**Long Island Regional Planning Council**

**LIRPC Meeting – October 21, 2025**
**Zoom Virtual Meeting Summary Minutes**

**LIPRC Members Present**
John D. Cameron, Jr., Chair
Michael White, Vice Chair
Jeff Kraut, Treasurer
Theresa Sanders, Secretary
Elizabeth Custodio
Mayor Barbara Donno
Nancy Engelhardt
Jeff Guillot
Supervisor Ed Wehrheim

**Staff and Guests Present**
Richard V. Guardino, Jr., Executive Director
Elizabeth Cole, Deputy Executive Director
Missy Leder, Executive Assistant
Rachel Titus, Program Coordinator

Alan Belniak
Katherine Heaviside
Mark Smith

**Meeting Commenced**:
John D. Cameron, Jr., opened the meeting at approximately 10:00am.

At this time we will start with the Pledge of Allegiance. Supervisor Wehrheim, since you have a flag, could you please lead us in the Pledge.

**Supervisor Wehrheim:**
Pledge of Allegiance

**Rich Guardino:**
Good morning and welcome to the meeting of the Long Island Regional Planning Council. My name is Rich Guardino, and I'm the Executive Director of the Council. We have a very exciting presentation this morning, and we thank you all for joining us. And with that, I'd like to do a roll call of the Council members.

**Roll Call**
John D. Cameron, Jr., Chair
Michael White, Vice Chair
Jeff Kraut, Treasurer
Theresa Sanders, Secretary
Elizabeth Custodio
Mayor Barbara Donno

Nancy Engelhardt
Jeff Guillot
Supervisor Ed Wehrheim

**Rich Guardino:**
Next, I am going to turn it over to Alan to talk about procedure for the meeting.

**Alan Belniak:**
Thank you for joining us this morning. My name is Alan Belniak with VHB. I am here to help support this meeting today. After some opening remarks and some orders of business, we'll have a presentation. After that, the comment and question opportunities are given to members of the LIRPC. After the members of the LIRPC, we will turn to the public to ask questions and share comments in one of two ways. You can use the Q&A function below. If you move your mouse to the lower section of zoom, the Q&A button will pop up and you can type in your comment, and I will read it aloud. Alternatively, you can use the raise hand feature, which is also below. That sends a signal to us that you'd like to speak or comment. I'll call out your name, send a command for you to unmute your microphone, and you'll then have a couple of seconds to share your comment or question. Please note, this meeting is being recorded. With that, I'll turn it back over to John and Rich.

**Adoption of the Minutes from the May 14, 2025 Meeting.**
**All in favor.**

**Rich Guardino:**
Resolution 2025- 112 authorizes an agreement between the Council and the Research Foundation for the State University of New York, acting on behalf of Stony Brook University, to fund a Lake Ronkonkoma Lakekeeper pilot position. The Suffolk County Department of Economic Development and Planning prepared a Lake Ronkonkoma Watershed Management Plan. The goal of the plan is to establish programs that address water quality and return the lake to a fully functioning recreational space. One of the recommendations of the plan was to create a lakekeeper position to oversee the plan. The Foundation has submitted a proposal to retain and supervise a Lake Ronkonkoma lakekeeper and a two-year pilot project. The lakekeeper will be a full-time position to be directly supervised by Dr. Christopher Gobler. The project will be funded by the Long Island Nitrogen Action Plan grant funds at a cost not to exceed $300,000.

**Sarah Lansdale:**
The Suffolk County Department of Economic Development and Planning prepared a Lake Ronkonkoma Watershed Management Plan and in it there were three primary issues identified. Those are specifically:

1. stormwater runoff that can carry pathogens into the lake,
2. outdated on site conventional septic systems e that are in the lake's watershed,
3. and because this lake is divided by many different municipalities, coordination amongst the various municipalities that have jurisdiction for the lake

These activities would be developed into a work plan that would be reviewed by the Long Island Regional Planning Council and Suffolk County and developed in coordination with Stony Brook University Research Foundation. I am happy to elaborate on any points.

**Motion to Accept Resolution 2025-112: Jeff Kraut**
**Seconded: Michael White**
**All in Favor: So moved.**

**John Cameron:**
That's great, Sarah. Any questions?

**Jeff Kraut:**
Does the lakekeeper have any authority? I mean, the person we're appointing, are they there to coordinate and monitor or are they given authority to actually enforce.

**Sarah Lansdale:**
Correct.

**Micheal White:**
I had a couple of questions, John. First of all, I'm in complete support of this. I think what Sarah said was absolutely perfect and exactly what's needed here. I fully support the idea of this lakekeeper and I appreciate Sarah's comments. I appreciate the need for the lake stewardship.

I did have a couple of comments and perhaps concerns. When we look at the duties, and maybe this is something that can be addressed going forward. The main responsibilities described are very clear in terms of lake stewardship, coordination, and monitoring what's happening with the lake and public policy. However, there's one section that says, "conduct water quality monitoring." I'm not convinced that this is what the lakekeeper is actually going to do. The lakekeeper might keep track of monitoring efforts or make recommendations about water quality monitoring, but I don't see any funding in the budget for conducting that work directly.

And to Jeff's point, this position isn't meant to have authority. Even where the duties mention acting on public complaints, it may be more appropriate to say "receiving, understanding and relaying complaints" so they can be addressed properly. Those are more technical comments on the duties as currently described. I also do have some concern about the indirect costs. The Research Foundation at the University is already famous for this. They are already taking close to 40% in fringe, and then they want to take almost the same amount in indirect costs. Who is controlling the expenditure of those indirect costs?

