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 May 4, 2015.

MEMBERS PRESENT:
Leg. Kara Hahn, Chairperson
Leg. Al Krupski, Vice Chair
Leg. Sarah S. Anker
Leg. Thomas F. Barraga
Leg. Thomas Muratore
Presiding Officer DuWayne Gregory

ALSO IN ATTENDANCE:
George M. Nolan, Counsel to the Legislature
Sarah Simpson, Assistant Counsel/Legislature
Jason Richberg, Chief Deputy Clerk/Legislature
Katie Horst, County Executive's Office
Laura Halloran, Budget Review Office
Sarah Lansdale, Director/Department of Planning
Lauretta Fischer, Department of Planning
Frank P. Castelli, Economic Development & Planning
Walter Dawydiak, Environmental Quality/Health Department
Michael Pitcher, Aide to Presiding Officer
Alyssa Turano, Aide to Leg. Hahn
Catherine Stark, Aide to Leg. Krupski
Amy Ellis, Aide to Leg. Anker
Brendan Chamberlain, Aide to Leg. Muratore
William Shilling, Aide to Leg. Calarco
Sara Gordon, Strategic Director/Sylvester Manor Educational Farm
Christopher McHugh
Rebecca Kassay Thomas
Chris Kelly
Paul Cooper, Suffolk Community College
Robert S. Retnauer, RDA Landscape Architecture
Greg Parisi, Project Manager/RDA Landscape Architecture
And all other interested parties

MINUTES TAKEN BY:
Diana Flesher, Court Stenographer

THE MEETING WAS CALLED TO ORDER AT 10:08 AM

VICE CHAIR KRUPSKI:
All right, we're going to start. Legislator Hahn is a little late. We're going to start. All rise, please, for the Pledge of Allegiance led by Legislator Anker.

SALUTATION

Good morning and welcome to the regular meeting of the EPA Committee. Legislator Hahn is on her way. She's stuck in traffic. Because of the length of the agenda, we'll start our Public Portion and presentations. The first speaker, Sara Gordon.

MS. GORDON:
Good morning. I'm Sara Gordon. I'm Strategic Director of Sylvester Manor Educational Farm. And, thank you to the Committee for hearing us today. We're here regarding Introductory Resolution 1303, Water Quality Protection Restoration Program funding for a pilot non-proprietary alternative wastewater treatment system at Sylvester Manor.

Sylvester Manor is the original colonial homestead on Shelter Island. It was acquired by the Sylvesters in 1652. All 8,000 acres and through ten generations it has diminished to 240 acres. The tenth generation descendant decided to preserve the property by giving it away. And over the course of a few years we collaborated with the County and the Town to sell development rights in 2012 on eight three-and-a-half acres of farmland and bring in a significant reserve fund to support the non-profit Sylvester Manor Educational Farm. And last year Eben Ostby, the -- the 14th Lord of the Manor, gave the property to the non-profit almost entirely. The family has held onto about 12 acres for symbolic purposes primarily.

We are providing agriculture on Shelter Island. In the last update of the zoning code, they took everything out about ag because it had become dormant on the Island. And this is really the only opportunity to significantly provide agriculture. And we are approaching that and everything else we do with sustainability in mind, we make all of our choices and strategic planning and execution with past, present and future in mind. So now that we're expanding our residential capacity, we're looking at alternative ways to deal with the wastewater.

We're engaged with the County in the pasture restoration of the farmland with the Suffolk County Soil and Water Conservation District. We have a CSA vegetable operation. We recently received approval from the Farmland Committee for a 14-acre sheep paddock. We're building a meat operation. And with the gift last year of the property, the vast majority of the property came the 1737 Manor House, which was built by the grandson of the original settlers Brinley Sylvester. And that house has been continually occupied by the family since that time including by our apprentice farmers. So in the first several years of operating the farm, when the house was in private ownership, the farmers were housed in the Manor House. And this year's crew is still -- has just started arriving and is residing there. As an educational farm, we train farmers through a full-time paid apprentice program as well as employee or volunteer labor from the WWOOF, Worldwide Opportunity for Organic Farms Program. And at peak we end up with about 12 crew managing our farm and teaching our summer youth programs. When the non-profit and its board received the gift of the house last year, the mandate for stewardship of this historic cultural resource was elevated to the board's responsibility. And the decision was made to move the farmers out of the house as soon as possible.

So we're right now aggressively pursuing, or I should say assertively pursuing, permitting for temporary kitchen and restroom trailers and temporary cabins. Our goal as the clock ticks is to have occupancy by July 1st. And this funding proposal before you today contributes to the cost of those facilities, the equipment and the wastewater treatment system itself. Unlike the proprietary

pilots that the County is also engaged in, this is a nonproprietary system. The engineering is ongoing. We're finalizing the design this week, but with a little bit of know how, this is a system that theoretically could be done by going to Home Depot and plugging a few things in and digging a hole. It can be added to conventional existing septic systems.

So if we're able to proceed with the pilot and we have every intention of doing so, our board has approved some of the funding from our Capital Fund, we'll be able to provide data that would lead to the implementation of this system in other near shore seeds, especially with a peak seasonal use, summer residences and businesses that have a comparable flow. And it can also be scaled for more modest systems. We're really very excited about it. We did receive a grant from the Long Island Community Foundation as well to fund outreach and education about the system in partnership with Group For The East End and Peconic Green Growth. So we're poised as well to do a lot of education about this while we're doing master site planning and seeking zoning relief in the Town for permanent facilities. This will capture -- there are a lot of ways to think about 12 farmers. Right now I'm thinking about them in terms of effluent. It's a lot of effluent and we'd like to capture it and put it through this system.

Thank you very much. I'll be here to answer any questions.

CHAIRPERSON HAHN:
Any questions? Thank you, Sara.

LEG. KRUPSKI:
Thank you, Sara.

CHAIRPERSON HAHN:
Next we have Christopher McHugh. And on deck Rebecca Kassay Thomas.

MR. McHUGH:
Good morning. This is for resolution 1302. I'm Chris McHugh, Long Island Native Plant Initiative. I'm their technician. I want to thank the Committee for hearing me out and a couple of our board members for showing up in support.

So just real brief, this -- {Greg Magarthy} helped fund a new founder plot, which would lead to the commercial availability of ecotech native seed, commercial availability meaning pounds of seed, not just, you know, a few ounces, which is what you get when you bought flaxseed. The availability of the seed -- the new founder plot would lead to development of over a dozen grasses and forbs, helping preserve the genetic biodiversity of the Island's swath, which has adapted over many years to our unique environment.

You know, currently I was just at the National Native Sea Conference out in New Mexico. And one of the recurring themes was the lack of ecotype native seed throughout the country. So by creating this founder plot, we would put the County on the map nationally, once again, it being a leader in environmental agricultural issues.

Also, further this grant would help continue our education and outreach by helping us fund yet another Native Plant Symposium, which we've done two times before, the last one in 2013; was attended by almost 300 people. So, anyway -- so the County's been a great supporter in the past. We hope they continue to support and we support each other and continue working together. Any questions?

CHAIRPERSON HAHN:
No. Thank you very much.

MR. McHUGH:
Al lright. Thank you.

LEG. KRUPSKI:
Thank you, Chris.

CHAIRPERSON HAHN:
Rebecca Kassay Thomas.

MS. THOMAS:
Good morning everyone. Rebecca Kassay Thomas. I am also representing LINPI on item number 1302. I'm also a board member. But I also run a program called Students Taking Action For Tomorrow's Environment through Avalon Park and Preserve in Stony Brook. And so this is how I first met the Long Island Native Plant Initiative. My volunteers, of which there are about 200 that I e-mail on a weekly basis, started working collecting seed for LINPI. They process the seed during the winter. They help plant it and then pot it up throughout the course of the Spring. And this has been a great experience for the teens because they get to learn about the whole process of working with these native plants. And then through working with the members of LINPI, they learn about the importance of native plants and get to experience -- and know the importance of the sense of place, you know, of Long Island with the Native plants.

So these are teens 13 through 17. And I always tell them with my experience I grew up here in Smithtown. And even 10 years ago, if you asked me what was a native plant, I wouldn't know what it was. You know, I would look out the window, I'd say, "I don't know, those are probably native plants; they probably have been here awhile." But, you know -- so I always tell them it's not -- it's not bad to not know what a native plant is. And it's been my pleasure to teach people about what native plants are and the importance of native plants. You know, and with the teens, take these natives that they've collected the seed, help grow them, and then, you know, we support LINPI by purchasing the plants and building these native habitats for both native species like birds and native pollinators, insects and then migratory species as well. So the teens get this hands-on experience, firsthand learning about stable ecosystems. And so LINPI has provided so much for these teens as far as taking science out of the classroom and really making this a real life experience, you know, as far as the natives go. And then they go back and they've told me they tell their teachers and classmates about native ecosystems. And it's really a cool experience.

So I just want to say how much LINPI has brought to my group and taught the teens about natives. So I appreciate that.

CHAIRPERSON HAHN:
Thank you. Thank you for all that you do with Avalon.

MS. THOMAS:
Absolutely.

CHAIRPERSON HAHN:
We just have a question from Legislator Krupski.

LEG. KRUPSKI:
Thank you. So I understand the importance of what you're talking about here and the importance -- but could you go into a little more detail of why it's important to use native plants in landscaping.

MS. THOMAS:
Absolutely. So natives provide a lot more -- if you were to go to a nursery and buy a plant that originally is from Japan, say, it could be a beautiful plant, it can flower and you might see bees on it

in your yard. It's sort of like junk food for bees. They go and they might get the pollen off, but it's not really providing what those bees need to sustain, you know, a healthy life-style. And this is why we're having trouble. I'm sure a lot of people have heard on the news about declining bee populations, both in the European Honey Bee. And you might have heard of our native pollinators having trouble as well. And without those bees, we could lose about a third of the food that we have. A lot of our food produced, like apples, they rely on pollinators to grow.

In China, not to get off the topic, but they've -- there was a big -- they sprayed this pesticide and it killed their pollinators and so they had to hand pollinate all the almonds. They had to go around and actually use little Q-tips to pollinate. So you could imagine, I guess, it would help our labor issues, unemployment. But, you know, it would be very -- very tough to keep our food production up.

So by planting these native plants, we're really supporting these native pollinators. I'm a big fan of bees. It's my labor, but it's helping these very important insects stay healthy, stay happy and help us, because, you know, we're part of the ecosystem as well. So it helps our gardens at home. It helps our farmers. And then also, you know, they're beautiful flowers as well. You know, the milkweeds, things that -- so these are all the things we tell our -- when we're tabling, when we're at our plant sales we -- and the fields -- another great thing about native plants, they're low maintenance. Once you put them in the ground and get them settled in there, you don't fertilize them, you don't have to water them much, they soak up excess rain and it's a great thing, so -- does that answer your question well?

LEG. KRUPSKI:
Yes, it does, very well, thank you. I just wanted to ask one more question.

MS. THOMAS:
Sure.

LEG. KRUPSKI:
Because, you know, I live in Cutchogue and you talked about the bees and the other pollinators. At the end of our farm, my neighbor keeps bees. And he said this winter they all survived. He had very good survival rate. And they look really good this Spring.

But you talked about the importance of the native -- the native plants not requiring as much nutrition and certainly, you know, there -- as far as pest protection, fungus, insects, all sorts of disease and resilience because they're native plants --

MS. THOMAS:
Sure.

