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CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON SANITATION AND SOLID WASTE MANAGEMENT

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B E F O R E: ANTONIO REYNOSO
Chairperson

COUNCIL MEMBERS: Fernando Cabrera
Chaim M. Deutsch
Rafael L. Espinal, Jr.
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A P P E A R A N C E S (CONTINUED)

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[sound check] [pause] [gavel]

CHAIRPERSON REYNOSO: Good morning. [coughs] I am Council Member Antonio Reynoso, the Chair of the Committee on Sanitation and Solid Waste Management. Thank you for attending this oversight hearing on the 2017 Waste Characterization Study. We will also hear two preconsidered bills today sponsored by Council Member Matteo. The first will raise penalties for littering from a vehicle and the second one will mandate the Department of Sanitation to create a plan to increase enforcement of littering out of vehicles. The 2017 Waste Characterization Study found that we in this city are creating less garbage, both the amount of waste generated and the amount of waste collected for the landfill bound waste stream, wetdown between 2005 and 2017 all while the population of the city grew from 8.2 million to over 8.5 million. We need to continue this trend of creating less waste. Getting to zero waste in New York City is an important and extremely ambitious goal. To accomplish this, New Yorkers need to have an easy access to an interest in—and an interest in recycling. DSNY has been working to educate the public, but we need to do more to promote good

recycling habits. It is clear from the study that one of our largest opportunities to divert materials from landfill is composting. I'm looking forward to learning DSNY's plan on how they would engage and support the public moving forward specifically in the collection of recycling and organics material. I greatly appreciate DSNY's hard work, but there is still so much work left to do, and the opportunity to do better if we hope to achieve the goal of diverting zero waste to landfill by 2030 or diverting 100% of the waste to that. It is my position that this can only be achieve through bold measures such as commercial waste zones, savings with throw systems and banning materials that cannot be diverted from landfill. I look forward to hearing testimony from DSNY, environmental advocates and other interested groups about the experience with the city's efforts to reduce waste there—waste and any advice that they have--[coughs] on how we could do—be doing more. I will turn it over to the panel in a couple of seconds. I also want to acknowledge that we've been joined by Council Member Vallone from Queens. Thank you for being here, and recent news that plastic bags are going to get banned by the state. I know you

guys are excited about that. You can comment on it if you want. I'm really excited about today's Waste Characterization Study I'm hearing because we're finally—we're going to dive into the details on exactly what we're throwing out, and I also just want to mention it wasn't in my notes. There was an agreement that there would also be a waste characterization study for like the private carting industry. So, I just want to start that conversation over to make sure that we can follow through on that, and there was an agreement made under the SWAMP plan I believe. So, I just want to make sure that that was also something we could address in your comments. Outside of that, I want to allow for Gregory Anderson, Katherine Kitchener and Samantha MacBride to begin their testimony from the Department of Sanitation. Thank you. [background comments] Oh, and we just have to swear you in.

LEGAL COUNSEL: Please raise your right hands. Do you affirm to tell the truth, the whole truth and nothing but the truth in your testimony today, and to answer Council Member questions honestly?

SAMANTHA MACBRIDE: I do.

LEGAL COUNSEL: Thank you.

CHAIRPERSON REYNOSO: Thank you.

SAMANTHA MACBRIDE: Good morning Councilman Reynoso and members of the Committee on Sanitation and Solid Waste. I'm Samantha MacBride, Director of Research and Operations for the Bureau of Recycling and Sustainability, and I'm joined by Greg Anderson who's the Chief of Staff and Katherine Kitchener who is the Director of Policy and Programs for the Bureau of Recycling and Sustainability. We're pleased to be here this morning on behalf of the department to present the results of our most recent Citywide Waste Characterization Study officially known as the 2017 Residential, School and NYCHA Waste Characterization Study. This study was conducted pursuant to Local Law 40 of 2010, and I'd like to call your attention to the screen to begin our presentation. [pause] The department conducted the study over three seasons during the spring, summer and fall in 2017. Our method involved randomly selecting over 800 different refuse, recycling and organic truck routes to ensure that our results were statistically representative of residential waste throughout the entire city

including each of the five boroughs. We also randomly selected school collection routs and New York City Housing Authority or NYCHA container routes for sampling. All of these routes were collected in a standard fashion without ford knowledge of our Sanitation crews. Using truck numbers, we then identified sample trucks with study posters at the garage so that they would be easily identified when they went to discharge their loads at transfer stations and recycling vendors as shown here in this photo. At those sites we took samples of 100 to 200 pounds from loads on the tipping floor. These samples were labeled and then brought to an enclosed facility at Fresh Kills, Staten Island for sorting and quantification. Each sample was emptied onto a sort table and then hand sorted by trained workers into 70 main sort categories as well as an additional 172 subcategories. This was done by meticulously inspecting waste contents and separating them into labeled buckets around the sort table, and its subsort tables elsewhere in the facility. Each bucket was weighed and the net weight of the contents was recorded as a data point under strict quality control. Using this method, we gained a detailed

