

# Lakewatch

QUARTERLY PUBLICATION OF SENECA LAKE PURE WATERS ASSOCIATION SERVING THE SENECA LAKE WATERSHED REGION

## OBSERVATIONS — THE ISSUES CONFERENCE

On February 12 and 13, 2015, at the Holiday Inn in Horseheads, NY, the Department of Environmental Conservation (DEC) conducted an issues conference to determine if there were issues that were not adequately addressed in the application from Crestwood Midstream to store LPG in abandoned salt caverns along Seneca Lake.

The hearing was conducted by Chief Administrative Law Judge James McClymonds of the DEC's Office of Hearings and Mediation. His responsibility is to determine if there are "significant and substantive issues" with the Crestwood project that need to be decided at an adjudicatory hearing. If he decides there are, a trial like hearing will be conducted in the future.

In an issues conference, individuals and groups that believe that there are issues that need to be addressed apply to become "petitioners," seeking to present additional expert testimony raising issues that were not adequately addressed or were not considered at all. The petitioners against the project are: Seneca Lake Pure Waters Association, Gas Free Seneca, Seneca Lake Communities (12 municipalities surrounding Seneca Lake), Finger Lakes Wine Business Coalition, and Schuyler County legislators Michael Lausell and Van Harp.

Seneca Lake Pure Waters Association, Gas Free Seneca, Seneca Lake Communities applied for "full party status" and the opportunity to provide expert testimony at the adjudicatory hearing, if one is ordered. The others filed "amicus" briefs to bring their issues to the attention of DEC.

*(Continued next page)*

## PRESIDENT'S MESSAGE

MaryAnne Kowalski



Aerial view of proposed LPG storage site

## Save The Date!

May 4, 6-7:30 PM, Glenora Veraisons Restaurant  
 "What's In Your Watershed?—Big Stream"

CSI Director, Steve Penningroth, will discuss the results of the 2014 stream sampling program for Big Stream. Bring a friend!

RSVP @ [slpwa@senecalake.org](mailto:slpwa@senecalake.org), and include the number attending.



Representing the Crestwood project, and arguing that the application is complete, all the issues were addressed and properly mitigated and that the permit should be issued, were: Lisa Schwartz Esq., for DEC Region 8, Jennifer Maglienti, Esq., for DEC Division of Mineral Resources, Kevin Bernstein Esq., for Crestwood, Robert J. Alessi Esq., for Crestwood.

Attorneys representing the petitioners include: Deborah Goldberg Esq., for Gas Free Seneca (Earthjustice), Moneen Nasmith Esq., for Gas Free Seneca (Earthjustice), Rachel Treichler Esq., for Seneca Lake Pure Waters Association, Kate Sinding Esq., for Seneca Lake Communities National Resources Defense Council (NRDC), Daniel Raichel Esq., for Seneca Lake Communities (NRDC), Jonathan Krois Esq., for Seneca Lake Communities (NRDC).

The experts representing SLPWA:

- Alberto S Nieto Ph.D. is Emeritus at the University of Illinois, Urbana-Champaign, Illinois where he taught from 1970 – 2000. He received his professional engineering degree from Universidad Mayor de San Marcos, Lima Peru, his MA from Washington University in St. Louis, and his Ph. D in Geology, Civil Engineering from the University of Illinois at Urbana-Champaign.
- Raymond C. Vaughan, Ph.D. is a Buffalo-area geologist and environmental scientist with a longstanding interest in science and environmental protection. He received his Ph.D. in Geology from the University at Buffalo.

Each petitioner submitted briefs and expert testimony identifying issues that need additional investigation. At the request of Crestwood, the issues of cavern integrity and water quality are being considered “confidential,” due to claims of trade secrets. The hearings on these issues were closed to the public. (SLPWA has challenged these determinations and hopes to have the entire record released as these are the issues most critical to Seneca Lake. Please watch our website [www.senecalake.org](http://www.senecalake.org) for more information and links to documents and testimony.) The issues discussed during the public sessions included:

- Community Character
- Visual Impact
- Transportation Impacts and Risks
- Emergency Response
- Consideration of Alternatives
- Noise
- Segmentation
- Effects on tourism, agriculture and wineries

After the hearing, the sides were given until April 17 to submit their supplemental briefs about information discussed at the issues conference. There will be an additional period to submit replies to the supplemental briefs. Then Judge McClymonds will consider all the evidence submitted to him and make a recommendation to the DEC Commissioner Joe Martens about whether an adjudicatory hearing, is needed and, if yes, which issues need further investigation.