LEG. KRUPSKI:
And the requirements for nutrients and water are adapted to our climate.

MS. THOMAS:
Absolutely.

LEG. KRUPSKI:
So would this be as important for all of Suffolk County? Or is it just important on the East End? And I was going to -- you know, I see Chris, I think of him as -- like East End so I didn't even ask him. And I saw those guys in the back there, but -- so I guess that's a question I should ask you at the Committee, does it have importance for the whole of Suffolk County?

MS. THOMAS:
I think it goes beyond Suffolk County. I think, you know, Nassau would be advantaged to get on it

as well. You know, we're in Suffolk here but it's just as important in Western Suffolk. You know, again, I work in Stony Brook. We do projects out, you know, in Huntington, sometimes in -- wherever we can get these native plants. We've put some in - in Caumsett State Park there to fight, you know -- we'll remove invasive plants and put in natives to help the Monarch Butterflies there as well. And it's just as important wherever you go because there are these migratory species; there are native species that are struggling wherever it is and wherever you put the natives in, it helps. So you're helping to rebuild these populations and building them back up, so.

LEG. KRUPSKI:
Thank you.

MS. THOMAS:
Absolutely. Thank you for this opportunity.

CHAIRPERSON HAHN:
We do have one more question.

MS. THOMAS:
Oh, sure, sure.

CHAIRPERSON HAHN:
I'm glad you brought up the butterflies because we're losing butterflies at a rapid rate. Legislator Anker.

LEG. ANKER:
Thank you, again, for your work in Long Island Native Plant Initiative. And, by the way, what I understand we're -- we've lost 90% of our butterfly population for the past 20 years. I was informed by Brookhaven National Lab's Plant Specialist, Tim Green. And I have a resolution that's going to go forward this cycle. And it's to create an educational, agriculture support initiative and working with your organization, using your plants to create an educational program for our kids and for our residents to understand how important it is native plant species are for the pollinators. We have had a devastating loss of -- with our bee population and, you know, if you look at this on a financial perspective, Suffolk County needs these pollinators to sustain our farms.

MS. THOMAS:
Yeah.

LEG. ANKER:
You know, there's so many reasons why we need to promote this initiative. And you guys are leading the charge. And I want to thank you. And I'm looking forward to working with you guys and I'm going to send my staff over to get your -- more cognitive information, but I do have Polly's information. She's been -- she's helped me actually facilitate this resolution. And, again, I compliment you on your initiatives. Thank you.

MS. THOMAS:
And thank you for your support. We appreciate it. Thank you.

CHAIRPERSON HAHN:
Thank you. Any other questions? Seeing none thank you so very much.

MS. THOMAS:
Thank you.

CHAIRPERSON HAHN:
Okay. We've got -- that completes the cards that I have. Is there anyone in the audience who

would like to speak? Seeing none, we will close the Public Portion and move on. We have two present -- oh, did you want to speak today? You can speak. You're supposed to fill out a yellow card, but our Clerk can supply you with one of those and you have three minutes. You don't have to fill it out until after.

MR. KELLY:
Okay.

CHAIRPERSON HAHN:
Go ahead and speak first.

MS. FLESHER:
Just introduce yourself.

MR. KELLY:
The reason I didn't fill it out is because I'm terrified of speaking in public.

CHAIRPERSON HAHN:
So am I.

MR. KELLY:
My name is Christopher Kelly and I'm the Director of Agriculture Operations for WRS Environmental Services. And I'm also on the board of LINPI. And I'm in a very unique position because I actually have done both sides of this fence. I was the original donator of the founder plot for LINPI, because I believe in native plants. Their role in the environment is documented throughout. I'm really excited that Suffolk County has recognized throughout the municipalities that say, "hey, let's get some of these in." And it's such a cool thing because if each one of us does a little part, it all of a sudden becomes a really big area. And that area will support a diversity of habitat.

That being said, LINPI has provided a valuable resource for me in an industry that needs the native ecotypes. And I'm really glad to say that we're going from a founding plot that was really quite small to now the need is so great that it has to expand. And I'm excited about it and I'm glad the board here is excited about it. Because what it -- what it says is over the last ten years we've grown. And it's grown in awareness in the community. It's grown in awareness in the industry. And I take part every day in business that require the native plants. With that being said, thank you.

CHAIRPERSON HAHN:
Legislator Krupski.

LEG. KRUPSKI:
Chris, where did you -- where did you drive from today?

MR. KELLY:
I drove from Mattituck.

LEG. KRUPSKI:
You came up to Hauppauge. I thank you for coming to get your three minutes in.

MR. KELLY:
Thank you.
CHAIRPERSON HAHN:
And Legislator Anker just wants to address you as well.

LEG. ANKER:
Also, I wanted to mention, you know, we're talking about native plants, especially the heritage, the Middle Queen with the butterflies because that is the only plant butterflies can use to propagate. And that's, again, something we're going to be working on together. But also invasive species, that -- we have a horrendous problem with invasive species, you know, with plants and even insects. But, again, until people understand about the balance of sustainability of our environment, we have to continue to educate. And thank you for being such good stewards. Thank you.

MR. KELLY:
Thank you, Sara.

PRESENTATION

CHAIRPERSON HAHN:
Okay. So thank you very much. You're about to -- time's up. Is there anyone else who would like to address the Committee? Seeing none, we will close the Public Portion. And we do have two presentations on the agenda, the first is representatives from Suffolk County Community College. Come on, you can come on forward and you can have a seat at the table here.

Welcome. Thank you very much for being here today. It would help the Committee if you could introduce yourselves, maybe spell your name and give your title for the stenographer, for our transcript, that would be very helpful. And there may be one microphone that you don't have to hold the button, but the other two you have to hold it. When the green light is on, then the microphone is on. Okay. Welcome. Thank you.

MR. COOPER:
My name is Paul Cooper. I'm the Executive Director for Facilities at Suffolk County Community College.

MR. RETNAUER:
My name is Bob Retnauer. I'm the Principal Landscape Architect with RDA Landscape Architecture in St. James.

MR. PARISI:
My name is Greg Parisi. I'm the Project Manager Designer at RDA Landscape Architecture.

MR. COOPER:
Suffolk County Community College applied for a GIGP Stormwater Remediation Grant maybe four -- three or four years ago. We submitted a feasibility study and an application and a grant was denied. Year or so later when another round of funding opened up, we applied again. We revised the feasibility study and the application and it was denied. A few months later there was another round of funding was made available and I guess they got tired of rejecting us because we received this grant.

And the reason we went through all of this difficulty -- and why did we apply for the grant? Because it's fundamental to our mission, which includes educating students, residents and others to the use and benefits of stormwater remediation, is an important component to the College's mission to foster sustainable practices and environmental stewardship.

And this portion of our mission is aligned with regional strategies including those of the Long Island Regional Economic Development Council's Five Year's Strategic Plan, which includes promoting and protecting the natural resources of Long Island and strengthening the region's workforce. It's also aligned with the Cleaner, Greener Long Island Regional Sustainability Plan.

Now, when we received this notification that we received a grant, we issued a request for proposals,

we advertised it, we solicited proposals from basically landscape architects and we selected the firm of Retnauer Design Associates because although there are many landscape architects that can do beautiful work, we think Bob Retnauer really has a passion for projects that protect the environment.

And Bob is here now to present the technical details of the project largely because while I support the use of native pollinators, I cannot pronounce the biological names.

MR. RETNAUER:
Okay, thank you, Paul. Essentially the -- there were three primary green infrastructure concepts that we used on this project: Permeable pavers, what they call bio-retention basin, also known as rain gardens; and stormwater harvesting. And I'll just kind refresh everybody's memory a little bit about what each one of those is.

Permeable pavers -- and we actually have a sample sitting on the desk here, which we promise not to throw, is essentially they're concrete pavers of varying shapes and sizes that have ridges along the edges; that when you butt them together, they don't -- they don't come -- they don't quite meet. And what happens is those joints in between the pavers are filled with gravel. And the water drains through those joints and then into underlying subbase gravel layers, where it traps small solids and filters pollutants from the water. And the goal with that is to control stormwater at the source, reduce runoff and improve the water quality by filtering pollutants in the underlying layers and from getting into the aquifer.

The second -- excuse me -- the second concept is bio-retention base and also known as a rain garden. These are small planted depressions or swales that collect and absorb rainwater runoff from roofs, driveways and walkways and allows the water to soak into the ground which, again, soaks through the ground and then through gravel layers where it is treated and filtered. And the root systems of the plants also help do the same thing. Again, the purpose is to improve water quality and these can reduce amount of pollution reaching creeks, streams and aquifers by up to 30%.

The third concept is rainwater harvesting, which is pretty much what it says, the accumulation of rainwater for reuse for some other purpose, for irrigation or some other purpose, in this case, on the campus.

So as we move into the specifics of the project, there were three locations on two campuses, two at the Brentwood Campus, one at Selden. The first one is the Sagtikos Building on the north side -- go back a little bit -- go back one -- the slide on the left is the north face of the building. Where you see those flags is where the rain garden is going to go, the bio-retention basin. And the second part of this is, the slide on the right is the loading dock, loading ramp where we're going to be installing permeable pavers to intercept the water before it reaches the bottom of the ramp and floods that ramp area.

So this was the plan where the -- can you see the first -- yeah, those are the permeable pavers that are on the slope of the driveway that will catch the water, intercept it, treat it through the gravel and then it flows through a slotted drain pipe into the rain garden, which is to the right, which is the large planted area. So we're actually using two -- two concepts on the same site.

On this particular project, we've also included some sitting areas and we have interpretative signs. And we also have -- used a number of pollinating plants including aster, milkweed, sunflower and some shrubs including rose and some trees, amelanchier and redbud to create sort of the native diversity of plant material. That's the first site.

The second site is the cottage at the Ammerman Campus. This is an aerial photo. You can see the house in the middle and the driveway that runs around that. You can go to the next. Now what

we've done here is we've created -- this only shows one, but we've created two areas of permeable pavers in the driveway to absorb water and then we created a rain garden or a bio-retention area to the left. So, again, two types of concepts. And this is accepting water coming off of the driveway from -- that runs around the building. And we're using similar type plants -- similar pollinating type plants. And each site will also have two interpretive signs that explain these concepts. So as people are walking around, they can read those.

And then the final site is the Workforce Development Technology Center at the Brentwood Campus where what we're doing -- this is the existing building. Two things we're doing here, we're going to disconnect the leaders -- the gutters and leaders that come off the building and direct them into a bio-retention basin or rain garden. Go to the next slide. That's a little hard to see. If you go to the next one. So the water's going to go through the rain garden first and then whatever's left will find its way into these tanks, these cisterns. There's two cisterns that will collect the water that can then be accessed for, like I said before, irrigation or some other -- other use.

MR. COOPER:
These are some of the details of the project: The total project cost we estimate is $436,714. Of that 90% is funded with the grant and the College's contribution is $43,671. But most of that, we believe, will be an in-kind contribution, salaries to staff that are working on the project that would have been paid anyway.

The project impacts: We believe, the untreated runoff will be reduced by 7,277 cubic feet per year, along with corresponding reductions in sediment, phosphorus and nitrogen; a hundred percent of the water quality volume that falls on the surface area will be absorbed and treated for quality; 276,162 gallons of potable water will be saved each year with the reduced reliance on irrigation.

