

9/26/16 EPA Committee

ENVIRONMENT, PLANNING & AGRICULTURE COMMITTEE

OF THE

SUFFOLK COUNTY LEGISLATURE

MINUTES

A meeting of the Environment, Planning & Agriculture Committee of the Suffolk County Legislature was held in the Rose Y. Caracappa Legislative Auditorium of the William H. Rogers Legislature Building, 725 Veterans Memorial Highway, Smithtown, New York on September 26, 2016.

MEMBERS PRESENT:

Leg. Kara Hahn, Chairperson
Leg. Al Krupski, Vice Chair
Leg. Sarah S. Anker
Leg. Thomas Muratore
Leg. Robert Trotta
Leg. Bridget Fleming

ALSO IN ATTENDANCE:

Leg. Robert Calarco, 7th Legislative District
George M. Nolan, Counsel to the Legislature
Sarah Simpson, Assistant Counsel/Legislature
Amy Ellis, Chief Deputy Clerk/Legislature
Laura Halloran, Budget Review Office
Katie Horst, County Executive's Office
John Marafino, County Executive's Office
Sarah Lansdale, Director/Department of Planning
Lauretta Fischer, Department of Planning
Frank P. Castelli, Economic Development & Planning
Carrie O'Farrell, Nelson, Pope & Voorhis
DeWitt Davies, Chief Environmental Analyst/Planning
Michael Pitcher, Director of Communications/PO
Alyssa Turano, Aide to Leg. Hahn
Catherine Stark, Aide to Leg. Krupski
Robyn Fellrath, Aide to Leg. Anker
Brendan Chamberlain, Aide to Leg. Muratore
Greg Moran, Aide to Leg. Trotta
Elizabeth Sutton, Aide to Leg. Fleming
Rick Brand, Newsday
Amy Engel, St. Joseph's College
Dr. Mohammad Rana
Joseph Keyes, Trustee/Village of Patchogue
Steven Uccellini, Village of Patchogue
Richard Remmer
Jeffrey W. Szabo, Suffolk County Water Authority/LICAP
Tyrand Fuller, LICAP
Francis J. Koch, LICAP
And all other interested parties

MINUTES TAKEN BY:

Diana Flesher, Court Stenographer

9/26/16 EPA Committee

THE MEETING WAS CALLED TO ORDER AT 10:05 AM

VICE CHAIR KRUPSKI:

All Legislators to the horseshoe please. And all rise for the Pledge of Allegiance led by Legislator Fleming.

SALUTATION

Good morning and welcome to the regular committee of Environment, Planning and Agriculture. Chairman Hahn is on her way, but we have to start because we try to be mindful of the committees that are coming after us. We have a number of correspondence today.

PUBLIC PORTION

We'll start with the Public Portion. Amy Engel. And on deck Dr. Rana.

MS. ENGEL:

Good morning, members of the Legislature. My name is Amy Engel and I'm the Director of Corporate and Foundation Relations at St. Joseph's College in Patchogue.

Thank you for the opportunity to address you this morning regarding Introductory Resolution 1860, which would authorize the installation of aerators in Patchogue Lake as part of the Clean Lakes in Patchogue Program. St. Joseph's College, professors and students, have been collecting samples and studying the lake for several years and have been part of the several lake cleanups. We are very concerned about the deteriorating water quality and the parts of the lake that are dying due to eutrophication. Funding for the Clean Lakes in Patchogue Project will reverse a dangerous trend and restore Patchogue Lake to a healthy lake.

This is especially important because Patchogue Lake is part of the larger Patchogue River system, which empties into the Great South Bay, an essential water body in Suffolk County. The project has brought support from St. Joseph's College, the Village of Patchogue, the Greater Patchogue Chamber of Commerce and Save Patchogue Lake Committee.

St. Joseph's College is committed to continuing to provide professors and students to monitor and gather samples of the lake to measure and evaluate the impact and improvements the aerators will have. Our property is adjacent to the lake and it is literally in our backyard. As such we're extremely committed to its restoration. We'd like to thank Legislator Calarco for his sponsorship and we urge your support of IR 1860 and we're here to answer any questions you may have. Thank you.

VICE CHAIR KRUPSKI:

Thank you. And we have other cards so we might have questions for you later when we discuss it. Dr. Rana. And on deck Joseph Keyes.

DR. RANA:

Good morning members of the Legislature. My name is Dr. Mohammad Rana and I am a professor of biology at St. Joseph's College. Thank you for the opportunity to address you this morning regarding Introductory Resolution 1860, which would allow installation of surface aerators for the Clean Lake in Patchogue Program.

I have to say a few more things about the lake, but I brought a witness with me. The picture of the lake itself, the handout has been given to you. This is figure four. It shows itself that the lake is dying. The picture on the right side was taken 1997. The other picture is 2008. In eight years

almost 30% of the lake is gone. And if we look at the maps for last one hundred years of this area, two lakes from Suffolk County have completely disappeared. They are not on the map. And the same thing is going to happen to this lake; that's why we have submitted this application.

I have been a part of the Dean of St. Joseph's College, professors, students, staff, that have been taken samples and monitoring the water quality of the lake over the last few years. I would like to emphasize how bad the decline has been in water quality. It's not only water quality, the lake, the volume of the water has been reduced significantly. Within last 50 years, 36% -- 26% water loss completely; the lake has turned into land.

So there are many ways the lake would be restored, which we discussed with the local community, with the elected officials. And we end up with applying for a grant. There are multiple methods. One method is dredging the lake, which is very expensive and is not possible. So, therefore, we have come up with some easy and inexpensive solutions.

Surface aerators is one of the solutions. What this will do is this will increase the amount of oxygen in the lake. The lake, there's no sediment, there's no dirt or silt or the clay on the bottom of the lake. The lake is full of muck. This is organic waste which cannot be decomposed.

So with the increase in oxygen, this muck will be decomposed and hopefully the lake depth will increase. And there will be water flow. Also the water flow in this lake is almost zero. Although this lake is part of Patchogue River system, which has three other lakes, but there's no water movement. The inlet is completely blocked. The lake is full of debris. We are trying to clean up this lake regularly with the help of the community and with -- (beeper sounded) is that all?

VICE CHAIR KRUPSKI:

You can finish up. You can wrap it up.

DR. RANA:

So what we -- if we don't do anything, this is what I suggested, the lake will disappear. In the next 50 years I will not be here. Within 50 years this lake will not exist on the map. So, therefore, we really request that this is not the treatment. Aerator is not a treatment. This is just putting a ventilator on a very sick patient. And then we have to continue exploring other methods and exploring to apply for grants to restore this lake.

VICE CHAIR KRUPSKI:

Thank you. If you could, Legislator Fleming has a question.

LEG. FLEMING:

Good morning. Is it doctor?

DR. RANA:

Dr. Mohammad Rana.

LEG. FLEMING:

Good morning, sir.

DR. RANA:

Good morning.

LEG. FLEMING:

And thank you for coming. And thank you for your attention to the environment. I represent the south fork of Long Island where we have currently seven water bodies that are noticed by the DEC

for harmful alga blooms. We have been fighting this fight for a longtime. And I appreciate your final comments that this is putting a ventilator on a sick patient. Because that was what my question was at committee -- at the Water Quality Committee and this as well. I certainly support any effort to save this lake.

I just am concerned and would love your thoughts on -- to what extent aerators are really going to solve what is, you know, a systematic problem with regard to an imbalance in the ecology of that water body; and if there are plans -- don't get me wrong, I totally support what you're up to, but I'm concerned because of some of the things that have happened in the Town of Southampton, I certainly was trying to save water bodies unsuccessfully for a lot of money. What are the next steps; what are the plans once the patient is ventilated, to do something real about restoring balance to the ecosystem there?

DR. RANA:

Well, ventilators cannot be put in all the lakes. The bathymetric analysis of this lake suggests that this is only one possible way to extend the life of the lake. This lake is full of muck. Muck is a undecomposed material which has come from different areas plus duck waste and organic waste like dead leaves. So that muck cannot be decomposed without oxygen.

So first thing is that the lake lacks oxygen. So these aerators will help to improve the oxygen level of the lake. And is it -- and we are hoping that the muck will be reduced. If the muck will be reduced, the lake depth will increase and then the water flow will start. There are no side effects of this aerator, but definitely the oxygen will be increased and there will be a circulation in water. And this lake is a part of the Patchogue River system and the flow -- the flow rate is very important for this. Because the -- in that lake, whatever is coming from the canal gets stuck in the Patchogue Lake and Patchogue Lake will fill up very fast.

LEG. FLEMING:

Do you know what change this will make in the flow rate specifically?

DR. RANA:

At this time we just believe that there will be a little bit increase but continuously we are going to monitor this lake for the next two or three years. And in case there's any change, any effect on the -- any negative effect on the ecosystem, we'll be informed, we will stop this process immediately. But I have done a lot of research. There are no negative effects. In some ways there is no effect at all, but there's no negative effect on the ecosystem. But we will make sure that there is no negative effect on any of the organism and we are keeping a recording. We will keep on keeping the record.

LEG. FLEMING:

I appreciate that there's no negative effect, it's just a question of limited resources and how we apply them and if they're being applied in a way that begins the process, that you're committed to continuing in a way that might really remediate the water body or -- I mean -- or not. Is that -- that's my only question. I appreciate that, but there is a cost to this in terms of the dollars spent. And we just need to get smarter and smarter about this.

We've spent years and years on Mill Pond in Water Mill in Southampton. Many -- we started with aerators. We did a number of different experimental applications to try to pull that water body back. Georgica Pond in East Hampton now has a private foundation of neighboring homeowners who are actually harvesting the bay bottom. They're pulling that stuff out and shipping it off the Island.

So, I just -- I just -- I wish you good luck. I just hope that you understand this is a beginning and that, you know, I hope these resources will be spent with the view toward a very aggressive approach to actually restoring balance to the ecosystem of the lake.

DR. RANA:

Sure.

LEG. FLEMING:

Thank you.

DR. RANA:

At the same time I would like to add that apart from the aerators we are trying our best to stop the surface erosion, which is coming to the lake, like the dead branches, the dead leaves and other sediments. So it is a combined effort. And plus aerators. Aerators is not the only one we are planning on. We are exploring other methodologies.

LEG. FLEMING:

That's good to hear. Thank you.

VICE CHAIR KRUPSKI:

So I have questions for Dr. Rana, too, about the -- you talked about mitigating the sediment flow, mitigating the amount of, you know, organic matter that's accumulating, bio-accumulating in the lake; and also, you know, baseline levels of nutrient and pathogens that are coming into and leaving the lake. But I think -- we do have other cards. We do have a presentation so I'd like to leave that to when we talk about the actual project. So thank you.

DR. RANA:

Thank you.

VICE CHAIR KRUPSKI:

Joseph Keyes, Trustee from the Village of Patchogue. And on deck Steven Uccellini. I'm sorry if I got that wrong.

MR. KEYES:

Good morning, ladies and gentlemen. Thank you for the opportunity to speak this morning. I am Joseph Keyes, Trustee in the Village of Patchogue. We have two items on your agenda, which are of interest to us, item 1860 and 1863. I leave all the technical information to the experts for you to speak about, but I'm here just to assure you that the Village of Patchogue itself is fully committed to both projects.

About a year-and-a-half ago we formed a committee to protect the environment, a Patchogue committee. One of our projects was -- that we designated would be the lake, our CLIP project, Clean Lakes in Patchogue. We are partners with St. Joe's -- we have partnered with St. Joe's College and the students there. We are committing our forces. Our inkind services will be there. We will do all the installation of the aerators, the electrical hookups and all that. But I just want to assure you on behalf of the Mayor, the board, the residents we are fully committed to seeing this project as far as it will take us and as long as it will take us.

The lifers in Patchogue tell me there was a time when they actually swam in the lake and when they could drop nets into Little Creek and come out with nets full of minnows. We'd like to see that restored. And we think that approving this grant application will be a major step towards seeing that, seeing the reversal of the eutrophication of both the lake and Little Creek. Any questions? Otherwise I thank you, again, for your time and hope you will see us --

VICE CHAIR KRUPSKI:

Thank you. If there's no questions, we'll have questions later. Thank you. Steven Uccellini. And on deck Richard Remmer.

MR. UCCELLINI:

Good morning, ladies and gentlemen. I'm here to speak about IR 1863, which is Little Creek -- which is the Little Creek, which is located in the southern portion of the Village of Patchogue and discharges to the Great South Bay.

Little Creek basically serves as a drainage culvert for that area. And down on the southern end there is a vault that has been installed some time ago that is not working properly. This vault was installed. There are pipes that go from the vault through a bulkhead and out into the Great South Bay that are somewhat back-pitched so the drainage is not always complete.

Also during storms there is a lot of wave action that brings the sediment and the dirt from Shorefront Park and deposits it in front of the pipes, which also hampers its drainage. What this is doing is it's impounding water upland. And the water table rises at this point and affects the people's sanitary system. The people in that area, the residents in that area are all on subsurface sanitary disposal systems. Now, a subsurface disposal system is supposed to have, according to Health Department, at least two feet of clean sand to act as a filter so that when the leaching pools drain, it goes through this sand and the waste gets filtered and the remaining water travels through the water table.

What's happening in this case is that the pools are filling because of the high groundwater. And this filtration system is not being allowed to work. What we proposed to do is to remove this vault, the blockage; and also reinstall three pipes, but of a smaller diameter, 24-inch in diameter and make sure that they're pitched properly going out into the bay.

There is also coming out of this vault an 18-inch iron pipe, ductile iron pipe, that goes about 45 feet out into the bay. It is below the low water -- waterline and is constantly draining it; never stops. It's just one little pipe always working. That's really where the idea came from, where if we install three at 24-inches at the proper elevation so that it's below the pipe that is actually coming through Smith Street, the water would also drain. If we can, for lack of a better term, pull this plug, we can lower the water table and keep it at a lower elevation so that that drainage, that filter is there.

The other thing that it's going to help is that people in this area also during high tides, velocity flooding, high periods of rain, rain events, they have to pump their basements. These basements get pumped into the streets -- into the stormwater system, and, again, into Little Creek and out into the bay. All of this is in the hope to reduce contaminants that is getting into the groundwater, into the stormwater and then going through Little Creek.

Also just before it goes to the bulkhead for each of the pipes, there will be a manhole installed along -- these manholes will have catch basins. We'll have drainage sumps, which will also collect sand and sediment and contaminants. So the goal here is to reduce the pollutants, the pathogens that are getting in there, into the bay; therefore, the nitrogen loading and increase the quality of the water, improve the quality of the water.

VICE CHAIR KRUPSKI:

So there is a question. But just for the record you do represent the Village of Patchogue.

MR. UCCELLINI:

Yes, Village of Patchogue.

VICE CHAIR KRUPSKI:

Thank you. So, Legislator Trotta.

LEG. TROTТА:

Is this on a County road or any County property?

MR. UCCELLINI:

No. Shorefront Park is a village-owned piece of land.

LEG. TROTТА:

Thanks.

VICE CHAIR KRUPSKI:

Okay, thank you. There's no other questions. Please stay around when we talk about this project and we'll -- we might have other questions for you.

MR. UCCELLINI:

Great. Thank you very much.

VICE CHAIR KRUPSKI:

And the last card is Richard Remmer.

MR. REMMER:

My name is Richard Remmer. I live at 464 Shore Drive in Oakdale and I'm here in several capacities or hats. My family's had the Snapper Inn Restaurant in Oakdale for over 80 years. I served the last three years on the New York Rising Oakdale-West Sayville Reconstruction Committee. And I'm here in support of 1872, which will be funding for a study on sewers for south Oakdale, West Sayville and Sayville. I feel it's imperative that this study go forward. There was a preliminary study done by the Town of Islip, which indicated the general feasibility of the concept. I realized that funding for the actual installation of sewers is another step down the road; but unless we keep up momentum and make progress, it would be a terrible travesty.

