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TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON ENVIRONMENTAL PROTECTION

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B E F O R E: COSTA G. CONSTANTINIDES, CHAIRMAN

COUNCIL MEMBERS: STEPHEN T. LEVIN
CARLOS MENCHACA
ERIC A. ULRICH
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A P P E A R A N C E S (CONTINUED)

SAMARA SWANSTON, Community Counselor and Moderator

VINCENT SAPIENZA, Commissioner of New York City Department of Environment Protection

PAM ELARDO, Deputy Commissioner

MICHAEL DELOACH, DEP Deputy Commission from Bureau of Public Affairs and Communication

DIMITRI KATEHIS, Director Bureau of Wastewater Treatment

GAIL BREWER, Burrough President

PAUL STARELLA, Runs AE Com Water Group in New York

JESSICA FRANKIN, Representing ANDA

SARGEANT HOPE: PC recording has started.

SARGEANT AT ARMS 2: According to the cloud, ready to go.

SARGEANT AT ARMS: Backup is rolling.

CHAIRPERSON COSTA CONSTANTINIDES: Thank you and this time will Sargeant Hope please take it away.

SARGEANT HOPE: Thank you, good morning. And welcome to today's remote Council hearing on Environmental Protection. At this time, would all panelists please turn on your videos. I repeat, at this time would all panelists please turn on your videos. Thank you. To minimize disruption, please place all cellphones to vibrate or silent mode. If you wish to submit testimony, you may do so at testimony@council.nyc.gov. I repeat testimony@council.nyc.gov. Chair, you are ready to begin.

CHAIRPERSON COSTA CONSTANTINIDES: Thank you very much Sargeant Hope. Uhm, good morning everyone. My name is Costa Constantinides, I am Chair of the Committee on Environmental Protection. Uhm, today we will hold an oversight hearing on the environmental justice impacts of COVID-19 sewage

disposal and hear two bills, Intro 1966 of 2020 and Intro 244 of 2018. Intro 1966 is a local law in relation to creating a pilot program to test sewage for COVID-19 RNA and Intro 244 is a local law to amend the administrative code in relationship to the sale of non-woven disposable products. SARS-COV-2 is a new human coronavirus that can spread through close personal contact via respiration of aerosols even by interaction with surfaces. The ongoing coronavirus pandemic in the United States has already sickened more than 8 million Americans and killed more than 222,000 Americans overall. Longstanding systemic health and social inequities have put many people from black and brown communities at increased risk of getting sick and dying from the coronavirus. Furthermore, it is not just increased risk, according to John Hopkins expert, Sherita Golden, M.D., people of color, particularly African-Americans are experiencing more serious illness and death due to COVID-19 than white people. In fact, African-American counties account for more than 50% of the coronavirus cases and nearly 60% of the coronavirus deaths. Research indicates that nominal coronavirus is present in stool and urine samples in sufficient

quantity that wastewater testing can serve as full community monitor. Until concrete data regarding the infectivity of viral particles shed via these roots is established, due care should be exercised assuming a potential for infectivity. Coronaviruses have been known to spread through wastewater systems, through the respiration of aerosols created by toilet flushing or even by faulty plumbing systems. Similarly, the novel coronavirus has been detected in fecal samples as well as in wastewater. It not yet clear whether active viral particles are present in fecal matter in sufficient quantities to present a plausible pathway for infection. Assuming viral particles in the sewer system through a variety of potential ways of exposure including the waste from treatment plants. Moreover, aerosol formation during a treatment process can pose a risk to wastewater treatment plant operators and facilitate dissemination. Inactivation of the coronavirus has not been studied in detail and the coronavirus has been detected in treated wastewater. Tertiary treatment, microfiltration, ultrafiltration and ultrafiltration in membra via reactors has been shown to increase removal of anoretic viruses in comparison

traditional wastewater treatment plant removal. However, the wastewater plans do not remove the virens entirely and highly influent viral loads can lead to insufficient reductions of viruses before discharge. While the impact of the novel coronavirus in wastewater can be tested, the presence of a novel coronavirus in sewage slides or bile slides is less likely to be detected because DP has multiple contracts with service provides that biosolids transport and re-use or dispose of our city's bio solvents. The NU sites are the discretion of the contractors, subject DPs approval. The location for biosolid disposal is distributed throughout the northeast in other states, Ohio, Pennsylvania, New York, Georgia, Virginia; however, when we are sending our biosolids to other locations or 1,000 miles away to Georgia, evidence of whether the corona bile remain viable or remain infectious is uncertain. In 1966, in relation to creating a pilot program that tests sewage for COVID RNA would require the Commissioner of DEP and consultation with the Commission of Health and Hygiene to create a pilot program to test the City's wastewater plants for the presence of SARS-COV-2, the strain of coronavirus

that causes COVID-19 and submit a report with the results of the program. Intro 244 of 2018, would prohibit a retailer from selling non-woven disposal product unless it complies with testing standards established by the Commissioner of DEP. I understand the spread of the novel coronavirus through the community is an intraictal part of formulating litigation strategies. Monitoring wastewater and sewage slides can provide near and real time data pertaining to the rates of infection in the general public, enabling Public Health Official to craft better and more targeted responses to community spread. I want to thank our community staff, our community counselor and moderator today, Samara Swanston. Thank you, Samara as always. Policy Analyst Nadia Johnson and Nikki Challa, thank you Nadia for your test messages, keeping me on point. Financial analyst, Jonathan Seltzer, my own legislative director, Nicholas Mazowski (SP?) for all of their hard work. Of course, everyone who was not named who is behind the scenes making this Zoom possible. Thank you to our technical staff and course to all of our hard working Sargeant at Arms who are making sure that we can get all of this done.