Now, we -- we -- the reason we probably didn't win the grant the first two times around is that there's not a huge environmental impact based on the project. Because this water doesn't discharge into streams or rivers or lakes or anything like that. And the reason, I think, we won it the last time around is that integrated into the project is a large educational component. There'll be interpretive signage. So anyone on campus who walks by will see what's happening and why it's happening and think, *well, maybe I can use this even in my home*; or a developer could say *well, maybe I could use this in my -- in the next development.* And it'll be integrated with college curriculum and construction/technology department, the geology department, the engineering department. It will be included in publication cites of geology guides for East Campus and it will host -- we will host students and clubs for Earth Day events at these sites.

And so the College hopes to encourage implementation of similar projects and open a broader dialogue of the importance of sustainable, stormwater mediation efforts throughout the region. We hope it will help to ensure the benefits of the project beyond the College.

This is my contact information, if anyone would like more information about the project or get in touch with me. And I would be remiss if I did not thank this Committee for writing a letter of support for the project which was not included the first two times we submitted. Thank you.

CHAIRPERSON HAHN:
Okay. We have a question from Legislator Krupski.

LEG. KRUPSKI:
Thank you. I'm glad to hear you're using old school technology here to solve a modern problem, too much surface hardening. So the question is you said 276,000 gallons of water. Is that your capacity? What's your -- you built in capacity?

MR. RETNAUER:
I'm not sure I understand what you're --

LEG. KRUPSKI:
Well, you're storing water, I think, on the Grant Campus, you're going to harvest -- you called it harvesting the water. What is your -- and the number was 276,000 gallons. What's your -- is that the total volume stored? Or is that, like, over what you think you'd be able to use -- store and use over the course of a year?

MR. RETNAUER:
No, that would be the storage; the storage.

LEG. KRUPSKI:
What's the -- what's the maintenance schedule on the permeable pavers? You're going to get a certain amount of sedimentation, especially near a driveway where people are going to be applying sand in the winter for, you know, for ice treatment and snow treatment. Do you have a maintenance schedule to suck that sand -- because I know sedimentation is a problem with the permeable pavers.

MR. RETNAUER:
Well, what we found, because we've done this on a number of different sites, as long as they're flushed out once a year, essentially power washed to remove any of the surface buildup, you know, that would trap the water from going down, as long as that's done, you know, they work pretty well. Plus the fact that this is going to be on a little bit of a slope. This is not a flat -- at least the one at the Sagtikos Building is on a slope. So that actually helps self-flush.

LEG. KRUPSKI:
Okay. Thank you. And the last thing is, you did mention outreach. You mentioned that it's going to have an educational component, which is great. But most of these things are driven by the open market. And is there any way to reach out to the contractor? Because they're the ones who are going to install these on private property. And when you get a -- to have this is great because people can come and see them. And that's how you get general acceptance; people can drive by and take a look and say, *oh, that's a good solution to my stormwater problems.* Is there any -- is there going to be any outreach to contractors specifically?

MR. COOPER:
Well, actually I hadn't thought of that. But on the Grant Campus where two out of three of these projects are being done, we have a home show. And we have a huge fieldhouse full of contractors, many of them landscape contractors, and I don't know how many attendees, but thousands of people come to see it. And that maybe we can incorporate that somehow with the home show.

LEG. KRUPSKI:
Thank you. That's a great idea.

CHAIRPERSON HAHN:
Legislator Anker.

LEG. ANKER:
And as always, I commend you for pursuing the funds to do this project. I know -- I believe there's a rain garden also on the Selden Campus with the new technology building. Is that --

MR. COOPER:
There is -- there is a wet meadow as part of the -- and most of the stormwater from the entire Campus ends up in that meadow.

LEG. ANKER:
Again, you know, great job. Okay, so I'm trying to figure out how we can get even additional funding because, you know, the campus is large, we have many campuses all the way out to

Riverhead, Selden, Brentwood. And probably about 15 years ago, I was working on stormwater runoff with the Town of Brookhaven and, you know, looking at different alternatives. And the Federal government had mandated to States that they had to address this issue. And I think it was the Best Management Plan, the BMP. And then through the Stormwater Pollution Prevention Plan, I can't remember exactly what it's called, they all have their names to it, that they were given -- that the State had to provide funding to the local municipalities to, again, address this issue.

So my question is since the Community College really is part of the State realm, is there any funding available to go towards these projects on college campuses?

MR. COOPER:
I don't know offhand, but we have a -- a very active Grants Department that investigates things just like that. And if they see a project that they think we're eligible for, they would bring it to my attention or submit a proposal.

LEG. ANKER:
And, again, if you do need additional help, I'm more than happy to help you either -- you know, our Committee. And if you need another letter, absolutely, we'll help you with that. So thank you.

CHAIRPERSON HAHN:
Okay, any other questions? Thank you very much.

Our next presentation is the Water Resources Management Plan. Walter Dwaydiak and Sarah Lansdale, I believe, are out in the lobby. We have been waiting for this. We have been asking and asking and asking for you to complete this. And we are so glad that we are at this place where you're presenting it to us.

POWER POINT PRESENTATION

DIRECTOR LANSDALE:
Thank you for this opportunity today to present the Suffolk County Comprehensive Water Resources Management Plan. I'm Sarah Lansdale, Director of Planning. And I'm joined with -- by Walt Dawydiak, Director of Environmental Quality as well from the Health Department.

Before I turn it over to Walt Dawydiak, I want to thank all of the members of the Legislature for your leadership in water quality initiatives as well as the County Executive making water quality and his Reclaim Our Water Initiative a priority for his Administration. Key findings of the Comprehensive Water Resources Management Plan, which Walt will get into in a minute in further detail, is that the public water supply is safe; however, there are trends that are concerning that need to be addressed. And we have in this plan presented a whole list of ideas and actions that the current -- that the County is currently undertaking to address this issue.

MR. DAWYDIAK:
Thank you. Walter Dawydiak, Director of Environmental Quality. I'm here to give you some background on the Water Plan. I'm going to go through these slides fairly quickly. Feel free to stop me and ask questions at any time.

Basically we expanded the scope of work. The Executive Summary was reissued in early 2014 and changed this plan dramatically. It was really a Health Department Study on drinking water with an ancillary component of estuary protection. And we really lifted it up and out of that to be a study that deals with coastal resiliency and watersheds and integrated ecosystem health.

The scope of work was expanded. A bunch of new chapters were added dealing with the value of water, ways and means to protect water quality, wastewater treatment and coastal resiliency as well as specifically dealing with all the estuary programs and watersheds.

A lot of this program was about technology. We have new maps that can help us accurately determine where the water that contributes to the public supply wells and surface waters comes from and how long it takes to get there. We've upgraded our rising sea level model and updated the water quality status and trends. And I just want to give a quick word of acknowledgment, not to just Dorian Dale who helped lead this program and wrote the first couple of chapters in the Executive Summary, but also to John Sohngen and Alison Branco as well as DeWitt Davies and Lauretta Fischer, all of us rolled up our sleeves. There was not enough money to have a consultant do all of this so everybody pitched in and did a lot of the analytical work as well as some of the writing. And our consultants, CDM, did a terrific job. I have the first hard copy of the report with me. We'll have additional hard copies for anyone who's interested in them from the Legislature shortly.

Quick word about nitrogen: This was a little surprising in that we haven't seen any taper whatsoever in the rate of increase in nitrogen in our aquifers. Forty percent increase in the upper glacial, a 90% increase in the magothy. These are still terrific numbers when you're talking about drinking water because the standard is ten so we're well in attainment of what's already a very, very conservative standard in terms of being protective for public health. But these numbers are way above what's necessary for surface waters and they're continuing to steadily go in the wrong direction.

CHAIRPERSON HAHN:
Walt, can I stop you?

MR. DAWYDIAK:
Sure.

CHAIRPERSON HAHN:
What's necessary for surface waters; point five?

MR. DAWYDIAK:
Yes, that's coming in about two slides.

CHAIRPERSON HAHN:
Okay. Thank you.

MR. DAWYDIAK:
In terms of volatile organic compounds, these concentrations are low. Typically the standard is 50 for unspecified organic. Some of the more toxic ones have standards of five. The numbers on average are still well below one so they're an attainment of drinking water standards even before any treatment. The problem is they're going in the wrong direction. The concentrations have doubled to tripled in terms of the key active volatile organic compounds; and same is true of the number of wells. That's even more concerning than the absolute concentration because it's just showing that there's this pattern of pervasive low level contamination that's still getting out there into our aquifer, our drinking water and our bays.

Pesticides, quick word about VOCs. There's some good news. It's not on this slide but MTBE the gas additive, as well as TCA, which was banned from cesspool additives in 1980, and the Federal government banned it entirely circa 2000, those levels have gone down very significantly in a very short time scale, which is good news for those chemicals, but it's also good news in that if you cut off a contaminant that's not hundreds of years, it's years to short decades for you to see some very, very real improvement in the water supply, which is one of the good news stories of the Comp Plan.

Pesticides, those graphics there are peak concentrations of banned pesticides. Some of those were very high aldicarb, dacthal, metolachlor, those numbers are going down very significantly, which is good news. Some of the actives like metalaxyl and imidicloprid,, atrazine is another, those are still

out there. There at low levels, but in some cases of concern. Always of concern in terms of detection and prevalence. So the pesticide story is it we're now looking for more and we're finding more. We've detected over a 100 compounds with our Health Department's Monitoring Program.

Pharmaceuticals and personal care products are an issue of great public concern. These are things that shouldn't be in the water. What you're looking at there is the most commonly detected -- the rate of detection is low, but not insignificant. About 2 to 3% of the -- what we consider public water supply, the community water suppliers have trace levels of PPCPs. About 6 to 10% are private wells and non-communities in any given year will have low level detections. They're virtually never above standards, but, again, these are things that should not be in the water.

You're looking at a cocktail there of things like ibuprofen and gemfibrozil, carbamazepine, these are medications. You have fragrances like benzophenone, insect repellants like DEET, plasticizers like phthalates, antibacterials like triclosan detected not infrequently. The only one that's ever exceeded its standard is a phthalate DEHP, it's a plasticizer in a few wells. Generally very low levels, but again ubiquitous or not uncommon.

Advanced wastewater treatment, the good news is that it does provide reduction for many of these PPCPs. It won't remove all of them all of the time, but it's a very significant reduction. So as we move toward advanced wastewater treatment, we're also treating these --

LEG. KRUPSKI:
Going back to that last slide, are these also showing up in surface waters? And you said advanced wastewater treatment treats them to a certain level. But if that wastewater is discharged into surface water, obviously it's being mainlined into the surface waters. So are these -- are these showing up in surface waters from the -- the dumping of treated waste into the surface waters? Or are they showing up through the -- they're getting there through groundwater?

MR. DAWYDIAK
That's an excellent question, Legislator Krupski. One of the very seminal papers on this about a decade ago was from the US Geological Survey and that was done in stream corridors. And they found in these stream systems the same sorts of chemicals that we're finding over here and indeed traces of them do show up in surface water.

It's complicated. It depends on the chemical -- the state of the science is still evolving. There isn't a lot of information showing that there's a major public health risk with any of these at this point, but it's definitely a priority to reduce or eliminate them.
There is information to show that these can and do affect surface waters and aquatic ecosystems, which is even more of a significant issue. So these chemicals getting into surface waters is really a key issue.

And one of the things that we're doing in the upcoming year is reinstituting and expanding the PPCP Monitoring Program associated with wastewater discharges. These are not commonly measured in most wastewater discharges. There have been a few studies by EPA working with Department of Public Works. We don't have a good fingerprint about wastewater as a whole in terms of source loading and freight and transport. And that's something that we're going to get a better handle on in the coming years.