To put things in perspective, my family has lived in this area Oakdale, West Sayville for six generations dating back to my great uncle who actually built the Cottage at the Long Island Maritime Museum, the Bayman's Cottage. So he found enjoyment there on the Great South Bay and on the Connetquot River as well as employment. And that's true of each of the six generations of my family that followed him.

My grandfather started the Snapper Inn Restaurant, which is still an active enterprise. It depends on the Great South Bay and the quality of the water in the Connetquot River. This year we'll have over 70,000 guests. We employ as many as 130 people. And the sales tax revenues will be in excess of \$300,000. Without sewers, without clean water, that business will slowly die over time. People don't come down to the Connetquot River and make that trip to look out over something that's not healthy and vibrant. They don't come by boat if water isn't clean. We need sewers.

My dad was a plant manager for the Blue Points Company for the famous Blue Point oysters. For many years during World War II and shortly thereafter we've lost our oyster industry in the Great South Bay in part because of water quality. We've lost our clamming industry in the Great South Bay because of water quality. We need better water quality. We need sewers in order to make that happen.

My brother's a commercial fisherman. He's out this morning. He's catching fluke, he's catching striped bass for our family restaurant. He's chosen to live here, to teach marine science class, to be

9/26/16 EPA Committee

a commercial fisherman because of the beautiful water, because of the Great South Bay. Again, it's another family member who's chosen his livelihood and his income because of the Great South Bay. We need sewers.

For the last three years, as I mentioned, I've been co-chair for the Oakdale New York Rising subcommittee. After the storm, the first committee meeting when the members got together, it was clear no one wanted to turn their back on the Connetquot River or the Great South Bay, despite the fact that their homes had been flooded, their businesses had been destroyed, they wanted to focus on the bay.

The number one thing that our committee came through in every single meeting was we need sewers. Unfortunately that was not within the purview of our committee. We started out with \$3 million. We were awarded by New York Rising an additional three. It doesn't allow us to fund this study; doesn't allow us to build sewers. But the consensus of the committee was unanimous.

You look up and down the road. My neighbors are raising their homes, they're rebuilding homes, they're selling homes to their children. In order to make that viable with a water table only one to three feet down, sewers have to be there. You can't raise a home, put cesspools up high and expect that it's going to work. It's going to flood to any adjoining yard because the water table is only one to three feet down. More than anywheres in Suffolk County, more than anywheres else in the State of New York, Oakdale, West Sayville needs sewers. Please support 1872. Thank you.

VICE CHAIR KRUPSKI:

So the good news is you got your message across very well. But the bad news is, the Committee that you want to address is at two o'clock.

MR. REMMER:

Perfect. I had a rehearsal.

VICE CHAIR KRUPSKI:

But I think a number of us are on that Committee.

MR. REMMER:

Okay.

VICE CHAIR KRUPSKI:

So, you know, feel free to come back at two or else we can certainly submit your comments to that Committee.

MR. REMMER:

If it would be helpful, I'd be happy to return at two so I can answer questions.

VICE CHAIR KRUPSKI:

Certainly.

MR. REMMER:

Okay. Thank you very much. Thank you for your indulgence. I wished you'd cut me off. I apologize.

VICE CHAIR KRUPSKI:

No, no, no. It affects -- it affects all of us so there's no harm, certainly. Thank you.

MR. REMMER:

Thank you.

VICE CHAIR KRUPSKI:

So that's the end of the cards that we have. Is there anyone here in the public who'd like -- who hasn't filled out a card who would like to address the Committee?

INTRODUCTORY RESOLUTIONS

So this morning we have -- but before I bring up the Long Island Commission for Aquaculture -- Aquifer Protection, sorry, I said aquaculture -- unless you've changed your message today, we'll stick with Aquifer Protection, I'd like to take one item out of order, 1874. I'd like a motion -- I'll make a motion to take **1874** out of order, **To appoint member of the Suffolk County Planning Commission John Condzella. (Co. Exec.)**; second by Legislator Fleming. And then, ah, all in favor? Opposed? Abstentions? Thank you, George. And then I'll make a motion to appoint member of the Suffolk County Planning Commissioner John Condzella. And I need a second. Second by Legislator Anker. Thank you.

Welcome, John.

MR. CONDZELLA:

Thank you. Good morning.

VICE CHAIR KRUPSKI:

Good morning. So this is a position that was Riverhead's designee. And I just wonder if any committee members have any questions for John? And we're joined by Chairwoman Kara Hahn.

LEG. FLEMING:

Thank you for coming in and for your willingness to serve. You are an active farmer?

MR. CONDZELLA:

Yes.

LEG. FLEMING:

Just tell us a little bit about your farm operation.

MR. CONDZELLA:

Our farm operation is in Wading River. I'm a fourth generation farmer so my family's been farming the land for quite a time -- quite a while. We -- my father and I work the farm. We grow asparagus, strawberries, hops, number of other small fruits and vegetables. And, you know, we're committed to farming and ah...

LEG. FLEMING:

Thank you. I appreciate that. And the hops is something that you've done traditionally or is this something that's been picking up with the local breweries and what have you?

MR. CONDZELLA:

After I graduated college attending Cornell University's undergraduate business program, coming back to the farm I was looking for something different to bring to Long Island, something that other farmers weren't doing and that's how I started developing the hops on the farm and also foreseeing the need, you know, of the local breweries who are starting up in the County, to be able to supply them with a truly local ingredient, this is kind of how we got the hop operation going.

LEG. FLEMING:

It's good to know because I know more and more farmers are growing grain now on the south fork as well as the north fork. So just -- I just wanted to clarify for the record that that's something that you've been involved in. Because, as you know, the Planning Commission considers region-wide impacts of any given application. And so to the extent that you're willing and able to sit and listen and bring to that table your experience as someone who's moving agriculture into the future, I think it's very valuable so I appreciate your willingness to serve. Thank you.

MR. CONDZELLA:

Thank you.

CHAIRPERSON HAHN:

Legislator Krupski, did you have a question?

LEG. KRUPSKI:

No, no. I just --

CHAIRPERSON HAHN:

Just vetting you. Okay. Anyone else? Legislator Anker.

LEG. ANKER:

And, again, we appreciate your time and serving on this board. As far as your background, do you have experience with planning with communities, you know, traffic, you know, overall planning?

MR. CONDZELLA:

You know, in college I did take some planning and real estate classes so I do have an understanding of the basics of planning and how, you know, it's important moving forward that we need to plan for smart growth, a balance between development, preserving open space, preserving farmland and, you know, just making Suffolk County a greater place by balancing all those things.

LEG. ANKER:

Sorry. I'm assuming again as you -- have you -- have you served on other boards relating to this type of work?

MR. CONDZELLA:

Not specifically planning, no.

LEG. ANKER:

Well, I'm sure you're going to learn quite a bit.

MR. CONDZELLA:

Excited to.

LEG. ANKER:

Thank you.

CHAIRPERSON HAHN:

Okay, any other questions? We have a motion and a second. All those in favor? Opposed? Abstentions? **1874 is approved: (VOTE: 6-0-0-0)** And you do not have to attend the General Meeting next week.

MR. CONDZELLA:

Thank you.

CHAIRPERSON HAHN:

Thank you for being here.

MR. CONDZELLA:

Thank you very much.

CHAIRPERSON HAHN:

You're welcome. Okay. We also -- I'm going to make a motion to take out of order before we do our presentation **IR 1860, authorizing the construction of the Clean Lakes in Patchogue project, using the New Enhanced Suffolk County Water Quality Protection Program funds. (Co. Exec.)** Yes. Second by Legislator Fleming. All those in favor of taking it out of order? Opposed? Abstentions? IR 1860 is before us. I'll make a motion to approve Introductory Resolution 1860; seconded by Legislator Anker. I know we had -- Legislator Krupski, did you have a question?

LEG. KRUPSKI:

On the motion.

CHAIRPERSON HAHN:

On the motion.

LEG. KRUPSKI:

And I don't know -- we had a number of speakers who spoke in favor of this project. I'm not sure -- maybe Dr. Rana is a -- a PhD in biology, maybe he can answer these questions. I'm not sure. Although -- or anyone from the Village, certainly also, could step in and answer.

CHAIRPERSON HAHN:

Now, if there are going to be a number of people who are going to answer questions, then you can sit at the table here.

LEG. KRUPSKI:

That's a good idea, yeah.

CHAIRPERSON HAHN:

And there are some microphones that you can use at the table. Amy, if you could show them where they can have a seat. I meant the other one, sorry.

LEG. KRUPSKI:

There's another gentleman, too. Did he leave?

CHAIRPERSON HAHN:

If you can just identify yourself for the stenographer and the record, that would be helpful, even though you did it before. We'll appreciate it.

DR. RANA:

Dr. Mohammad Rana, St. Joseph's College.

MR. KEYES:

Joseph Keyes, Village Trustee, Village of Patchogue.

LEG. KRUPSKI:

Thank you. So I had a couple questions about the aeration. So the problem, as you described it, with the lake is that it's getting full of -- you said organic sediment. Is there any mineral sediment

that's continuing to flow in it? And where is the organic sediment -- I mean where does that contribution come from? And do you have, like, a baseline of what's -- how much flow is there out of the lake? And what baseline do you have for nutrient and pathogens and any other impairments that would be coming out?

DR. RANA:

The Upper Patchogue Lake and the Lower Patchogue Lake, in between these two lakes is Roe Boulevard. Roe Boulevard. Next to Sunrise is the Upper Patchogue Lake. That lake has two inlets: One is the east inlet; the other is west inlet. West inlet was connected to a lake which disappeared within last 80 to 90 years. Although there is a water flow and that area is completely -- was completely clogged a few years ago, then we clean up those areas and the water flow was zero and it has been almost like a one to two feet per minute at this time.

The east inlet it is connected to Canaan Lake. That inlet is not in bad shape, but it's like a little canal connecting Canaan Lake to the Lower Patchogue Lake. So there's a little sort of a tiny river type. And that I can show you on -- if you have this -- this handout, the last page, figure seven, so you can see the -- the east inlet and there's a red spot. That is the deepest area of the lake, which is approximately three to four feet. The rest of the lake is almost like less than one foot deep.

Then the lower part of the Patchogue Lake has the same pattern. There are three dots where we are suggesting the aerators. That is the deepest part, which is approximately six to ten feet deep. The rest of the area of the whole lake is approximately one to two feet deep.

Now, from where this organic matter is coming, the -- it is coming from the trees. The leaves fall. And plus runoff. The lake has approximately ten feet elevation. So we were -- at this time what we do is we clean up in the fall as well as in spring. We remove the leaves. But those leaves, which are part of the lake, are already there for a very long period of time. So at this time we are cleaning up. And we are cleaning up the inlets also to increase the flow rate. So the flow rate, it depends. The highest flow rate I have seen is ten feet per minute, which is close to the -- there's another inlet between Upper Patchogue Lake and Lower Patchogue Lake near Roe Boulevard. So that is the area where there is a little bit higher flow rate.

LEG. KRUPSKI:

So how does that -- so this was obviously an impounded water body years ago, right?

DR. RANA:

Sorry, I don't follow, sir.

LEG. KRUPSKI:

This is a water body that was -- it's impounded. It was never -- it's been dammed up in the past, right? To create the lake?

DR. RANA:

No, I don't follow the question.

CHAIRPERSON HAHN:

Legislator Calarco. Oh, I'm sorry.

LEG. CALARCO:

Legislator Krupski's correct. This is -- this lake was created, I don't know when the Lace Mill was built, but probably well over a hundred years ago when the Lace Mill was built and they impounded the area in order to create, you know, power for the mill. In addition, the County has Waverly Avenue, which runs along the south end of this lake and have, in fact, filled in a portion of the lake

at one point in time to create the Fifth Precinct. So, yes.

LEG. KRUPSKI :

Okay, thanks. So the aerators, when they -- when they -- the goal is to try to aerate some of this organic sediment, to break it up. What are you going to release when you do that? All the nutrients are stored in that organic sediment and there could be other impairments. Do you know what else you're going to release? Because obviously those are going to flow into Patchogue River and down into Great South Bay. We just heard someone who spoke about water quality in the bay and he had a family member who's a fisherman, so you don't want to put more impaired water into the bay because that's obviously the problem. Is there any way you could instead, spend this money mitigating some of the stormwater that's flowing into the lake and at least stopping -- stopping some of that instead of just trying to aerate your problems away?

DR. RANA:

Usually, yes, what you're saying is correct. It will affect the river as well as the bay. But for a short period of time. After sometime the balance will be created. So then there'll be no extra leakage or nothing. It will be a normal lake.

LEG. KRUPSKI :

But you're not stopping the flow of all the impairments into the lake. So why don't you focus on trying to clean the lake up first by doing stormwater -- spending this money instead on stormwater remediation around it to try to stop the flow of everything that's coming into it?

DR. RANA:

No. The depth of the lake, it has to be increased. Otherwise the lake islands, they are forming, so what you are suggesting is that maybe we should go towards dredging, yes, that was our approach. We did that one, like ten years ago, we had Patchogue Lake -- created Patchogue Lake Committee and we did a lot of investigation. We were almost ready to go for dredging. It cost more than a million dollars, which was not possible.

LEG. KRUPSKI :

Sure.

DR. RANA:

The whole neighborhood, the whole committee just abandoned the whole project and this lake deteriorated. Now we are not suggesting that this is the solution as I mentioned earlier. This will help in the decrease of sediments plus increase in air and will help a lot of organisms to survive better rather than they are also suffocating and are dying and are increasing the sediments more.

LEG. KRUPSKI :

Well, I'm not suggesting this, but a lot of areas are taking -- getting rid of the impoundments and making water flow naturally again. And they would let the area naturalize around it so you'd have a streambed instead of having a lake. Then it would flow naturally.

DR. RANA:

But the natural flow is also being stopped now. There will be no natural flow if we -- if we don't separate the water at this time.

LEG. KRUPSKI :

Well, Legislator Calarco and I, and I know he's a great advocate for this, but I think this and the other project, I think it'd be much better to spend the money there, remediating the flow of the impairments into the lake first. You know, you spend the money there. I know there's a lot but you have to start somewhere, you spend the water (sic) on stormwater management, you spend the

money on if there's some really egregious cesspools that need to be upgraded and start from there instead of trying to pump this -- basically trying to -- you're trying to make the nutrients more mobile, and they're all going to go into the bay.

LEG. CALARCO:

Well, I actually would say that the Village of Patchogue has taking great strides in dealing with the discharge issue in terms of -- especially when it comes to their roads. They have filtration systems installed in all of their culverts, in their storm drains, that they go out every six months and replace. They have those fabco filtration systems where they go out every six months, they replace the cartridges. They are actually very proactive with their street sweeping program to make sure that they are going around the roads on a very regular basis, especially after storm events to make sure that they're cleaning up anything before it gets into the system in the first instance. They have -- must have been three or four years ago they created a committee specifically to deal with stormwater discharge and what they were going to do to try to mitigate those problems. So the village has actually been very proactive in dealing with it from that approach.

This actually is a long line in terms of, you heard the doctor mention earlier that this lake system is also Canaan Lake, which we are investing a great deal of money into dealing with, which has a much more severe problem than Patchogue Lake has right now. The County is actively working to deal with that issue; in fact, we are working with the DEC right now to get our permits to install a culvert to lower that lake level down so we could scrape out material in there and hopefully have a nice hard winter that kills off some of that material as well. But that's going to give us some ability to control the inputs into the lake from the northern end. This is really in terms of trying to keep the lake from getting worse, stave off that problem. But the particular instance, the Village has been very proactive in dealing with those stormwater runoff issues from the first instance. And this is just the next step in the process.