Thank you for all of your hard work as well. So, with that, I will turn it over to our moderator, Samara Swanston to swear in our first witness.

SAMARA SWANSTON, MODERATOR: Thank you, I will now deliver the oath to the Administration and I will call on each of you to individually record your answer to be followed by your testimony, so, please raise your right hands. I'm directing this to Vincent Sapienza, Pam Elardo, Michael DeLoach and Dimitri Katehis. And that's everybody, okay, can you, do you affirm to tell the whole truth and nothing but the truth before this Committee and to respond honestly to the Council Members questions?

VINCENT SAPIENZA: I do.

PAM ELARDO: Yes.

MICHAEL DELOACH: Yes.

DIMITRI KATEHIS: Yes.

SAMARA SWANSTON, MODERATOR: And now, I will turn it over to questions uhm excuse me, and now you may testify when ready, starting with Vincent Sapienza.

CHAIRPERSON COSTA CONSTANTINIDES: Can I quickly just recognize, I know Council Member Levin

and Council Member Yeger, both from Brooklyn are on the meeting today. Thank you.

VINCENT SAPIENZA: Thank you. Okay, I'll begin, good morning, Chair Constantinides, it is good to see you and members of the Committee on Environmental Protection. I am Vinny Sapienza, the Commissioner of the New York City Department of Environmental Protection. I am here today to speak about COVID-19 and non-woven disposable products. These are important topics and I thank the Council for focusing on them. I am joined here today by DEP Deputy Commissioner from our Bureau of Public Affairs and Communications and by Deputy Commissioner, Pam Elardo and Director Dimitri Katehis from our Bureau of Wastewater Treatment. The first agenda item today is the Environmental Justice impacts of COVID-19 sewage disposal. Environmental Justice is a critical factor in DEPs mission to protect public health and the environment. We thank the Chair for his leadership and advancing Environmental Justice across the City. We carefully consider public health, environmental and social impacts of all DEP projects and operations including the design and construction of our green infrastructure assets, the

prioritization of water bodies in our CSO Control Program and our Affordability Programs for rate payers. For our Wastewater Treatment Programs we go above and beyond the discharge of clean, treated water, working to recover valuable resources and reducing the amounts of waste that cannot be recycled or re-used. For example, we landfill about 70% of our biosolids, along with screenings as well as an estimated 40 to 50,000 tons of scum, which is grease per year that we collect in the treatment process. While we are investing in and planning to achieve 100% of beneficial use of biosolids we are currently investigating adding scum to onsite digestion to increase production of valuable biogas for beneficial reuse. There is no credible evidence that the coronavirus can be transmitted through wastewater exposure. This question has come up and so I want to answer it directly. Genetic material or the RNA fragments within the virus can be detected in wastewater, this is different from the infectious virus itself. In fact, the coronavirus breaks down in sewage more easily than other pathogens that we regularly treat for. So now, on to Intro 1966, the presence of coronavirus in waste ties in to Intro

1966 which calls for a pilot program to test sewage for COVID-19 RNA. Sewage testing has a potential to identify corona, COVID-19 outbreaks. We share the Council's goal of having an effective testing program in the City. Since the spread, DEPs Bureau of Wastewater Treatment has been implementing molecular monitoring techniques in sewage and coordinating with the New York City Department of Health and Mental Hygiene. The work has a potential to identify hot spots and provide early warnings about disease spread. Similar programs have been established in other cities around the country and the world. DEP has engaged with national experts to define the state of the science and assess the role that virus tracking can play. We are working directly with a team from the City University of New York and New York University, Stanford University and the University of Michigan and also leading utilities from across the US to refine the sampling and analytical methods to tract genetic material, the RNA from the novel coronavirus in the city's wastewater. In the short term, the data collected will allow us to assess trends in genetic material, concentrations of the virus that causes COVID-19 within the sewage

for each of the City's 14 sewer sheds. Preparing for the long-term, we are building protocols and infrastructure that can be used in the future to monitor sewage for potential outbreaks of a number of viruses such as common influenza. The tools that we are developing are not just useful for COVID. The project included collecting samples from all 14 of our wastewater recourse recovery facilities twice per week. Our testing covers every neighborhood in the City because every neighborhood is a part of the sewer shed as illustrated and you will have the testimony on paper in front of you but there is a map that shows the sewer sheds. We are able to conduct the necessary analysis in house at the Newtown Creek Microbiology Laboratory. At this stage, the analytical testing technology is well-developed. A technical gap will remain due to the multiple, multi-day steps and the labor-intensive nature of the analysis. We are further refining the process, and we are in the process of procuring equipment such as additional centrifuges and analytical equipment. DOHMH is early on the process of determining how they may be able to use the information we send them and how it may help with disease surveillance and