LEG. KRUPSKI:
The graphics should have a fish with a frown in it, not a smile.

MR. DAWYDIAK:
Yeah, he looks a little too happy, I agree.

CHAIRPERSON HAHN:
Do we have numbers? Do we have standards for our bays and our waterways for these? Where you say that the most commonly detective items, and there's that whole list that includes DEET, while it might not be anywhere near a concern for human health, what is the standard for ecological health for each of these chemicals?

MR. DAWYDIAK:
It would really depend on the chemical. And I would have to do some studying and get back to you on that question. Often surface water standards defer to a groundwater standard when there is a chemical specific information to set a specific standard. Some of these may have more stringent surface water standards and I would have to look into that question and get back to you. I can tell you that the levels that are measured are generally low, which is good, but they're there, which is bad.

CHAIRPERSON HAHN:
And they're growing or did you just start testing for these?

MR. DAWYDIAK
Already a detection has been fairly consistent over the past decade or so since we've been aggressively testing for these. We don't have enough information to suggest that they're going up or down overtime. I could tell you that as we look for more, we find more as with the pesticides, so in that sense our detection data base is increasing. That's the short answer.

CHAIRPERSON HAHN:
Okay. Thank you.

MR. DAWYDIAK:
So the key framework elements of our Comprehensive Water Management Plan, the most exciting piece of this is the wastewater plan because for the first time in modern history do we really have a good strategic framework dealing with all of wastewater, not just new development and not just a few priority retrofits on wastewater plants. We're talking about all of the County, priority parcels dealing with sewering, individual onsite wastewater and clustered decentralized systems. It's a priority to set up a wastewater management district with a responsible management entity. That responsible management entity is actually a requirement to facilitate decentralized onsite wastewater system. Our goal is to set this up.

In 2016, the Environmental Facilities Corp is here with money; a lot of money to jump start this, which would be low -- very low interest loans. We'll probably -- we're almost certainly going to have to find other supplemental sources of information. And as we bring the science together with the policy, we look forward to working with everybody to provide the information to make this happen.

The Coastal Resiliency piece is of great concern. Our previous numbers showed that we had about 40,000 parcels that would be adversely affected by rising sea level. Current model does show that that number is over 80,000 so it's more than doubled. So that means of the parcels many of which already had substandard septic systems, 80,000 more of those are going to have septic systems sitting in or near groundwater and not functioning properly. So that's going to be a problem with respect to retrofitting systems as well as designing and approving new systems in this changing world.

We've added five people to the Health Department, which is good news for a volitive organic compound action plan. We're hitting every gas station -- we're visiting every gas station and dry cleaner. There have been major improvements made in technologies in both of those sectors. It looks like benzine, toluene and xylene has gone down which is good news. The level of perchloroethylene in the upper glacial aquifer has leveled out. It's spread in terms of number of

wells, but the absolute concentration at least looks like it's been arrested, which is good news. We need to get to these facilities to find out if we can do better and how to do better and then we'll take other priority facilities as part of this risk-base program of reducing toxics moving forward. Pesticides we're in the process as a county economic development in updating our Agricultural Stewardship Program. It would be ready in a matter of a few months, which is a great step forward of integrating all of these programs and making them work even better. We've added two new people in the Health Department for groundwater monitoring as part of the pesticide grant. Our well-drilling crew has never been more fully staffed, which is good news. We're looking at alternatives and outreach, working with the State on a pesticide management strategy to better manage pesticides. We talked a little bit about pharmaceuticals and personal care products. We've reinstituted dioxane, which is great news. Thank you, Legislator Hahn, for your leadership on that front. A lot of management programs in terms of take back of potentially toxic chemicals, medical care, waste management plans and, again, going toward advanced wastewater management.

One thing I wanted to emphasize is the other thing about this plan, which is different, is that it really is a strategic framework, not a static plan. So every year these nice graphics that we show you about which way water quality is headed, we've gotten good at producing these and we're going to give everybody an update about what's been happening in the upper glacial aquifer and the magothy; what we said we were going to do, what got done and what needs to get done differently, so it's not going to be a major report every year, but it is going to be an open and transparent process. It's going to be very dynamic and in line with the County Executive's key performance indicator approach, very ammetric. So, it's great to be embarking on this plan. It's a great start and it's nowhere near the finish.

Just a few words about nitrogen and wastewater. I'll go through these very quickly unless there are questions. Harmful algal blooms, we've gone from one to about a half a dozen recurring blooms. Previously it was just dissolved oxygen and in deed all of our estuaries are impaired for dissolved oxygen. Now they're all affected by these harmful algal blooms, which are linked very strongly to excess nitrogen inputs. We've lost 90% of our eelgrass, upwards of a third of our wetlands in recent decades. The hard clam industry with its 6,000 jobs is gone. The scallops are rebounding in the Peconic, which is good news. We hope that continues, but it's still nowhere near what the historic levels were. And here, Legislator Hahn, is a graphic showing the range of nitrogen outputs and where we are.

So, the unsewered land uses, basically when the 2008 study was done in the 1970s, we focused on new development and unsewered land uses. And that number of 4 to 6 parts per million nitrogen was a great number for new development, well below the drinking water standard. And we've been effective in keeping that number. The problem is it's 10 times above the surface water guideline, which is zero point five, so we need to find ways for new development as well as preexisting development to get better performance goals to reduce existing and future nitrogen.

Roughly 70% of nitrogen is from cesspools in the Great South Bay, a little less in the Peconics where you have larger lots and farms but still a predominance source of nitrogen loading. And most of that is residential; about 80 to 90% throughout the County is residential. Commercial is not negligible, but it's not nearly the order of magnitude of residential. Again, this shows (indicating) all those brown parcels. Other than the Southwest Sewer District and the Pine Barrens and a few small sewered areas, the County is just covered with these unsewered residential parcels, almost two thirds of which are less and/or equal to a half acre. They really should have been sewered and never were.

So we have this great $400 million initiative reducing 13% of the nitrogen to the Great South Bay system, which is a huge step forward. These are the low hanging fruits. These four areas are the single biggest environmental health program dealing with brown water, drinking water and estuary protections since the 1970s in the Southwest Sewer District. We're talking 10,000 parcels. It's a huge number in one fell swoop and we're excited to be part of this. We appreciate the support of

the State in making this happen and moving it forward.

The Chromaglass has got a bad name in the early 2000s because a number of them were not functioning as well as they should have been and the Health Department stepped up its enforcement and inspection. Not only is the Chromaglass working well, but we have seven different clustered decentralized systems that are allowed under appendix A. These have less separation distance. They're pre-packaged. They're below grade. They're a great way to reduce nitrogen. They're fairly cost effective compared to larger scale options in the minimum space that you need. The problem is that it's hard to retrofit them to preexisting development because of the expense and the regulatory process. So we have pilot programs going on now to look at how to retrofit these. And the individual onsite systems, out of those 360,000 systems about 210,000 are in priority areas. Tens of thousands of those are what we'd certainly consider very high priority areas. And, again, 10,000 of those are being addressed with the sewering Reclaim Our Water Initiatives, which is a great thing.

We also got approval to hire a new engineer to head up our wastewater plan, which is great news for us in the Health Department. Moving forward we're going to identify for each and every parcel the best means whether it's sewering, cluster or individual on-sites. Our goal is to set performance goals however they're implemented whether it's through the State or the County code or through Towns or via a partnership to limit the nitrogen load to subwater sheds based on sensitivity to get the best bang for the buck, to target wastewater upgrades in the most sensitive and meaningful manner. And that plan is is going to be completed in 2016. And it works in conjunction with an EPA health impact assessment so EPA is helping us as well.

A great thing about this plan is it's hundreds of recommendations in a strategic framework, but it's also dozens of really major actions that are going on in the ground right now. And one of these is a septic demo project that Economic Development and Sarah have spearheaded. For the first time ever in Suffolk County we're getting these alternative systems on residential parcels. There's only one for a small commercial parcel, an environmental education center at the Scully Estate and the Nitrex system. These six technologies are going into 19 sites. There'll be in the ground in the next couple of months. By next year these should be approval-able as of right and it'll be a great tool for municipalities as well as the County moving forward.

CHAIRPERSON HAHN:
I want -- I want to stop you and congratulate you, Sarah, especially and, Walt, in addition because, you know, when I first was running, so 2011, I was talking about alternative wastewater treatment and how this has to be a priority. And people would look at me *like what are you talking about,* you know, it just wasn't a sexy issue. And the thought of three-and-a-half years later being in this place seemed impossible and, you know, we all have come together, talked about it and talked about it and talked about it. And you guys have really, you know, taken the bull by the horns and made this happen. And it's just -- it's quite amazing how quickly it happened since, you know, since I've been here as Chair of this Committee and how we're actually getting stuff done on this issue. It's really impressive and you just -- like congratulations are due to you. Did you want to add to that?

LEG. KRUPSKI:
Yes, that's very appropriate, Kara, what you said. There's no question that's moved very quickly thanks to you two and the County Executive. It's been surprising the way government moved this quickly.

The question, I think, on a lot of people's mind is how are these going to be used for new construction, for reconstruction? Who's going to set those -- those rules? Because I think that's -- a lot of places on the East End do not want sewers because they do not want the development that comes with sewers, you know, and -- so the question is when you redevelop on the coastline at different elevations, are some of these systems going to mandated over others

because of their treatment levels, because of the way they physically function? Or is it going to be -- and for new construction also? And is it going to be mandated at certain elevations, certain groundwater distance to the surface water flows? How is -- how are you going to use these as a -- because you have a lot of tools now in the toolbox, as opposed to the old way of -- the old septic systems, how are you going to make that decision?

CHAIRPERSON HAHN:
And to follow-up, can we no longer -- can we get away from improving the old systems that really don't do what we need them to do?

DIRECTOR LANSDALE:
So those are a lot of great questions. And we are looking into developing a comprehensive program, as Walt indicated, a wastewater management district and then a responsible management entity along with a financing plan. So those are items that we're working on currently and we'll have more information to report back to you exactly how we're going to roll this out probably in the next 12 months.

LEG. KRUPSKI:
Now I know you've sought input from -- and presented to the East End Mayors and Supervisors Association. And I really appreciate that. Are you going to -- do you think part of this decisionmaking on which system to use and where, do you think part of that's going to be driven by a local input? Or is this -- this is going to be strictly like a science-based formula for different groundwater, different soil types?

DIRECTOR LANSDALE:
This entire initiative, the Reclaim Our Water Initiative, is all about partnerships. It's partnerships with the local Towns and Villages as well as partnerships with the -- our Federal agencies as well as our State agencies. So, yes, we will be -- as we've collaborated in the development of this Comprehensive Water Resources Management Plan and collaborated with the Towns and Villages and stakeholders, we'll be doing the same in developing the program and the next steps.

LEG. KRUPSKI:
Okay.

MR. DAWYDIAK
I've gone on probably more than I should have. And we have a few slides at the end that Sarah may want to hit some of the highlights on. I wanted to mention the IBM Smart Cities Report, which was really a cornerstone on the thinking for this plan, to think larger, to take a step back and think about water from cradle to grave with all of the stakeholders rather than with our balkanized regulatory infrastructure from data management to implementation. And that report is included in the Comprehensive Water Management Plan. I'm going to turn it over to Sarah for some of the highlights on things that we've gotten done and are about to do.