LEG. KRUPSKI:

I have a question for Mr. Keys. Does the -- could the Village use this money to -- I mean -- and, you know, Legislator Calarco's made it very clear that you're very committed to stormwater efforts. Could the Village use this money to enhance those efforts? Do you need any more funding in that area?

MR. KEYES:

Well, we never turn down funding. Whatever you want to give us, we'll take. But in this particular instance, for the lake, I believe, that the approach we're taking right now would be money well spent.

LEG. KRUPSKI:

Thank you.

LEG. CALARCO:

And I also just wanted to point out, you know, these -- this project and the next project are projects that were submitted as a result of us putting out a request for people to submit projects from various municipalities for the water quality grants. We have funding that not only is available, must be spent this year and appropriated. They were competitive grants. They were submitted. They were vetted by our Water Quality Committee. The Water Quality Committee approved these grants and said that these are valid projects. And when we get to Little Creek, I'll talk to that and some precedents that we spent -- spending close to a million dollars cleaning up the Nissequogue River so that water flowed so that basements weren't flooding and cesspools weren't draining into the water table and that you recreated the flow of the water system that was supposed to -- when those water systems get impounded, it creates a backup of the water table. But that's the other project.

9/26/16 EPA Committee

You know, these are fully vetted projects. They're ready to go. This one has the support of the Village of Patchogue, the Town of Brookhaven as well as the local community and the private institution and the college to help make this all work. They're out there, the kids are pulling debris out on a regular basis to try to make sure that they're managing what they can. This is just a small step and a small grant to help make that happen.

MR. KEYES:

We do have a financial commitment from the Town of Brookhaven as well, as Legislator Calarco mentioned.

CHAIRPERSON HAHN:

Legislator Fleming.

LEG. FLEMING:

Thank you. As you mentioned at the podium both Dr. Rana and -- I'm sorry?

MR. KEYES:

Keyes.

LEG. FLEMING:

From the Village of Patchogue Trustees, I appreciate the fact that there is a commitment on the part of you folks to move forward with this. What is the financial commitment by Village of Patchogue?

MR. KEYES:

The Village of Patchogue is committing its inkind service. We'll do the labor. We'll do the installation hookup. Off the top of my head I don't remember exactly what that figure is. Maybe -- I'm sorry? About \$10,000 worth.

LEG. FLEMING:

But my concern is what happens next? Because as I mentioned, the ponds that -- and lakes that are impacted, especially by the harmful algal blooms, because of sediment, primarily -- they're not identifying the problem as coming from sediment that's on the bottom of the lakes, and as Al pointed out, it's going to be freed up by what you're doing, there's got to be next steps and next steps in order to keep bringing this ecosystem toward balance. And so that's what -- I'm just -- I would love to hear you reiterate your commitment, maybe put some meat on those bones in terms of where you go next. As I mentioned, I support, you know, giving you this boost to move forward, but there's going to be a lot of -- a lot more work to do on this lake and I'm wondering where your efforts are going to spring from.

MR. KEYES:

Yeah, we're aware that this is just the beginning, beginning of a long haul. And we committed to partnering with St. Joe's College and the students particularly. We met with them several times and have gone over several issues of what may have to be done next.

Honestly, when it comes to that part of it, I am following Dr. Rana's lead, but the Village itself we have, as I said, a pep committee, a committee dedicated to this. We have a committed village board. Mayor Pontieri is certainly committed to doing -- we have what we call storefront to shorefront campaign where we -- we've revitalized Main Street, now we also want to work on all of our waterways: The bay, the park, the lakes, our creeks, rivers. So there is a full commitment on the village end.

LEG. FLEMING:

Yeah, we are watching that you have a commitment and a leadership role in environmental

protection and certainly appreciate that. And the fact that you're connected with an academic institution, I think, is very important. A lot of work is going on at Stony Brook now and SOMAS, with these lakes that I'm talking about that are impaired in my district. And I think that's really good to hear that you've got academic support there and interns who are looking forward. Because this is a super hot topic now. There's a lot of science coming down, a lot of new discoveries, not only with what's causing the problems, but also solutions. So I'm -- it's refreshing to hear that you're committed for the future and I commend you. I wish you good luck with it, but it's not going to be easy and I hope you recognize that.

MR. KEYES:

Yes, we know there's quite a challenge ahead. Thank you.

CHAIRPERSON HAHN:

Legislator Trotta.

LEG. TROTТА:

What are you going to do with this money?

MR. KEYES:

Sorry?

LEG. TROTТА:

What are you going to do with the \$49,000?

MR. KEYES:

It's to purchase four aerators, the electrical hookup. And, as I said, the installation we will do, you know, that'll be our labor part of it. But for the installation of aerators and the --

LEG. TROTТА:

So you're going to put an aeration system in?

MR. KEYES:

There's four aerators that we're looking to purchase that we've selected.

LEG. TROTТА:

Well, aerators are going to bring -- you're having a problem with growth in the lake, I'm assuming.

MR. KEYES:

Yes.

LEG. TROTТА:

So isn't that just going to, you know, promote more growth aerating the water?

MR. KEYES:

Well, we believe -- I'm going to let Dr. Rana answer those questions.

DR. RANA:

More growth of what?

LEG. TROTТА:

Of what you're pulling out.

DR. RANA:

No, promote growth of the -- I'm not sure what you're asking. The alga bloom will decrease because with aeration the algae cells will go down. And will go down meaning they will not be exposed to light and they will not grow like crazy as they going there. The -- once the lake become deeper, the aquatic vegetation will also decrease because of the depth.

LEG. TROTTA:

How is it going to become deeper?

DR. RANA:

Deeper. It will become deeper because there is no decomposition at this time in the lake. The muck is -- we are doing some research on that also, how to decompose muck. But with aeration, the muck will decompose and decomposition of this muck will increase the depth of the lake.

LEG. TROTTA:

Did you give any thought of just opening up, like, you know -- I see Briarcliff College is right in the middle. What does it go under Sunrise Highway there, whatever that road is?

DR. RANA:

Yeah.

MR. KEYES:

Waverly Avenue.

LEG. TROTTA:

Waverly Avenue -- I mean, is that a pipe underneath there or --

LEG. CALARCO:

There's a culvert. So Waverly Avenue runs on the southern end of Patchogue Lake. There's a culvert there now and the County's actually going to be doing a road project there in the next few years that we can certainly look at. Briarcliff, which is going out of business and hopefully we're going to get Anheuser Busch to put a brewery in that building, is going to be taking over that location. And it goes under -- further under Main Street. Montauk Highway, I think, actually the County has maintenance responsibility of Montauk highway at that location before it enters the Patchogue River.

LEG. TROTTA:

Is that dammed? I mean it looks like that lake --

LEG. CALARCO:

No, it's a -- there's a culvert. The water flows. It's all part of the Patchogue River water system but it starts at Canaan Lake, goes under Sunrise Highway, comes into the Patchogue -- the northern Patchogue Lake, goes under Roe Boulevard, it becomes Patchogue Lake, goes under Main Street, becomes Patchogue River.

LEG. TROTTA:

But it's been dammed.

LEG. CALARCO:

Well, it's been dammed in the sense that it was impounded many, many -- over 100 years ago to create a mill. And at this point you have a lake that's rather large. And I don't see us --

LEG. TROTTA:

Anybody think about --

LEG. CALARCO:

-- eliminating the lake any time --

LEG. TROTТА:

-- bringing it back to natural state and let it flow?

LEG. CALARCO:

I think that the cost and the impact to the community would be one that wouldn't be very well received.

LEG. TROTТА:

Well, it's not naturally occurring. So I thought --

LEG. CALARCO:

Sure, it was impounded well over a hundred years ago, probably more like 150, 200 years ago. And I don't think it's one of these waterways that we're going to undo any time soon. Similar to lakes up in Smithtown that we're not going to undo like Mill Pond and such, you know.

LEG. TROTТА:

The reason I bring it up is because we did just do that at Sunken Meadow, we took out all the -- and it's flowing and it flows all the way up into Fort Salonga where the ponds are now gone, they just turned in marshes.

LEG. CALARCO:

Sure, and parkland, right?

LEG. TROTТА:

No, some of it's not in parkland actually, but whatever. I just -- you know, has this worked in other places? I mean, Legislator Fleming was saying that it didn't work in a couple places, these aerators. So, can you give me an example where this worked somewhere?

DR. RANA:

Yeah, this works at -- there are some video references attached to the handout I gave you, different -- different counties have tried this. It worked very well. And if by chance you go to Florida, almost all lakes, every apartment lake has aerator.

LEG. CALARCO:

I think the point -- you know, the aeration system is going to increase the oxygen levels in the lake. And that's a very important thing. Because as these lakes get impacted by the road runoff and by the cesspools that drain into them, it increases the nitrogen load. As the plant life dies off, it increases the nitrogen load and plants live off of the nitrogen and they don't -- they don't actually consume oxygen. And that's actually what's needed for the rest of the --

LEG. TROTТА:

It's like a fountain thing or -- under the water? Does it shoot up in the air or --

LEG. CALARCO:

Yes, it's like a bubbler. Right, Dr. Rana?

DR. RANA:

Like a fountain.

LEG. TROTТА:

What is it? A fountain?

DR. RANA:

It's like a fountain. This is the description of --

LEG. CALARCO:

Just like if you're -- if you have a fish tank and your --

LEG. TROTТА:

I got it. I see it.

LEG. CALARCO:

-- bubbler stops working in the fish tank and all of a sudden you got -- the walls of the fish tank turn green? It's kind of the same thing.

LEG. TROTТА:

I got you. I've seen these before. They have them in, like, these apartment complexes where they have a pond.

LEG. CALARCO:

Yeah, there's a reason there's fountains in all these things. It keeps the air -- the oxygen moving and it prevents the alga blooms.

LEG. TROTТА:

Okay.

LEG. FLEMING:

Can I just -- can I just clarify the problem? We were talking about harmful alga blooms in one of the ponds where we used these bubblers. And they weren't successful. I think there's a different concern here. And as I said, I think there may be -- this may be an initial -- an initial step toward mitigation, but I would also certainly encourage you to continue to look at opportunities to remediate any kind of inputs in the lake. I think that's where you're going to get your biggest bang for the buck.

LEG. KRUPSKI:

One more.

CHAIRPERSON HAHN:

Legislator Krupski, quick.

LEG. KRUPSKI:

I'd like to -- and I don't have a problem moving this out of committee because I'd like to take a look at -- you've given us a lot of material to reference here. And I'd like to take a look at some of that and speak to some people who would be more familiar with this than I am. So I don't have a problem supporting it to getting it out, but one thing, I think, that should be in the proposal is right now the water -- you said the water's flowing out of this and it ends up in Great South Bay. So are you going to do baseline testing to see what the impairments are before; and then testing to see what the impairments are over time and what -- what you're still contributing to the ecology of Great South Bay?

DR. RANA:

Yeah, we are going to monitor this regularly.

LEG. KRUPSKI:

What will you test for?

DR. RANA:

We will test for the turbidity. We'll test for -- the new test including nitrogen and phosphates. We will also look for the pathogens. And, you know, at the same time, there's a landfill very close to Canaan Lake so we have some issues of having that also. At the same time there is a report that the heavy metals can be reduced by aerators. I have not done more investigation on that. So we are hoping that maybe heavy metal, I don't know how they will be reduced, but they say the aerators may reduce the heavy metals. So what we will keep, keep an eye on all these factors including oxygen level.

LEG. KRUPSKI:

And you have a -- is there -- with this project is there testing protocol set up? I guess that's a question for some of the County staff, whoever could represent -- Frank? Oh, there he is. Frank, is that a question -- that's a question for you, I think. Is there a -- what's the protocol here for testing before and after? What do you -- what will be tested?

MR. CASTELLI:

Frank Castelli, Economic Development and Planning. They -- I don't recall seeing any specific protocol in this project for formal pre and post project testing. That's -- that would not be a requirement of every project. It depends on the project itself. That wouldn't necessarily be a requirement of the Water Quality Protection Restoration Program in terms of recommendations. I know that Dr. Rana, if there is testing that's being proposed -- well, I know they've already done a lot of testing and they will continue to do so, but it's not a formal part, it's not a requirement.

LEG. KRUPSKI:

Shouldn't that be part of this project? If you're going to release these impairments from the sediment, and that's the goal here, is to reduce the sediments so those -- all the -- the heavy metals that coming from the dump and other sources, all the nutrients are going to be now released into the water column, now they're going to flow into Great South Bay, wouldn't that be like a major concern? Because they don't -- these things don't go away. They just go somewhere else.

MR. CASTELLI:

This is one of several projects that's been recommended. And what we could do -- I mean it does make sense to require certain amount of testing. We could make that a requirement of the project when we enter into the intermunicipal agreement with the Village for the project. I mean, that's something that we could certainly do, but it would have to be within limitations of the funding that we're -- which we're providing. I think that the fairly limited funding for this project that was recommended by the committee and it's being proposed in front of this Legislature is -- may not enable a great deal of monitoring.

LEG. KRUPSKI:

But look forward -- yeah, but look forward down the line, you've got a lot of these little tributaries flowing into the bay. So if you do this and it's a great success and people say, look, the level of impairments flowing into the bay is less, we should duplicate this elsewhere; or if you look at this and say, wow, all that material that was trapped in sediment is now in the Great South Bay and it's affecting this, this and this, we shouldn't -- we shouldn't replicate this anywhere else. I mean, there's got to be a learning -- we just can't do this and say we hope it works. There should be something -- some little bit of follow-up behind it to see, in fact, what the effects are.

MR. CASTELLI:

Yeah, I agree, that there should be. And I think the intention of the College, St. Joseph's College, is

to continue the monitoring they've already -- that they've already been doing so that there will be an opportunity to contrast before and after. I'm sure that they will be continuing the monitoring that they've already started.

LEG. KRUPSKI:

But could we be sure by having it in the -- you know, in the contract?

MR. CASTELLI:

We can -- we can certainly put something in the --

LEG. KRUPSKI:

I mean, if they're going -- if they're committed to monitoring, then they have a protocol that they could submit as part of the program, right?

MR. CASTELLI:

Yeah, we could put that into the agreement.

CHAIRPERSON HAHN:

Okay, Rob and he'll talk to each other about that. Good. We have a motion and a second. All those in favor? Opposed? Abstentions? It is approved. **(VOTE: 6-0-0-0)**

If the Committee can just indulge me, I'm hoping to take out of order -- I'm going to make a motion to take out of order **1854**, because we have some folks in the audience who are just waiting to answer questions in case we have any. It's **making a SEQRA positive declaration in connection with the Suffolk County Wastewater Management Program for the mitigation of nitrogen impacts from wastewater sources. (Pres. Off.)** Make a motion to take that out of order; second by Legislator Anker. All those in favor? Opposed? Abstentions? **1854 is before us.** I'll make a motion. **Introductory Resolution 1854, making a SEQRA positive declaration in connection with the Suffolk County Wastewater Management Program for the mitigation of nitrogen impacts from wastewater sources. (Pres. Off.)** Second by Legislator Anker. Anyone have any questions? SEQRA determination. All those in favor? Opposed? Abstentions? **1854 is approved. (VOTE: 6-0-0-0)**

PRESENTATIONS

Okay, so we're going to go back to the beginning of the agenda where we have a presentation. We have members of the Long Island Commission -- thank you for your patience, looks like gentlemen, no ladies here from the -- members of the Long Island Commission for Aquifer Protection will provide an update on the organization's work.