decision making. Preliminary comparison suggests that this may be a promising contribution to existing public health data streams. We want to suggest some technical edits to the Bill language for Intro 1966 to align with our Bill testing methods and best suited for work that we are doing right now. We support the Bill's intent and we thank the Council for supporting us in this effort. Now on to Intro 244, the final agenda item today is Intro 244 of 2018 which relates to wipes being flushed into the sewer system. I want to thank you for moving forward with this issue. As the Council is aware, flushing anything other than human waste and toilet paper can cause serious problems in the system. Foreign objects like wipes damage the equipment at our Wastewater Resource Recovery Facilities and contribute to fat burgs that block sewer pipes. Even wipes that are labeled flushable should not be flushed. Preventing items from being flushed is critical to protect City and private infrastructure. DEP spends nearly $19 million annually to remediate the damage caused by these clogs such as cleaning sewers, disposing of wipes and repairing damaged machinery. The prevalence of wipes has increased

significantly over the last decade. Over the same period, the sales of wipes have increased as well and there is a graphic as well as in the written testimony that shows the correlation between the amount of wipes, we are removing from the wastewater system and the sale of wipes. We want to propose significant changes to the bill text incorporating what we have learned from and accomplished since the Bill was introduced in 2018. The International Water Services Flushability Group or IWSFG is an international body of experts who established standards in 2018 to determine whether something is truly flushable. Changes to the City's sewer regulations went into effect in March of this year. The rules now prohibit any item that does not reach the IWSFG standard from being discharged into the sewer system. These are important developments since Intro 244 was introduced in 2018. We also launched a Trash It Don't Flush It behavior change campaign last year. The campaigns purpose was to inform people about what is flushable. The campaigns targeted wipes, grease and any other items besides toilet paper. Everything that contributes to fat burns. We re-launched the campaign from April to June of this

year to remind the public about this important issue. Unfortunately, we have not seen a significant change in wipes in the system. DEP has been engaged in a multi-year, multi-prong effort to address the prevalence of wipes in our sewer system and we have made multiple public education attempts including doubling down on public education since the onset of the pandemic. We have changed the sewer use rules this year to prohibit flushing these items. Despite our efforts, we continue to see wipes and other debris in our pipes and in our plants. We have been unsuccessful in eliminating the problem so far and so we are grateful to the Council's partnership on this issue. Thank you again for the opportunity to testify today. My colleagues and I are happy to answer any questions you may have.

CHAIRPERSON COSTA CONSTANTINIDES: Thank you Commission, always good to see you and to see your team as well. Pam, I miss seeing you at the Jackson Heights Green Market uhm it's always good to see you as well. So, I guess I will start off with just a few questions. You brought up the centrifuges and other equipment, do we have like an ETA on what that equipment will be procured and will be able to

move forward with more robust of testing as you talked about?

VINCENT SAPIENZA: Yeah, so uhm, I'm going to let Pam and Dimitri answer the question. But now again thank you for your comments also at the beginning. We've, we've done a lot of good work this, this past spring and summer and I got to you now personally visit our Newtown Creek Lab a few times and seeing how the ramp-up is going but there is some additional equipment that we need. We were able to hire three new employees to do this work but Pam or Dimitri do you have an answer on the procurement?

PAM ELARDO: Yeah, so first of all I would just like to acknowledge the support that we had throughout much of New York City and the community and beyond including Bureau President Gail Brewer who is interested in helping us set up the COVID testing lab and we've got the lab set up. It was right after I would like to recognize Dr. Dimitri Katehis and his team. He is not a medical doctor but he does have a PhD. So, he has, he was instrumental in getting that set up and collaborating across the country to make it happen so, as you can imagine it

is very difficult to take sewage and look for very fine strands of RNA that are extremely low concentrations and we had some existing equipment and we were able to secure filling those vacancies and we would like to increase our through puts, so I would like Dimitri to give us just a couple of details on that if you don't mind.

DIMITRI KATEHIS: Certain, uhm, and thank you again for the opportunity to testify. The procurements were initiated once we received approvals in the summer. We've had a couple of challenges, basically the equipment is rather hard to locate right now and was on backorder. The centrifuges are coming in from Germany, so they are in route as I understand with a delivery anticipated in mid to late November. The associated analytical equipment is also on backorder and we expect that to come a little before Christmas. Okay.

PAM ELARDO: But I would like.

DIMITRI KATEHIS: I…

PAM ELARDO: I would just like to acknowledge that we currently are sampling a number, Dimitri just tell us how many samples per week that

we are doing and what, what the new equipment will bring us up to?

DIMITRI KATEHIS: Well, we currently were executing approximately 40 samples per week, recognizing that this is a rather laborious method. With the new equipment online, we anticipate to a little over double that. While, reducing the time frame from three days to two days to get local results back.

CHAIRPERSON COSTA CONSTANTINIDES: And how closely are we working with the Department of Health on this? Uhm, I look at Boston and they may be looking at almost exponential outbreak where like hours and minutes matter. Uhm, so how are we coordinating with the Department of Health on the stuff that we are finding and, and moving forward?