DIRECTOR LANSDALE:
Thanks, Walt. Again, I just want to talk about our partnerships. And this has been a wonderful partnership between the Department of Health as well as Department of Economic Development and Planning as well as the Department of Public Works. And I also want to thank Walt's entire team and my staff as well as Dorian Dale, our Chief Recovery Officer and Director of Sustainability, for taking the leadership in writing the executive summary as well as the first few chapters of the Water Resources Management Plan.

It's been a busy past year. And I do want to thank the County Executive for his leadership and your leadership here at the Legislature on water quality. We have in the past 12 months completed -- and I want to thank Legislator Hahn for participating in the four-state/three-day septic tour as well as the -- for everyone here participating in the IBM Smarter Cities engagement. We

have the entire IBM Smarter Cities Plan in the Comprehensive Water Resources Management Plan itself.

We hosted a public education campaign about the connection between water quality coastal resiliency nitrogen and septic systems through the Crap Shoot Film Festival, which was a partnership with the Environmental Protection Agency during Septic Smart Week, which is in the Fall. We're also, as Walt mentioned, demonstrating and launching the septic demonstration program with 19 systems countywide. And, again, want to thank the Legislature for selecting the sites in your various districts. And we have a series of studies underway looking at clustered decentralized systems. We know that not all parts of Suffolk County are appropriate for sewering. And that's why we're expanding our toolbox looking at individual onsite systems as well as these clustered decentralized systems where you could hook up 25, 50 homes at a time.
We also want to thank New York State and the Department of Environmental Conservation. I think we've done more in water quality over the past year than we have in the past several decades. We've secured close to $400 million in sewering funding to target areas that are -- that impact the Great South Bay with nitrogen to provide sewers as well as secured funding for -- to really build the program infrastructure for our wastewater plan moving forward and have a number of initiatives underway including the new Appendix A systems that have been approved by the Department of Health as well as we have a number of plans and studies underway regarding volatile organic compounds, harmful algal blooms and a unique engagement with the Environmental Protection Agency where they're conducting a health impact assessment of possible policy changes to our sanitary code, just to name a few. And here are some initiatives underway, most of them I've covered already. So I want to thank -- yes, thank members of the Legislature for your time today and your leadership on this issue.

CHAIRPERSON HAHN:
I have the benefit of having the PowerPoint in front of me, so I know Walt talks really fast, but I don't think -- I don't think you -- you skipped over some slides because you were -- you were going quickly and being very respectful of our time. But I am very -- very interested in the slide on volatile organic compounds, pesticides and pharmaceuticals and personal care products slides 25, 26, 27. I do want to know that we are getting to a place -- like if you can, you know, tell us a little about about the VOC Action Plan, I know I've heard about it in the past, but tell us where we're at with that, tell us about what you see as the most harmful household products, how we're -- where we're finding them. You touched on some of it before but if you can go into just a little bit more detail there, it will be useful to some things we're doing as part of this Committee.

MR. DAWYDIAK:
Certainly, Legislator Hahn. Before I forget, one of the things I jumped over was Legislator Krupski's beloved constructed wetland system. You'll be hearing more of that, Sylvester Manor. These look to cost potentially half of what the proprietaries cost. They do have a large building footprint so you need a larger lot to put them in. But we have non-proprietary system which we're very excited about with a lot of potential applicability in central and eastern Suffolk. And this Sylvester Manor would be the very first demonstration of that in Suffolk County. So it's a great project and we hope that it gets support.

On the Volatile Organic Compound Action Plan, the five people who have been added by the end of this year are going to prepare a report on the findings with the gas stations and the dry cleaners and any other higher risk facilities that we can and do inspect. And the idea is -- the hope is that it's a good report card for everybody and there aren't any problems. If there are problems, then we're going to look at potentially a performance base system where people who are causing problems get visited more frequently, those that are not get visited less frequently. And over the years we'll work in other things like plating, print shops, auto repairs, some of the other higher risk facilities.

The companion to that is the reducing toxics, RTP, which is the other universe of toxics contamination. And that's going to be going out to look at other industrial and commercial facilities

and it's also going to address the impact of potential household hazardous materials. There's no question that when you walk down a Home Depot aisle, all of those paint thinners, strippers, solvents, chemicals, many of those are being flushed and reaching groundwater. The data that we have for the public water supply wells is not really good at teasing out which of those compounds are causing an impact. We know that they're getting to groundwater and causing an impact. We don't have great numbers on those because they tend to be ubiquitous, shallow and low level. Some of them get eaten up by microbes before they hit the groundwater; others persist. The ones that we pick up on mostly are the chlorinated solvents, which are the industrial chemicals. And, again, this is something that we're working toward getting a better handle on and better managing.

That's the VOC story in a nutshell. I don't know what else I can answer to help elucidate any of that.

CHAIRPERSON HAHN:
Legislator Anker.

LEG. ANKER:
I have a few -- few questions. But as far as the VOCs, so perc. Perc is used at the dry cleaners. You mentioned both the gas stations and dry cleaners having these issues with these chemicals. Is there -- can you explain to me how perc -- what are the health implications of perc and how is it getting into the groundwater with these cleaning facilities?

MR. DAWYDIAK:
Perchloroethylene historically the chlorinated organics, I mean going back decades to the middle of the 20th Century, were considered to be fairly safe, you know, chlorine is a sanitizer, these are short chain organics. Nobody knew. Only later did we find out that they're carcinogens, likely carcinogens and they're very mobile; they're persistent; they dissolve in groundwater; they don't get eaten up by microbes; they tend to travel very fast and make their way into our drinking water supply.

So the dry cleaning industry has been through several generations of processing equipment. And the latest generation is reportedly much better than prior generations about discharges, whether it's incidental, sloppy housekeeping like leaks and spills or air condensation in an area. There have been a few cases of intentional discharges over the years. That's certainly not the pattern and practice of the industry, but it has happened. So the release of perc into the environment can happen in any one of those ways as these units become more fail safe than self-contained with respect to emission. The goal is to capture all of the percs so that none of it is discharged. And our goal is to go to these institutions and look at the cesspools, storm drains, dry wells, to make sure that none of this is concentrating in any way in the environment either intentionally or through malfunctioning equipment or sloppy housekeeping. Any of those can be a source.

LEG. ANKER:
So are there alternatives, though, to this chemical? I'm looking at -- there's a report and it was by Prevention is the Cure, and also {Beth Vitinas} very strong advocate with the green dry cleaning businesses, but is there some alternative? Because it just seems like perc is just creating havoc with our water. And, you know, I know it's not banned; is that correct? There's no ban on perc itself, but how can we, you know, try to transition these businesses, which are, you know, we all need dry cleaning, we have our suits or whatever, but what are the alternatives to perc?

MR. DAWYDIAK:
There are a number of different alternatives out there. We did an initial survey of the dry cleaners that are out there to figure out which ones are actively processing versus just a transfer facility and what they're using. Probably somewhere around the order of more than half are still using perc, so. It's being reduced in terms of number of facilities that use it, but it's still very, very significant. I'm not a dry cleaning expert. I could tell you the ones that have converted have gone to other

petroleum distillates, which are safer than perc. They're not chlorinated, but they're still petroleum distillates and as such they can get in the environment and potentially have their own consequences.

There are greener alternatives to petroleum distillates. I don't think many of them had been implemented here in Suffolk County. Our pollution control folks are working on this as part of their annual report. And at the end of the year we'll be putting out a status report of what's out there, how well they're working, what the alternatives are.

LEG. ANKER:
You know, there are other issues, too, the micro beads, you know, that was brought up recently. It's becoming a huge issue. I think Adrienne, she was here before from Citizens Campaign, I mentioned it's getting embedded in people's teeth. I mean, it's really becoming -- yeah, Sarah, you're giving me "I know exactly," I'm like *yikes!* So it -- you know, I think there's a lot of things that are starting to pop up that in addition to what we have to worry about, there are more. And then, you know, a couple other things, illegal dumping. You know, when I was working with environmental groups, there's -- there was a lot of concern with illegal dumping, especially with the -- contaminating our water. Do you have a process for that of trying to locate if there is -- if there's been illegal dumping in some areas, how do you address that?

MR. DAWYDIAK:
In general the State has got the broad toxic and hazardous material jurisdiction. So for the most part this is a DEC jurisdiction issue. We do have our own jurisdiction under the Suffolk County Sanitary Code, Article 7 and 12 that give us parallel jurisdiction in many cases. And that's really what part of our industrial pollution control inspection has been about, is to get to industries, look at their management practices and actually take samples in places where you would detect dumping if it actually did happen. So we're a companion to that.

I could tell you that in general the toxic and hazmat situation has improved dramatically since the 1980s. The number of spills have gone down significantly in this decade compared to prior decades due largely to engineering controls at petroleum bulk storage facilities. If you follow superfund sites, you'll see that you're not hearing about all these new superfunds like you did in the '80s and '90s where the legacy sites were detected and even current operations were going on to superfund. You still see them here and there, but most of the big problems don't happen as frequently as they do. That being said, Legislator Anker, unless you're out there and have an active program and you're looking for this stuff, you're not going to pick it up. So we're kind of in that tipping point right now where we're reinstituting our programs to look for this information and we'll have a better handle in a year or two on what's actually going on out there.

LEG. ANKER:
Yeah, I know the State had come down into my area with the breast cancer mapping project. And they used data that was entered into computers. But my issue with that was what about the people who, you know, you dumped illegally. You can't find out what's in our groundwater until you actually test. So I'm assuming that the County's working with the water companies to detect, you know, what's in the wells.

MR. DAWYDIAK:
Yeah, Suffolk County actually has the best, most holistic repository of information because there's about a thousand wells out there. The water supplier -- the Water Authority is the biggest supplier obviously. And a lot of folks are under the misimpression that they're the only game in town. There are dozens of public and water suppliers community and non-community out there and all that data is reported to the Health Department. They self-monitor and we monitor for them as well.

The other thing I wanted to mention, and we jumped over this in this slide, is that with the expansion of our well drilling program, we're actually reinstituting a systematic county groundwater monitoring well network. And this may be a surprise to some folks, but this network has not really

been active since the 1970s. In the '80s it was disbanded due to resource limitations. And we have all these great pieces of data. And it was a tremendous challenge working with the water supply data as well as other sources of information because these are gross, crude, blunt instruments that we do the best with.

The best is the systematic program with hundreds of wells that are cited, the proper locations, levels and land uses to give you a more accurate indication of the health of the aquifers. It's affecting our surface waters. So we're in the middle of a five-year plan. We're going to be putting in about 40, 50 wells a year over five-years. It'll be monitored regularly so we can answer questions like these much better over time.

LEG. ANKER:
I promise, one last question. Okay, so the County -- you know, you guys are doing a great job and I really appreciate it, especially with your background and understanding water and the environment. But working with maybe like the DPW and road construction and just construction in general, what is your understanding of what the County can improve on with materials being used for infrastructure and creating, you know, a better environment especially related to water?

MR. DAWYDIAK:
Are you talking physical asphalt road construction and stormwater?

LEG. ANKER:
Yes.

MR. DAWYDIAK:
Or green infrastructure generally?

LEG. ANKER:
I'm thinking about roads, you know, because -- again, I'm driving down the roads, there's all that granule material. And it's seems to be getting into the water bodies. And it's a concern. But, again, just in general is there something -- because, you know, Suffolk Community College was here and they showed use the brick that allowed, you know, water to get down into -- into the ground. What is the County doing currently and -- to address the issue?