Please watch [www.senecalake.org](http://www.senecalake.org) for additional developments on this important topic. In addition to its experts, attorneys and consultants, two SLPWA board members attended both days of the conference. On the following pages are their personal observations of the proceedings.

## HAVE YOU JOINED AMAZON SMILE YET?

SLPWA has joined AmazonSmile!

Please consider placing your amazon.com orders through <http://smile.amazon.com>.

Go to AmazonSmile and select Seneca Lake Pure Waters Association as your charity and Amazon will donate a percentage of your purchase to SLPWA!

**Seneca Lake Thanks You!**



**New Amazon  
Program Enables  
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# OPINION ON ISSUES CONFERENCE

Ed Przybyłowicz



As a participant in the recently held Issues Conference, I felt that the New York State Department of Environmental Conservation (NYSDEC) had served the public well by scheduling a formal airing of issues related to the application of Finger Lakes LPG Storage ( a subsidiary of Crestwood Midstream, Houston, TX) which had not been considered seriously by the NYSDEC in the application by the Crestwood subsidiary for a permit to store LPG gas on the shores of Seneca Lake. Now as I reflect on the 2-day conference and the discussions that took place, I find that some central issues never got addressed in this conference and are still hidden from public view.

This is an old story, but it bears repeating, because no one has provided the answers to some very important questions, and yet you have to believe that there are participants in this action that have the answers. The players are Crestwood and their subsidiary Finger Lakes LPG Storage and the NYSDEC. The interested parties are the petitioner participants in the Issues Conference who were trying to understand what happened four decades ago.

Peter Mantius wrote about prior storage of gas in these same caverns in a DC Bureau article, published in this newsletter. Teppco, an energy distributor, stored liquified petroleum gas (LPG) in an abandoned salt mine on the east side of Route 14 in the Town of Reading starting in 1964 until 1984. Professor Halfman of Hobart and William Smith College in his studies of the Finger Lakes and in particular Seneca Lake, noted a significant increase in the amount of sodium and chloride concentrations during the late 1960's and into the 1970's. Was this connected with the storage of LPG in the abandoned salt mine...or not. It could have been purely coincidental ... or maybe not. (More articles by Peter Mantius on the gas storage issue can be found at: <http://www.dcbureau.org/author/peter> ).

The internal workings of the Teppco storage of LPG were not known to the public, but presumably the NYSDEC which prides itself on regulating such activities had information on what was going on in this storage facility. After all, they had regulations that Teppco had to abide by and NYSDEC had to have regular reports from Teppco on the conduct of this hazardous material. Nothing, of course was made public, so the public assumed that all was going according to regulations.

After some 15 years of storing and distributing LPG from this facility, Teppco decided (for reasons unknown to the public and not revealed by the NYSDEC) to close their LPG storage in abandoned salt mines and move the facility further away from the shores of Seneca Lake into a cavern dug out from rock and lined (presumably with a liner that is impermeable to LPG), a facility that would have had to have received approval of the NYSDEC.

This costly move had to have been motivated or even required by some problems associated with the abandoned salt cavern storage of LPG ... or why would Teppco have done it? That is a question that was not answered at the Issues Conference and I would submit is still a question which should be adjudicated through a court proceeding that entails a "discovery" of facts and a public discussion of these facts. The reason is, that we now have an applicant that wishes to repeat what Teppco did in the 1960's and 15 years later abandoned that approach. Instead, they (Teppco) built a more secure facility for the storage of LPG. One has to believe that Teppco and Finger Lakes Storage are competitors. Is one trying to compete with the other by doing the same thing...but "on the cheap"?