VINCENT SAPIENZA: Yeah, so I'll start and then I will turn it over to, to Pam and Dimitri. But now it's a good question in that the test and trace program that I think we have done locally has been superb and that is how we have really been able to keep the pandemic tamped down to the extinct that we have compared to you know other places around the country, but the traditional test and trace programs,

they do have some shortcomings. If people aren't going to get tested, it is issue and in especially in EJ communities it can be tough. You know where you are potentially, at home watching kids who are tele-learning or your spouse was laid off and you are working extra shifts, extra jobs. It is sometimes tough for you to get out to get tested and those people can get missed through the traditional test and trace program but by analyzing sewage, you know if you are infected, even if you are asymptomatic you are potentially shedding that virus through the sewer system and we can detect it and it helps us to get that information fairly quickly and share it immediately with the Health Department. Uhm turn it over to Pam now because she's, she's been dealing with them directly.

PAM ELARDO: I would just like to confirm that we have worked very closely with them and Dimitri meets with them regularly and we send data to them pretty much as we develop it. And Dimitri you can add some more detail on that.

DIMITRI KATEHIS: Certainly, we provide data to do HMH two times per week currently. That data provides for all 14 sewer sheds, the models of

the RNA that was in the influent, the treatment facilities. We have been discussing with them the need for the data as this is a typical data stream. It is not the type of data that they are used to utilizing so they are working on better understanding the correlations and understanding how they can best intergrade that data into their epidemiological models which were rather complicated and they have a long track record in utilizing.

CHAIRPERSON COSTA CONSTANTINIDES: How do we coordinate with other jurisdictions that may have testing programs as well. I mean I referenced Boston but are we, are we talking with them about you know best practices or how we coordinate with other cities that may be doing the same thing or may have this, have these pieces of equipment already and you know are moving ahead, so, like what are we teaching them? What are they teaching us? How, how is that back and forth going so far?

VINCENT SAPIENZA: Okay Pam, I'll let you…

PAM ELARDO: I would just like to say that you know as soon as we knew that COVID existed or this version of it, we had immediate interactions

across the country with universities and our utility partners, so, we got ahead of the curve on it and we are continuing to pursue the objectives of doing this, this analysis so. Dimitri was probably on the phone and on Zoom meeting 24/7 the first couple of months of this and we've been very engaged. Uhm Dimitri you can provide a little more background there.

DIMITRI KATEHIS: Certainly, uhm there have been three mechanisms that we have been engaging in a cross the county and actually also with your utilities. One mechanism was our academic partners that uhm Vinny spoke of or which were spoke of earlier which included Stanford, University of Michigan, some of the powerhouses in this specific area of coronavirus detection. We work with the local academics. Our City University of New York, partners who were amazing in terms of both method development in terms of the fundamentals as well as training of our staff. We work closely with NYU who supported us in developing methodologies who actually sample and then to bank those samples and freeze them and so forth. Uhm, from the utility side, uhm we worked with Hampton Road Sanitary and give them a

shout up because they really had a mature program that targeted microbial source tracking and we were able to learn a lot from their more than six years of experience in this type of molecular method. On our end, we have also been engaging with national, international research organizations such as the Water Research Foundation. For example, I served a project committee member on development and execution of a project where we got over 30 laboratories from across the US to test samples so that we can better understand the various methods and what their limitations and what potential optimizations we can execute on those.

CHAIRPERSON COSTA CONSTANTINIDES: Are there things other jurisdictions are doing that we decided not to do or maybe found unnecessary?

DIMITRI KATEHIS: Well, if I may take that, so there, in the beginning especially in March and April there was a lot of uncertainty as you can imagine in terms of the analytical methods and we were all actually trying different type of technologies. After uhm, three very rough months of developing in parallel multiple analytical methods we were able to eliminate the need for an ultra-

centrifuge which is a specific type of method because we are, we do have a some special considerations here due to the size of our system the fact that we need to run samples for 14 plants, not one, two or three and in addition to that be able to go upstream into the sewer sheds if called upon to look at sources and greater resolution. So, just by the through that we required forced up to eliminate some of the simpler methods and other laboratories were using.

CHAIRPERSON COSTA CONSTANTINIDES: So, uhm, are we going to put our, do we do open data? Do we share results on open data portal at all?

DIMITRI KATEHIS: Uhm, well, Mr. Chairman we thought about that and just I guess, the, cause I got to look at what the data looks like and I don't know how useful it would be, it wasn't useful to me. I didn't know what I was looking at so, I guess, how we can put it in to format that is useful to anybody other than the Health Department seems to be a challenge, I know Michael, you've looked at this too. I don't know if you want to say anything?

CHAIRPERSON COSTA CONSTANTINIDES: Can we turn on Michael's microphone?

MICHAEL DELOACH: Yeah, can you hear me now?

CHAIRPERSON COSTA CONSTANTINIDES: Yeah, alright there he is.

MICHAEL DELOACH: Yeah, we are continuing to review it. It is just a question of how we can adapt the data, so we are continuing to look in to it to see if it is possible?

