipal Organization

Intermunicipal cooperation to protect the watershed

January 23, 2023

Resolution Requesting Action on the Cargill Salt Mine

WHEREAS Cayuga Lake is an economic driver for those living within the watershed providing drinking water and recreational activities to many, and drawing tourists from around the world, and

WHEREAS the salt mine currently owned by Cargill produces rock salt (known as sodium chloride) and has been in operation since 1916 mining salt from under Cayuga Lake—not the surrounding land--via a contract with NYS, and

WHEREAS in 1975 the New York State Environmental Quality Review Act (SEQRA) established a process for systematically considering environmental factors early in the planning stages of projects that are directly undertaken, funded or approved by local, regional and state agencies the purpose of which is to provide early environmental review that ensures that projects will be vetted, and modified as needed, to avoid adverse impacts on the environment, but due to act becoming law after the salt mine was established, the Cargill mine has not yet been required to undergo this review, and

WHEREAS under SEQRA, if an action is determined to have potential impacts to the environment, an Environmental Impact Statement (EIS) must be prepared for public review to identify ways to avoid or reduce adverse impacts, and

WHEREAS the Cargill salt mine was never required by the DEC to have full environmental review including an Environmental Impact Statement (EIS) that would properly identify potential environmental risks from mining in general and in particular from the geologic anomalies that are situated in the rock above the region currently being mined and below the bottom of the lake, and

WHEREAS the risk of hydrogeologic connections between the salt mine and Cayuga Lake—particularly in the area of these geologic anomalies--would be better understood if an EIS were completed, and

WHEREAS the salt vein of the mine under the Cayuga Lake is deepest at the south end of the lake and rises closer to the bottom of the lake as it extends north and finally surfaces near Syracuse, and

WHEREAS the DEC has permitted salt mining operations to occur further and further north on the lake, away from the safest mining area and closer to the lakebed and under geologic anomalies near the towns of Ulysses, Lansing, Genoa, and Covert, and

WHEREAS the damage from a breakthrough of the lake to the mine includes the risk of subsidence of surrounding lands, salinization of the lake, and potential harm to miners as seen in the Akzo-Retsof mine south of Rochester under the Genesee River in 1994 which salinized a freshwater aquifer, and the 2020 roof collapse of the Avery Island salt mine in Louisiana which killed 2 workers and a subsequent closure of that mine, and

WHEREAS a hydraulic connection between a freshwater lake and a salt mine occurred on November 20, 1980, when a Texaco drilling rig connected Lake Peigneur in Louisiana to the Diamond Salt Mine about 1500 feet below and as a result of that accident Lake Peigneur has subsequently been a brackish lake with chloride levels reported

in 1998 ranged from 800 to 1200 mg/L chloride or 3.2-4.8X the EPA drinking water standard for chloride of 250mg/liter, and

WHEREAS salinity of Cayuga Lake is already at least twice as high as 9 of the other Finger Lakes (excluding Seneca Lake which also has salt mining activities impacting its salinity), and

WHEREAS as salinity increases in the lake, freshwater species including amphibians, fish, invertebrates, and plants, begin to decline, and

WHEREAS seawater has an average chloride content of 19,400 mg/L and runoff from the salt mine operations into Cayuga at SPDES Outfall 001 sampled on July 24, 2023, was found by the Community Science Institute to contain chloride at 34,070 mg/L, and

WHEREAS a full environmental review and EIS would also outline a closure plan for the mine once enough salt is extracted to make the mine no longer economically viable, and

WHEREAS the likelihood of an environmentally detrimental mine/lake connection would be less likely if mining occurred under land instead of water, where the risk of flooding is smaller because overlying rock is more resistant to collapse and there would have fewer or no direct pathways to the lake, but obtaining permits from landowners is more time-consuming and expensive than using the single permit granted by New York State that allows mining under Cayuga Lake, and

WHEREAS over time salt pillars are gradually compressed by the weight of the overlying water and rock, causing the mine ceiling to sag and land nearby to subside which can destabilize foundations, roads, and bridges (see photos below), and

WHEREAS Cargill has monuments to track subsidence and may now be using LIDAR but has not shared this data with property owners, but a Cornell-affiliated researcher found using INSAR satellite data indications of up to 8 cm/year of subsidence over the Hampton Corners Salt Mine in Livingston County, and

WHEREAS Cargill currently has the mine for sale—possibly to an investment firm with little mining experience, but this sale would be unlikely to trigger SEQRA and the subsequent Environmental Impact Statement.