(Continued on next page)

## OPINION ON ISSUES CONFERENCE — *CONTINUED*



To use a lakeside quote ... “this smells fishy”! Yet despite articles in the press, questions directed toward the applicant and discussion at the Issues Conference, no one has come forward with answers. FOIL requests to NYSDEC go unanswered and everyone who can is “ignoring the elephant in the room”.

When will those who presumably have the responsibility to protect our environment and the people of the state come forward with answers that the public demands? We have people being arrested daily because they believe that this storage facility is in the wrong place for the environment. These are not people who live next to the facility, these are people who depend on the lake for the livelihood, their health and their water. When will the NYSDEC realize that the people they are supposed to be protecting are calling out for their help ... not their silence?

To the right, the Seneca Lake  
Pure Waters Association team:

**LEFT to RIGHT:**

*Rachel Treichler,  
Alberto Nieto,  
Ray Vaughan,  
Richard Young,  
Ed Przybylowicz*



## DRUMS ON SENECA!

*Jill Ritter*

Drums were heard on the northern shore of Seneca Lake on April 10, 2015 at a workshop hosted by Two Herons Drum Circle to benefit Seneca Lake Pure Waters Association. The workshop was led by Jim Donovan, an award winning educator and founding member of the multi-platinum selling band Rusted Root. Over 45 people, of all ages and abilities, enjoyed an evening of drumming which is scientifically proven to improve your mood, relieve stress, increase mental focus and to support social connections.



Two Herons Drum Circle began on the shores of Seneca Lake two summers ago when a small group of friends got together on a sunny day to play their hand drums. Under the leadership of Adam Fryer, the drum circle has grown into a volunteer based organization that uses percussion to inspire positive rhythms and actions to bring communities closer together.

SLPWA received \$300 from the Drum Benefit and we thank Two Herons Drum Circle and Jim Donovan for their efforts!

## DEC ISSUES CONFERENCE— AN OBSERVER'S PERSPECTIVE

By Barb Schiesser

On February 16, 2015, a news alert reported a train derailment in West Virginia. A tanker car carrying highly

explosive crude oil had gone off the tracks and into the Kanawha River in West Virginia. The video showed a frightening huge ball of fire. Later reports documented a much worse situation. As many as twenty oil cars had ultimately exploded. It was still burning the following day and oil was still leaking into the river. It looked like several huge bombs had been exploded. One house burned to the ground, and many people had to be evacuated from the sparsely populated rural area. Reportedly, all the cars were the newer version, a tougher car - not the ones faulted by regulators and operators for a number of years.

This happened just three days after the New York State Department of Environmental Conservation (NY DEC) issues conference. The conference was held to explore issues related to the Storage of Liquid Propane Gas (LPG) in unlined, abandoned salt caverns on the West Side of the lake, north of Watkins Glen.

As I read the rail accident reports, I thought back to the conference – and the fact that this type of accident happens far too frequently to be minimized when considering the transportation of volatile/flammable substances through populated or environmentally sensitive areas. Several conference participants opposed to the facility raised various safety issues. Concerns were raised about the transportation of extremely flammable LPG by rail and road, including over the old trestle bridge which spans the Watkins Glen Gorge. In rebuttal, to arguments that the safety issue had not been sufficiently considered, the attorneys for Texas based Crestwood, characterized the drawing of additional attention to the issue as unwarranted and overstated.

Overstated? Unwarranted? Can they not envision, as most of us can, a train derailling on that trestle and cars carrying highly explosive liquid propane crashing down into the gorge in the midst of the tourist season? It has been reported that as many as 3,000 people a day pass through the gorge in the summer and fall - and there would be no escape.

The conference was held to examine whether “significant and/or substantive” issues had been ignored, or not adequately explored in the Environmental Impact Statement (EIS) and other documents. The Crestwood attorney's remark was, unfortunately, how Crestwood responded to all the issues raised by the opposition parties. Other issues included: Noise, Community Character, Effects on the tourist economy, agribusiness, and wineries, and more.

Some issues, argued in a closed session, are deemed confidential and proprietary by Crestwood and cannot be disclosed to the public. Seneca Lake Pure Waters attorney, Rachel Treichler, presented SLPWA expert's research during both the open and confidential portions.