**Sarah Lansdale:**
I spoke with officials this morning at the Research Foundation, and it is the Research Foundation that determined the 21% for indirect costs. That rate is made up of expenses including utilities, human resources support for the position, accounts payable services, computers - kind of all of the back-office functions required for any staff role. These costs can be detailed and the controls over them can be specified in the agreement between the Long Island Regional Planning Council and the Research Foundation.

**Micheal White:**
Thank you. That makes complete sense. I just wanted to confirm that, because the fact that there's an office and a physical presence there is important. I understand it now. I just didn't know whether the money would be spent on other things like Gobler labs or anything unrelated. These named kinds of costs are reasonable. A person has to be housed somewhere, and there are necessary expenses to support that position and its presence.

However, the other issue that I'm not comfortable with is Dr. Gobler being the direct supervisor for this person. I think the day-to-day supervision should come from someone at the lab who actually has the time to do it, because I don't believe Dr. Gobler does. I think one of the most important aspects of this position is maintaining direct, ongoing connectivity with the County as well as for coordination with the DEC and the Council.

The other thing I would say, quite frankly, is that I don't think Dr. Gobler should be responsible for directing public policy. He's an excellent scientist. He conducts strong scientific work and can clearly communicate scientific information, but I don't think he is in a position to direct or determine public policy like the County, the DEC or even the Council may be.

**John Cameron:**
Sarah, would he actually be directing public policy? My understanding from what I read is that this person would be under his general direction, but that he would not be personally directing public policy. Rather, he would be supervising the lakekeeper, and as both you, Michael and Jeff, have alluded to, I don't believe he has any regulatory authority. He would function more like an overseer or coordinator. Michael and Jeff raised a good point about that.

As we know, the lake experiences significant levels of pollution, primarily attributable, I believe, to the on-site wastewater treatment systems, essentially the sewage disposal systems, cesspools, and so on. It has a long history of this. What exactly would the lakekeeper do when discovering or encountering these issues? As Michael correctly noted, I don't see any funding in the budget for monitoring. I would assume the County would be doing that, but I'm not sure whether the state does any monitoring as well. Who is responsible for monitoring the lake and who would make recommendations for enforcement actions or for any programmatic changes needed to oversee the water quality in the lake itself? I think these points are well taken. Sarah, your guidance on this would be appreciated.

**Sarah Lansdale:**
I'm absolutely happy to respond. As we looked at Lake Ronkonkoma during the Watershed Management Plan, we recognized that it is one lake bordered by three towns and one County, with multiple jurisdictions involved; at least two county legislative districts, for example. There is also a very engaged local community that has come together around the lake, having witnessed firsthand its deterioration over the past few decades. With so many different municipalities sharing responsibility for the lake, the goal of this pilot program (which is a single lakekeeper) is to provide a point of contact for the local community. This person could gather ideas, recommendations, and complaints, and then funnel them to the appropriate regulatory agencies that have jurisdiction. We've seen similar "keeper" positions elsewhere, such as river keepers, where one individual serves to look at a lake as a system as a whole rather than from one jurisdiction. The keeper is a central point for oversight. The lakekeeper model allows the system to be managed as a whole, rather than focusing on one particular municipal jurisdiction.

**John Cameron:**
You mentioned shared responsibility. I think all of us who've been around government for a long time understand that shared responsibility means nobody really has the ball. So here is the opportunity, possibly with the lakekeeper position, for somebody to have the ball, but then again, what can they do? Is it DEC who is actually going to be regulating this or is it Suffolk Health? Who would actually have control over implementing changes to improve the quality of the lake?

**Sarah Lansdale:**
So, it depends on the specific changes that are sought. Suffolk County Health Department does regularly conduct water quality sampling of the lake, and I know that the DEC does as well in different jurisdictions. For instance, at the County level we have looked at land preservation opportunities around the lake. As they come up, we have partnered with our local municipal town partners as well, to reduce runoff, for instance. So, I guess my answer is that it depends on the specific work plan. All those activities would be regulated by an annual work plan that would be reviewed by the Regional Planning Council and the County prior to its implementation.

**John Cameron:**
I think, Sarah, what you're hearing is that the Council is extremely supportive and really wants to ensure that this position can effectuate change. "Oversee" might not be the right word. We want to make sure that the lakekeeper is not just monitoring the continued decline of the lake but actively implementing measures to address it. From what you're hearing from a number of our members, the consensus is that the lake has unfortunately been neglected for decades, and there needs to be a clear action plan. Michael, would you agree with that?

**Jeff Kraut:**
So, based on what you're saying and since we're funding this, it's important that we ensure accountability. Regardless of this person's reporting relationship into Stony Brook, why don't we make sure that the person in charge of this regularly checks in with Rich (Guardino) once a quarter? They can discuss any issues that aren't being resolved. This venue is a great place for Rich to bring forward concerns. It's open to the public, it's covered by the press, and it allows us to highlight any problems, whether it's something you've raised, or whether this person feels they aren't empowered to make necessary changes or address delays. Given that we're funding it, I think we have a responsibility to do that. And as long as we're clear that we're not becoming operational or trying to manage day-to-day decisions because that should be left to the experts.

**Micheal White:**
I fully agree with John and Jeff. This really needs to go forward. One thing I was just thinking, Sarah, is about environmental quality being involved. Is this area part of an area suitable for IA septic systems?

**Sarah Lansdale:**
Yes.

**Micheal White:**
It is. Okay, that's what I was thinking.

**Rich Guardino:**
I will add that, as part of the proposal, the lakekeeper will produce an annual work plan with quarterly performance benchmarks for review by Suffolk County, New York State, and the Regional Planning Council. That requirement is already included in their proposal. There is also precedent for this type of position. Many of you may be familiar with Save the Sound, which has a Soundkeeper who has been very effective. In addition, there is a Waterkeeper Alliance which is a national foundation that supports and standardizes these types of roles.