MR. DAWYDIAK:
The issue of stormwater and roads is really complicated because it spans so many multiple jurisdictions from the State to County to Towns to Villages. And I'm probably not the single best -- I'm definitely not the single best individual to answer your question and I'd be happy to get you more information from Public Works or Cornell Cooperative Extension. We do have a phase II stormwater program dealing with the County roadway network, dealing with a number of permitting and best management practices, education, outreach to prevent and minimize that sort of pollution from getting into the groundwater.

Legislator Krupski actually recommended giving them more prominent treatment for our stormwater and drainage as part of our Comprehensive Water Resources Management Plan. Typically we in the Health Department think about it in terms of pathogen -- pathogen discharge and shellfish sanitation. A lot of the heavier organics that are in roadways typically are not going to be reflected in your drinking water. That being said, you can have some VOCs, metals, road salts that do get into the water system. And this is something that we're going to look at more holistically moving forward.

LEG. ANKER:
Thank you.

LEG. KRUPSKI:
Legislator Anker, you should talk to Emerson Hasbrouck from Cornell Cooperative Extension because he's the administrator for the County's MS4 Program. And he would be able to fill you in on the County's profess there, which is impressive.

CHAIRPERSON HAHN:
Yeah, he just gave a presentation at CEQ.

LEG. KRUPSKI:
Yes.

CHAIRPERSON HAHN:
That was impressive. Did you have any more questions?

LEG. KRUPSKI:
One short question, I promise. So if we're concerned about not only nitrogen but other nutrient loading to the aquifer and to the surface waters, and if -- and if 80% of fertilizers sold in Suffolk County is for non-farm use, and I know that number is probably -- I would guess that probably is going up because agriculture has been spent the last few decades trying to reduce nutrient input, not only for environmental reasons but also for economic reasons. So that's been a -- you know, that's been a real dedicated effort there on many -- with many people, many partners working on that including Cornell Cooperative Extension. Are there any recommendations in this for trying to reduce nutrient use on non-farm use?

DIRECTOR LANSDALE:
Yes. The County is embarking -- first we have a very successful program that's run by Frank Castelli, a homeowner education awareness program that was passed by the Legislature years ago where there's a sign in every store that sells fertilizer about proper fertilizer application on lawns; as well as the Legislature passed a prohibition of fertilizing during specific time periods of the year where it just doesn't make sense and contributes to nitrogen loading and runoff and the like.

We're also working with -- under Frank Castelli's leadership and his team with the Department of Environmental Conservation and Cornell Cooperative Extension looking to implement a fertilizer education program that is based -- that's going to be premiered on the internet.

LEG. KRUPSKI:
Thank you.

CHAIRPERSON HAHN:
Okay. Any other questions? I have just one or two more. So there was a list that you had up there, I can't remember which category it was under, when you listed the DEET and what you're finding, ibuprofen and -- etcetera. Can you just explain -- this is -- you know, the Comprehensive Water Resources Management Plan and is everything that's available on line, you know, all the background lists of what you're finding, at what levels, where you're finding it, you know, the really -- the real nitty gritty detail that I know that advocates want to see and some of us may want to take a look at, for those of us who actually read all the reports, you know, where can we find that? And do you have in each category, you know, a top ten list based on, you know, its being found, how dangerous it is to human health or ecological health, you know, how often it's being found and at what levels. So a list of pesticides, a list -- or, you know, or even just a comprehensive list of everything you test for and then in the order in which it's a priority to address in each of the categories: VOCs, personal care products, pesticides, prescription drugs, etcetera, etcetera, etcetera.

MR. DAWYDIAK:
Yes, Legislator Hahn, those are great questions. First I wanted to mention that the Comprehensive

Water Plan is on line. It's on the Health Department news website. So anybody can go and peruse any or all of that plan. Chapters 3, 4 and 5, I believe, are the groundwater, drinking water and surface water chapters. And those are the ones that most -- in most detail treat contaminants of concern.

What we have developed in the Health Department to answer this sort of inquiry, the short answer to your question is: No, there is no really simple repository of information. We analyze for about 300 samples. The list of our analytes is in one of the appendices or the Comprehensive Water Resources Management Plan. That document is undergoing the last stages the State Health Department reviews so that appendix is going to be dropped in very shortly. But what we've done is developed short fact sheets. They range from two to four pages on each of these major contaminants that concern, from nitrogen to VOCs, pesticides, pharmaceuticals and other issues. And this sort of highlights exactly what the sources are, what the impacts are, what's being done about them now, what we can do about them better in the future; and specifically which ones are detected at what levels most frequently. So those sorts of lists are embedded in the Comp Plan but not in the easiest way to find for a layperson. These fact sheets will be a little more helpful for getting that sort of granularity in one short simple place.

CHAIRPERSON HAHN:
And the fact sheets are there as well?

MR. DAWYDIAK:
The fact sheets will be going in within the next couple of weeks. They were drafted a while back by the Health Department in the County level. The State Health Department toxicologists are going through all of those to make sure that they're accurate and consistent with everything that's available at the State level.

CHAIRPERSON HAHN:
Okay. But you're saying that the Health Department website has the Comprehensive Plan right now but it doesn't have the appendices. It lists what we're testing for?

MR. DAWYDIAK:
These particular fact sheets are not yet issued. Those will be added on as an appendix. Again, this document is intended to be a dynamic document rather than a static document with periodic updates and add-ons and annual updates. And one of those is these facts sheets that are going to kinda crystalize and synthesize some of the information.

CHAIRPERSON HAHN:
No, I mean the list of what we test for right now. I know we had a meeting about what we test for. We had a -- we had the Suffolk County Water Authority there. We had the Federal government there through the USGS. We had even Nassau County potentially in the room at one point, but did we -- like as of today is there a list that can tell us what we are testing for?

MR. DAWYDIAK:
We do have a list available. It's electronic. We can send it to you. I believe it's in the Comp Plan but don't hold me to that. It may be part of that lab analyte report, which is under State Health Department Review. That meeting happened a while ago. Our goal in a nutshell is to go from 300 parameters to significantly in excess of 350 over the next five years. And we've itemized which those are and what priority order. Dioxane was the very first. That particular report is still undergoing State Health Department review.

CHAIRPERSON HAHN:
Okay, so the new list isn't finalized where we want to get to?

MR. DAWYDIAK:
Correct. The new list is not yet finalized. It's unlikely that there would be any significant substantive changes, but we didn't want to hold up the entire Comp Plan, first State Health Department review of this one piece.

CHAIRPERSON HAHN:
How much of our list of what we're testing for is mandated and how much is a result of us saying here in this -- you know, in our region, in our space above our aquifer are we concerned with, do we go above and beyond what we're mandated by the State and Federal government?

MR. DAWYDIAK:
We do. We go significantly above and beyond. If you look at the State Sanitary Code list, it's somewhere between 140 and 150 parameters that are required for the water suppliers. We in the Health Department right now are doing 300 and that number is going up significantly.

CHAIRPERSON HAHN:
And if we go up and down the aisles at Home Depot, at Rite Aide, at, you know, any one of our -- whether it be a home store or a shopping store, and we pull out the cleaning products and we pull out the home repair products and things that help strip paint, etcetera, you know, are those -- are what we're finding on our shelves being tested for on a very regular basis? Because I know every new product that's out on the market has some new ingredient that's faster, better, tougher, cleaner. Are we -- you know, are we keeping up with what's on the shelves? Is the Federal government keeping up with making sure that we're testing for what's being sold? Is the State Health Department doing that and are we doing that? Are we falling behind? What's, you know, out there for residents to buy and flush?

MR. DAWYDIAK:
What I can tell you is that one of the great advantages of having our own laboratory, there are many, but one of them is when we pick up any significant concentration of an unknown organic, for example, we figure out what that is. And that's not required of any water supplier or any private entity. So this is how we picked up many of the pesticides like aldicarb and dacthal. You get big peaks. You go -- you drill down. You go to the GCMS library, you do some research, you get a standard, you calibrate, you say, *yeah, this is what I had.* And it's a very laborious process, but it's something that we can do.

The fact that we're not getting large numbers of very big peaks of unknowns suggests to me that these are not the high quantity problem. In other words, none of these products are having very big mass loadings that are going to result in exceedances of standards.

In terms of pervasive low level contamination, the stuff is definitely getting down drains. And some of it's getting into water. I can't quantify for you what degree of -- the problem that is. That's part of that overall reducing toxics initiative and we'd like to work with you over the next year to better define and sculpt that to get to a better place in managing some of these issues.

CHAIRPERSON HAHN:
So can you describe that just a little bit further as to when you bore down and sample the -- our groundwater, you're not just testing for what's on the list; you're determining everything that's there?

MR. DAWYDIAK:
No, unless you're specifically testing for a contaminant under a lab-accredited protocol, you're not tested for it. So there are probably millions of chemicals out there that are potentially getting into groundwater. And we're testing for 300 of them. We actually have the number for pesticides. It's on the order of low thousands that are potentially getting out there and we're looking at, you know, 100 to 150, if we count the degridates of the highest risk pesticides based on what's actually being

used and leachability. So it's always a prioritizing game, using your resources in a manner of -- for things that are actually risky.

And with a lot of these products, some of these are proprietaries where it's actually difficult to drill down and figure out what the particular sub-elements of a petroleum distillate composition is. Some of them have small quantities that are de minimus, that don't have to be reported. It gets fairly complicated. And it is something that we as a County Health Department couldn't do entirely on our own. This is something that we'd have to work with the State and the Federal government on.

CHAIRPERSON HAHN:
But you talked about -- what was the word you used, the non-identified. There was another word you used for that.

MR. DAWYDIAK:
Unknown organic compounds.

CHAIRPERSON HAHN:
Sure. So the unknown -- so when you find unknown organic compounds, you do that -- so I was trying -- this is what I'm trying to get at. When you test the water and you test for the 300 items, but then you have a category for unknowns, so you know that there are other things there other than hydrogen and two parts oxygen. (Laughter)

MR. DAWYDIAK:
There's always some low level noise on these spectrometer outputs. And you don't necessarily get everything that's out there, absolutely. And when it's a significant output, it's something that our lab will look further into. The size of the peak will dictate roughly the mass quantity there. So when you're talking fractional part per billion range, maybe it's there, but it's so low and so hard to speciate, it's not really worth looking for. If you're picking up something in the tens of parts per billion where it might be a health impact given the chemical, it's something you would chase further.

CHAIRPERSON HAHN:
Can you talk a little bit more about when you're increasing the wells and you're -- you said you were going to add 40 new wells a year, is that what --

MR. DAWYDIAK:
Yeah, roughly 50 a year. There's some number that's out there already that we can use. I think the total number is around 300 that we're shooting for.

CHAIRPERSON HAHN:
So we have deep wells and then we have the monitoring wells that are critically important because they tell us what's coming towards -- towards the aquifer; correct? So can you talk about how, you know, how you're -- you're choosing -- are we adding more of the monitoring wells; are we adding more of the deep wells; or did you -- you may have touched on that. Are they all monitoring wells, the 50 that get added each year?

MR. DAWYDIAK:
Of the ones that we're installing, they're all used for monitoring purposes. Some of them can go down into the hundreds of feet. They're not going to be really deep magothy or white wells. By and large we'll try and use preexisting wells for our network for those, but it'll be an array of wells of varying depths. And, again, the idea is to kind of capture the hydrology in the County so that you have representative spatial coverage across the County as well as land use patterns, you know, heavily industrialized areas, agricultural areas, residential areas. You want to make sure you have a good number of those to pick up use patterns and impacts.