It was shocking to me to observe that the NY Department of Environmental Conservation (NYDEC) lawyers strangely appeared to be on the “same team” as Crestwood. Coincidentally, their tables were positioned next to each other. They passed notes during the proceedings and huddled together to talk on the breaks. Their formal arguments to the judge could have been interchanged. If you closed your eyes and had not heard them announced, you might not know which party was speaking.

On day one, about twenty five individuals marched in to the general session together wearing matching tee shirts. On the front of the shirts, the words boldly stated, “Support LPG Storage”. Other than that, most people dressed and behaved appropriately for the event. There was little whispering or snickering, no matter how vehemently people agreed or disagreed with the lawyers' presentation or argument. One exception occurred after a Crestwood attorney, spoke to DEC Judge, James McClymonds, in an attempt to define a point of law. He began a statement to the judge, “Imagine Yourself an Administrative Law Judge”. The judge softly and wryly interjected, “I am an administrative law judge - at least I thought I was”. Most people could not contain their amusement. It was therapeutic humor after many frustrations already that day. Not all was humorous however.

Throughout the conference, it appeared that the DEC team, rather than serving as a check and balance for the public, Seneca Lake and the environment, was more like “birds of a feather” with the applicant. One can only hope that the obvious symbiosis between the regulatory agency (DEC), and the applicant company, (Crestwood), was not lost on Judge McClymonds.

## **LPG Storage in NY Salt Cavern Linked to Salinity Spike in Drinking Water**

By Peter Mantius,

For decades, scientists have puzzled over why Seneca Lake, the largest of New York State's Finger Lakes, is by far the saltiest of the 11 glacier-carved water bodies.

Now a Nevada hydrologist claims he's solved the mystery. Tom Myers, who was hired by opponents of a plan to store liquid petroleum gas (LPG) in salt caverns at the southern end of Seneca, pins the blame on LPG storage in the same group of caverns between 1964 and 1984. "The risk of saline influx to the lake from LPG is very high and should be avoided," Myers wrote in January.

Formed as ice age glaciers retreated only 10,000 years ago, Seneca Lake was named for the westernmost Native American tribe in the Iroquois League. Running north and south, it is nearly 40 miles long and 1.5 miles wide. The state's deepest lake, Seneca consistently holds 4.2 trillion gallons of water. That's more than the current 3.6 trillion gallons behind the Hoover Dam in drought-plagued Lake Mead, America's largest reservoir.

Scientists have suggested both natural and man-made causes for Seneca's unusually high salinity, which comes from dissolved salt. Salt levels spiked dramatically in the late 1960s and have been in gradual decline ever since, easing the hazard for the more than 100,000 who rely on the lake for drinking water. But levels of sodium and/or chloride still exceed the recommended state limits for infants and people on low-salt diets, and water treatment plants along the lake are required to report those elevated levels to their water customers.

For the village of Waterloo at the lake's northern end, the dissolved sodium content of water drawn from Seneca is nearly four times that state limit. James Bromka, chief of Waterloo's water treatment plant, says the water is perfectly safe for most users. But he's concerned that another salt spike could pose a serious threat at hospitals, nursing homes and prisons that count on him to deliver potable tap water.

Bromka has been worried enough to explore a desalinization system for his treatment plant. He found that a reverse osmosis unit that would filter salts from lake water could cost \$2 million. "I think it would cause sticker shock" to water customers, he said. "That's why we're trying to be proactive against threats to water quality."

In January, Bromka filed an affidavit stating his opposition to a plan by Houston-based Crestwood Midstream Partners to store LPG in salt caverns at the southern end of the lake, 40 miles from Waterloo. He stated that Crestwood had failed to adequately consider the project's potential adverse impact on his ability to provide "a consistent, safe and affordable source of drinking water."

The state Department of Environmental Conservation has been considering Crestwood's LPG permit application for five years. On Feb. 12, an administrative law judge at the DEC is expected to consider Bromka's affidavit as well as Myers' analysis. The law judge will determine whether a formal adjudicatory hearing is necessary to resolve project issues still in dispute.