CHAIRPERSON COSTA CONSTANTINIDES: Have we talked to other jurisdictions? I, I keep going back to Boston but Boston seems to be able to. I mean I seen their data on Twitter and you know it uhm, it seemed pretty easy for me to understand. Are we kind of coordinating with other jurisdictions on how they are releasing their data in the open portal format?

DIMITRI KATEHIS: It is definitely something we can do more of. We can do more of that. I'm not sure who we talk to but we can definitely you know try and get the information you know publicly accessible.

CHAIRPERSON COSTA CONSTANTINIDES: I looked at that data and it frightened me prior to this hearing. It showed that a potential huge

outbreak in Nass City is on the way uhm and you know having that data uhm internally and both externally and letting people now, hey you know there is something on the horizon here, you should be doubly careful right? And you know we need to reinforce; I mean there is like some COVID fatigue going on where people aren't masking up. They are, I was in, don't judge, I had to take my son to get his glasses and he begged to go to McDonald's it wasn't my first choice but I was in there and there someone there without a mask and I was you know mortified by it. (clearing throat). You know I've had COVID and it's, it's not something that anyone wants. So, I think we have some COVID fatigue and I think you know by having data I would say, just sort of looking at the hot spots before they are happening. Here is what's going on in this quadrant of the city or that quadrant of the city might be useful just both now and the general public.

VINCENT SAPIENZA: Yeah, definitely and as you know we continue to build this out and increase its effectiveness and we will continue to figure out ways that we can you know use that information and

help the public to you know stay, stay you know cautious and stay safe during these difficult times.

CHAIRPERSON COSTA CONSTANTINIDES: Uhm, and I guess the last, question I wanted to ask, testing about the facilities, the results. And I want to recognize Council Member Menchaca, I know he is here as well, does he have any questions? (long pause). I'm guessing not. Okay, so. And once we have, I guess the last question I have once we have this new uhm these new technologies, the new centrifuges, the new equipment and saying the centrifuges should be here before Thanksgiving. The other equipment should be here before Christmas, what does that look like? You know how soon can we get them on line, like what does it look like as far as being able to integrate that into what we are doing?

VINCENT SAPIENZA: Dimitri, go ahead.

DIMITRI KATEHIS: Yes sir, uhm with respect to the centrifuges we can get those online because they are equivalent to the equipment that we already have, very rapidly within a week or so and that will allow us to boost production from the uhm, from the 40 samples we are running currently up to about 50, 55 samples that we anticipate. And then the

next boost will occur when the uhm digital PC equipment comes in and that is what we anticipate will take us up to our 80-sample threshold. The DPCR equipment we anticipate about a month getting it fully online with the complexity associated with that equipment.

CHAIRPERSON COSTA CONSTANTINIDES: Okay, alright so with that, uhm, I don't have any other questions, do any of my colleagues have any questions? If not, Samara, I will pass it to you to see if there anybody that has raised their hands?

SAMARA SWANSTON: Does anyone else want to answer, ask questions of the administration at this time? Okay, well seeing no more Council testimony, we can turn now to the public testimony, I would like to remind everyone that unlike our typical Council hearings, we will be calling individuals one by one to testify. Council members who have questions for particularly panelists should use the raise hand function in Zoom. For panelists, once your name is called, a member of our staff will unmute you and the Sargeant at Arms will give you the go ahead to begin upon the setting of the timer. Please wait for the Sargeant to announce your testimony before beginning

your testimony. Your testimony will be limited to 5 minutes.

CHAIRPERSON COSTA CONSTANTINIDES: Ms. Samara, everyone else I just want to thank you all for your testimony today since there are no more other questions from our Council staff or Council Members. Thank you for your hard work during this difficult time, I look forward to coordinating with you on this Legislation and I do agree with you, even though I didn't ask about the Bill and Council Member Reynoso is not here, I think we all agree that there is no such thing as a flushable wipe. So, thank you for all of your work.

VINCENT SAPIENZA: Thanks.

CHAIRPERSON COSTA CONSTANTINIDES: If I don't speak to you have a wonderful holi, Thanksgiving.

VINCENT SAPIENZA: Thank you Mr. Chair, you too.

SAMARA SWANSTON: Now, I would like to welcome Borough President Gail Brewer to testify followed by Kathy Nazari, fellow president Gail Brewer.

SARGEANT AT ARMS: Your time starts now.

CHAIRPERSON COSTA CONSTANTINIDES: Please now put the borough President and let her speak as long as.

SARGEANT AT ARMS: I copy that.

GAIL BREWER: Thank you very much, I will try to stick to the time however and I want to thank you Chair Constantinides because your work on the Environmental Protection Committee is legendary and this is just one more example. So, I am very supportive of Intro 1966. That's what I am going to talk about and I don't know if it is a pilot program but it sure is needed to be something that we talk about because it has taken a little bit too long to get the City up and going on this uhm wonderful program to look at wastewater to detect the potential spread of COVID and other god awful viruses that might come about. Uhm, I know that we all got the numbers, I am just going to summarize how many New Yorkers have died, I don't know if this would have helped but I wish that it had existed previously. Uhm, I think we know that testing sewage is an effective way to detect the spread of COVID 19 and anything else. I know that Holland and other countries and as you said Boston have been using this