MR. SZABO:

Good morning.

CHAIRPERSON HAHN:

Good morning. Just identify yourself for the record, please.

MR. SZABO:

Jeff Szabo. In addition to serving as Chief Executive Officer of the Suffolk County Water Authority, I'm past chairman of the Long Island Commission for Aquifer Protection, or LICAP.

I'm joined today by the superintendent of the South Farmingdale Water District and current chairman of LICAP Mr. Frank Koch, who's on the far -- my far left. I'm also joined by Ty Fuller who's the -- who serves as the Water Authority's Director Strategic Initiatives.

9/26/16 EPA Committee

We appreciate having the opportunity to update you in the vital work being conducted by LICAP formed through legislation unanimously supported by both the Nassau and Suffolk County Legislatures in 2013.

Before I discuss a few of LICAP's achievements to date, I want to frame the discussion that was taking place back in 2013 prior to LICAP's formation. You'll recall the numerous reports and studies seeking additional proactive measures to safeguard the sole source aquifer, our greatest natural resource. But that's a tremendous challenge due to the many governmental entities and decentralized land use controls that define life here on Long Island. This is because the aquifer system is not subject to local rule. It crosses all local geopolitical boundaries and thus protecting it required a regional solution.

But no action was being taken. So the Suffolk County Water Authority led the efforts in conjunction with more than 100 utility and non-utility members of the Long Island Water Conference to propose what was to become LICAP, the bicounty commission consisting of private and public experts on groundwater issues that would gather relevant data and lead the way in protecting our groundwater supply. And the two Legislatures in their wisdoms strongly supported the initiative and approved legislation to create LICAP. In addition to the Suffolk County Water Authority and the Long Island Water Conference, among the members are representatives from the executive and legislative branches in both counties, as well as representatives from each Health Department, the United States Geological Survey and the New York State Department of Environmental Conservation. It is a tremendous breadth -- it's a group with a tremendous breadth of knowledge about all issues pertaining to groundwater.

I'm pleased to report that LICAP has by any objective reckoning more than fulfilled its charge. As required by the legislation which created it, the Commission has drafted the region's first ever State of the Aquifer Report, an assessment of the structure of the sole source aquifer and the contaminant threats that could potentially challenge its long term health. A huge aspect of what LICAP seeks to accomplish is making sure Long Island residents are knowledgeable about the source of their drinking water and also what they can do to protect it, which is why we've held public hearings in both counties and have three additional hearings scheduled, one for October 13th here at the William Rogers building in Hauppauge; October 17th at the Nassau County Legislature in Garden City; and October 20th at the Riverhead County Center, all at six PM. LICAP's State of the Aquifer Report is being finalized and will be published this fall. A draft copy of the report will be accessible next Monday at liaquifercommission.com.

The Commission's other statutory focus is the creation of the Groundwater Resource Management plan, which is scheduled to be released in 2017. The plan will identify threats to groundwater quality and quantity, assess the adequacy of existing groundwater management regulations and recommend amendments to regulations where needed.

But perhaps our greatest accomplishment to date, simply because it's an achievement that I believe is a direct result of getting groundwater experts from both counties together is WaterTraq. WaterTraq is a GIS-based contaminant and mapping system that is allowing us to chart contaminants throughout the region and share that information with the public. It is the first program of its kind in New York State. You'll be hearing more about WaterTraq in a few minutes from Ty Fuller. But this program is a direct result of the creation of LICAP.

LICAP has also placed a great emphasis on water conservation. A major conservation effort launched this summer by the Suffolk County Water Authority focused primarily on the East End in a smart irrigation pilot program that was kicked off by the Port Washington Water District can be attributed to discussions among LICAP members who understand the need to preserve our sole source aquifer. These efforts will only be expanded in the upcoming years.

So LICAP realizes that improvements need to be made with the management of Long Island's Water Resources. But when considering future management options, I'm asking that you keep WaterTraQ and LICAP and other early successes in mind when such proposals are made. It's also worth keeping in mind that the DEC has just added additional staff to its Region One Water Supply Division. It's also in the process of developing a separate web page just to track water withdrawals and is implementing electronic reporting for monthly and annual pumpage. It's important to remember that no one has greater stake in preventing the pollution of our aquifer system than Long Island's water suppliers as we are required by law to treat any groundwater contamination before distributing drinking water to our customers.

It goes without saying that pollution prevention is much less expensive than remediation. We're very proud of our work to date and I look forward to input from the public and from others at our upcoming public hearings related to the State of the Aquifer. We are committed to developing actionable solutions. We'd like to continue our work until we're assured of the future that includes a sole source aquifer that is plentiful and to whatever degree possible free of pollutants.

Thank you very much for this opportunity. Frank and I will now be able to answer any questions that you may have.

CHAIRPERSON HAHN:

Any questions? Legislator Fleming.

LEG. FLEMING:

Just when is the -- when is the comp plan for groundwater expected to be completed?

MR. SZABO:

The Groundwater Water Resource Management Plan will be released in 2017. There's a -- there are two subcommittees that were established and then branches of those two larger subcommittees that have been working for a year-and-a-half on putting together the information. I don't have a firm date of the actual release but we hope, you know, by midyear we'll have a report to share.

LEG. FLEMING:

Thank you.

CHAIRPERSON HAHN:

Legislator Krupski.

LEG. KRUPSKI:

Thank you. So you said there's a draft that's going to be released soon, though?

MR. SZABO:

Well, we have -- that's available -- in fact, I think I distributed to some of the Legislators at the last Health Committee meeting --

LEG. KRUPSKI:

Oh, okay.

MR. SZABO:

We have a draft State of the Aquifer Report. And we're trying to get it up online as soon as possible so that the public has a chance to review the document before our public hearings, but we welcome comments from Legislators, from the public and anyone else. Once we conclude the public comments, we will then put any of those remaining issues -- we'll have a discussion at the LICAP end of the year meeting and then anything that's going to make it into the final report will be

published by hopefully late December.

LEG. KRUPSKI:

Thank you.

MR. SZABO:

At the latest.

LEG. KRUPSKI:

For the sake of brevity, I'll -- because I made -- I made comments to you at the Health Committee, I appreciate that. So I'll let other Legislators ask you questions. Thank you.

MR. SZABO:

If I may, I would just like to thank Legislator Fleming, who participated and was very active in helping to promote the Water Authority's East End Conservation Initiative. We appreciate that.

And, also, Legislator Krupski, we recently had a meeting on the North Fork to discuss conservation and ways that, you know, the public and elected officials and the Water Authority by working together and sharing information we can really make significant strides. So thank you both very much.

CHAIRPERSON HAHN:

Legislator Fleming.

LEG. FLEMING:

Yeah, thank you, Jeff. And I just want to say my staff continues to be in touch with you on specific individual properties. We certainly do have some very, very astoundingly heavy water users in my district and we're committed to trying to educate and bring people around, but I know we got at least one, my staff and your staff are going back and forth in trying to get educate a particular heavy user. So I appreciate your efforts. I think it's very, very worthwhile. Thank you.

MR. SZABO:

Thank you very much.

CHAIRPERSON HAHN:

Legislator Anker.

LEG. ANKER:

I also want to thank you for providing, you know, insight with our water quality. And, you know, from what -- you know, per your draft from LICAP, we're hoping to see a final in 2 -- beginning of 2017. Is that what you had mentioned?

MR. SZABO:

The draft State of the Aquifer Report will be released by the end of the year. The Water Resource Management Plan, which will come up with some actionable solutions or proposed solutions and changes to the current structure, an oversight, that'll happen in 2017.

LEG. ANKER:

And speaking of oversight, again, it's hard to get a full understanding of what we can do here in Suffolk County that really affects all of Long Island. That's why -- one of the reasons why LICAP was formed, was to have Long Island inclusive, you know, as far as our water quality.

But do you see a possible way of providing, you know, oversight, either through the State or through some type of agency when there is pollutants released -- you know, we're finding so many contaminated sites, you know, Lawrence Aviation, you know, and that's, of course, in Legislator Hahn's district. You know, Babylon, you know Grumman, you know, has some issues, you know, all through -- throughout Long Island. But do you see some type of agency that will provide oversight and direct remediation so we don't have to wait so long? Like the example of Lawrence Aviation, you know, that took decades to even identify and then clean up. And in the meantime, of all those years that went by, there was additional contamination in our water source. So, do you see a type of facilitation in addressing these issues with water contamination?

MR. SZABO:

Well, I think when you look at, you know, regional oversight, certainly the New York State Department of Environmental Conservation Region One serves both Suffolk and Nassau County. So related to well applications and the amount of water that you're able to withdraw from the aquifer, that would be Region One. But, you know, just -- and it just sort of occurred to me. One of the things that you heard most often just a couple of weeks ago when the State had Legislative hearings here related to water quality, you had both the Health Department and the DEC talking about breaking down barriers and communicating better and doing things differently. So the structure may very well be in place already, but it's trying to, sort of, break down the barriers that may -- you know, that currently exist to make sure that everyone's working together for the same goal.

LEG. ANKER:

They're breaking down the bureaucracy basically and streamlining the information directly to those sources and resources. I think that's very much needed. So, again, keep that in mind, again, with your understanding of our concerns. But, again, thank you for your participation and we look forward to continue working with your agency.
Thank you.

MR. SZABO:

Much appreciated.

CHAIRPERSON HAHN:

Legislator Trotta.

LEG. TROTТА:

What is this upcoming report supposed to tell us?

MR. SZABO:

The State of the Aquifer Report? This is a -- this is sort of a snapshot of the current state of the aquifer from Nassau and Suffolk County perspectives. So it covers multiple different topics. It does mention the Bethpage Plume. You know, there's a section on the Bethpage Plume. There's a section on emerging contaminants; there's a section on, you know, issues we have with ground -- with -- I'm drawing a blank, I apologize.

LEG. TROTТА:

Is it broken down by like region?

MR. SZABO:

Not by region, but by category. But by topic.

LEG. TROTТА:

I mean, it's -- you know, I'm from Kings Park and it's -- when I was in high school, I watched them dig the dump. They put a membrane down two feet above the groundwater. They drove a tractor

on it and put a hole in it and they just put garbage in. And it's been leaking for 30 years. I actually witnessed it. The dump before that didn't even have a liner and it's not capped. I mean, it seems to me that there's some serious problems going on there. I know that you had to drill a deeper -- maybe ten years ago you drilled a deeper -- to a different aquifer abuts the top of Sunken Meadow. I mean, probably ten years ago you drilled a thing down -- I was told that it goes down to the lower aquifer because there's a big plume coming up in King Parks. I mean, there's thousands of these things. When I look at the, you know, stuff that went on in Brentwood with these parks, I watched that stuff get dumped all over this Island when I was a young cop. They would just go on the side of the road and dump this stuff. There's some serious, serious issues and, you know, that have never been addressed.

LEG. KRUPSKI:

I hope we're locking these people up.

LEG. TROTTA:

Believe it or not, I gave the DA's Office -- a dump on Deer Park Avenue, I watched them dig a hole, bury dumpster after dumpster of garbage, called the DA's Office, I was following a guy for an -- an organized crime guy, and they did nothing, zero. They built a baseball field on top.

MR. SZABO:

Well, I will mention this: You mentioned the dumping that took place in Brentwood at Roberto Clemente and other locations. Since those allegations occurred -- I'm not sure if it's two or three years ago, it may have been the spring of 2014, I believe, but the Water Authority has been testing our drinking water wells quarterly to determine if there's been any deterioration in the quality. We've been sending that information to Legislators, to the DEC, to the Health Department, to the District Attorney, to everyone that'll look at it. And so far there has been no change in the quality of that location.

But, if I may, Legislator Trotta, the report is significant because it's not just looking at one specific area or specific hamlet; it's looking at Nassau and Suffolk County. One of the true benefits of LICAP is that we're looking at water quality issues regionally. And I think those discussions and the dialogue emanating from the Commission itself are evident in the report. And I think if you have a chance to go through it, I think you'll be very impressed.

LEG. TROTTA:

You know, I don't know -- I'm just complaining because I don't know what the -- it's all over the place. I mean I watched in Kara's district, they built the Sand Club. It's on top of -- they filled it in, they dug it out and they filled it in with construction debris. And no one tested it. It was done in the middle -- I used to catch trucks in the middle of the night dumping there, call the DEC, they did nothing. It's ridiculous. They have a Sam's Club or a BJs over there on 347, I must have caught 50 trucks dumping there in the middle of the night.

CHAIRPERSON HAHN:

You're going to now talk about WaterTraq?

MR. FULLER:

Good morning, Honorable Chair, members of the Legislature.

CHAIRPERSON HAHN:

Hello, Ty. Thank you for being here.

MR. FULLER:

How are you doing? Again, for those that don't know, my name is Ty Fuller. I serve as the

Director of Strategic Initiatives and lead hydrogeologist at the Suffolk County Water Authority. And with your permission, I just wanted to give a demonstration of WaterTraq, which we consider an historic GIS based water quality mapping database. And I say historic because this is a milestone, not only for Suffolk County, but for all of Long Island. For decades we've heard the complaint from various industries that there's been a lack of a coordinated regional database throughout this Island. For decades. Long Island is home to roughly four dozen water districts. In addition, you have numerous monitor wells maintained by various agencies.

Through this initiative within LICAP, we were able to coordinate all of these; share all of these different entities whether it's the public water suppliers, monitor wells and put it into this one system so it allows the public to learn more about the state of the aquifer, but also compare that to drinking water, which we do want to emphasize there is a big difference between the water that is in the ground and the water that is treated and provided to the public.

Now, WaterTraq is available currently. You can access it through our website, Liaquifercommission.com. And I do have the website up. It is shown on the screen. So from the LICAP page, if you click on the WaterTraq icon, which it tells you, it would take you to the actual program.

The program, again, has instructional videos which you can access through YouTube, but for now I'm just going to go right into the program. It is completely interactive. And, again, we are showing all of Long Island because we are focused on the sole source aquifer. But anyway, on this main screen, every single part it this is completely interactive. So if you clicked on any particular area, which would take you to a water district, you can access that water district and it'll provide you links to their water quality reports, which all water suppliers are required to supply.

In addition to that, we have more information for -- right now Suffolk County Water Authority customers, they can have access to their drinking water samples. So if they -- a customer, let's say, if they lived in a certain area, they can access what's shown as a spigot, which will show you the water that's provided throughout the distribution system, which is representative of your drinking water.

We also have helpful links. What I find is that the public needs to be educated about these things. So we have a section where we explain LICAP in further detail. We have links explaining the difference between groundwater and drinking water. Also things such as parts per million, parts per billion. People hear about these things and they're not familiar. Just providing this link, this gives you, like, a helpful idea. Part per billion is the equivalent of a sheet -- one sheet in a roll of toilet paper stretching from New York to London, just to give some comparison for that. We have tables with regulated samples provided by the EPA, which is the federal guidelines; and also through the New York State Department of Health. Those are things that, you know, people can definitely learn more of. People have questions about the site; they can e-mail us.

Now what's great is, with this site, a person can come on and they can learn, you know, about their area. There's a section where you can enter in your address and it does have intuitive software so as right now I'm entering an address, it will try to find out that location. I'm just going to put in an address right now.

LEG. TROTТА:

What's the name of the website?

MR. FULLER:

Liaquifercommission.com.

CHAIRPERSON HAHN:

Just make sure you talk into the microphone.

MR. FULLER:

725 Veterans Memorial Highway is the address I'm putting in. And that's in Hauppauge, correct?

CHAIRPERSON HAHN:

Smithtown.