understanding of the variety of products and materials in New York City's residential school and NYCHA waste streams. Our study builds on decades of research and analysis in the evolving composition of the department managed solid waste stream by providing statistics on the types of materials collected and diverted from the waste stream in New York City, what changes New York—what changes in—have taken place in what New Yorkers buy and use everyday, and the study also highlights opportunities for the department to develop and grow programs to meet our goal of sending zero waste to landfills by 2030. The 2017 Waste Characterization Study was the first comprehensive look at the waste stream since 2013 and it follows a similar study done in 2005. We used and industry standard methodology that entailed random sampling of over 800 truck routes as described earlier to ensure statistically represented results for residential curbside collections in all boroughs, and to look at changes over time. For the first time we also characterized curbside organics in those areas that were receiving service at the time of the study, and as mentioned before, we also looked at the composition of school waste and NYCHA refuse. I'll

be detailing some of the study results in the slides to follow, but to start, some of the most important findings from the study, as shown in this pie chart here tell us that New Yorkers are producing less waste at home than ever before, and 68% of what we do throw away belongs either in a curbside recycling bin 34% or an organics bin. Organics including food scraps, food soiled paper and yard waste are the largest single category and still growing category of waste representing the biggest opportunity for New Yorkers to divert waste from landfills. New York— sorry, DSNY currently offers special programs to target much of an additional 9% as shown here that is readily diverted through other means. We are proud of our programs to keep textiles, harmful household products and electronic waste out of disposed refuse. With regard to electronic waste there is particularly encouraging news. New York State implemented an electronic waste disposal ban in 2015 and since 2012 actually New York's DSNY ha launched and facilitated a wide array of programs to make electronics recycling convenient for residents. As a result, electronic waste has declined by 60% citywide. Now, onto some more detailed findings. As mentioned

before, our waste stream is diminishing. Over the past decade, the overall weight of both refuse and recycling in curbside collections has declined even as the number of New Yorkers has grown. The drops are most marked for refuse. For recycling, we saw a [coughs] decline between 2005 and 2013, but since then both paper recycling, which includes different types of paper and cardboard and what we call NGP recycling, which includes metal, glass containers, and rigid plastics and beverage cartons have actually increased. Now, before we proceed, a word about measurement. In our results, we present quantities in terms of pounds per household per year to show how the overall waste stream is changing. We also present captured, which are the ratio of how much New Yorkers actually recycle to how much total recyclable material is in the curbside waste stream, how much is out there to be recycled, if you will. To illustrate the relative share between material and the waste stream, we use percent composition. Each of these statistics should be considered independently from each other, but combined they paint a picture of what is going on with recycling and refuse in New York City. If we examine the materials that make up

residential curbside recyclables over time, we see some marked changes. Let's start here with paper and cardboard. The bars show the total amount of each type of paper in the residential curbside waste stream. Cardboard collections have increased steadily over the last three studies while the quantity of newspaper has fallen dramatically over time. Mixed low grade paper including junk mail, smooth cardboard and colored paper has fallen as well although not as sharply. These shifts reflect changes that we all experience. There is less use of printed material and more online ordering, which results in more corrugated cardboard. Looking at these changes we observed trends in production and consumption that ultimately determined what ends up in waste. In addition, we see that the capture rate for corrugated cardboard is the highest of all paper recyclables. It's 79% meaning that out of all corrugated cardboard that residents discard, 79% makes it correctly into the recycling bin. Capture rates for newspaper and mixed low-grade paper were lower. Moving onto metals, we see that some metal categories like large or bulk items, steel cans and other metal have diminished over time while aluminum cans and other

items have slightly increased. At the same time, we see that capture rates for aluminum products are lower than for other metals. The aluminum can, one of the most iconic recycling—recyclable products has a capture rate of just 30%. This is likely due to frequent canning cans bearing a 5 cent deposit. Aluminum foil and other containers have an even lower capture rate of 15%. This may be due to the tendency of aluminum foil to be food soiled when discarded. The situation around plastics is more complex due to the immense variety of these lightweight materials. In this slide, I show categories of plastics we accept in our recycling program. In 2013, in order to make recycling more easy and convenient, the city expanded curbside recycling to accept all rigid plastics. This change took place shortly after the last study, the 2013 study had been completed. We see increases in the amount of material recycled across all types of plastics, but the increases are largest for the newly added groups: Bulky rigid plastics and appliances, single use plastic plates, cups and cutlery and rigid packaging like yogurt tubs and deli trays. Turning to other recyclables, we see the glass containers are declining overall in waste.