Crestwood's LPG storage plan has drawn fire from several municipalities and counties surrounding the lake, as well as dozens of wineries and hundreds of local businesses. They have been most critical about the potential industrialization of the picturesque lake region that relies economically on agriculture and tourism. They also fear catastrophic explosions or fires triggered by cavern leaks or collapses, based on the salt cavern storage industry's poor safety record. Gas Free Seneca, a non-profit citizens group formed to try to block the project, hired Myers and is counting on his analysis to convince the DEC to reconsider the lake salinity issue as well.

## LPG STORAGE IN NY SALT CAVERN LINKED TO SALINITY SPIKE IN DRINKING WATER—*Peter Mantius*

The DEC published a water quality report on the Finger

Lakes in 2001, but it has been nearly silent on the subject since. “I think it’s pretty clear that DEC has not tested Seneca Lake since the 1990s. And the cause is staff and budget cuts,” said Mary Anne Kowalski, president of Seneca Lake Pure Waters Association (SLPWA) a Geneva-based non-profit group.

Myers’ analysis rests on several conclusions reached by the DEC and other independent water experts. The consensus is that salt seeps into the two deepest Finger Lakes — Seneca’s deepest point is 618 feet, Cayuga’s is 435 feet — from salt-laden strata beneath them. Salt is mined at the southern end of both lakes, where the salt beds are 2,000 feet or more below ground level. The salt formation gradually rises as it stretches north, intersecting with the sediments below the lakes at their northern ends.

The presence of dissolved salt in Seneca has been tracked for more than a century by measuring lake concentrations of chloride ions, which when combined with sodium makes common salt. Myers noted that a “massive spike of chloride” that occurred during a five-year period in the late 1960s coincides with TEPPCO Partners’ introduction of LPG storage in a salt cavern about three miles north of Watkins Glen.

From 1964 to 1984, TEPPCO stored LPG in a cavern deep in the salt bed. But in 1982 it obtained a DEC permit to dig a new cavern nearby in Genesee shale, which is much closer to ground level and far removed from the salt bed. The company lined the new cavern and transferred its LPG storage activities there, abandoning the old salt cavern. It has been storing LPG in the new cavity since the 1980s. In response to a Freedom of Information request from [DCBureau.org](http://DCBureau.org), the DEC said it had no records to shed light on why TEPPCO spent the time and money to move its LPG storage activities out of the salt bed.

A Crestwood subsidiary initially planned to reopen the abandoned TEPPCO salt cavern and use it for LPG storage again. But it dropped that plan in 2010 in favor of using other caverns in the salt bed to store liquid propane and butane. The LPG storage process Crestwood plans to use — like the one TEPPCO used from 1964 to 1984 — involves the repeated transfer of LPG and brine into and out of the salt caverns. Those transfers involve significant changes in pressure against the cavern’s sides, which may help explain the fall of a 400,000-ton block from the roof of the old TEPPCO cavern in the late 1960s.

Myers found that changes in pressure in the old TEPPCO salt cavern had far-reaching consequences. “The pressure from the LPG activities is transmitted along the salt formation until it essentially squeezes out high-chloride groundwater into the bottom of Seneca Lake,” Myers wrote. “The chloride discharges in the mid-1960s were extremely high, and greatly increased the overall chloride concentration in the lake. The currently-proposed LPG storage in the salt beds would, in my opinion, do the same thing.”

Elizabeth Suman, Crestwood Midstream’s manager of investor relations and corporate communications, did not respond to phone and email requests for comment on Myers’ analysis. Myers, who holds a Ph.D. in hydrology and hydrogeology from the University of Nevada, Reno, declined to comment for the record.

Myers’ hypothesis is “plausible,” though it lacks data to confirm it, according to John Halfman, a professor of hydrogeology and geoliminology at Hobart and William Smith in Geneva who is widely regarded as the leading expert on Seneca water quality. “Tom may be correct in that TEPPCO started (LPG) storage in 1964, the same time salinity in the lake spiked upward,” Halfman said in a recent email. “His educated guess is as good as anyone else’s.... Unfortunately, coincidence does not prove causation.”