MR. FULLER:

Oh, Smithtown, I'm sorry. Smithtown. All right. So I'm in this area. And, you know, this right here is, I guess, where we're at now. And you can see that it has a boundary around it. That's just the distribution area. So that's the area where the water's supplied to. So if you clicked on, you know, the surrounding area, you can access the water quality report; or more importantly you can click on any one of these icons, which I said with a spigot, which would show you what the actual water quality is in the distribution sample. So that is what the state of the drinking water is. You know, you can click on that for any particular address.

Now, the great thing about this is, not only can you see this, you know, drinking water samples, you can also get a better idea on the state of the aquifer. And I'm going to do just a quick search just to show you. There's a search untreated compound which provides information on aquifer samples that were taken throughout the Island. I'm going to do a quick search for nitrates, just to show you --

CHAIRPERSON HAHN:

Just a quick question.

MR. FULLER:

Yes.

CHAIRPERSON HAHN:

Legislator Trotta's trying to bring this up on his computer right now. Is this -- what's the URL he should log in --

MR. FULLER:

If you can see it here, it's Liaquifercommission.com. Are you able to access it? Can you see it?

LEG. TROTТА:

Well, if I may, why don't you make it watertraq.com?

MR. FULLER:

It's actually in the LI Aquifer Commission website. So it's within this website, you can access WaterTraq. It's on the home page so you can access it there. So because this was created through the LICAP, and this is the LICAP main page so people can get more information on LICAP.

CHAIRPERSON HAHN:

But if WaterTraq is available, the URL, you might want to just create a --

MR. FULLER:

I think that's a great --

CHAIRPERSON HAHN:

Redirect.

MR. FULLER:

-- idea. That's definitely something that we'll pass on to our developers. Again, just going back to the WaterTraq, you can do quick searches. Now what I did was, there's a search untreated compound, and we tried to make it, you know, simple for people that are using this. Because, again, people may not know of particular values that they can click on. So what I'm going to do is a quick search for nitrates. The first thing I'm going to do is click on the first link that says LICAP Aquifer Sample Point Above Standard. You can put in any compound. If you type in the name of a compound, and I'm typing in nitrates, the intuitive software will bring it up.

So I'm clicking on nitrates, I'm clicking execute. And right now it shows the results behind me. And I'm just going to zoom out, and just to keep in mind, we do break the samples between Nassau and Suffolk so I do initial search for Nassau samples; I'll do another search for Suffolk.

But when I did that quick search for nitrates, you can see that in Nassau these are all the sample points that came above the standard of ten parts per million. If you click on any one of these points, you can see the supplier came from; in this case it shows Hicksville. Nitrates, you have a sample of 10.1 milligrams per liter which is part per million. The maximum contaminant level in drinking water is 10. Did it exceed it; yes. The well depth was 550 feet. And you can also access their water quality report by clicking on that link. All water suppliers go through extensive treatment process for their wells. And I do want to point out again that that was just a raw sample.

Now going back to this, if I wanted to just finish it off and show the entire Island, I would just go back to the task, go back, go to SCWA Samples, same thing I did before, I'm typing in nitrates and I'm clicking execute. And what you can now see is an Island-wide perspective from the sample points that we had above drinking water sample -- above nitrate in drinking water of 10. So, you know, looking at that from a water supplier, nitrates is obviously a concern throughout Long Island for groundwater. But for a water supplier, there are more immediate things that we're focused on. You can see that from the samples, which is over 1200 wells, only ten -- I'm sorry, nine, actually are above that standard. And for those that are, they are treated.

Finally, I'm just going to show one last thing. And I'm just going to remove those previous results. You can also put in values for your searches. The first search I did, I just put in the compound name, but you can put in a particular value. What I'm going to do now is a search for iron levels, because iron is a huge problem on the south shore. And I'm going to put the value of one. That's one part per million. That's the level above which that people would notice that in terms of a bitter taste. I want to put out that iron is a naturally occurring compound in groundwater. So, again, I'm just putting in iron, typing it in, putting in a value of one. I'm just putting in an arbitrary less than value. And this is the search that's initially being done for the Nassau side. And you can see -- I'm just going to close that box out. So that's where you can see Nassau.

And I pointed out that is a problem on the south shore so you can see that. Most of the results are right there. I'm going to finish it out really quick and do the search for Suffolk. And I'm putting in iron, value of one. And the other thing I want to point out is that, you know, this program is ever-evolving. With the link that we provided with the e-mail, any suggestions that we get, we're going to constantly update this site. So what you see now will definitely evolve in the future. But, again, these are all the values that I'm showing here with iron levels above one. It is a problem on the south shore. The reason being is that that is a natural occurrence because of the flow of groundwater.

We also have additional information provided by the USGS. They've given us some information that shows groundwater contours, which I'm just going to show here. And the only thing I want to show, if you can see that, there are, you know, rings that move up. At the top of these rings where I have my mouse at, this is where recharge occurs on Long Island, along the spine. So as that

fresh rainwater comes down, it's full of oxygen, it reaches the ground and it starts to flow to the south. As it goes deeper and deeper in the aquifer, it loses that oxygen, it gets more acidic, it reacts with the sediment and that's why you have iron problems on the south shore. Millions of dollars are spent on iron removal facilities. And people that live on the south shore, they may complain about it, but, again, it's a natural occurrence, it's not limited to just one area. And that's what this system allows you to do.

Another great feature that you can see here is a depth to water. And this is really great because most people don't know how far below the land surface you have to go before you actually access groundwater. So what's great about this is that this is completely color coded. You can see based on a color how far it is below the ground you have to access groundwater. So as you get closer to the coast, you can see, it's less than 11 feet; as you move towards the middle of the Island, it can -- you can go as deep as 200 feet before you actually encounter groundwater.

So this is just a small snapshot of the things that you can do with WaterTraq. This is ever-evolving. It is a milestone accomplishment, again, as I point out for all of Long Island. People are learning. We're getting a lot of positive feedback. We've recently spoke with the EPA who potentially may share some of their information with us. Students have reached out to us, other agencies. And, you know, again this is breaking down walls, the result of everyone working together. And with that I will take any questions.

CHAIRPERSON HAHN:

Legislator Krupski.

MR. SZABO:

I'd just like to point out that this is information that the drinking water providers from across Nassau and Suffolk publish annually. And in the old days it used to be in the newspaper where you'd get a supplement once a year and have all this data and it's moved onto many of them using an electronic format. But for the first time the significance of this is having this information untreated, right, raw water and then treated water, the water that you get in your home available to the public over the website. That's what makes this so cool.

This is 2015 data. So as we move forward, we would like to update this annually. That may be -- it sounds easy, but because there are -- how many, Frank, 40, 50? Forty-six water providers in Nassau County and the five in Suffolk, it takes time to coordinate with them to get updated information. But our goal is to have this updated annually.

LEG. KRUPSKI:

I know the Health Department has a lot of -- a monitoring system rather, and a series of test wells that you're getting the information from their wells and their data. And how often is that updated?

MR. FULLER:

We've gotten information from monitor wells from both -- from the Suffolk County Department of Health Services and Nassau County Department of Health Services. We do have the network of monitor wells in Suffolk County. Nassau County is not on there. And the only reason for that is they haven't had routine samplings since 2010. So the information that we're providing on WaterTraq is for 2015. Hopefully with additional funding or with the work that they've now allocated with the USGS for that state -- you know, for that Island-wide project, maybe they'll resume the sampling. But we have all their monitor well information. In addition to that, we have historical information for them. We've gotten cooperation from everyone. And I think that's one of the milestone accomplishments with LICAP. And hopefully we can see the continuation of this. Although it's historic, a lot of effort and time and hours were put in, sacrifices. So hopefully we will have a way to see the continuation of this.

LEG. KRUPSKI:

Thank you.

CHAIRPERSON HAHN:

Legislator Anker.

LEG. ANKER:

Yeah, I know that the problem has always been with the testing of the water is you test the chemical that you know that may be there. So what is going on at this point with maybe the synergistic effects of chemical combinations; or even chemicals that we may not know of? And also nanotechnology, you know, the issue with microbeads that we recently passed legislation to protect our groundwater, what is the current status of monitoring those types of chemicals?

MR. FULLER:

Well, as far as the sampling goes, and I'm speaking on behalf of the Suffolk County Water Authority, we sample for 249 more compounds than required by federal and state regulations. So federal EPA they have their guidelines, State have their guidelines. Our laboratory we sample for way more than that. In addition, we work with the United States Geologic survey. Recently we've done a work on emerging contaminants. So as of, you know, new methodologies are developed for additional compounds, our laboratory incorporates that, so that we can stay ahead of that. You know, we do additional sampling for pharmaceuticals, unregulated compounds, everything of that nature.

As far as nanotechnology, you know, again, that's something that's still continuing. I wouldn't say that, you know, as far as the research that's been done, you know, there's still, you know, some uncertainty as to the overall impacts to the public. But that's something that we're always aware of and that we continue to monitor.

LEG. ANKER:

And another question, I have a very large senior community in my district; have all the Leisure's and probably 30 private senior communities. When I speak to them, I always ask them, and usually there's a room of 100 to 200, sometimes up to 300 seniors, do you have a computer; do you go online; do you use a smart phone. And I have to say five years ago it was about 30%. Maybe four years ago it got it higher. It's starting to go back down again. So with that in mind, that maybe 40% of our seniors use a computer, and, you know, 60 don't, what are you doing to provide that information to those seniors or not that don't have new technology?

MR. SZABO:

If you give us a date, Ty will be happy to come to one of the Leisure's and make a presentation.

LEG. ANKER:

I will. In fact, we just had PSEG, National Grid and the Department of Public Service out at Leisure Village last week to go over some of their bills, but we'd be very happy to have you guys out there. Thank you.

MR. SZABO:

Just to elaborate a little bit more on that, I mean that truthfully. He will be there. He's done a lot these slide shows over the last six months or so talking about WaterTraq. But we also a couple of years ago, we had unutilized space right here in Hauppauge, the Water Authority. We had moved our call center to a central location to a -- we sort of consolidated our call center, moved it to Coram, and we had vacant space here in Hauppauge. So we created an education center. We took old equipment, we took, whether it was a pump or a hydrant or different tools that were used historically, we have a demonstration on the aquifer itself, so we created this space that's not

complete but it's pretty cool already and it talks about Long Island and the unique nature of the aquifer. It talks about the water authority in particular. So as we progress and fully implement this education center, one of the goals is to bring in seniors and to bring in, you know, different organizations or fraternal organizations and have entities come and to learn a little bit more about the aquifer because it is so precious.

LEG. ANKER:

Right. And I think that's so important because, you know, like Legislator Fleming said, there's certain areas that have very high use, you know, that people have very large lawns or, you know, even, you know, the agriculture communities. And then there's other situations where you have seniors looking to save every penny by cutting back and whatever they can do even though they don't use very much water perhaps. So, there's different, I guess, ideas that can be developed in understanding the overall use of our water supply. And, again, I appreciate the educational component because that is so important. Thank you.

CHAIRPERSON HAHN:

I have two quick questions. Ty, did you say that you sample for 249 more compounds than required by state and federal government?

MR. FULLER:

That's correct.

CHAIRPERSON HAHN:

Or was it 249 total?

MR. FULLER:

Two hundred forty-nine more.

CHAIRPERSON HAHN:

More. Excellent. Is one of those hexa-chrom?

MR. FULLER:

That was through the UCMR.

MR. SZABO:

I'll just talk briefly about hexa-chrom. Back in, I guess, 2012 or 2013 the Water Authority under the EPA's unregulated contaminant rule began testing for that. There is no standard. There's no minimum contaminant level, there's no MCL, there's no health advisory.

CHAIRPERSON HAHN:

That's true of many of the unregulated compounds. They kind of fall into, like, a 50 parts per million generalized --

MR. SZABO:

Parts per billion.

CHAIRPERSON HAHN:

Whatever, parts per billion.

MR. SZABO:

Every five years the Water Authority and other large suppliers test for these contaminants that are not regulated. They sort of do a survey. It's called UCMR. So UCMR 3 we participated at -- I believe we tested for 28 or 30 of these unregulated contaminants and it allows the EPA to collect the

data from across the nation to then study and determine whether there is potential cause and whether they should regulate it. So they have not taken any action when it comes to chromium.

CHAIRPERSON HAHN:

Correct. The State of California has determined a level that they find to be -- what do they call it, their standard.

MR. SZABO:

We have their -- in the state they have set up, I believe, it's ten parts per billion -- ten parts per billion. And we treat to the total chromium, which I believe here in New York State is -- is it a hundred parts per billion? A hundred parts per billion. So none of our wells exceed a hundred parts per billion clearly. That's under total chromium. And if we implemented something here in New York State and adopted California's rule of ten parts per billion, I believe, three of our 600 wells would exceed that.

CHAIRPERSON HAHN:

And do you have any sense of -- can that be traced back to any kind of --

MR. SZABO:

You know, it's difficult. It's very difficult. It is --

CHAIRPERSON HAHN:

I know some of it is naturally -- some is naturally occurring.

MR. SZABO:

Yes.

CHAIRPERSON HAHN:

But we're talking at very low levels. But it also can be the result of spills or industrial waste; correct?

MR. SZABO:

I believe it's the 20 or 21st most naturally-occurring element on earth. So there is a natural component, but it is used, I believe, in the treatment of wood and -- I have my lab staff here.

CHAIRPERSON HAHN:

Thank you. Oh, I'm sorry, I'm sorry. You can't speak from the audience. So you can come up to the microphone, but unfortunately it's hard to get you on the record when you're talking from the audience. Just identify yourself, name and title and agency.

MR. SCHNEIDER:

My name is Tom Schneider. I'm from the Suffolk County Water Authority.

CHAIRPERSON HAHN:

Thank you, Tom.

MR. SCHNEIDER:

Just a little bit of background of chromium. The Water Authority's been analyzing for total chromium for 25 years; started in 1991. We started testing for hexavalent chromium in 2012. In addition to the 800 or so samples that were done for the unregulated monitoring contaminant rule, we've done another 12 to 15,000 just sort of fill in the blanks. Although hexavalent chromium is used for a couple of industrial purposes, in tanneries certainly being one of them, what we're finding on Long Island, it is -- it's actually in the aquifer. And we can go back to our data going back 25

years.

CHAIRPERSON HAHN:

Okay, but I know that -- I'm pretty sure the three instances that were found above the ten part per billion standard, what did we reach; 11, 12? Or was closer to 90?

MR. SCHNEIDER:

No, it was between 10 and 12.

CHAIRPERSON HAHN:

Okay. But we're continuing to -- is there any way to up -- I know obviously 12,000 extra sampling is very impressive. So is that -- are you continuing -- you said once every five years you have to test for the unregulated. Or you are required to test for those unregulated compounds?

MR. SZABO:

We are required; then that group changes. So it's five -- it's about 30 over UCMR 3. UCMR 4 will have a different set that we will then test for.

CHAIRPERSON HAHN:

Do you treat for chromium?

MR. SCHNEIDER:

We are actually -- part of those 12 to 15,000 samples, we're looking what comes out of the ground, what goes through our systems. We have a number of systems. We have iron removal, we have resin systems, we also have something called granulated activated carbon. And what we're trying to do is see how the values change as it goes through the system. And we're also testing our distribution system so we have a better understanding of what the customer's getting.

CHAIRPERSON HAHN:

So you don't specifically treat for chromium or hexa-chrom.

MR. SCHNEIDER:

We do not specifically treat for it, but we see that some of our technologies that we employ today do have a positive effect in removing it.

CHAIRPERSON HAHN:

Okay. Hopefully maybe -- I know this has come up. I actually had -- there was -- on CNN and MSNBC, there were stories -- there was a story, I think, it was The New York Times, so I've had a number of constituent questions about this. And, you know, maybe we can get some more detail in the future.