effectively. So, in my situation, the reason I was interested is, I think you know we had a very active Manhattan solid waste advisory board. I think there is one getting started in Queens now and that's a good thing and as a result of their advocacy we wrote to the Governor and the Mayor saying to make sure that this program existed. That it was a great strategy for dealing with this horrible pandemic. We also reached out to professor Kevin Rosalio who is at Hafsra and he pointed out that the potential for looking and tracking the prevalence of SARS COVID-2 in New York would be very enhanced by this program. I am a Pam Elardo fan and I think you are also and you can go through the, you have the advantages I heard earlier of going to the market, the green market and seeing her. I just watch her over Zoom and then I've been to Newtown Creek and seen the amazing work she does. So, really a lot of this is due to her leadership. I think starting in the spring and then in to August DEP developed and measure this validated method to measure NAR of all sewage and they are continuing that they are working very, very closely, that was a good question with H and H, Department of Health, Academics, Hospitals and labs all across the

country I think originally started with Stanford but Stanford is Stanford, we need to be New York and do it ourselves. And I think as you heard earlier, 40 samples per week but we obviously need to do more as soon as the equipment arrives. It has taken awhile for her to be able to get this off. I've got like three suggestions. I think that if the Council mandates wastewater testing for COVID and I think we will, then DEP must have the money and the resources. Uhm, I knew as early as June '18 you know when she and I were on a panel discussing wastewater testing that DEP was ready to move full speed ahead as soon as OMB approved the release of funds for the salaries of the three scientists and the money for the equipment. I think it was only $230,000. I was going to do a GoFundMe in order to purchase it at that point because of the need for it. OMB eventually allowed the hiring to proceed and we were working on the equipment as you have heard but this has been a delay and it needs to not be a delay in the future. If anything, new comes along that she needs, the City needs to provide it. Two, as you know 1966 requires collaboration between DEP and the Health Department to report on the feasibility of expanding the

proposed pilot although I think we are beyond the pilot now. DEP is in regular communication with all of the agencies but particularly Health and HH so that the data collected through wastewater testing is integrated into these agencies own data stream for more comprehensive protection of COVID-19 community spread and anything else that could come along. Once the test is working, the cause agency, it is vital to coordinate testing and tracing and it will work even better if DEP has the resources to be able to do that part of it. And three, as you heard earlier and thank you for suggesting this Mr. Chair, I am a big believer as you know of the New York City Open Data Portal having had something to do with its initiation. I know that it may be hard to gravel the data but there are a lot of smart people in New York City and so I stress the importance of ongoing data collection, analysis, and sharing and I really urge the Council in that Bill, Intro 1966 to say that data collected through wastewater testing must be made available publicly on the New York City Open Data Portal because there are many people it takes a village to do anything in this City and having that data available may have other ideas that come out of

it. Congratulations on this hearing. In college, I wrote my thesis on wastewater treatment facilities of which I know nothing but it is certainly something that is incredibly important to our City. I definitely appreciate your hearing and your knowledge and like I said Pam Elardo walks on water. Thank you very much, Mr. Chair.

CHAIRPERSON COSTA CONSTANTINIDES: Madam Borough President, I will just say that you have been an inspiration to me as an elected official from my first time working for Council Member Darlene Milling and being down the hall from your office, I remember seeing all of your hard work and you have set the bar very high for what elected officials can accomplish and how hard one elected official should work. So, thank you for your commitment to the City and all that you do and, you have always been an inspiration to me and so many others. Thank you for all that you and thank you for testifying today.

GAIL BREWER: Thank you.

CHAIRPERSON COSTA CONSTANTINIDES: And I do agree with you and Pam Elardo walks on water. I met her on top of a Wastewater Treatment Plant. Our first time. It was a lot of fun. Uhm, you know so

Pam is, is, Pam and the whole DEP really work so very hard and yeah, I whole heartedly agree with you and I will look at your edits and agree with you and I look forward to advancing this Bill with your partnership. Thank you.

SAMARA SWANSTON: And next, we will hear from Paul Starella.

SARGEANT AT ARMS: Time starts now.

CHAIRPERSON COSTA CONSTANTINIDES: Uhm, Kathy, Kathy Nazari, is that, you called her?

SAMARA SWANSTON: She's not, she's not here at the present time.

CHAIRPERSON COSTA CONSTANTINIDES: Okay.

SAMARA SWANSTON: Otherwise, I would be calling her.

CHAIRPERSON COSTA CONSTANTINIDES: Okay, thank you.

PAUL STARELLA: Can you hear me?

SARGEANT AT ARMS: Yes Paul, your time starts now.