In a recent affidavit, Halfman urged the DEC to require Crestwood to conduct year-long pressure tests on any salt cavern proposed for LPG storage and then to contract with independent monitors to check for changes in the lake’s dissolved chloride and sodium levels. Kowalski of SLPWA seconded that idea.

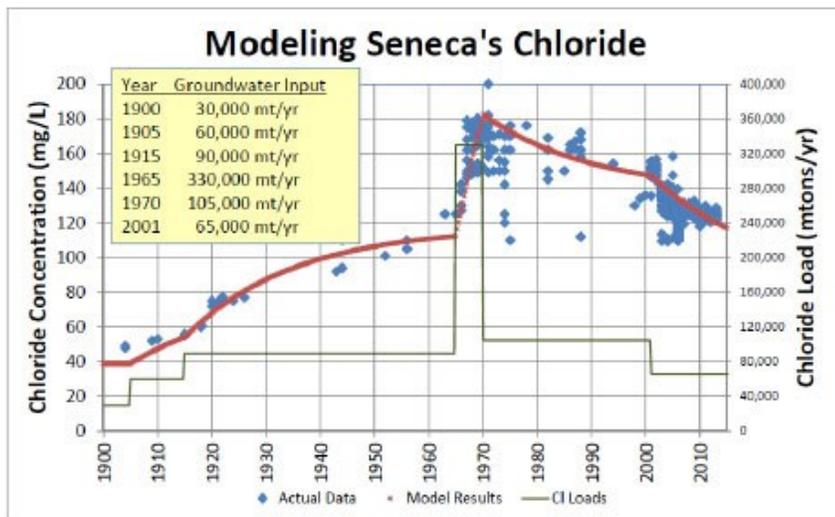
## LPG STORAGE IN NY SALT CAVERN LINKED TO SALINITY SPIKE IN DRINKING WATER—Peter Mantius

Kowalski said SLPWA's water experts agree with Myers that

Seneca's high salinity is likely the result of prior LPG storage in the salt cavern. "The exact mechanism of the connection between the salt caverns and the lake is not well understood," she said. "But our experts believe there are faults in the area that should be carefully examined before these caverns are used."

Halfman said he'd need more data before drawing a definitive conclusion. "I do not know enough groundwater hydrology to understand/follow Myers' logic on the mechanics of flow through the salt," he said. "Other possibilities exist, however. The simplest: Excess salts could have been dumped directly into the lake from the mines, as they probably had larger waste loads in the less regulated (or unregulated) past."

On the other hand, the 4.2-trillion-gallon lake has a vast capacity to dilute impurities. And every year it receives new water from rain and streams that affect its salinity. Seneca is also constantly losing salinity as its waters are discharged through the Cayuga-Seneca Canal outlet at the northern end of the lake. So its chloride and sodium concentrations vary from year by year.



**Peter Mantius**, a freelance journalist from Schuyler County who follows shale gas drilling and LPG storage issues for the DC Bureau, natural resources news service. He also writes for (Gannett) on shale issues. He is a former reporter at the Atlanta Journal-Constitution. Peter is a previous recipient of the SLPWA Friend of Seneca Lake award and he continues to be a valuable source of information and friend to Seneca Lake.

To read more of his stories, please visit: <http://www.dcbureau.org/author/peter>. We appreciate his approval to reprint his story on TEPPCO.

John Halfman's 2014 chart shows the changes in Seneca Lake chloride concentrations over the past century.

Halfman has obtained records of annual chloride concentrations in the lake dating back to 1900. In 1900, the chloride concentration was 40 milligrams per liter. It rose steadily to 110 mg/l by 1965, perhaps due to an increase in salt mining at two operations at the southern end of the lake near Watkins Glen during those six decades. Between 1965 and 1970, chloride jumped to more than 180 mg/l. Since 1970 the chloride concentration has gradually fallen off to about 120 mg/l.