**Micheal White:**

I would suggest we move the resolution and completely support it. And Sarah, I really appreciate the dialogue. It was important for us. Thank you.

**John Cameron:**
It is. On behalf of the Council, Sarah, thank you very much for your leadership and also taking the time to inform us on the position. We have a motion and a second, and we also have discussion. Any other questions from the Council?

**Sarah Lansdale:**
Thank you so much for your support. I want to say on behalf of the County Executive Ed Romaine as well as Legislator Kennedy and Legislator Bergin, we appreciate your efforts today. Thank you.

**Rich Guardino:**
Resolution 2025-113 authorizes a Contract Extension Agreement for one year with the partnership of Hofstra University and the Town of Hempstead to continue Water Quality Monitoring, Analysis and Reporting in Hempstead Bay. The partnership has been doing the monitoring since 2019 and the Council has authorized renewals of the agreement on an annual basis.

This monitoring program provides baseline data against which to evaluate changes to nutrient loading that are expected in the next decade as a result of Wastewater Treatment Plant upgrades, ecosystem-based upgrades such as coastal dune restoration, and nutrient bioextraction projects. It is critical that there is a measure of the outcome of these interventions.

The monitoring program scope of work has been extended to include measurement parameters to improve the understanding of the relationship between nutrient inputs and acidification of the waters of Hempstead Bay. The cost of the program is not to exceed $252,206.

**Motion to Accept Resolution 2025-113: Supervisor Ed Wehrheim**
**Seconded: Michael White**
**All in Favor: So moved.**

**Micheal White:**
I think this is a great program, and we need to be doing more of this. Its continuation is extremely important. I had asked a question and Liz and Rich responded. It was about how the data is being recorded and whether it will be available for use by as many groups as possible, whether for planning or scientific purposes. I did see that there was a report, but I'd like to be sure. I'm assuming there is a requirement that we receive a report linking the 2023 data to the data being collected now. And with the extension, I would expect another report summarizing the results of that work as well. Again, I want to emphasize the importance of wide distribution of this information, whether to the DEC or other scientific and planning efforts. So that's my comment. I'm fully supportive and I just want to ensure that the reporting continues, and distribution is maximized in that manner going forward.

**John Cameron:**
Michael, very valid points. Rich and Liz, is that report on the 2023 data available on our website?

**Elizabeth Cole:**
Yes, it's on our website. It could be downloaded. And every time it's updated, we update the report on our website. We actually did a press conference last year where we rolled out the most recent findings.

All the data is also uploaded to WQX so anybody can log on and do a query and see the actual data. That is updated regularly.

**Rich Guardino:**
Liz, why don't you talk a little bit about WQX and how that operates?

**Elizabeth Cole:**
The WQX is a data repository, and since the program started, we have been uploading all of that data so it's up to date. Anybody can go onto the site. There is no need for an account, and you can do a query on the area that you want to look at and extrapolate the data into an Excel spreadsheet. And then, as I said, Hofstra does a report every year. That updated report is accessible to the public through our website.

**John Cameron:**
I think the importance of this effort goes back to when we initially voted for it. We've been conducting this monitoring for several years now, and it has been very significant. If you recall, the largest pollution source in Hempstead Bay and the Western Bays was the Bay Park Sewage Treatment Plant outfall. That outfall has now been terminated and redirected to the Cedar Creek Wastewater Treatment Plant outfall where the discharge goes into the ocean.

It will be very interesting to see what improvements we begin to observe over time in Hempstead Bay. So, Rich, I think it would be worthwhile to have the team come in and give a presentation to the Council, perhaps early next year, and provide a report on the most recent data.

As Michael and I have discussed, atmospheric nitrogen may still be a significant issue. Even with the removal of the principal nitrogen source, which is the Bay Park discharge, we still have potential contributions from sources such as the Barrett Station fossil plant. It would be important to understand how much of a nitrogen load remains from atmospheric deposition. This is, admittedly, some very technical and 'wonky' material, but it's also excellent science. More importantly, it's where we can actually begin to see the results of public investments in environmental programs which is something we've spent a great deal of time discussing here.

While we are doing this in Nassau County, we have discussed possibly doing some monitoring in Suffolk County next year. As you know, Nassau County is nearly 90 percent sewered, while Suffolk County is only a fraction of that. As Suffolk progresses with its sewering efforts, we should be able to observe reductions in groundwater-based discharges that move laterally into the bays. There is some truly valuable data here, and we may soon be able to discern the improvements resulting from these capital investments in infrastructure. So, I think it would be very helpful to have a presentation on this.

**Micheal White:**
I just want to say I completely agree with everything you said, John. That's why I was trying to focus on how important this is to get the data out there. I've made that same point about the atmospheric deposition. I haven't seen that work done before, and this is a really important element to this project. So, Suffolk County still has a marine monitoring group in their water quality control. We might want to kind of suggest some of this as part of their work as well, so we can have them both on it. I am completely supportive. Thank you, John.

**Rich Guardino:**

We're delighted to have with us today, Richard Annitto, who is Vice President of Liro, GIS. Richard is going to be speaking about the Islandwide Economic Flood Risk Study.

**PRESENTATION**

**Richard Annito:**
Great. Thank you. Thank you for your time. Today, we're going to present the Islandwide Economic Flood Risk Study which is a study of the businesses, revenues, and jobs at risk across the coastal zones on both the North Shore and the South Shore.

Let me start with a little background. The Council has been very supportive of the use of Geographic Information Systems (GIS). I like to call it foundational technology. Some people call it "the science of location." For what the government does, location is critical and is one of the most important factors in decision making. The first study we conducted was a zoning and land-use study focused on the South Shore. We were trying to determine which businesses within what's known as the "blue economy" were at risk. We created a coastal zone roughly a quarter mile from the shoreline. Seventy-nine jurisdictions were included, and we found that this resulted in about 600 zoning designations which was enormous. We interfaced data from a company called Data Axle and focused specifically on blue-economy businesses to determine their economic value and potential risk. This turned out to be a very successful database. It can be used for development planning and economic studies, and it is currently available on the LIRPC website in the environment section.