Today, the average New Yorker discards 15 fewer pounds per household per year of glass bottles and jugs than they did in 2005, and capture rates are holding steady at around 63%. Sorry about that. We collect beverage cartons and aseptic boxes with our comingled metal glass and plastic recycling for processing and marketing reasons. We see that this form of packaging is declining in discards overall as well down from a little over 11 pounds per household per year to a little over 7 today. About 8% of all beverage cartons are incorrectly included with paper recycling, and the capture rate for them in NGP recycling is a little over 34%. Overall, we can look at average capture rates for both of our recycling streams, which average out to around 50%. We've seen improvements in this rate over time, which compares favorably to multi-unit capture rates studied in other cities throughout the United States. Capture Rate is one measure of recycling success. Another is contamination rate, the wrong thing in the recycling. Here we see that in residential metal, glass and plastic collections, the contamination rate is nearly 20% and has fallen from almost 27% in 2013. For paper recycling, the contamination rate is up

slightly to almost 9%. Note that in both collections contamination includes cross-recycling. That means putting paper in the NGP and vice versa. Film plastics such as bags and wraps also make up a substantial portion of contamination. Our study sampled curbside organics collections from districts that had service rolled out to them at the time of the study, which was at that time 20 out of 59 districts. Because this program is so new, and is not yet implemented citywide, our organics collections are small, but they're growing, and for this reason we don't show per household pounds per year because not all households are covered. The good news that these collections are relatively clean showing about 7% contamination. We also note that a present curbside organics contain more yard waste than food waste, but as time goes by, and the program coverage expands, we expect to see the food waste percentage increase. Speaking of good news, I'd like to draw your attention to electronic waste or E-waste. Starting on January 1, 2015, New York State Law prohibited the disposal of E-waste in refuse collections. Well before this date, however, the department had launched a number of program including

apartment programs, drop-off sites and events and starting in 2016 in Staten Island and in 2017 in North Brooklyn, on-demand curbside pickup to make recycling of electronics convenient. These programs were funded in part by an electronics producer under State Extender Producer Responsibility Programs, and private company that supplemented outlets with take-back and mail back options of their own. We see a substantial decline in E-waste between 2013 and 2017, from nearly 17 pounds a year to a little over five pounds a year today per New York City household. I'd like to close now with a brief review of the other two waste streams we looked at. The first is school waste. We characterized refuse and recycling setouts of schools that are not yet participating in the schools' organics program so that we could get a baseline understanding of the total composition of school waste. What we found is that in aggregate waste from schools, which is the sum total of refuse and recycling contains roughly the same percentage of recyclables as residential waste, but far more compostable organics than new residential collections. We also found that while paper recycling capture rates in schools were close to

residential capture rates, NGP capture rates for schools were far lower. In addition, paper and NGP recycling collections from schools are much more contaminated. In the case of NGP, this contamination rate is quite high and composed mainly of compostable organics that are improperly placed in the recycling bin for schools' metal, glass and plastic. Finally, some highlights from our characterization of NYCHA refuse. As of now, curbside recycling collections from NYCHA properties are extremely low in tonnage. The vast majority of NYCHA discards are in the form of refuse. If we look at the composition of this refuse, it looks a lot like the composition of residential discards in total. What this tells us is that there is enormous room to grow curbside recycling programs at NYCHA so as to capture and to divert paper, NGP and ultimately compostable organics. In this presentation, I only scratched the surface of the detail on the many categories and subcategories, which number in the hundreds, which we measured in this study. We have published the data in easily accessible Excel files that allow the public to look in-depth at different products and materials and discards, make their own calculations

and draw their own conclusions. You can download the full report and associated documents along with the Excel files at the DSNY website. I'll now separately turn briefly to the two preconsidered bills on the agenda today. The first bill increase the fines imposed for littering from a motor vehicle and the second bill requires the Commissioner to issue a report to the Mayor and Council regarding how the department can increase enforcement of this infraction. The department supports efforts to discourage littering including through increased enforcement and higher penalties, and we thank the Council for its support as we work to keep New York City healthy, safe and clean. This concludes our presentation this morning. Thank you for providing us the opportunity to share with you the results of this study at this hearing today, and we now welcome your questions.