CHAIRPERSON HAHN:
I know that we had let the number of drillers and the number of wells kind of falter over the years. You said that -- you feel like we're now in a place where we have -- where we're, you know, on a positive trajectory on this. Do you --

MR. DAWYDIAK:
Yeah, the State through its Pesticide Reporting Law, give us an annual grant which has significantly increased so we added one person to our well drilling crew and one additional sample-collection sanitarian. So the well drilling crew historically has gone between 3 and 5 people. We kind of need 5 people to keep two crews working any given time. And now that number is up to 6, I believe. So that means that we have a pretty good margin of comfort to continue the systematic multiple rig operation over time. It'll dramatically increase the output.

CHAIRPERSON HAHN:
Okay, Legislator Barraga.

LEG. BARRAGA:
Thank you. Good morning. I thank you very much for all the work you've done here. It's certainly very, very comprehensive. I just have maybe one or two questions. I represent the 11th Legislative District. Now when it comes to water, people want clean water. When they turn on the tap, they want drinkable, clean, pure water. And it's obvious over the years that the glacial system has been compromised. The magothy has its problems. And many of these wells -- or several of these wells go down as deep as the Lloyd to bring up pure water.

Have we reached a point with reference to nitrogen levels that continue to increase, a lot of it having to do with population and growth, all right, where we should consider banning fertilization in residential homes, banning fertilization associated with businesses and their lawns, banning fertilization on so called golf courses? In other words, put a ban in place in Suffolk County in order to safeguard that water supply?

For example the people that I represent could understand that if they no longer fertilized their lawns in order to keep pure water flowing in their homes. And if we did that, in your judgement, it would be just approximate, how much would the nitrogen levels drop if we had that ban in place? Either one, I don't care who answers it.

MR. DAWYDIAK:
Yeah, this slide shows that the fertilizer is on the order of 10% of the overall nitrogen load for residential parcels, which are the primary source of nitrogen to groundwater in the County. The thing about fertilizers it's really, really, really cheap to minimize compared to wastewater so your cost per pound of nitrogen return on investment is huge if you can knock that number down. It's not the predominant source. If you do some simple algebraic arithmetic, less than 10% is not going to get you anywhere near where you need to be on the drinking water standard. It's really a wastewater problem. That doesn't mean that it doesn't need to be addressed and that it can be addressed in a cost effective way. It's just simply not really the greatest load and is not going to get you where you need to be.

The other thing about lawns and fertilizers is nobody really disputes the fact that they can be done in an environmentally friendly way. If you use slow release organic fertilizer and you irrigate properly and have a healthy lawn, you really minimize the amount of leachate that can be brought down into the aquifer. It's really over-fertilizing, using the wrong kinds of quick-release fertilizers and over-irrigating that wind up with these pulses of breakthrough of nitrogen that have these sporadic loads.

So that's my bit of background. I'm sure Sarah has got more.

DIRECTOR LANSDALE:
One of the things that the County has initiated is a pilot program -- two pilot programs; one is looking at irrigating a golf course out in Riverhead next -- the Indian Island Golf Course with treated and sanitized wastewater effluent from the adjacent sewage treatment plant as a way to reduce the nitrogen that's needed by way of fertilizer while keeping that -- the golfer safe as well as the lawn healthy. So that's worth exploring and seeing if there's opportunities to scale that up in other parts of the County once that pilot program is underway and evaluated.

The second is we -- the Legislature just passed at the last legislative meeting a demonstration program to look at alternative septic drain fields whereby you're putting the wastewater effluent from a septic system through the -- through the -- to the root zone of grass, thereby also reducing the need to fertilize your lawn. And you're getting the fertilizer from the wastewater effluent. And these are called shallow, narrow drain fields. They've been successfully introduced in other parts of the country in similar climates. And we're looking to see how this works here in Suffolk County as well.

LEG. BARRAGA:
Yeah, because I was always under the impression the less fertilization you did, the more beneficial the water supply would be in terms of its purity. But I sense from your -- your comment you didn't seem too positive or enthusiastic about that assertion.

MR. DAWYDIAK:
I didn't mean to be underwhelmingly enthusiastic about it. I mean, we're all for reducing and minimizing fertilizer and nitrogen loading. One of the key Peconic Estuary Program recommendations has always been no fertilizer is better and use alternative landscapings that don't rely on such high maintenance. It is America and people love their lawns and banning something would be a pretty drastic thing to do.

LEG. BARRAGA:
You know, I love a lot of things. But if it has an adverse effect on the health and wellbeing of others, then maybe it's time to change. I mean --

DIRECTOR LANSDALE:
It's a recommendation that's in the plan looking at alternatives and implementing ways to reduce nitrogen and fertilization on all sorts of activities including residential landscapes. So it's something that we're certainly taking very seriously and we'd love to work with the Legislature to understand what other municipalities around the country are doing to address this problem.

LEG. BARRAGA:
The other question I had with reference to sewering, because approximately 75% of the residential homes are not sewered, and you indicated that there are certain areas that are -- it's inappropriate to sewer. What is the barrier -- what is the nitrogen reduction if we sewered Suffolk County?

MR. DAWYDIAK
If you --

LEG. BARRAGA:
How much -- how much of a cure is that toward the environmental problems that we face?

MR. DAWYDIAK:
Sewering typically takes your nitrogen from a discharge level of 50 or more parts per million nitrogen to well under 10, much closer to 5 with the way that Public Works has been operating its plant so --

LEG. BARRAGA:
So we don't do that because of money, right?

MR. DAWYDIAK:
It's due to money. I mean, you would effectively see about a 90% reduction of that cesspool septic number. It would be huge.

LEG. BARRAGA:
As you pointed out, we're receiving approximately $400 million to give some additional sewering that's going to affect 10,000 people. But beyond that, I mean, it's only 10,000, right?

MR. DAWYDIAK:
Sure.

LEG. BARRAGA:
The numbers are maybe a hundred thousand, or better than that in terms of people who are not sewered. But -- so it's a financial consideration more than anything else.

MR. DAWYDIAK:
Ah, yes.

LEG. BARRAGA:
Okay. Have we ever considered establishing a Suffolk County Sewer District Authority, to float bonds to do the sewers? Which wouldn't prevent us from, you know, going out and getting additional grant money, but they'd be able to float the bonds with the security of the County and the State behind them? Has there ever been any discussion on that, you know, among you people?

MR. DAWYDIAK:
I think all the options of establishing a watershed management district and a responsible management entity are being vetted literally as we speak. And this is something which is not simple or trivial matter. We want to give it a really thorough complete evaluation. And the idea as a goal is to set something workable up into --

LEG. BARRAGA:
You know, the State of New York we have about -- you know, we have several hundred, maybe 3 or 400 public authorities. And they were all usually put in place for a specific reason. And maybe that's something we should take a look at, you know. You can sit around and write all the grant applications you want, but you'll never get the job down. The reality is you need something that has the ability to sell bonds to get revenues to do the project; and then put something in place to pay the debt service associated with the bonds.

DIRECTOR LANSDALE:
Definitely it's a key recommendation in our Water Resources Management Plan to explore the financing options to scale up this program to address the priority --

LEG. BARRAGA:
Because of the cost factor associated with sewering is in the billions, you're not going to do the entire project immediately when you're going to return an expense of 8 or 9 hundred -- 8 or $9 billion. It's going to be done over a period of time. That's when a public authority can be of some assistance because they don't have to put out, you know, $5 billion worth of bonds immediately. They'll put out what they need. And the question is whether or not the County would have the revenue to pay off the debt service associated with the bonds. And then you'd have to look at a new revenue source. But if you make it on the basis that, you know, we're doing this in order to save the drinking water of Suffolk County, then you can turn around -- for example, I'm aware of the fact that for every -- I believe for every quarter percent increase in the sales tax you generate

$70 million. You increase it by half a percent in order to save the environment and the water supply of Suffolk County. I think most people would say, look, that's worth pursuing. And that's enough to generate the amount of money you would need to pay the annual debt service associated with bonds that might be several billions of dollars.

Because otherwise, you know, we keep on doing study after study after study. And all these projects that you're talking about, you know, are great, but it's piecemeal; it's moving in different directions at different times. If sewering is one of the major issues to reduce nitrogen, then we should put a means in place to do it for the sake of a million five hundred thousand people who live in Suffolk County. Okay.

MR. DAWYDIAK:
Understood and appreciated, Legislator Barraga.

LEG. KRUPSKI:
May I?

CHAIRPERSON HAHN:
Legislator Krupski.

LEG. KRUPSKI:
As it goes on now, I have two more questions.

CHAIRPERSON HAHN:
This is very important. We should take the time to --

LEG. KRUPSKI:
Well, that was one of them. Should this presentation take place at the full Legislative meeting? Because this is very important. And is there a sort of a smaller presentation that you can make to all of us? Is that any intention to do that?

DIRECTOR LANSDALE:
We'd be happy to make a presentation to the full Legislature if that's what the Legislature would like us to do.

LEG. KRUPSKI:
This is -- this is an important document.

The other thing is, and I went to the presentation, the one that you had at the Health Department in Yaphank, and there was a mention of compost. And I raise the question, the concern that that's a very broad brush when you say compost. Municipalities have invested millions of dollars in converting yard waste into a usable compost product that they sell and that's not trucked off Long Island. Farms have developed -- notably the sustainable Long Island Wine Group does a very good job of composting farm waste into a product that's used on the farm not only to -- so they recycle their nutrients but also increase their organic matter. And a lot of farms compost on a farm to increase their organic matter in their soil. It's part of a -- it's kind of a -- what they should be doing.

And the reference in the document that I saw was kind of a broad brush about composting. I was wondering is there going to be mentioned in this report about composting? And if so, is it going to be broken out into the different operations, commercial operations, agricultural operations, which are -- and I know for a fact the agricultural operations and the municipal operations are regulated by the -- currently by the DEC.

MR. DAWYDIAK:
Composting and its impact on groundwater is a relatively recent concern with respect to the County Health Department. And this was not something that was scoped in any level of detail when we brought our consultant on board. There was some broad brush mentioned about composting being a beneficial use, but there being the need to manage it more effectively.

I know, Legislator Krupski, you had some comments. I believe that the consultant did incorporate better speciating, small on-farm operations versus large commercial versus municipal. And at the end of the day this is going to be one of our annual key performance indicator issues of how many, where, how well they're working and what needs to be done better. And I think that this is a conversation that we should continue moving forward as we look at these composting facilities. We appreciate your comments and your points are well taken.

LEG. KRUPSKI:
Thank you.

CHAIRPERSON HAHN:
Any other questions? Okay. Seeing none, thank you so very much for all your time on this. And we look forward to continuing this discussion and all the work we still need to do on solutions. So, thank you.

MR. DAWYDIAK:
Thank you.

TABLED RESOLUTIONS

CHAIRPERSON HAHN:
Okay, to the agenda. Tabled Resolutions: **Introductory Resolution 1249, Authorizing appraisal of land under the Suffolk County Drinking Water Protection Program, as amended by Local Law No. 24-2007, estate of Francis J. Dragotta Town of Southampton (SCTM Nos. 0900-283.00-01.00-034.000 and 0900-284.00-01.00-028.000). (Schneiderman)** Do we have anyone from Planning who would like to come forward? I think there were questions about ownership of this one, if I'm correct?