From that study came an important question: What about other businesses and not just blue-economy businesses? The idea was to understand the broader flood risk to businesses, employees, and revenues. It is believed to be the first study of its kind, as most flood-risk studies focus on residential properties. For the South Shore study, we expanded the Data Axle data to include all businesses, not just blue-economy ones with the focus on the South Shore. The risk zones were created using FEMA flood zones as well as anecdotal zones that many South Shore residents know very well: areas south of Montauk Highway, areas between Montauk Highway and Sunrise Highway, and areas north of Sunrise Highway. During Sandy, all of these areas were affected.

That study was well received, which led to the next question: What about the North Shore? So, the idea was to expand the study islandwide. The challenge was finding a uniform risk dataset that applied to both the North and South Shores. The North Shore does not have the same clear road-based boundaries that exist on the South Shore (like Sunrise Highway and Montauk Highway). After evaluating options, we determined that the New York State Department of State Downstate Coastal Risk Areas dataset was the best fit. These areas were originally created after Sandy and have been maintained ever since. We expanded the jurisdictions beyond the South Shore to include applicable North Shore jurisdictions, and we updated the Data Axle businesses.

Let's talk briefly about these coastal risk areas. They are not limited to Long Island. They represent coastal risk distribution across New York State. The dataset focuses on flooding, erosion, wave and storm surge. The areas are classified into three criteria: Extreme, High, and Moderate. They are similar to FEMA flood zones, but not identical. FEMA zones are primarily used to determine flood insurance rates and regulate development.

Take a look at this slide. I apologize for the business of it, but I think it tells a good story. What you see on the left is the FEMA flood-zone map. The New York State coastal-risk zones essentially map to FEMA

Zone V (1% annual risk with wave action) and Zone A (1% annual chance with no wave action). The "High" category also aligns with Zone A, and the "Moderate" category are sort of Zone X, which has minimal flood hazard or a very small annual chance of flooding. Often, you'll hear that Zone A carries a 1% annual chance of flooding, which translates to a 26% chance of some flooding event over life of a 30-year mortgage. The colors are as expected: red for extreme, orange for high, and yellow for moderate. If you look at the middle image, you'll see FEMA Zone AE. In the state coastal-risk dataset, that single FEMA zone is split into multiple, more precise zones. The extreme is well defined. On the right, the dashed line outlines the FEMA zone, and you'll see that in some cases the "high" risk area extends beyond the FEMA boundary. So, while the two systems are similar, they do not match exactly, but they were sufficient for us to begin to map risk.

For the Island Wide Study, we analyzed 216 jurisdictions which is a substantial number. Of these, 139 were Census Designated Places (essentially unincorporated areas in Nassau and Suffolk), 73 were incorporated villages, plus the two cities in Nassau, Jones Beach State Park (which has businesses), and the Poospatuck Reservation in Suffolk County. For context, the original South Shore study covered 79 jurisdictions. The criteria for inclusion was that the jurisdiction had to intersect a New York State Department of State coastal-risk area. We then refined the dataset further. From the 2025 Data Axle data, we filtered down to only those jurisdictions that actually had business data that were located in a risk area. Some jurisdictions touched a risk area but had no business data in the area. After filtering, we had 177 jurisdictions, still a very substantial number. The points on the map represent the business locations used in the analysis.

Here are some notable findings that actually surprised us. We ran three analyses: islandwide (Nassau + Suffolk), Nassau County alone, and Suffolk County alone. We also analyzed outcomes by risk zone: extreme, high, and moderate. For each category, we calculated number of businesses, sales volume, and number of employees, both by raw numbers and also by percentages. What you see is that islandwide, about 6.7% of all businesses fall within the extreme risk zone. These businesses represent $3.5 billion in sales and almost 15,000 employees. Interestingly, of the 1,824 businesses located in extreme-risk zones, a substantial number are in Nassau County. This makes sense due to Nassau's higher population and business density, even though it is geographically smaller than Suffolk.

This slide was particularly helpful in fine-tuning the data analysis. We had to ensure that the totals aligned across counties as well as on the map, which drove the entire analysis.

I had 2 great people assist me. Kristine Blanco did the analysis, and Cristian Guevara is responsible for the actual website. The website is hosted in the cloud. We used Geographic Information Systems, and we created Community Profiles like we did in the original study. Those Community Profiles are available, so someone can go to their town, their city or their village, and determine what's at risk. And there's a map in it and some tables.

So Christian, I'll stop sharing. Can you start sharing?

**Jeff Kraut:**
Could you go back to the data you just had? I just have a question about definitions?

Particularly on the businesses, when I look at the South Shore, it just seems you've underestimated them. Do you include the hospitals? Because if you look at Good Samaritan on the South Shore, Oceanside and Long Beach, they are the largest employers in that region with billions of dollars of

revenue at risk. It just seems that this is underestimated. They're all in flood zones. Did you count in the largest employers in those regions?

**Richard Annito:**
Let me check that. They should be included in terms of employees.

**Jeff Kraut:**
Because it just seemed under high risk and extreme risk. I just know the hospitals exceed the number of employees. You know, it's substantial numbers. They're in the 1000s in each of those places.

**Richard Annito:**
Right, I will check that. I would say for example in Bayshore, right? Is that hospital location outside of coastal risk area? We will check that.

**Jeff Kraut:**
The Good Samaritan has flooded. Oceanside and Long Beach have flooded. So historically, I think it's in the risk zone and I know they pay for flood insurance. So, I want to be sure you included the healthcare employees in the data.