MR. SZABO:

One of the important things to make mention of, the press that -- was received last week regarding chromium, hexavalent chromium, was because there was a report that was issued by the environment working group. And it was picked up by multiple news sources: Newsday, News 12, CNN, and like you said, MSNBC, but that is just one report. You know, there are multiple studies and reports conducted by different organizations and some of that information at times is conflicting. And I think that's why the EPA and even the state have been reluctant to make a decision regarding chromium because the data collected needs to be peer-reviewed, it needs to be studied, it needs to be based on real hard fact and science. And, you know, it's easy to say, you know, we need to act, we need to do something right away, of course. But I think the EPA, we have to rely on the regulators and the Health Department and the EPA to make those determinations when they have enough information so that they can set standards that we can follow.

CHAIRPERSON HAHN:

So can -- are you working with our Health Department on this chromium monitoring to make sure that we're -- because that report, regardless of, you know, I'd like to know more about the science behind it because I can't say that I do, I'm not a chemist, but that report did mention Suffolk County as being somewhere where they found, you know, I believe above that ten parts per billion. I think that was -- the standard that they were referring to where it's found. So I just want to, you know, I think we should be on top of monitoring this in a way that's appropriate. So are you -- do you work with Suffolk County Health Department?

MR. SZABO:

We have -- we're in contact with Suffolk County Health Department almost on a daily basis.

CHAIRPERSON HAHN:

Yes.

MR. SZABO:

From the top right on down, we have a very good working relationship. In fact, I'm trying to think if it was Thursday or Friday I was on the phone with Dr. Tomarken about this. We share information. They're our regulator. We have an -- we provided data -- was that Thursday or Friday, do you remember?

MR. SCHNEIDER:

That was Thursday.

MR. SZABO:

Thursday? So there's a constant dialogue going back and forth. The other point I was trying to make is that, you know, the water industry and the Health Department and the state folks, you know, they're aware of this but -- and we've been dealing with it and there's been communication about it for years. Like Tom said, we've been testing since 2012. But when it gets media attention and it catches somebody's eye, they say "Oh my God, I can't believe this is happening," you know, "What are you doing about it?" You know, you try to respond as quickly as possible but for us in the industry it's not new, you know, it's something that we've been trying to address for years.

CHAIRPERSON HAHN:

I'd like to, you know, have another discussion in more detail about the chemistry, about the -- you know, what's known about the monitoring, what's been done, what may need to continue to be done to help -- you know, we may need to talk with Health Committee just to make sure that on our end obviously -- I understand the regulatory role, but that doesn't mean that -- and I know that you talk on a regular basis, but I specifically was asking about this issue if -- you know, if we're finding it above that standard. I don't know how far along New York State is in working towards a different standard than the hundred parts per billion. There seems to me that that's a large -- lot of sunlight in between 110 but I could be -- I could be wrong on that. So, you know, I think we should have further conversations so that we all understand in a, you know, real specific manner exactly what's going on and what we're doing. And we can communicate that with our constituents in a real way. If there are any fact sheets or informational materials on it that you can provide, that would be helpful.

MR. SZABO:

We have some information. I do believe, and I may be wrong, Tom, please correct me, but I believe that the EPA is supposed to come to some determination in 2017 about -- that's the latest rumor, I think that's been published in several different places that -- I believe initially they were looking at making some sort of decision in 2011. And because of multiple reports and differing, you know, science, they pushed that off until 2017 so there may be some sort of ruling or decision by

the EPA about chromium in 2017.

CHAIRPERSON HAHN:

Well, Jeff, you know we don't like to wait for the feds to act.

MR. SZABO:

I know.

CHAIRPERSON HAHN:

(Laughter) Sometimes you wait for them and it takes forever. You know, I mean -- no, I appreciate that. And obviously that's where it needs to happen. There's no question. But, you know, I think we need to all talk about this, this one, even though -- you guys have been talking about it for a number of years now. You know, I don't think we've had the kind of discussions that we need to have and we very much value your expertise and your input. Anyone else want to ask? Legislator Krupski.

LEG. KRUPSKI:

Thank you. So when the EPA sets these numbers for treatment and these tolerances, do they -- and I'm thinking of the new emerging, the most popular contaminant now, the one that was found in the -- near Gabreski Airport in Westhampton. I can't -- it's some sort of a Teflon-based material and I can't remember the name of it.

MR. SCHNEIDER:

It's part of a family compounds known as perfluorinated alkyl compounds, PFCs.

LEG. KRUPSKI:

So -- they have set, I would assume a drinking water standard?

MR. SCHNEIDER:

They have a health guideline of 70 parts per trillion.

LEG. KRUPSKI:

Okay. So when they set that standard -- or any standard for any chemical, do they take into account what you're being exposed to elsewhere besides drinking water? Because if this chemical is in your clothes or furniture as a fire retardant, wouldn't you be getting greater exposure through your skin than drinking water at -- that's contaminated with this at 70 parts per trillion? I mean, do they take those other factors, other exposures into -- into account when they set those standards?

MR. SCHNEIDER:

It's my belief that they do not. A lot of those chemicals you will also find in the linings of food containers, some of the precursors. It's basically strictly a drinking water standard. Even though there are other mechanisms, you can get a lot of PFCs depending on where the fish is caught or how the fish is raised, you're going to get tremendously higher values than you would in drinking water. But it's strictly a drinking water health guideline.

LEG. KRUPSKI:

Why don't they use the -- all your exposure as a kind of -- take in all that into account?

MR. SCHNEIDER:

Honestly it's a lot easier to test for contaminants in drinking water than it is for fish or in other people's exposure. Oh, I'm sorry.

CHAIRPERSON HAHN:

Just identify your name and title.

MR. HOPKINS:

My name is Tim Hopkins. I'm General Counsel for the Suffolk County Water Authority. And I would just like to address Legislator Krupski's question. And when the EPA establishes a health advisory, they will not take those other factors into consideration. However, when they set a drinking water standard and they have a regulatory standard, then they will take all those factors into consideration. And that's -- and that's the difference.

So when they set a regulatory standard that drinking water systems must meet, then they'll take those other exposures into consideration, because if you're getting exposed to 95% of the exposure from some other source than drinking water, then it doesn't necessarily make sense to set a really low drinking water standard because they'll consider those other exposures. But then they just establish a health advisory, they won't consider those other exposures as much when they set it; okay?

LEG. KRUPSKI:

Thank you.

CHAIRPERSON HAHN:

Legislator Fleming.

LEG. FLEMING:

Could you just describe for us, and you could even use the Gabreski scenario as a for instance, how EPA, DEC and Suffolk County Water Authority and the Suffolk County Health Department respond to either a health advisory or a regulatory standard and where each of those agencies has a role? I think the Gabreski is a really good example of something that worked very well.

MR. HOPKINS:

So what I'll do is I'll explain to us the regulatory framework for drinking water standards. Regulatory framework first starts out at the federal level under the Safe Drinking Water Act. And the Safe Drinking Water Act empowers the Environmental Protection Agency to set standards for drinking water. And the Safe Drinking Water Act also says states can be what's called the primacy agency for enforcement of drinking water standards. And states can also adopt drinking water standards that are more stringent than what are set by the EPA.

So it starts it -- under the -- at the EPA under the Safe Drinking Water Act and they'll promulgate nationwide drinking water standards. However, each state is empowered to -- well, first of all, they have to adopt those minimum standards, those are minimum standards. And they can be a more stringent standard if they want to adopt a more stringent standard based upon any particular contaminant.

With respect to health advisories, EPA also has the power to provide what's called health advisories. And those are guidelines for states and drinking water suppliers. They're nonenforceable standards because they haven't gone through that whole regulatory process of weighing the cost benefit of establishing a drinking water standard. So they're health advisories that are based upon the latest scientific data that they have. They provide some information but they're not regulatory in nature.

And what happened in Hoosick Falls and the situation at Gabreski Airport was one of these -- these chemicals, perfluorinated alkyl acids, were found and because there was an established health advisory, the -- it wasn't a drinking water standard yet; it's not an enforceable standard, but given the health situation with respect to what was known about those contaminants, they recommended

action. And that's what was happening.

LEG. FLEMING:

When you say they, who recommended it?

MR. HOPKINS:

So EPA recommended action and a health advisory; and then the state followed up with that saying, you know, "We should take action in this particular situation."

LEG. FLEMING:

But at that point the federal government was not mandating action, I don't think, right? It was the DEC --

MR. SCHNEIDER:

That's correct.

LEG. FLEMING:

The local authorities, you can take action if you think it's appropriate. The Suffolk County Water Authority and Health Department reached out to the local community. It's my understanding --

MR. HOPKINS:

That's correct. Because it wasn't an established drinking water standard at that point, it was just a health advisory, those are non-enforceable standards. And so in this case the local health department, together with the state, decided to take some action. And I believe the DEC has announced that it will, you know, provide funding for hooking up people who are on private wells.

LEG. FLEMING:

Thank you. I think it's very helpful. I mean, my understanding of how the -- what played out in Gabreski, which is in my district, is that we really acted -- the County Health Department really did act in an abundance of caution and contacted folks even though the -- what they were detecting did not rise to the level of any kind of mandatory enforcement.

MR. HOPKINS:

That's correct.

LEG. FLEMING:

Thank you. It took a lawyer to explain that.

CHAIRPERSON HAHN:

Legislator Anker.

LEG. ANKER:

Again, I'm looking at the WaterTraq, and just a real quick suggestion: When you click on -- you type in the name of a town you want to check the water, you go on it and you see that it basically has -- it gives you the distribution area. But what happens is that the box covers up that distribution area. So maybe slide it over to a place you can see it.

And the other part, you know, it gives you -- like, I'm in distribution area number 15, I think. Let's see. Number 15. It encompasses, you know, probably about ten towns, you know, all the way down to Selden, Farmingville it looks like. It's huge. Ronkonkoma, all the way up to Mt. Sinai and the north shore. Is there a there a way to look at the numbers for the distribution area according to their substation, not necessarily the entire distribution area? Because, you know, from what I understand what happens is the blending, like, say there's an issue with a particular substation and

you need to either close it down or you blend it and you get it to where the -- levels that it needs to be. But is that possible to get information about a closer area that's -- you know, where you're getting your water?

MR. FULLER:

Well, that's what the icon with the sample station show. There's a feature on there, I guess it's known as a layer list. If you're looking at the website now, the icon on the right, it looks like papers stacked on top of each other. That icon is layer list in there. You have SCWA sample stations. And those spigots, as it's shown, that gives you the treated samples that are in the distribution system. So you could, you know, put in your address, get to the closer area, click on one of those and that would give you more information. That would give you an assessment on the true state of drinking water closest to you.

LEG. ANKER:

Okay.

MR. FULLER:

And, also, I just want to point out that this application can work on mobile phones. So that's another thing. And in addition, you know, as I pointed out earlier, any suggestions can be emailed to LICAP at scwa.com. In the "about" section it shows that; and also when you access the site, it shows that as well.

We've received a lot of good comment that will add to it. Previously Legislator Hahn came up with some great suggestions that have been forwarded, so I want to thank you for that. So as this evolves, you know, it definitely will.

Another thing I want to point out is there are certain restrictions. The New York State Department of Health just for security reasons, you know, you can only zoom down to a certain level. And that's just for protection of wells, well location. So that's just the one limit. There is a limit to how far down you can go, but it still brings you to a town level so you can kind of see the assessment of the area.

CHAIRPERSON HAHN:

Thank you. I hate to bring up back up, but is hexa-chrom one of the compounds that you can search for?

MR. FULLER:

It is.

CHAIRPERSON HAHN:

Okay. Thank you. Anyone else? All right. Was there a third, Frank, or no; a third presenter? For moral support.

MR. SZABO:

Thank you very much for your support.

CHAIRPERSON HAHN:

Thank you so much for coming here. We really appreciated you presenting to both the Health Committee and the Environment Committee. Thank you.

TABLED RESOLUTIONS

All right. We will head back to Tabled Resolutions. **Introductory Resolution 1756, Authorizing**

appraisal of land under the Suffolk County Drinking Water Protection Program, as amended by Local Law No. 24-2007, Old Kmart property - Town of Brookhaven (SCTM No. 0200-379.00-01.00-003.001 p/o) Northern Portion. (Anker). Motion to table by Legislator Anker. I'll second that. All those in favor? Opposed? Abstentions? **1756 is tabled. (VOTE: 6-0-0-0)**

INTRODUCTORY RESOLUTIONS

Introductory Resolution 1779, Authorizing the acquisition of land under the New Suffolk County Drinking Water Protection Program (effective December 1, 2007) - open space component - for the Tuccio property Peconic River Greenbelt addition - Town of Riverhead - (SCTM No. 0600-128.00-03.00-049.000). (Co. Exec.)

LEG. KRUPSKI:

So moved.

CHAIRPERSON HAHN:

Motion by Legislator Krupski; second by Legislator Fleming. On the motion. We have with us, thank you, Director Lansdale and Miss Fischer. Thank you for your patience through that presentation and all of our questions. We appreciate your time. This is an authorizing resolution. We have maps? Were they sent to us earlier? We should be looking for that, right?

MS. FISCHER:

Yes.

CHAIRPERSON HAHN:

It came from you, Laretta?

MS. TURANO:

On Friday.

DIRECTOR LANSDALE:

Yes. The maps and rating sheets were sent to members of the Committee on Friday.

CHAIRPERSON HAHN:

Thank you. Does everybody got theirs up? Okay, so we're looking at right now --

DIRECTOR LANSDALE:

We're looking at the parcel that's outlined in red, the proposed acquisition.

CHAIRPERSON HAHN:

And is this -- this is page five of the map packet; correct?

DIRECTOR LANSDALE:

That's right.

CHAIRPERSON HAHN:

Okay. Thank you. Legislator Krupski, is there anything that you want -- is this the one we've been talking about for a while with the access to the river?

LEG. KRUPSKI:

It is. Thank you. And I want to thank -- I want to thank Laretta for help on this. This has been a long road here, but it's -- it's an important parcel for waterfront access. It would be considered

passive use with off-the-road parking. Right now it's a cleared lot and a small opening through the adjacent vegetation there, adjacent to the river for access. It'd be ideal for a kayak or for a paddle board access, something like that. But really not active in like you think a ball field or something.

Also, you know, I asked to have in the enabling resolution something put in, if Riverhead ever developed a river walk or a blue and green trail system, that this parcel would be -- and I think it should be spelled out in black and white, it could be used as part of that trail system.

CHAIRPERSON HAHN:

And we passed legislation in this County, applied for state grant to create a countywide blueway, which will be -- would be very exciting and I'm sure this would be a key part to that and having access to the river is very important. So we worked out all the legal details about allowing that in this purchase?

DIRECTOR LANSDALE:

Yes, we did.

CHAIRPERSON HAHN:

Excellent. Any other -- anymore we need to talk about?

LEG. TROTТА:

I have a question.

CHAIRPERSON HAHN:

Okay. Did you -- did you want to say more, Laretta, before the question from the Legislator?

MS. FISCHER:

Just it's outlined in the Seventh Resolved.

CHAIRPERSON HAHN:

Excellent. Thank you. Legislator Trotta.

LEG. TROTТА:

How much property is this?

CHAIRPERSON HAHN:

Point three three. Point three three acres. It says it at the top of the map there. It rated as 75 out of a hundred and it's .33 acres.

LEG. KRUPSKI:

It's across from the Historical Society there in West Main Street in Riverhead.

LEG. TROTТА:

What's next to it there? There's like -- I'm trying to pull it up, a different map.