PAUL STARELLA: Uhm, can you, okay, thank you. Uhm, first I would like that thank the members of the Committee on Environmental Protection, and particularly Committee Chair Constantinides for the

opportunity to testify today in support of creating a pilot program to test sewage for COVID-19 RNA. My name is Paul Starella and I run AE COMS Water Group in New York. In this capacity, I have worked with the New York City Department of Environmental Protection for more than 20 years on large water and wastewater infrastructure projects. For the past six months, I have been leading AE Coms efforts to monitor wastewater for COVID-19 RNA and have been directly involved in implementing pilot studies across the country from as long as Bergen in Westchester Counties to the Commonwealth to Kentucky and to the City of Phoenix. As the only leading indicator of COVID-19 wastewater analysis can serve as an early warning system to quickly establish the presence of the virus in the general population. Studies have demonstrated that COVID-19 RNA can be detected up to two weeks before symptoms emerge which is particularly significant given that the virus can be transmitted by people who are asymptomatic. The presence and concentration of RNA from the virus can indicate an imminent increase or decrease of virus infection when routinely tested over a given time and when monitor the trends. The resulting data can then

be used proactively to inform public policy decisions that can help protect public health. This method is not new. Similar wastewater analysis has been performed for years to detect opioid concentrations, normal virus, antibiotic resistant bacteria, polio virus and measles throughout the world. In many countries including the Netherlands, Finland and Germany currently test for COVID-19 RNA. An interesting case study is Israel's sewer surveillance program which was established in 1989 by the Ministry of Health to detect polio virus from samples collected weekly from sewage trunk lines and treatment plans utilizing the same test we now use to detect the novel coronavirus. In 2013, polio virus was detected and the Ministry of Health acted quickly to vaccinate the public. Consequently, none of the infections resulted in paralysis. Given the long history of wastewater analysis there are some lessons learned that New York City can benefit from. First, is frequency and turnaround time to identify virus trends up to two weeks in advance of the appearance of medical symptoms in the general public. Testing must be performed no less than twice per week as you are prosing here and results delivered ideally within

48 hours of sample. The trends that emerge from revealing the results over time can inform proactive mitigation strategies to help slow the spread of the virus. The time lag that extends data collection can diminish the utility of the results. In addition to New York City's 14 Wastewater Treatment Facilities there are opportunities to sample other locations including manholes and pumping station. Given the City's size and population, these types of sites could help identify more localized areas of infection while still maintaining anonymous data. The more, the more granular data can inform efforts to contain the virus in the smaller hot spots, protect the most vulnerable in those areas and avoid large scale shut downs all in advance of medical symptoms appearing in these populations. Finally, it is important to consider the possible need to normalize samples that are taken on different days and in different areas, accounting for variations in wastewater strength which can be impacted by a number of factors including intrusion of dry water and storm water into the sewage collection system. This is a quality assurance measure that will help ensure accuracy of the daily results and thus the trends over time. As

the only leading indicator of COVID-19 wastewater monitoring is an essential to limit the spread of highly contagious and potentially lethal virus and help keep New York City safe. The pilot program is an excellent first step towards implementing a broader Citywide wastewater monitoring program to protect us in the future from viruses both known and unknown and prevent the potential catastrophic effects of another novel coronavirus. Thank you.

CHAIRPERSON COSTA CONSTANTINIDES: Thank you Paul. And thank you that we have had an opportunity to speak and I appreciate your coordination with the City on this topic and other topics as well. So, I think that partnerships like that should continue and we should continue to seek out the best science possible as we move forward here to get this right and to make sure that we are safe.

PAUL STARELLA: Thank you.

CHAIRPERSON COSTA CONSTANTINIDES: Thank you. Okay.

SAMARA SWANSTON: And next we will hear from Jessica Frankin.

SARGEANT AT ARMS: Time starts now.

JESSICA FRANKIN: Can you hear me?

CHAIRPERSON COSTA CONSTANTINIDES: I can.

JESSICA FRANKIN: Great, thank you so much. Uhm good morning or good afternoon Mr. Chairman and honorable members of the Committee as well as Committee staff and Sargeant at Arm Staff. My name is Jessica Frankin and I am here on behalf of ANDA, the Association of the Non-Woven Fabrics industry and I am grateful for the opportunity to testify today to share our concerns regarding Intro 244. Just by way of background, ANDA is the trade association that represents disposable wipes, fabric makers, wipes manufacturers and some brand owners. Our members are committed to designing wipes that meet consumer expectations and their health and hygiene needs while minimize post-consumer impacts on municipal wastewater infrastructure and the environment. As such, we do of course share the City's concern about the persistent problem of wastewater system clogs. However, despite the Bill authors best intentions and that of DEP, uhm we do believe that the Intro 244 proposed solution of mandating a performance standard, possibly the IWSFA Standard and Mr. Sapienza described for flushable wipes simply will not address the problem at hand

that is really the inappropriate flushing of products that are not labeled as flushable. Numerous forensic studies that have been conducted by wastewater professionals of systems in various locations throughout the years including Jacksonville, Florida, the United Kingdon, Portland, Maine, Minnesota and even an independent study that was commissioned by the New York City Department of Environment Protection and Law Department in 2016 have all repeatedly shown that the real culprit in sewer systems is the incorrect flushing of items that are not labeled flushable. So, these are things like non-flushable baby wipes, household cleaning wipes, disinfecting wipes, feminine hygiene products and thinks like paper hand towels. By stark contrast in these studies, wipes that are labeled flushable represented a mere 1 to 2% of what is being found on sewer system screens and in clogs. This is because flushable wipes already undergo rigorous testing under the industry's long-standing guidelines, currently in their 4th iteration in order to be labeled flushable. These guidelines require a wipe labeled flushable to undergo seven different tests in order to establish, uhm compatibility with the sewer