**Richard Annito:**
I would say they should be, but I will double check that.

**Cristian Guevara:**
So, as you can see here, we have the dashboard that we created using the ESRI tools. This is the same dashboard that Rich just presented in his screenshot, and it reflects the Islandwide Study we performed. This dashboard contains the same data Rich showed, but what makes it powerful is that it's fully dynamic. You can interact with it in many ways and explore the information directly. For example, this pie chart is going to show you the representation of the map as well as this table. They are all linked. Every time you zoom in, zoom out, or pan the map, the charts and tables automatically update based on what's visible on the screen. They are all dynamic. So, for example, if I zoom in here, you'll see all the values change to reflect only the businesses within the current map extent. You can also focus on any specific jurisdiction. If I click on this jurisdiction, you'll notice that all other business locations fade out, filtering the data so that only this area is highlighted. The table and the percentage breakdown update to show only the data for this jurisdiction. In this case, the Village of East Moriches.

We also have two interactive options on the right. The first is a link to the First Street flood risk zones. This is publicly available data and allows you to get a more precise look at the long-term likelihood of flooding. You can adjust the probabilities to explore different scenarios. You'll also see the jurisdiction boundary appear instantly, which is extremely helpful for context. The second option is a downloadable PDF profile. Each jurisdiction has a profile with the same dataset summarized in a clean report. When you switch to a different jurisdiction, the PDF link and all the corresponding data update automatically. This is really powerful.

You can also start by using the filters. For example, if you select a jurisdiction from this dropdown list, the map will automatically zoom and pan to that location and filter all the data accordingly. Now, let's say you want to run an islandwide analysis, but only for the extreme risk areas. You can apply that filter here. Once selected, the map will show only the business locations that intersect with the extreme risk zones. This ability to isolate risk categories is extremely valuable.

Let me reset the filters so I can show another feature. Below, we have a bar chart that shows the most impacted communities islandwide based on sales value, not number of employees. In the current view, Freeport Village is ranked first because it appears across all three risk categories. But if I want to see the ranking only for the extreme risk areas, I can select that category, and the chart updates immediately. Now, as you can see, Cedarhurst Village ranks first in extreme risk exposure. I can combine categories too, Extreme and High, just High, or High and Moderate, and the chart updates accordingly. The same functionality applies if we want to analyze only Nassau County or only Suffolk County. There are lots of ways to play with the data.

So overall, the dashboard provides a powerful, interactive way to analyze and visualize the data.

**Michael White:**
Could you indulge me for a moment and go to the North Shore and show me the Huntington region?

**Cristian Guevara:**
Can you help direct me where you would like to look.

**Michael White:**
You see Lloyd Neck? Just to the east of Lloyd Neck please.

**Cristian Guevara:**
Okay, so let me show you another example. You can also change the basemap if you want a clearer view of the business locations and surrounding areas. Using the widget here, you can switch to a different basemap depending on what you need. For instance, if you want a simpler view, you can turn off the coastal-risk areas and display only the business locations or vice versa. That flexibility is very helpful.

Let me switch back to the topographic basemap for better rendering performance. Another feature we built is the heat map. If I turn off the business locations and enable the heat map, you can see the concentration of businesses by sales volume. You'll notice that the highest concentrations are in the southwest. We also created a heat map by employee size, which looks a little different but still shows significant concentration along the South Shore. These heat maps are dynamic. They adjust based on the zoom level and map extent which gives you another layer of perspective on the data. For additional context, we also included the areas that were flooded during Hurricane Sandy. This provides important historical perspective when examining current risk levels.

So that's an overview of the study and the dashboard features. I'm happy to take any questions you might have.

**Michael White:**
And the categories of the risk here is flooding, coastal erosion and storm surge?

**Cristian Guevara:**
Yes.

**Richard Annitto:**
Michael, that is the way the Department of State defines the three regions. It's a little different than FEMA, but it's analogous, right? It's really, in my opinion, flooding risk. Thank you.

**Alan Belniak:**
Next, we will take question from the Council members and then open it up to the audience. As a reminder or in case anyone joined late, you have a couple ways to ask questions. You can share a comment or ask a question. You can use the Q&A function below, as a couple of you already have, and we'll get to in just a moment. Or you can use the raise hand option. It's sometimes bundled within the react button. If you click the little up arrow or click the little heart on react, you'll see raise hand, and we can pull you on audio when the time is right.

First question in the Q&A is from Jeff H. And Jeff asks, "Why not use the federally approved New York State coastal area boundary as your study area?"

**Richard Annito:**
Jeff, this is Rich Annito. So, what we use and what was available was NYS GIS Clearinghouse data. That was the data set that we thought was the most appropriate. And for the entire maritime coast, that's correct. We just focused on Nassau and Suffolk, but it's also available for New York City. I see that.

**Alan Belniak:**
I'm just going to read the question out loud so everyone can hear it. Okay. So, Jeff followed up with "New York has also developed coastal risk areas for entire maritime coast," which I think you just replied to, and the next one is a little more detailed. For everyone following along, so they can hear, "The difference between the FEMA and DOS risk areas is that we incorporated FEMA flood zones with the slosh models, the hurricane storm surge and NOAs coastal flooding and inundation model, coastal erosion areas and factors for sea level rise." So, if you want to address that, sorry, I just want to make sure everyone can follow along.

**Richard Annito:**
Yeah, that's great. Thank you. Jeff is the expert on the coastal management areas, so thank you very much for helping describe the differences.

**Alan Belniak:**
Awesome. Appreciate that comment Jeff and again, nice work. All right, at the moment, that empties out our Q&A any raised hands. Anyone want to offer up a comment or a question in the audience?