THEREFORE, BE IT

RESOLVED that the Cayuga Lake Watershed Intermunicipal Organization (CWIO) is requesting the NYS DEC and Governor of New York require a full environmental review under SEQRA including an Environmental Impact Statement (EIS) and

RESOLVED that the bond required for the mine be increased from \$3.5 million to \$1 billion+ as connectivity between the lake and the salt mine would have catastrophic effects on drinking water for 50,000+ residents, and

RESOLVED that the SPDES permit (State Pollutant Discharge Elimination System) be revised to reduce the levels of salt allowed to flow into Cayuga Lake from Cargill's Portland Point surface operations to the 250mg/liter chloride level that existed on the Cargill SPDES permit in the early 1980s, and

RESOLVED that NYS should clarify its jurisdiction over the salt mine as Cargill has never recognized the state's authority to fully regulate its underground mining operations, which has led to a lack of both oversight and protection of state resources, and

RESOLVED that the NYS Office of General Services, which must consent to a sale, deny the sale request until an EIS is conducted, and

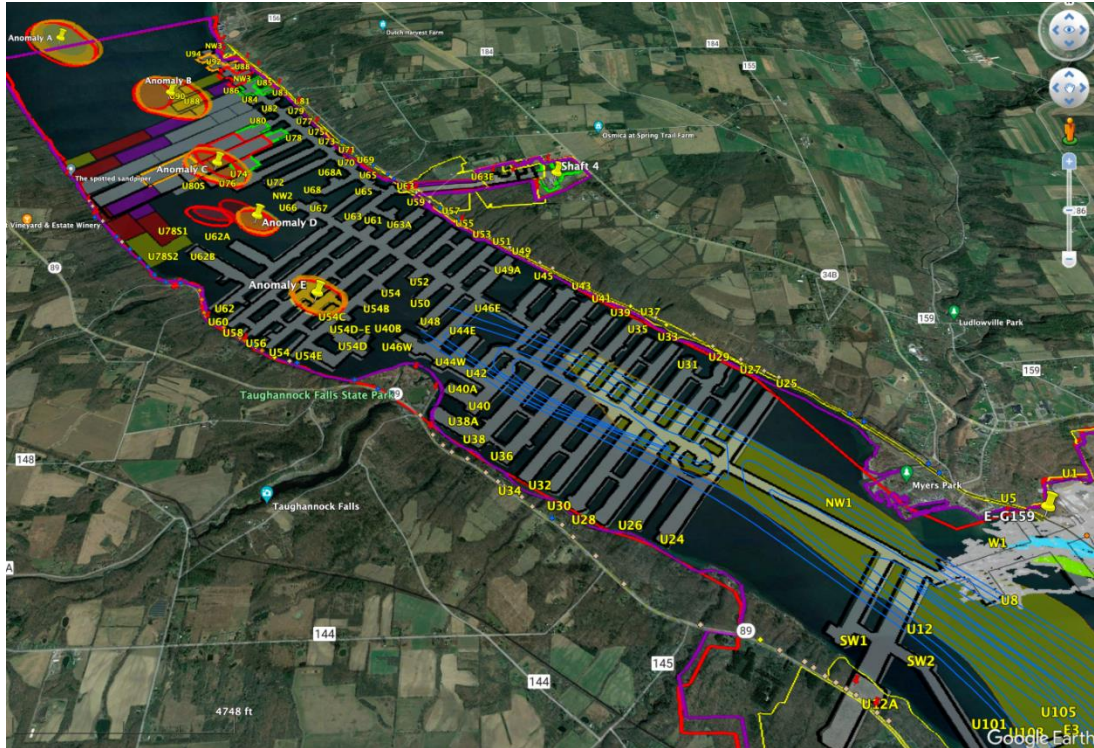
RESOLVED that NYS develop legislation to protect communities from short and long-term mining-related damages including but not limited to requiring an EIS, since NYS does not have these laws in place, and

RESOLVED that the DEC require Cargill to collect and provide subsidence data to property owners within the subsidence zone of the Cayuga Salt mine, and

RESOLVED that the mine facility should have an adequate closure plan, and

RESOLVED that any company without mining experience should not be allowed by the NYSDEC to continue mining under Cargill's permits and any company purchasing Cargill's salt assets should be fully apprised of the potential financial liability that a collapse would pose for the restoration of the adjacent private and public properties as well as the natural resource ecology of the Lake.

Moved by Kent Hubble, Seconded by Stephanie Redmond. Vote in favor: 14, against: 0, abstain: 1.



Subsidence from the Akzo-Retsof mine collapse in 1994:

A sinkhole developed above room 11-Yard West and filled with water from Beards Creek.



(Richard Young, Geological Sciences, SUNY Geneseo, June 1994)

The roadbed of Route 20A was fractured on the east side of the collapsed bridge over Beards Creek. This view is above the room 2-Yard South collapse area looking west, toward the former Hamilton farm house (subsequently purchased by ANSI).



(Richard Young, Geological Sciences, SUNY Geneseo, April 12, 1994)