MS. FISCHER:
Yes, there is two parcel -- there are a number of parcels that overlay each other. These are two overlay parcels, some of which overlay County-owned land and other privately-owned lands. And we do need to look at that more carefully and request that this be tabled one more round so that we can give you further clarification on that.

CHAIRPERSON HAHN:
Okay. I'll make a motion to table.

LEG. KRUPSKI:
Second.

CHAIRPERSON HAHN:
Seconded by Legislator Krupski. All those in favor? Opposed? Abstentions? **1249 is tabled. (VOTE: 5-0-0-0)**

INTRODUCTORY RESOLUTIONS

Introductory Resolution 1282, Reappointing Albert Krupski as a member of the Suffolk County Soil and Water Conservation District. (Pres. Off.) Is this individual here today?

(Laughter) I'll make a motion; second by Legislator Anker. You have a question on the motion?

LEG. MURATORE:
I was going to make a motion.

CHAIRPERSON HAHN:
Oh, you were going to make a motion. So we had to fight for a motion over who wants to -- okay, great. We have a motion and a second. All those in favor? Opposed? Abstentions?

LEG. KRUPSKI:
Abstained.

CHAIRPERSON HAHN:
Abstained, Legislator Krupski. It is approved. **(VOTE: 4-0-1-0)** Thank you for your willingness to serve on that Committee.

Introductory Resolution 1301, Amending the Adopted 2015 Operating Budget to transfer funds from Fund 477 Water Quality Protection, amending the 2015 Capital Budget and Program, and appropriating funds in connection with Suffolk County Parks Van Bourgondien -- Bourgondien sorry, I knew I was saying it wrong **-- House Sewer Connection Project (8710.327). (Co. Exec.)**

LEG. KRUPSKI:
Motion.

CHAIRPERSON HAHN:
Motion by Legislator Krupski; seconded by Legislator Anker.

LEG. KRUPSKI:
On the motion.

CHAIRPERSON HAHN:
On the motion Legislator Krupski.

LEG. KRUPSKI:
Is there anyone -- and I'll ask Walt Dawydiak, if I could, is there -- this is a -- this is to -- this is to connect an existing failing septic system to a sewer district. Was there any consideration given to using alternative wastewater treatment here instead of hooking it up to a sewer system given the cost associated with the hookup?

MR. CASTELLI:
Frank Castelli, Suffolk County Economic Development and Planning. This -- this proposal was -- as it says in the resolution, is for a connection of the -- into the existing sewer system, the Southwest Sewer District. The -- I know that the alternatives to keep the existing onsite system is obviously not as desirable as connecting to the sewer -- the sewer line. And the Parks Department looked into the feasibility of connecting up to the existing sewer line. And it turns out that for a fairly reasonable amount of $40,000 they found that they could do just that.

I'm not sure -- I can't answer for Parks if they -- if they looked at any other alternatives, but in light of the fact that they can connect up to the existing sewer line, that would take this down to Bergen Point. It seems like, you know, a very advantageous situation that they should advantage of.

LEG. KRUPSKI:
Just like -- for that -- for that money, you could probably do it for less with one of the new -- you could do a pilot with one of the new proprietary systems. And, again, have a pilot, have a showcase

and it would actually cost less money than the hookup; the $40,000 hookup.

MR. CASTELLI:
Well, I'm not exactly sure how much a pilot would cost, but the -- I think the intention here was that since there was an existing sewer line that was -- would be relatively easy to hook into, that they -- that that would be the most prudent thing to do.

LEG. KRUPSKI:
Thank you.

MR. CASTELLI:
Yeah.

CHAIRPERSON HAHN:
Any other questions? Okay, we have a motion and a second. All those in favor? Opposed? Abstentions? **1301 is approved. (VOTE: 6-0-0-0. PO GREGORY INCLUDED IN VOTE)**

Introductory Resolution 1302, Amending the Adopted 2015 Operating Budget to transfer funds from Fund 477 Water Quality Protection, amending the 2015 Capital Budget and Program, and appropriating funds in connection with the Long Island Native Plant Initiative (CP 8710.413). (Co. Exec.) I'll make a motion.

LEG. KRUPSKI:
Second.

CHAIRPERSON HAHN:
Seconded by Legislator Krupski. All those in favor? Opposed? Abstentions? **1302 is approved. (VOTE: 6-0-0-0. PO GREGORY INCLUDED IN VOTE)**

Introductory Resolution 1303, amending the operating -- I'm sorry -- **Amending the Adopted 2015 Operating Budget to transfer funds from Fund 477 Water Quality Protection, amending the 2015 Capital Budget and Program, and appropriating funds in connection with Sylvester Manor Educational Farm Pilot Non-Proprietary Vegetated Gravel Recirculating Filter Water Treatment System (CP 8710.328). (Co. Exec.)** Say that ten times fast, wow. I'll make a motion.

LEG. KRUPSKI:
Second.

CHAIRPERSON HAHN:
Second by Legislator Krupski. All those in favor? Opposed? Abstentions? Excellent, it is approved. **(VOTE: 6-0-0-0. PO GREGORY INCLUDED IN VOTE)** Thank you, Sara, for waiting around. And thank you, Frank.

Introductory Resolution 1339, Making a SEQRA determination in connection with the proposed planning and design for the Forge River Watershed Nitrogen Removal Project, Town of Brookhaven. (Pres. Off.) I'll make a motion.

LEG. ANKER:
Second.

CHAIRPERSON HAHN:
Seconded -- I'll make a motion to put it on the consent calendar. To approve and put it on the consent calendar. Is that the correct motion?

MR. NOLAN:
That's correct.

CHAIRPERSON HAHN:
Yes. Okay, thank you. Motion to approve and put on the consent calendar; seconded by Legislator Anker. All those in favor? Opposed? Abstentions? Good, it is approved. **(VOTE: 6-0-0-0/Consent Calendar. PO GREGORY INCLUDED IN VOTE)**

Introductory Resolution 1340, Making a SEQRA determination in connection with the proposed planning and design for the Patchogue River Watershed Nitrogen Removal Project, Town of Brookhaven, Village of Patchogue. (Pres. Off.) I'll make a motion to approve and put on the consent calendar; seconded by Legislator Anker. All those in favor? Opposed? Abstentions? 1340 is approved and will be on the consent calendar. **(VOTE: 6-0-0-0/Consent Calendar. PO GREGORY INCLUDED IN VOTE)**

Introductory Resolution 1341, Making a SEQRA determination in connection with the proposed planning and design for the Connetquot River Watershed Nitrogen Removal Project, Town of Islip. (Pres. Off.) Would you like to make a motion to approve and put on the consent calendar?

LEG. BARRAGA:
Yes.

CHAIRPERSON HAHN:
Would you also like that on the consent calendar?

LEG. BARRAGA:
Yes.

CHAIRPERSON HAHN:
Okay. Motion to approve and put on the consent calendar by Legislator Barraga; seconded by Legislator Krupski. All those in favor? Opposed? Abstentions? 1341 is approved and will be on the consent calendar. **(VOTE: 6-0-0-0/Consent Calendar. PO GREGORY INCLUDED IN VOTE)**

Introductory Resolution 1342, Making a SEQRA determination in connection with the proposed planning and design for the Carlls River Watershed Nitrogen Removal Project, Town of Babylon. (Pres. Off.) Motion to approve and put on the consent calendar by Legislator Muratore; seconded by Legislator Anker. All those in favor? Opposed? Abstentions? **1342 is approved and will be on the consent calendar. (VOTE: 6-0-0-0/Consent Calendar. PO GREGORY INCLUDED IN VOTE)**

Introductory Resolution 1345, Authorizing appraisal of land under the Suffolk County Drinking Water Protection Program, as amended by Local Law No. 24-2007, Costabile Property, Town of Brookhaven (SCTM Nos. 0200-110.00-01.00-033.000 and 0200-132.00-01.00-008.000). (Hahn) I'll make a motion; second by Legislator Anker. On the motion we have Lauretta here.

MS. FISCHER:
Good morning. We have a rating for you.

CHAIRPERSON HAHN:
Would you mind passing that out? Thank you so much.

MS. FISCHER:
Thank you.

CHAIRPERSON HAHN:
Thank you, Catherine.

MS. FISCHER:
Proposed acquisition is for two parcels adjacent to each other in the hamlet of South Setauket, Town of Brookhaven, consisting of -- I'm sorry, I had my notes here -- 16.6 acres in size. It's primarily wooded and it's part of a mature oak hickory, a plant community, situated to the east of Mill Pond -- to the east of the Mill Pond Complex and is part of its watershed area. The Setauket Mill Pond Creek flows north into Conscience Bay, which is part of the Port Jefferson Harbor complex.

The property is adjacent to a recent New York State acquisition of two parcels to the east along Route 25A that totals approximately 26 acres. These two parcels along with the two parcels being proposed make up the Setauket properties assemblage. This assemblage was identified in the Comprehensive Master List update of 2012 and is -- this proposed acquisition would complete the preservation of this assemblage with a total of 42.6 acres.

The property is being considered under the New Drinking Water Protection Program for open space preservation passive recreational purposes and it received a rating of 26 points for natural environments. It received points for its proximity to a stream corridor; its location within a major swell area that contributes direct runoff to surface waters, size, its location adjacent to State parkland and its special view shed along the scenic roadway and historic trail.

CHAIRPERSON HAHN:
Thank you. We have a motion and a second. Any questions? Legislator Krupski.

LEG. KRUPSKI:
Thank you. Thank you. On the rating form from 2005, it shows an 8 on size. So this is over 10 acres with a designated place of greater than 1,000 persons per square mile.

MS. FISCHER:
Correct.

LEG. KRUPSKI:
How do you -- which --

MS. FISCHER:
That's based on designated places.

LEG. KRUPSKI:
Thank you.

MS. FISCHER:
-- in the County.

LEG. KRUPSKI:
Okay, thank you.

CHAIRPERSON HAHN:
Okay, we have a motion and a second. All those in favor? Opposed? Abstentions? It is approved. **(VOTE: 6-0-0-0. PO GREGORY INCLUDED IN VOTE)**

Introductory Resolution 1387, Establishing a Southern Pine Beetle Joint Commission.

(Calarco). Motion by Legislator Krupski; second by Legislator Anker.

LEG. KRUPSKI:
On the motion.

CHAIRPERSON HAHN:
On the motion, Legislator Krupski.

LEG. KRUPSKI:
I did get word that the sponsor is going to add -- going to amend this to add a member of Cornell Cooperative Extension.

CHAIRPERSON HAHN:
Oh, good. Yeah, we requested that on Friday, yes. And to the sponsor, the deadline is five o'clock. At least if someone can remind him of that. Legislator Anker.

LEG. ANKER:
Yeah, I think this legislation is very important. I was actually speaking to people in my district, and Ridge has a severe problem. And, you know, a lot of the neighbors just have no idea what these beetles look like. And it's devastating to our, you know, our environment. So, again, I commend the Legislator, Rob Calarco, for putting this forward.

CHAIRPERSON HAHN:
Okay, we have a motion and a second. All those in favor? Opposed? Abstentions? It is approved. **(VOTE: 6-0-0-0. PO GREGORY INCLUDED IN VOTE)**

Seeing that we have no further business before the Committee, we are adjourned.

THE MEETING CONCLUDED AT 12:12 PM
{ } DENOTES SPELLED PHONETICALLY