**Michael White:**
John, on that point, I just want to offer a suggestion. I know this would be additional work, but there are still many communities working on local Waterfront Revitalization Plans and other coastal planning efforts. If there's a way for us to proactively let them know that this dashboard and study are available, rather than hoping they'll find it on our website. I think that would be extremely valuable. Whether it's through a letter, an email, or some coordinated outreach, it could make a real difference. As we all know, we deal with a lot of jurisdictional fragmentation on Long Island, so information doesn't always flow evenly from one community to another.

I think this is such a great opportunity to get this work in front of the people who can truly use it, especially since, as was said earlier, this really is one of the first studies of its kind. I think communities would appreciate having access to it.

**John Cameron:**

Yes, there's some very valuable information here that we've discussed. One of the reasons we funded this study was not only for environmental purposes, but also for business and governmental reasons so we can better understand our risks. We all know we live on an island, and with that comes significant vulnerability. While this study focuses primarily on coastal impacts, we also have inland areas on Long Island that are subject to flooding from heavy rainfall. Suffolk County Executive Romaine has expressed serious concern about that as well.

The more we can serve as a central repository for this kind of valuable information, the more effectively we can provide the services that residents expect and rely on. This type of data helps us plan, prepare, and respond in ways that truly support our communities.

**Richard Annito:**
Okay, so I will have few more slides.

To follow up on what John just said. We discussed this in the original study, and the Council was very interested in getting more definition around not only coastal flooding events but also rainfall driven flooding. As we've all seen across the nation, there have been tragic rainfall events, such as those in the Hill Country of Texas where flooding happens extremely quickly. Traditionally, flood-risk modeling focuses on coastal or river flooding, but the frequency of these intense precipitation events is increasing.

So, the coastal risk areas don't tell the whole story. What we're beginning to see, especially here in the Northeast, is surprising. If you look at the graphic on the right, the percentage of heavy precipitation events has become more frequent, and the Northeast is actually leading the country in that trend. On the left, the graphic shows that the number of days with extreme precipitation has increased and quite dramatically. John Cameron noted in one of our meetings that Long Island does benefit from permeable soils, but we also have very high levels of impervious surface. If you look at that graphic, especially over western Long Island and Nassau County, you can see just how extensive the impervious areas are. Suffolk County has less, but still a significant amount. This combination increases runoff and heightens the risk of flash flooding.

So, we asked the question: How can we better understand the effect of a major rainfall event? Most people remember the rainfall event from August 18th and 19th of 2024. It was a massive storm that dumped a tremendous amount of rain in a very short time. One of the graphics you'll see is from a NOAA climate report showing extremely high precipitation on the North Shore of Long Island. The accompanying photo taken in Port Jefferson shows complete street flooding in front of a business. What we did was incorporate this rainfall event into the dashboard.

Actually, let me pause here because what we should do is switch over to the map demonstration, because that will make it much clearer. Christian, I'll turn it back to you. Please go to the rainfall event tab so we can show how, in addition to the coastal flood-risk study, we've built a section that brings the August 2024 rainfall event to life and how it may be just as important to understand as coastal flooding.

**Cristian Guevara:**
So, as you can see here on the right, we have a link that lets you view the rainfall event. This opens another dashboard which, like the main one, is publicly available. It's a little less elaborate, but still very powerful. In this dashboard, we can see how several North Shore communities were impacted by this catastrophic rainfall event. For these five jurisdictions, we can view the amount of sales affected, the number of businesses impacted, and the total number of employees impacted by the storm.

We've selected three locations that were hit particularly hard during this rainfall event. You can also see, in gray, the same New York State coastal-risk layers we used in the primary study. This helps show the relationship or sometimes the lack of overlap between coastal risk areas and rainfall-driven flood events.

One helpful feature is that when you select any of these events, you can use the hyperlink to open related news articles or reports. These provide additional detail, context, and accounts of the flooding and its impacts. Short and simple, but it helps bring the story of these rainfall events to life.

**Richard Annito:**
I hate to interrupt you. Can you zoom out on the map for a moment? One of the things we discovered during this work is that there really wasn't a strong existing data source for the rainfall information. So, what Kristine Blanco had to do was create approximate rainfall zones based on a National Weather Service map.

This is one of the powerful aspects of GIS: you can take an external data source, overlay it, and essentially bring that map into the real world. Kristine was able to translate that National Weather Service graphic into approximate rainfall amount zones right on the map. You can see how substantial these amounts were. On the right, those areas received eight to almost ten inches of rain, which is an extraordinary amount in such a short period of time.

The stars you see on the map correspond to links that bring users to known media reports about the flooding. They help provide context and show the real-world impact. Christian, if you could click on the middle one. That link takes you to a story map that does a terrific job summarizing the flooding event regionally, not only on Long Island but also in Connecticut. You'll see the same photo of Mill Pond which was a complete washout. And if you look again at the National Weather Service map, that's the map Kristine used to build the zones you see here.

That map Kristine used allowed us to approximate the rainfall amounts across the region. She georeferenced the map to bring it into the real world, then created a surface showing the approximate rainfall totals for different areas.

Christian, you can continue with what you were showing. This is a really valuable information source. It not only describes the event itself but also links to external resources and brings the context of Long Island into focus for a real event that occurred.

Christian, if you could go back to the map. One more thing to note is the third point, which relates to Stony Brook University. We worked with a contact there whose daughter was affected, and the campus itself was hit by a flash flood. The impact was substantial: classes were canceled, power was lost, and there was some property damage. Quantifying that type of impact is difficult. Unlike a business closure or job loss, the economic effects of this kind of disruption aren't easily captured. This highlights an important future task for the community: how do we better collect and quantify data on rainfall events because it appears they are going to be more consistent? For example, we could look at insurance claims in Stony Brook or Head of the Harbor to understand the true effect of such events. Everyone is familiar with the Mill Pond situation and the costs of rebuilding, but the impact on local businesses and broader economic activity isn't fully captured anywhere. There's clearly a lot more work to be done in this area.