LEG. KRUPSKI:

It could be a used car lot.

MS. FISCHER:

There's vacant land to the east and there's a structure building on the property to the west. And, again, to the west of that, there's a house, that property I'm familiar with that.

CHAIRPERSON HAHN:

But this was on the Suffolk County Master List, this property --

MS. FISCHER:

Yes.

CHAIRPERSON HAHN:

And the vacant lots --

MS. FISCHER:

And the property -- the vacant property to the east is also on the Master List.

CHAIRPERSON HAHN:

Does the same owner own the two parcels?

MS. FISCHER:

No, they're different owners.

CHAIRPERSON HAHN:

Of course.

LEG. TROTTA:

So it's this little strip of land between -- it looks like a used car lot, U-Haul it says. And it's a third of an acre. What can be built on that?

MS. FISCHER:

As we said, this is for passive recreational use. So there's proposed a small parking area with access to the waterfront, possibly for kayak, low impact uses on the river. There's a number of parcels that the County as well as the Town of Riverhead have acquired outside the Core -- Pine Barrens Core area just for this kind of access to the river. If you drive along that road, Main Street, it's hard to see any of that river. And access was very limited in previous years. We're trying to open that up and provide better access to this important watershed of the County's.

LEG. TROTTA:

It seems like a lot of money for a quarter of an acre -- a third of an acre. There's a park right down the road from it.

MS. FISCHER:

Again, we -- you know, this riverfront is important also ecologically. And the intent is to reduce or to at least not encourage any further development that would impact the watershed of this river.

LEG. TROTTA:

Is Riverhead kicking something in on this?

MS. FISCHER:

No, unfortunately they have spent a good majority of their community funds. But they have bought other pieces along the river as well for access.

LEG. KRUPSKI:

And Riverhead has committed to maintain it such that it is, in a very -- pretty much the same state that it is; mow it a couple of times a year.

CHAIRPERSON HAHN:

To have public access is so critically important. You know, Rob.

LEG. FLEMING:

The fact that there's a nearby park enhances the blueway use. And I know -- I can tell you just a short distance down on the south side Southampton just swapped property with County so that they can build Grangeable Park so that would be sort of across and down as more of the river gets used for recreational purposes in the Riverside area. So I think a purchase of this would be consistent with trying to enhance the recreational use of the river on both the north and south side of the river.

CHAIRPERSON HAHN:

And as someone who paddle boards -- stand up paddle boards and kayaks, you know, having a specialty access for that purpose in a unique location sometimes can, you know, can make that easier, can -- you know, you need more space to unload and load. You need, you know, that kind of -- that kind of specialty access that is important.

LEG. KRUPSKI:

Important to have road access.

CHAIRPERSON HAHN:

Yes. Okay. Anyone else have any questions? We have a motion and a second. All those in favor? Opposed? Abstentions?

LEG. TROTТА:

Opposed.

CHAIRPERSON HAHN:

It is approved. **1779 is approved. (VOTE: 5-1-0-0)**

Introductory Resolution 1783, Authorizing the acquisition of land under the New Suffolk County Drinking Water Protection Program (effective December 1, 2007) - open space component - for the Estate Riehl property Manorville Hills addition - Pine Barrens Core Town of Brookhaven - (SCTM Nos. 0200-511.00-06.00-065.000 and 0200-511.00-06.00-067.000). (Co. Exec.). I probably said that wrong, but -- this is a Pine Barrens Core. This is page eight of the PowerPoint, it's .72 acres, Pine Barrens Core, \$22,000. Any questions? Anything you guys need to say?

DIRECTOR LANSDALE:

Just wanted to note that this is located within the Manorville Pine Barrens County Park area in which the County owns over 2200 acres. The parcel is adjacent to both County and state preserved open space.

CHAIRPERSON HAHN:

Thank you. Legislator Trotta.

LEG. TROTТА:

Just for the record, there's no access to this any other way? It's liable to just sit there in perpetuity?

MS. FISCHER:

There are paper streets that can provide access to County Road 111. First Street can bring you to County Road 11, although it's at this point not developed. It's a paper street at the present time.

CHAIRPERSON HAHN:

I'm wondering if maybe we might need a refresher on Pine Barrens Core and the whole Pine Barrens --

LEG. TROTTA:

I don't need a refresher.

LEG. FLEMING:

Could I just make a note?

CHAIRPERSON HAHN:

Maybe at another meeting we can just do a little reminder about our responsibility to purchase this property. Thank you. Legislator Fleming.

LEG. FLEMING:

Beyond the idea of the -- well, it might be part of the idea behind the Core, but I think the fact that land is surrounded by preserved land makes it even more important to preserve in part because of contiguous habitat. Contiguous habitat is huge. I mean, you really need to be -- if you're going to promote a diverse species in the forest, you gotta -- you can't just stop somewhere because there's -- you know, the wildlife doesn't know property boundaries. So contiguous habitat is an extremely important concept and I think we'd be contributing to that with this purchase as we do with a lot of these little pieces that seem stuck in the middle of it; it seems a little counterintuitive to want to purchase them because you can't get access to them. The fact that you can't get access to them is in part because it is a growing and contiguous wildlife habitat.

MS. FISCHER:

And management of these properties is crucial.

CHAIRPERSON HAHN:

And having private ownership within state --

MS. FISCHER:

Very difficult.

CHAIRPERSON HAHN:

-- and County, it makes it very difficult. Okay. So we have a motion and a second. No? Okay, I'll make a motion to approve; seconded by Legislator Anker. All those in favor? Opposed? Abstentions?

LEG. TROTTA:

Opposed.

CHAIRPERSON HAHN:

1783 is approved. (VOTE: 5-1-0-0)

Introductory Resolution 1784, Authorizing the acquisition of land under the New Suffolk County Drinking Water Protection Program (effective December 1, 2007) - open space component - for the Weinzettle property - Mastic Shirley Conservation Area (Town of Brookhaven - SCTM Nos. 0209-037.00-01.00-007.000, 0209-037.00-01.00-009.000 and 0209-037.00-01.00-012.000). (Co. Exec.) I'll make a motion; seconded by Legislator Muratore. 1784. And this is -- I believe this is on page nine.

DIRECTOR LANSDALE:

Yes.

CHAIRPERSON HAHN:

Point five three acres, 56 out of a hundred on the rating score at a cost of 48,000? \$48,000 in the Mastic Shirley Conservation area. And there are three parcels here?

MS. FISCHER:

Yes.

CHAIRPERSON HAHN:

So all three parcels total the .53 acres.

MS. FISCHER:

Correct.

CHAIRPERSON HAHN:

Excellent. Is this -- I guess this wasn't part of the NCRS?

MS. FISCHER:

NRCS?

CHAIRPERSON HAHN:

NR, sorry. NCIS (laughter).

MS. FISCHER:

No, not directly. We are acquiring a few pieces just north of here as part of that.

CHAIRPERSON HAHN:

Okay.

MS. FISCHER:

So it's in the vicinity as well as being within the Mastic Shirley Conservation area. That's always been a high priority.

CHAIRPERSON HAHN:

High priority for us, yes, absolutely.

MS. FISCHER:

This area's actually inundated on a daily basis by high tides.

CHAIRPERSON HAHN:

Okay, good. On the motion, Legislator Trotta.

LEG. TROTТА:

So there is no way they can build anything on this. You just said it's inundated by high tides?

MS. FISCHER:

Well, they have -- you can see there's a house on just catty corner to this property. There have been properties developed in this area. So we would like to reduce any further storm damage and issues regarding any kind of future development in this area.

LEG. TROTTA:

Are there any applications to build on this? Is there anybody talking about building on this?

MS. FISCHER:

On these properties or in the area?

LEG. TROTTA:

On these properties.

MS. FISCHER:

No, not at this time. They're looking to -- the County to acquire them.

CHAIRPERSON HAHN:

How about can there be restoration of marshland? And do we have active work on something like that or plans for that?

MS. FISCHER:

Actually with the NRCS acquisitions there will be a wetland restoration component, which will be the second phase of what we're trying to accomplish in this area. This area as well -- the County owns a number of pieces as well as the town owning a few pieces as well. The Village has indicated that they're interested in doing wetland restoration along with us, so we're looking to do something down here, both for NRCS and hopefully adjacent lands that the County owns to improve the area.

CHAIRPERSON HAHN:

This looks ripe for that kind of project.

MS. FISCHER:

Exactly.

CHAIRPERSON HAHN:

Legislator Krupski.

LEG. KRUPSKI:

I think just to answer Legislator Trotta's question, if you -- if you have these parcels that are in private ownership, there is always a chance that someone's going to come in and try to develop them. It is waterfront. And once we add them to our inventory of high quality swampland, they will be protected. And if there -- I think, and I'm a little bit challenged, but I think it's labeled as high marsh.

MS. FISCHER:

It is, yeah.

LEG. KRUPSKI:

And it's going to be a healthy -- you know, you got a really good marine environment there. You're going to have a healthy marsh. It's going to provide the community with the stormwater control, it's going to help them the next time we have a storm.

CHAIRPERSON HAHN:

Any other questions? No? Okay. We have a motion and a second. All those in favor? Opposed? Abstentions?

LEG. TROTTA:

Opposed.

CHAIRPERSON HAHN:
1784 is approved. (VOTE: 5-1-0-0)

Introductory -- we already passed 1854. **Introductory Resolution 1859, Authorizing the replacement of the Eastern Boat Pump-Out Station at the County's Shinnecock Marina, using the New Enhanced Suffolk County Water Quality Protection Program funds (CP 8733). (Co. Exec.)**

LEG. FLEMING:
Motion.

CHAIRPERSON HAHN:
Motion by Legislator Fleming.

LEG. KRUPSKI:
Second.

CHAIRPERSON HAHN:
Seconded by Legislator Krupski. I guess on the motion, Frank?

MR. CASTELLI:
Yeah, I just wanted to preface the resolutions 1859 through 1865, all seven of these are based upon the enhanced water quality funding. This is all -- all seven of these -- one of them's already been approved here for -- 1864's already been approved, but they're all based upon local -- the adoption of Local Law 31-2014, which was approved by referendum by the electorate during November of 2014. And all of these projects are part of the \$4.7 million in enhanced water quality funding that's been -- that's been recommended or actually been mandated by the adoption of Local Law 31-2014. And what we're bringing to the Committee today totals -- the seven projects totals \$2.7 million out of the 4.7 million that must be appropriated before the end of this year. So I just wanted to preface that for all of these.

And 1859 is the replacement of a pump-out station. The Parks Department is -- has requested funding under this program to put in a new pump-out station at the Shinnecock Marina. This is the eastern boat pump-out station. And they're considering -- this is \$17,340. And it's to be utilizing a key code 900 series pump with a 1,025 gallon tank. And they've already installed this type of pump-out at two other locations in the parks' marinas. And they've been very successful and they need to replace the Shinnecock East pump-out station which has failed.

LEG. KRUPSKI:
Frank, who operates the pump-out station?

MR. CASTELLI:
Who -- the company that --

LEG. KRUPSKI:
No, who operates it? Once it's installed and --

MR. CASTELLI:
I thought you said --

LEG. KRUPSKI:
-- going to have support, who's --

MR. CASTELLI:

It's operated by the Parks Department as part of the operation of the Shinnecock Marina.

LEG. KRUPSKI:

Seven days a week? And what's the seasonal -- that's fine if you don't know.

MR. CASTELLI:

I don't know that.

LEG. KRUPSKI:

Okay.

CHAIRPERSON HAHN:

All right. We have a motion and a second. All those in favor? Opposed? Abstentions? **1859 is approved. (VOTE: 6-0-0-0)**

We approved 1860 earlier.

1861, Authorizing the reconstruction of the Riverside Roundabout, Riverhead, using the New Enhanced Suffolk County Water Quality Protection Program funds (CP 8733). (Co. Exec.) Motion by Legislator Fleming; second by Legislator Krupski. All the way around, whatever?

LEG. KRUPSKI:

That's good.

CHAIRPERSON HAHN:

It's fine. Okay. On the motion. Frank, do you have a summary of this one as well?

LEG. FLEMING:

I think also someone from Nelson and Pope is here, too, if --

MR. CASTELLI:

Yes, we have somebody here from Nelson and Pope, but I can go through it just real quickly.

CHAIRPERSON HAHN:

Thank you.

MR. CASTELLI:

The County Public -- Department of Public Works is proposing that they put in a series of stormwater treatment as part of the reconstruction of the Riverside traffic circle in Riverside. The first is two bio-retention areas, also an underground infiltration basin and a hydrodynamic separator, a vortex system. All of these have been determined by the contractor to be the best possible stormwater treatments for this -- for the reconstruction of the traffic circle. A lot of the stormwater there now is running untreated into the Peconic River. And the -- while this traffic circle's being redeveloped, it's a good idea and actually, you know, very worthwhile to re-do the stormwater treatment and that's what's being proposed here. It's a \$250,000 award by the Water Quality Program to the Parks -- not Parks, to Public Works.

CHAIRPERSON HAHN:

Legislator Fleming.

LEG. FLEMING:

Yes, I just wanted to point out that this -- this circle was initially constructed between 1937 and

1947 and the stormwater discharge goes directly into the Peconic River, which is an impaired water body, the site of that very famous fish kill, the bunker kill last year. And this is going to use modern stormwater management practices that will reduce the loading of pollutants of concern like phosphorous, nitrogen, sediment and pathogens into that region. It's a great project.

CHAIRPERSON HAHN:

Legislator Krupski.

LEG. KRUPSKI:

Thank you. So is this -- are these systems going to -- I haven't seen the plans -- include overflow structures? And if so, are they going to have backflow preventives, so when we have coastal events they're going to keep the saltwater from flooding out the roundabout.

MR. CASTELLI:

I know for sure that there are overflow -- that the potential for overflow has been addressed in the treatments. Honestly, I'm not certain about the backflow, but I would imagine that has been addressed. I don't know if Carrie from Nelson and Pope would have the answer to that.

MS. O'FARRELL:

Good afternoon. My name is Carrie O'Farrell with the firm Nelson, Pope and Voorhis. We assisted the County in the design of the circle improvements and with the drainage system. And I was involved on the permitting end in the design of the stormwater management system. Yes, there's definitely an overflow. The system is -- it is in an area that's very tight to groundwater so it is very limiting in terms of the space and area which we had to work with in order to manage stormwater, but there are overflows. I do believe there's a tie flex valve at the discharge points. But there's one towards east, one towards the west. And, you know, as I said, we're doing as much as we can to treat and use -- a couple of different options to treat and work with as much as we can before discharge. But there will be a discharge for larger storm events.

LEG. KRUPSKI:

I think it's a great design. Do you have DEC approval?

MS. O'FARRELL:

Yes, we have DEC approval. And we are pending -- I think we're finished with permitting at this point. I can follow-up with you if that is not the case, but I believe it's done.

LEG. KRUPSKI:

That's okay. Thank you.

CHAIRPERSON HAHN:

Legislator Trotta.

LEG. TROTТА:

What is this going to do? How does it work?

MS. O'FARRELL:

The system basically works in a couple of different ways, but it's a collection system. As mentioned previously right now, it was built so that everything basically enters catch basins and directly discharges in a variety of pipes. So the system in certain areas will do collection and is pre-treated in two rain garden areas, biological --

LEG. TROTТА:

What is pre-treated; how?

MS. O'FARRELL:

Through biological uptake. So the water is directed to the rain gardens. The plants uptake the stormwater and they provide for pollutant uptake. The water is held in those as well and allowed infiltrate; and then it -- whatever can't be held in that system gets overflowed to the hydrodynamic separator which is a -- more of a mechanical system used to remove sediment. And that also has a filtration component to it as well. And, again, it's removing nitrogen pathogen sediment from the stormwater.