That four-decade decline occurred despite a sharp rise in road deicing and legal chloride dumping by the two salt operations near Watkins Glen: U.S. Salt and Cargill. The DEC has issued permits that allow both operations to dump specified daily limits of chloride into the lake.

U.S. Salt was acquired in 2008 by Inergy LP, which proposed the LPG storage project in 2009 before being acquired by Crestwood in 2013. Both Inergy and Crestwood continued salt mining operations while pursuing a permit to store LPG in abandoned salt caverns.

EPA records show that as an Inergy subsidiary, U.S. Salt repeatedly violated its discharge limits, while Cargill generally complied with its limits. And in July 2012, boaters on the lake noted a "geyser" of brine that shot above the treetops on the U.S. Salt property.

## LPG STORAGE IN NY SALT CAVERN LINKED TO SALINITY SPIKE IN DRINKING WATER—Peter Mantius

The company did not report the incident to the DEC until after Gas Free Seneca posted a video on YouTube showing a swath of burned vegetation caused by the brine eruption. The company later told the DEC that less than 2,000 gallons had escaped from a pin-hole leak in a pipe.

Such discharges — authorized or not — probably have a negligible effect on the salinity of the lake. In its draft environmental impact statement for the LPG project, Inergy analyzed the potential impact of a hypothetical instantaneous release of 80 million gallons of brine into the lake. Assuming brine is 25 percent sodium chloride by weight, the company found that such a massive release would only raise the lake's total concentration of sodium and chloride by 2-3 percent.

Halfman did not dispute the company's calculations, though he said the hypothetical release of 80 million gallons of brine (which is 10 times as salty as seawater) would not disperse throughout the lake as quickly as salt that is added gradually.

Halfman noted that leaks from a now-closed Morton Salt operation in Himrod, near the midpoint of the lake, in the early 1970s probably also contributed to Seneca's high salinity. But it's unclear how much. And the Morton discharges occurred years after the primary spike in chloride concentration.

Bob Barton, an engineer who has monitored streams that flow into Seneca for many years, said their sodium and chloride levels are consistently lower than levels in the lake itself. That suggests that Seneca's sodium and chloride loads originate from a point within the lake.

While streamflows don't raise the lake's salinity, the known discharges from the salt mines "don't get you there either," said Barton, an electrical engineer experienced in underwater acoustics who is a board member of the Ithaca-based Community Science Institute. He said he "tends to agree" with Myers' explanation that advection effects from LPG storage in the southern end of the lake encourage salt seepage into the bottom of the lake miles to the north. But he said he thought it would be extremely challenging and costly to prove it. "I don't see anyone who's going to pay" for the necessary lake monitoring, he said.

Myers acknowledged that data to support his conclusion is thin. "The advection process is extremely complex and representative data is very difficult to collect, so it would be very difficult for (Crestwood) or others to complete analyses that suggest LPG storage over the next 50 years could be done safely without causing massive salt influxes to Seneca," he wrote.

For the same reasons, Crestwood would not be able to monitor or prevent such influxes, he added.

Halfman reported in December that the federal Environmental Protection Agency's drinking water advisory threshold for chloride is 250 milligrams per liter. The drinking water advisory level for sodium is 30-50 mg/l, which is lowered to 20 mg/l for newborns and those on low-salt diets. So any increase over the lake's current chloride level (122/128 mg/l, surface/bottom) and/or sodium level (75/79 mg/l, surface/bottom) "would be a concern," he said.

Bromka said Waterloo's sodium level has hovered around 78 mg/l. He said he's not particularly concerned about the proposed LPG project because he doubts the DEC will ever grant the permit in light of the risks.

"I'm watching it," he said. "But I can't believe the DEC would let it happen."

## “WHAT’S IN YOUR WATERSHED?”—BIG STREAM



The first “What’s In Your Watershed?” event in the Seneca Lake Watershed will highlight the water quality in Big Stream, a tributary to Seneca Lake.

CSI, in partnership with the Seneca Lake Pure Waters Association (SLPWA) volunteers, began monitoring Big Stream in 2014 for impacts from agriculture and urban development. Big Stream flows through the town of Dundee and enters Seneca Lake at the scenic Glenora Point on the west side of the lake.