Christian, is there anything else you want to show on the map?

**Cristian Guevara:**
I just want to quickly address a question I saw in the chat. Yes, you can export this data. Anytime you feel comfortable, just click on the three dots in the dashboard, and you'll have the option to download the summarized data as a CSV file.

**Alan Belniak:**
There are two comments, one from Jeff saying he will be sending this link out to LWRP division, which is great. Sarah also said that she will be sharing the info with her municipal list of contacts. Thank you for those two comments.

Another comment popped in. Shannon asks a couple questions "So municipalities can see all individual assets in each risk category with the associated attributes like money, employees and so on?"

**Richard Annitto:**
Yes, in the community sheet. Christian can show that.

**Alan Belniak:**
And while Christian pulls it up, Shannon had two follow on comments. "What about a full list of assets in their risk attribute?"

**Richard Annitto:**
I do not believe that that data can be shared. Part of the Data Axle license agreement was that we're unable to share individual businesses data. So, we have to summarize it the way the current license that the Council has with them.

**Alan Belniak:**
"Got it understood. Thank you."

**Cristian Guevara:**
If you want to just look at one locality, you just pick that one, either from the map or from the drop down here at the selection tool. You can pick any factors you are interested in. If you want the island wide study summarized information, you can download that data.

**Nancy Engelhardt:**
I just had a quick question. I looked at the list of attendees, and I didn't see any representation from PSE&G or National Grid. I'm wondering, Christian and Richard, do you have a relationship with them? Have you shared this very rich and resourceful map with any of their employees, especially those in emergency preparedness or related departments? I'm a little surprised not to see anyone from those utilities on our attendee list.

**Richard Annitto:**
No, Nancy, we haven't shared it yet. It's certainly available. That's a great point. There should probably be some outreach to them. I do believe this map and dashboard would be valuable for their planning and restoration purposes.

**John Cameron:**
It's true that utilities don't typically attend council meetings on a regular basis, but they're welcome to participate just like any other individual. We send out announcements about the subject matter, and it's up to them to decide whether to attend.

**Richard Guardino:**
We'll make sure to send the link to this presentation to representatives from both PSE&G and National Grid so they have access to the information.

**John Cameron:**
I think Rich, maybe Tom Locascio, over at LIPA can make sure it gets distributed to the appropriate authorities.

**Richard Annitto:**
Christian, I'll go back to just sharing. So, that is the end of our presentation. Jeff, I owe you some information on the health agencies, and the hospital chains. Pretty sure it's in there, but I definitely want to confirm that for you.

**John Cameron:**
Yeah, not just the employees Rich, but also the gross sales. Jeff, yes, very good point.

**Alan Belniak:**
There was one other question in the Q&A. Jeff asks if it's possible to click on the dots that represent the businesses to see the name and other stats associated. I'm wondering if that's a no because of the aggregation roll up.

**Richard Annitto:**
Alan, that we're not allowed to do by the license agreement with Data Axle.,

**Alan Belniak:**
That's why I thought, but good to get it out there. So, with that, there's no other hands raised, and there is no other questions in the Q and A. John, back to you.

**John Cameron:**
Okay, thank you, Alan. And Rich, Christian, thank you very much. We really appreciate the quality of the work you've been doing for us. It's extremely valuable. As was mentioned, the dissemination of this information is key. Making sure it reaches the right audiences will help us fully leverage and optimize the work that's been done.

**Richard Annitto:**
Thank you, John. We really appreciate the Council's support over the years and the commitment to using technology to help address and solve some of these challenges. These problems are going to be solved in many ways, like Sarah mentioned with the work in Suffolk County, and as you noted with Bay Park. GIS technology is a perfect complement to those types of projects and types of forward-looking initiatives.

So, thank you again. We truly appreciate your time and support.

**CHAIRMAN'S REPORT**

**John Cameron:**

Okay, thank you very much, Rich. As many of you know, I typically begin my Chairman's Report with a look at global, national, state, and regional developments, because these issues ultimately affect all of us here on Long Island. I'll try to summarize my thoughts on each of those areas.

Globally, there has been a great deal of news since our last Council meeting. The war between Russia and Ukraine continues to rage. A ceasefire agreement was recently reached between Israel and Hamas, the Palestinian terrorist organization. That agreement had previously been broken by President Trump's administration. Hopefully this new peace can be sustained, though we know how challenging that can be. The President now appears prepared to attempt to broker a similar ceasefire agreement between Russia's President Putin and Ukraine's President Zelensky. We will see whether such an accord can be reached in a timely manner.

Nationally, the major news continues to center around the government shutdown, which began on October 1 and remains in effect today. This stalemate reflects stark philosophical and political differences between the Democratic and Republican parties. The focus appears to be on healthcare funding, specifically, eligibility and reimbursement levels. These decisions could have significant implications for healthcare networks, state budgets, and for individuals whose health insurance may be terminated due to their status which may be that they are undocumented immigrants or individuals who have the ability to work, but are not working. The Republicans argue those are the only people that would be affected.

The President appears to be using the shutdown as an opportunity to cut the federal workforce and reduce programs supported by Democrats, including green energy, DEI initiatives, and certain social programs. Another major source of friction between the White House and Democratic leadership is the rampant crime in several major U.S. cities. In an effort to quell some of the violence, the President has deployed National Guard troops and ICE agents to various high-crime areas. This has triggered backlash from a number of Democratic governors and mayors. The discord and division among Americans has escalated to extreme levels, evidenced by two attempts on the President's life and the assassination of Charlie Kirk, the conservative leader and founder of Turning Point USA. This level of division has not been seen since the days of the Vietnam War and the Civil Rights Movement of the 1960s.