LEG. TROTТА:

Shouldn't that be in the initial design? I mean, you're talking about a sump, I'm assuming. It goes into some low lying area.

MS. O'FARRELL:

It's not a sump that is -- you know, you can just use standard leaching pools, for instance, in these areas. But the idea behind these designs is we were trying to get in some additional treatment because of the sensitivity to the water body. So, pathogens, for instance, are very difficult to treat. And the only real way of doing that is through biological uptake. So that's why the rain garden component was added in. It's an option for the County. It wasn't mandated, for instance, by the DEC because it's an existing roadway and we're improving the roadway. The idea was to take this opportunity and try and remove some of those direct discharges and provide some treatment.

LEG. TROTТА:

The total cost of this to begin with, the initial design was -- the roadway, I'm concerned -- I mean this -- in my mind this should have been done automatically.

MR. CASTELLI:

I have to get -- I have to refer to the application for the total cost. It's in the actual.

LEG. TROTТА:

If I remember, it was like a million dollars to design the circle.

MR. CASTELLI:

It was more than a million dollars, the total reconstruction.

LEG. TROTТА:

I mean, this is like 250 -- I mean, are we allowed to use this money for, you know, a quarter cent -- it seems to me like this is a -- you know, the \$7 million circle. We just want more and more money.

CHAIRPERSON HAHN:

Now -- well, this money is for the water quality -- I mean, we're using 477 dollars because we're improving stormwater operations.

LEG. TROTТА:

Correct me if I'm wrong: 100 yards down the road the water goes in and travels the same exact way that it did prior to this.

LEG. FLEMING:

I believe the design involves a pitch that draws the water from around the circle, not just the circle itself, right?

LEG. TROTТА:

Do you have any pictures of this? Any design?

MR. CASTELLI:

Yeah, I was just told that the total cost is about \$4 million. There were -- there were pictures, some design plans included with the application. I can -- I can get those.

LEG. TROTTA:

Four million dollars for what? For the design or the building of this thing?

MR. CASTELLI:

It includes the construction of the circle.

LEG. TROTTA:

I mean, you do understand that \$5 million, there's no building, there's nothing. There's a circle. You know how ludicrous that sounds to people; for \$5 million to build a circle? There's not a building, there's no air-conditioning.

CHAIRPERSON HAHN:

But we're approving the 477 grant -- I just want to bring us back to what we're talking -- this is the 4 --

LEG. TROTTA:

Go ahead.

CHAIRPERSON HAHN:

Any other questions about the 477 grant and the stormwater project that is being proposed here? Okay. Okay, so we have a motion and a second. All those in favor? Opposed?

LEG. TROTTA:

Opposed.

LEG. MURATORE:

Opposed.

CHAIRPERSON HAHN:

Abstentions? It is approved. (VOTE: 4-2-0-0)

Introductory Resolution 1862, Authorizing the Mud Creek Mitigation Stormwater Improvements and Stream Restoration, Town of Brookhaven, using the New Enhanced Suffolk County Water Quality Protection Program funds (CP 8733). (Co. Exec.) Motion by Legislator Anker; seconded by myself. On the motion, Frank.

MR. CASTELLI:

This is a proposal from the Town of Brookhaven to do some stormwater work on Gazola Drive. And this is actually to benefit a much larger overall project, the Mud Creek restoration that's been -- being undertaken by the County. This is just for the stormwater runoff that's currently running untreated into -- into Mud Creek. And this is a grant of \$194,900 that is going to be fully matched by the Town of Brookhaven to put in a new culvert that's now undersized and subject to being clogged, which will actually help reduce the amount of warm -- especially during the summer months when you have warm water runoff of precipitation running into Mud Creek, which is very detrimental to the native fish and salmon population there in Mud Creek; that by retaining the water --

LEG. KRUPSKI:

Not tuna salmon.

MR. CASTELLI:

The natural groundwater is a lot colder than most of the stormwater runoff, so -- but by the town doing this should be some remediation of the temperature of the creek.

LEG. TROTTA:

Where is this at; Patchogue?

MR. CASTELLI:

This is -- yes, in east -- East Patchogue area.

CHAIRPERSON HAHN:

Legislator Calarco is here and it's his district so I'm sure he has --

LEG. CALARCO:

It is my district, although this is something that Planning's been working on for quite some time and it's really their project in a lot of ways, but this is a complete stream restoration. Mud Creek is actually -- has the former Robinson Duck Farm located on it. And through that farming operation they made significant damages to this watershed and this natural creek.

This total project, which is in the County's capital budget, would be a complete restoration of this waterway, which actually happens to still have one of only two locations where there is a natural brook trout population there that's not been impacted by stocked trout. So it's this native species that still lives in this waterway somehow.

So this is a very important project, one that the County has been pursuing for some time. And this grant to the town helps just facilitate that project in that it gives them a little bit more funding so they can do the culvert portion. There's a resolution that will come up later on that is a significant grant from the water quality project to do the actual stream restoration by the County.

MR. CASTELLI:

Sorry, I just want to make a correction. I misspoke. It's not salmon; it is trout we were talking about. I apologize. If there are any detailed questions on specifically this project, we have Veronica King here from the Town of Brookhaven that would be glad to answer any questions on the specifics of this Brookhaven --

CHAIRPERSON HAHN:

Legislator Krupski.

LEG. KRUPSKI:

I don't need -- no, thank you, because I've heard this at CEQ and also the Water Quality Committee and I -- this is -- this is going to enhance the water quality. It's part of the larger Mud Creek restoration project. In the end it's going to enhance the water quality in Great South Bay. I mean, it's all the impairments that we've done. And it's the same as the Riverhead traffic circle, the drainage work there. All those water quality improvements that you do are going to be quantified someday in the long run. So it took a long time to wreck a lot of these areas and it's taking a lot of money to fix them.

LEG. TROTTA:

Is this a tiki bar? Is that Mud Creek?

LEG. CALARCO:

There is no tiki bar there.

CHAIRPERSON HAHN:

Okay. We have a motion and a second. All those in favor? Opposed? Abstentions? **1862 is approved. (VOTE: 6-0-0-0)**

Introductory Resolution 1863, Authorizing the construction of a Stormwater Mitigation Project at Little Creek, Village of Patchogue, using the New Enhanced Suffolk County Water Quality Protection Program funds. (Co. Exec.) I'll make a motion; seconded by Legislator Anker. On the motion. This is you, too, Frank?

MR. CASTELLI:

Yes, this is one of the enhanced water quality projects. Two-hundred and fifty thousand dollars has been recommended fully matched by the Village of Patchogue for the work on Little Creek. Basically the outflow to the Great South Bay is where most of this work will be done.

CHAIRPERSON HAHN:

Legislator Krupski?

LEG. KRUPSKI:

So this is one, I think, needs to be looked at a little closer. You're taking -- so the other projects we talked about are treating either stormwater or impaired areas and improving water quality. This one really proposes to take impaired water and mainline it into Great South Bay. And I think the money would be much better spent if you improved the water quality in the -- that's coming into the body of water. And then let it go treated at least -- at the very least out into the bay. Because you're taking this -- the only thing here is you're just flushing out dirty water into the bay. And I think we should do better than that.

MR. CASTELLI:

I would just like to state that there is a pollution prevention remediation component to this project. It clearly, by improving this failed outflow, that you're going to locally lower the water table, which allows the existing septic systems adjacent to Little Creek to work the way they're -- more like they're supposed to work. Right now you have a lot of contaminants coming from the septic systems going directly into the creek, and not only polluting the creek but also ultimately polluting the Great South Bay.

LEG. KRUPSKI:

So, Frank, you don't -- I don't think anything here quantifies -- anything I've read about it quantifies the amount of impairments that are coming from septics. And so even if you have a proper separation between the bottom of the septic and sand, clean sand, you only remove the bacterial component, the pathogens from the septic flow. But there's nothing there that says there's other pathogens coming in from surface flow or from other sources that are going to be removed. And so -- and there's also nothing there that says all the other contaminants coming to the septic flow is still going to continue out into the surface waters and eventually make its way very -- a lot quicker into Great South Bay. So this is just like -- this is really a tiny, tiny, tiny, tiny improvement but you're getting such a worse impairment because you're going to have all that other dirty water flowing into the bay a lot quicker.

LEG. CALARCO:

I think that's a misrepresentation of what the project does. And it's in a lot of ways similar to what the County invested quite a bit of money in partnership with the Town of Smithtown and the Village of the Branch to do along the Nissequogue River, which is when you have a water body that is a naturally flowing stream that is impaired, and in this case it's impaired because it has a vault that was installed many years ago at the wrong height and so the water can't flow, what happens is the -- what would normally be flowing into the bay as clean water starts backing up into the water

table and the ground acts like a sponge and it absorbs this water.

And as a result, that sponged water gets into the septic systems and gets into people's basements and becomes polluted and eventually will make its way out into the water system and into the bay. But if the water's flowing properly, that water table drops. There is no flooding of the basements, there's no water being pumped out of basements that has potential contamination in it. And the septic systems are functioning much more properly in the first instance so that water is being recharged properly as best as it can considering we're on the south shore. As opposed to it just being discharged directly into the water, every time the water table backs up into a septic system, it flushes that system out into the water table and into the stream. So this is going to prevent that flooding problem upstream that creates that issue.

The County did a major dredging project in Nissequogue in our Parks' properties as well as contributing water quality money to both the Town of Smithtown and the Village of the Branch so that they could do this kind of a project. This is a much cheaper thing because we're just talking about fixing the flow at the mouth of the stream into the bay so that it will work properly so that you don't get those contaminants backing up. And as I said, the Village of Patchogue has always been very proactive. They've got filters in their system. They go out. And I can tell you, I've lived down by the water in the Village of Patchogue, every time there's a storm event, they put the street sweeper out to sweep to make sure that they're preventing contaminants from getting into the water from that system. They are very, very proactive on that end of it. And this is just going to correct that stream flow, prevent that backup of the water and prevent it from taking in all those pollutants upstream and deposit them into the stream and ultimately into the bay.

CHAIRPERSON HAHN:

Legislator Trotta.

LEG. TROTТА:

And this is the little creek, it's like a series of ponds near the baseball field; is that it?

LEG. CALARCO:

Yeah, those ponds, which are much bigger than they've ever been, is as a result of the impoundment of the water. Yeah, actually it goes under Smith Street and it empties out into the bay through Shorefront Park.

LEG. TROTТА:

So you want to fix whatever's going under that road there, is that --

LEG. CALARCO:

The fix is actually going to be at the bulkhead going out of the -- out into the bay from the park. So if you look a little further south of the bulkhead there, you'll see a concrete vault that sticks out of the ground; basically what's happening is it pitches the stream up as it approaches the bay.

LEG. TROTТА:

Take it out.

LEG. CALARCO:

Exactly.

LEG. TROTТА:

Take it out.

LEG. CALARCO:

That's what we're trying to do.

CHAIRPERSON HAHN:

Okay, we have a motion and a second. All those in favor? Opposed? Abstentions?

LEG. KRUPSKI:

Opposed.

CHAIRPERSON HAHN:

1863 is approved. (VOTE: 5-1-0-0)

Introductory Resolution 1864, Authorizing the construction of the Mud Creek Watershed Aquatic Ecosystem Restoration Project at Mud Creek County Park, Town of Brookhaven, using the New Enhanced Suffolk County Water Quality Protection Program funds (CP 8733). (Co. Exec.) I'll make a motion; seconded by Legislator Krupski. On the motion? Is this you, Frank?

MR. CASTELLI:

Yeah, this is another enhanced water quality recommended funding. This is for \$1,506,149 for the Mud Creek former duck farm restoration. This is a project that's being brought forward by my Department of Economic Development and Planning in conjunction with the Parks Department. This project has been completely planned. It's shovel-ready, ready to go, permitted. If there are -- I have DeWitt Davies here for any -- if you have any questions on the specifics, but this is a very highly regarded project for the region. This is in the -- Mud Creek is the East Patchogue area.

LEG. TROTТА:

I have a question.

CHAIRPERSON HAHN:

Legislator Trotta.

LEG. TROTТА:

What are you going to do?

MR. CASTELLI:

I think I'll defer to DeWitt Davies for that.

MR. DAVIES:

Good afternoon. My name is DeWitt Davies. I'm a Chief Environmental Analyst with the Department of Economic Development and Planning and have been involved with this project for a number of years. Some of you have received a copy at the previous CEQ meeting a summary of this entire project. I have a few copies of that available if you'd like to see one of them. And I'll pass this around.

This is a large project. There's no question about it. It involves a site that's about 45 acres. It involves the restoration of this watershed, 2300 feet of coastal plain stream.

LEG. TROTТА:

Who owns it?

MR. DAVIES:

And restoration of approximately 20-acre area that has been really disturbed by the operation of this

former duck farm.

LEG. TROTTA:

Who owns it?

MR. DAVIES:

Suffolk County. It's parkland. It's part of a larger part of the watershed where the County also owns an additional hundred acres. This is at the headwaters of Mud Creek, which is north of the Long Island Rail Road in East Patchogue, south of Sunrise Highway. This particular corridor extends about three miles partially tidal, partly freshwater stream in the Great South Bay and it's in East Patchogue. It's a County. It was acquired a number of years ago as a result of tax lien. And this project was initiated approximately a decade ago because of the condition of the watershed at the headwaters of this particular creek.

As I mentioned, it's an ambitious project, it's a large area. The first component of this project would involve a removal of lots of construction-related materials, piping, fencing, equipment used by the former duck farm operators. There are 16 dilapidated buildings on the site. There is approximately 16,000 cubic yards of nitrogen rich organic material in the swim ponds in adjacent wetland area. So all of this is just north of that portion of Mud Creek which supports a heritage population of brook trout, which is significant to the State of New York.

So what will be done? There's a series of stages here, the first which would involve removal of all of the debris, all of the fencing, all of the pertinent machinery, etcetera, etcetera, which has been left on this site. It's as if 30 years ago the operator locked the door and left. So the picture that you see in that summary shows things that have happened since that time with respect to vegetation growing; there's been some illegal activity in there also. But it was a turnkey. Everything had just stopped in here and is like a time capsule 35 years later.

So a lot of work has to be done. It's a hazard in essence to the folks that access this site unofficially. The work also involves the accommodation of public access to the site by the creation of a trail in the restored wetland with some parking facilities, etcetera, that would accommodate the passive use of this particular area when it's completed. So it is a large project.

CHAIRPERSON HAHN:

Okay. Any other questions? We have a motion and a second. All those in favor? Opposed? Abstentions? **1864 is approved. (VOTE: 6-0-0-0)**

Introductory Resolution 1865, Authorizing the Lake Agawam Stormwater Remediation Phase IV Project within the Village of Southampton -- so this one's not in Patchogue -- using the New Enhanced Suffolk County Water Quality Protection Program funds.) (Co. Exec.). Motion by Legislator Fleming; second by Legislator Krupski. On the motion?

MR. CASTELLI:

This is the last of our projects that we're bringing to you today. This is for the Village of Southampton to do some further stormwater treatment for Lake Agawam. This is phase four. We've -- the County has funded two of the first three phases. This is \$131,830 water quality grant that's fully matched by the Village of Southampton. And basically there will be a series of leaching basins installed to help cleanse some of the stormwater that's now flowing into Lake Agawam.

CHAIRPERSON HAHN:

Okay. Any questions? All those in favor? Opposed? Abstentions? It is approved. **(VOTE: 6-0-0-0)**

9/26/16 EPA Committee

No further business on our agenda, with that we are finally adjourned.

THE MEETING CONCLUDED AT 12:46 PM