system and those tests look at various points in which a wipe would travel through the system. Uhm, the results from these forensic studies that I have cited which have also been provided to the Committee in advance of the hearing in formal reports that have been issued I really believe speak for themselves. Rather than develop a potentially problematic standard for flushable wipes that would do nothing to address the problem affecting wastewater systems or at least nothing in a meaningful way ANDA would like to offer ourselves up with the opportunity to collaborate with City and local wastewater operators to develop a cooperative approach aimed at addressing and correcting the improper disposal of wipes and items that are not labeled flushable that are clearly demonstrated to cause clogs and accumulate in systems. In fact, ANDA has severe examples of successful collaboration with both various local jurisdictions as well as wastewater operators in several locations including recently earlier this year in Washington State. ANDA believes that this type of approach will be far more effective at reducing the unwanted debris in New York City sewer systems and we are hopeful to have this opportunity

to partner with you to tackle the problem of non-flushable wipes in the City's wastewater system. Uhm, I don't want to push up too much on my time so I am going to stop here but I really do appreciate having the opportunity, I would like to express my thanks to your committee staff who are very helpful in getting me online and ready and prepared to participate today on very short notice so thank you for that. Happy to answer any questions that you might have?

CHAIRPERSON COSTA CONSTANTINIDES: As I mentioned during my, my time I talked about the challenges that we see here in New York City that there really is no such thing as a flushable wipe here. And wouldn't you sort of glean from you know people putting things you know wipes that maybe aren't labeled flushable as some measure of confusion. Right? They are putting non-flushable wipes and flushable wipes. They are buying wipes that your industry should have instead of creating this mess that there is a flushable wipe and therefore people just believe they can flush whatever wipes they are. Because you know, it is, you are creating this mess?

JESSICA FRANKIN: Well, as you can imagine, I would disagree with you about it being a myth and again I would say that if you look at the data that you would see that flushable wipes are performing as they were intended. But your point about confusion and the need for consumers to better understand what the should and should not be flushing, you make an excellent point and so when I reference the collaborations that we've been engaged with, with cities and other wastewater operators these were locations and again I mentioned Washington State, these were locations that saw that the primary problem in their systems were the flushing of these non-flushable wipes and other items that should never been flushed and so what we were able to do is to work with these wastewater system operators to develop more targeted campaigns and educational materials in order to be able to make sure that people know that they should not be flushing those products. You know, I think our concern here is with the standard like what the IWSSD has developed this could end up, it's so unnecessarily stringent that this could end up resulting in the availability of flushable wipes going away but the behavior of

consumers using these wipes which they have come to rely upon you know in bathroom settings, elderly, caregivers, a lot of vulnerable populations do rely on these products, is that the behavior will still remain but the one product that actually does work isn't going to be available anymore. So I think for us, you know we seen an opportunity to both tackle the real problems by having more targeted messaging uhm but also to you know again make sure that the City's problems don't worsen by potentially imposing standards that are so overly rigid and unnecessarily so that they end up making it such that flushable wipes aren't available to consumers then people shift their purposes to baby wipes and other very strong wipes which are causing the problem.

CHAIRPERSON COSTA CONSTANTINIDES: I appreciate your testimony today, Ms. Frankin. Thank you so much for being on. I appreciate your time and your efforts. Thank you.

JESSICA FRANKIN: Thank you so much, I appreciate it again.

CHAIRPERSON COSTA CONSTANTINIDES: Have a good day.

JESSICA FRANKIN: Thank you, you too.

SAMARA SWANSTON: At this time, I would like to ask if there is anyone who has registered to testify but whose name I have not called? If so, please raise your hand using the Zoom function. (clearing throat). Seeing none, I will now turn it over to Chair Constantinides for any closing remarks.

CHAIRPERSON COSTA CONSTANTINIDES: I mean, I just want to again thank the entire team, uhm, first the DEP team, Vincent Sapienza, Pam Alardo, Dimitri, and Michael DeLoach, thank you for your testing today. I look forward to partnering with you as we move forward on 1966 and 244. Uhm, I want to thank your own staff, our Committee Counsel and Moderator today, Samara Swanston. Our policy analysis both Nadia Johnson and Nikki Challa, uhm our Sargeant at Arms who have been doing a great job as always, thank you. Joanna Castro who has helped with the Zoom and all of the technical staff, anyone who has helped, Megan Chan, everyone who has been behind the scenes today to make sure that this did well. my own staff, Nicholas Makowski my Legislative Director and all of those who testified who gave of their time today to make sure that the City emerges from this crisis better equipped to deal with the challenges of

both COVID and future potential outbreaks and pandemics. So, I look forward to moving these Bills and of course I want to thank our speaker, Corey Johnson for his great leadership as well. So, seeing no one else that is willing to testify today, I, I want to gravel this Committee Hearing of the Environmental Protection Committee on October 26th, closed. (gavel pounding)

C E R T I F I C A T E

World Wide Dictation certifies that the foregoing transcript is a true and accurate record of the proceedings. We further certify that there is no relation to any of the parties to this action by blood or marriage, and that there is interest in the outcome of this matter.

Date November 14, 2020