Regionally, tensions remain high. In response to verbal attacks from Senate Minority Leader Chuck Schumer and House Minority Leader Hakeem Jeffries, the President has increased pressure by not only suspending funding for the $16 billion Gateway Tunnel Project which is the largest construction project in the country but now announcing that its funding has been "terminated." While this may be a strong negotiating tactic, it has major consequences for thousands of construction workers and risks delaying or halting a critical infrastructure project that would replace the 115-year-old Hudson River rail tunnel connecting Penn Station and New York City with New Jersey Transit and Amtrak.

Regional news over the past few months has also been dominated by the New York City mayoral election. The race pits Democratic Socialist Zohran Mamdani against now independent candidate and former New York Governor Andrew Cuomo, and Republican nominee and Guardian Angels founder Curtis Sliwa. Barring a major Election Day surprise, it appears that Zohran Mamdani will be elected the next New York City mayor. If Mamdani follows through on his campaign promises for transformational change in the city, those plans include major increases in business and personal taxes, rent freezes, reductions in police-department funding, government-owned grocery stores, free public buses,

strengthened sanctuary laws for immigrants, free childcare, shifting positions on closing Rikers Island, removing misdemeanor offenses, and eliminating the specialized high-school admissions test for high achieving students, which he argues is discriminatory against Black and Hispanic students. On top of these controversial positions, he has stated that if Israel's Prime Minister Netanyahu visits New York City, he would have him arrested which is a bold statement in a city with over one million Jewish residents, the largest population in any city proper in the world.

Here on Long Island, the outcome of the New York City mayoral race can have significant consequences. Roughly 300,000 Long Islanders commute to the city each day. If the transformative policies proposed by Mamdani are implemented, including significant increases in taxes and reductions in public safety, there could be a major exodus of residents and businesses not only to Florida, Texas, the Carolinas, and other states, but also to neighboring suburban regions such as New Jersey, Connecticut, the lower Hudson Valley, and, yes, Long Island. While that influx could bring economic and population growth and certainly opportunities, it would also create substantial challenges. Our infrastructure (water, sewer, solid waste, and electricity systems) would feel the strain, as would our schools, healthcare facilities, and police and fire departments. The resulting reduction in New York City's tax base would increase the pressure on the state to subsidize city programs, leading to higher state taxes and worsening Long Island's existing tax imbalance which is already nearly a $15 billion annual subsidy of state operations.

Locally, counties and towns on Long Island are holding elections in the coming weeks. Typically, there is not much turnover in these races, but we'll see if this year is different. Many actions by local governments have been put on hold pending the outcome of these elections.

In closing, we all know we are living in challenging and uncertain times. It will take all of us to not only speak out for the values and principles we believe are right, but also to apply our talents and resources to bring about positive change, and to make this world and this Island a better place for our children and grandchildren to live. Right now, we have a lot of catching up to do.

Thank you, Rich. That's all.

**EXECUTIVE DIRECTOR'S REPORT**
**Rich Guardino:**
Thank you, John. At this point, I'd like to give the Executive Director's Report.

In July, the Council released an RFP seeking proposals from qualified firms to conduct a comprehensive Watershed Action Plan for the Connecticut River Estuary. The Connetquot River, spanning 18 square miles from central Long Island to the Great South Bay, is one of the region's most significant river ecosystems, but suffers from environmental impairments. The River supports a vibrant recreational waterfront economy. Developing a watershed action plan will build on Suffolk County's clean water investments to take a comprehensive, sustainable approach to restoring water quality, protecting natural habitats, revitalizing recreation and strengthening the local economy. We've received proposals, and a selection committee has been assembled. The committee will meet over the next few weeks to select the best proposal for the project.

The LIRPC contracted with Siena Research Institute to conduct a public opinion poll aimed at understanding the motivations and attitudes of homeowners towards fertilizer and identify effective messaging to encourage less fertilizer use. As you all know, fertilizer contains nitrogen, which can leach into groundwater, bays, harbors and estuaries. Results of the poll will be used to inform a community

based social marketing campaign aimed at reducing fertilizer use. The poll was completed last month, and the final draft of the report has been submitted to DEC for their review.

The Long Island Water Quality Challenge is now in its seventh year. The Long Island Water Quality Challenge encourages middle and high school students to develop green infrastructure that can make an impact in reducing nitrogen pollution on school grounds. Stormwater runoff on school property is one way that nitrogen pollution out of the contaminants are transported through the watershed. Teams with the highest scoring proposals will be awarded an optional grant of up to $2,500 for project implementation on school grounds. Letters of interest are due back from the student teams by November 7 and we will announce the winning teams in March of 2026.

Finally, on Nitrogen Smart Communities. The initiative encourages municipalities in Nassau and Suffolk Counties to take action to reduce, prevent and eliminate nitrogen pollution on our waters. The program helps identify sources of nitrogen at a local level and implement community specific plans of action addressing these priorities. We're privileged to have the Town of North Hempstead and the Town of Smithtown as the two pilot municipalities participating in the program, and we're delighted to announce the Town of Smithtown has recently earned bronze level certification by enlisting community long term support and participation of the program. The Town of North Hempstead is currently working their way to the same level.

That completes my report.

**John Cameron:**
Thank you, Rich.

New Business?

Alan, any comments or hands raised.

**Alan Belniak:**
One more call to the members of the public to either raise your hand or use the Q&A to signify comments or questions. John, nothing popping into the Q&A and confirming there are no hands raised at the moment.

**John Cameron:**
Okay, let's see what happens on election day. It could be very interesting time. So let's keep the faith. Look forward to seeing you all probably next month. Stay well, everybody. Thank you.

**Motion to adjourn.**
**So moved. All in favor.**