Frances Dumas, Yates County Historian, will present a brief history of the Big Stream watershed and development in the Town of Dundee. Steve Penningroth, Executive Director of the Community Science Institute, will present results from the 2014 monitoring events and discuss the types of water quality issues that may be facing Big Stream in the future.

Big Stream – What’s In Your Watershed? will be held on Monday, May 4th from 6-7:30 PM at the Glenora Veraisons Restaurant located at 5435 State Route 14 in Dundee. Light hors d’oeuvres will be served. Please RSVP by sending an email to [slpwa@senecalake.org](mailto:slpwa@senecalake.org) or complete and mail the enclosed card by April 29<sup>th</sup>.

We are looking for more volunteers for the 2015 Stream Sampling Program. If you are interested in becoming a new volunteer, please check the card for appropriate stream site and return.

The other two “What’s In Your Watershed?” events will feature results from the stream sampling at Catharine Creek and Reeder Creek and will be held later in the summer. Members will receive advance notice of each of these future events as they are finalized. We hope to see you at one of these informative evenings! Bring a friend!

### “What’s In Your WaterShed?” – Big Stream

May 4<sup>th</sup> 6-7:30 PM

Fran Dumas—History of the Big Stream Watershed

Steve Penningroth—Results of 2014 Big Stream sampling program

Light hors d’oeuvres served; wine purchased by the glass

@ Veraisons Restaurant, Glenora Wine Cellars

\_\_\_\_ Yes, I/We will be attending \_\_\_\_ (# attending)

\_\_\_\_ I/We are interested in volunteering for the 2015 Stream Sampling Program for:  
(for new volunteers)

\_\_\_\_ Big Stream    \_\_\_\_ Catharine Creek    \_\_\_\_ Reeder Creek    \_\_\_\_ Keuka Outlet

Name \_\_\_\_\_

Address \_\_\_\_\_

Email Address \_\_\_\_\_ Telephone # \_\_\_\_\_

*Please return by April 29th or email RSVP to [slpwa@senecalake.org](mailto:slpwa@senecalake.org)*



SLPWA  
PO BOX 247

NAME \_\_\_\_\_  
PERMANENT MAILING ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_ Phone \_\_\_\_\_  
EMAIL \_\_\_\_\_  
SEASONAL ADDRESS \_\_\_\_\_

	<b>1 YEAR</b>
INDIVIDUAL	\$30
FAMILY	\$50
SENECA SUPPORTER	\$75
LAKESHED LEADER	\$150
SENIOR/STUDENT	\$25
SMALL BUSINESS	\$50



SLPWA  
PO BOX 247

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	<b>1 YEAR</b>
INDIVIDUAL	\$30
FAMILY	\$50
SENECA SUPPORTER	\$75
LAKESHED LEADER	\$150
SENIOR/STUDENT	\$25
SMALL BUSINESS	\$50



SLPWA  
PO BOX 247  
GENEVA, NY 14456

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INDIVIDUAL	\$30
FAMILY	\$50
SENECA SUPPORTER	\$75
LAKESHED LEADER	\$150
SENIOR/STUDENT	\$25
SMALL BUSINESS	\$50



SLPWA  
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NAME \_\_\_\_\_  
PERMANENT MAILING ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_ Phone \_\_\_\_\_  
EMAIL \_\_\_\_\_  
SEASONAL ADDRESS \_\_\_\_\_

	<b>1 YEAR</b>
INDIVIDUAL	\$30
FAMILY	\$50
SENECA SUPPORTER	\$75
LAKESHED LEADER	\$150
SENIOR/STUDENT	\$25
SMALL BUSINESS	\$50

## SLPWA Board of Directors

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*Photo taken on Seneca-Cayuga canal*

### **HAVE A GREAT A SENECA LAKE PHOTO TO SHARE?**

We will be featuring photos of our beautiful Seneca Lake in each issue of Lakewatch, either on the front or back page. Have a favorite to share? Send an email with a jpg attachment to [slpwa@senecalake.org](mailto:slpwa@senecalake.org).

You may be our next featured photographer!



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