CHAIRPERSON REYNOSO: Than you for that presentation. Just want to acknowledge we've been joined by Council Member Espinal as well from Brooklyn, my neighbor. Okay, I'm good. So, I want to get to something that—that is important. The 23% other in the slide—in page 6, can we just go to page

6. We're going to try our best to do slides and questions at the same time. Yeah. So, the 23% other if we're going to get to zero waste, we need to pay attention to things that the Waste Characterization Study designates as other, which includes materials for waste. There are no or very limited options for beneficial—beneficial use at this time. Can you talk about what you're going to do to make these items divertible or limit their use, and what I have here, and you let me know if I'm—I'm around the right area, small scale building and material scrap, furniture and household wood products, treated wood and lumber, carpeting, various plastic foam, flexible and foam products, multi-material items, disposable diapers, and animal bi-products. But if—if we—how can we ever get to zero if this 23% is always going to be other? What are your plans?

SAMANTHA MACBRIDE: [coughs] So, a number of the products C&D waste, carpet, furniture, have alternative uses before disposal. So, one of the things that we have currently is the Donate NYC Program, which encourages residents to donate these materials before disposal. We have partners, for example, Big Reuse that construction demolition

debris and resell it and it gets a second life. In addition to that, things like carpet also have a potential for extended producer responsibility legislation. So, we're focusing on those areas of things that there are solutions for. Okay, so, I guess I want to dive deeper into this—into the center. You—you generally did give us some—some options. I tell you and I—I do this all the time, there is no one in the general public outside of the people in this room and the people here that know anything about what you're talking about going to Donate NYC and so forth, it's just not something that people are aware of. What is DSNY doing to—to I guess educate or inform the public of options that they have so that they don't put carpeting and—and chilli wood and lumber and household furniture products into the waste stream, but instead go to Donate NYC or figure out more alternatives.

GREG ANDERSON: So, I think there—there are a few answers here. The first is—is obviously we—we can do more and—and we've tried to do more education about what New Yorkers can do with regard to donate. On an annual basis we—our Donate NYC partners collected about 50 million pounds of

material for reuse. That's furniture, clothing, CND items, a whole range of products. So, we're doing a lot there already. We—we definitely can do more on education, but there's a big policy perspective here. We have things in here about 1% of that number is foam products. I think that, you know, we—we have said twice now that foam products are not recyclable, are never going to be recyclable and, you know, we don't think they have a place in our waste stream. We don't think they have a place in our lives. There are recyclable, compostable, reusable alternatives and we want to focus on pushing people toward those alternative. We want to support a ban on—on foam products. That's an easy step we can take. So, I think it's—it's things like that. There are harder decisions down the road. Obviously, you know, some of these items are—are things like pet waste. We don't have a great solution for pet waste right now. There's things like diapers and sanitary products. We don't have great solutions for those right now, but I think rather than focus on those things, which are 2% of the—the pie, and don't necessarily have great alternatives, let's focus on the 34%, which is residential curbside recyclables of which we're

currently collecting half. So, I think we can get a lot more bang for our buck by focusing on those things, things like textiles, which make up 6% hugely right for reuse recycling and, you know, I think where we have a lot of-of good service to tell New Yorkers.

CHAIRPERSON REYNOSO: Yeah and—and I agree we—we could focus on the things that we're doing better, but I—I don't believe—I believe we need to stay focused on getting to zero waste by 2030, and if we're going to take that serious then we need to start talking about polystyrene and—and getting rid of foam from our waste stream, and talk about what we need—a plan for each and every one of these things that are part of the 23%. They shouldn't be—it's parallel all of it, and I agree that it is a policy question, and we need to continue to have that. Hopefully, the numbers here of the Sanitation Committee will hear your plea to ban foam or styrofoam, and we can finally get that done, and—and we move to products again that are—are recyclable, that we can actually get that divert. Then you talk about the—the 34% of curbside recyclables of which we seem to be capturing—capturing about 50%. Would you

tell—you mentioned canners. Can you explain what canners are and what—and is there anything that you believe can capture what they're recycling because the canners are actually, you know, they're—they're sending the—the trash to space. So, where is that—where is that going, and can you just explain that?

SAMANTHA MACBRIDE: Well, by canners, I mean the individual who takes it upon his or herself to redeem a container, and I agree with you it's not going to space, it's—it's recycling. It's diversion. At the moment, we do receive reports from two of the major deposit container redeemers in New York City at the end of every fiscal year, and we add in those tonnages to our overall assessment of diversion and how it's going. But that's voluntarily provided and it's incomplete. Unfortunately, as you know, it's a state law, deposit redemption, and New York State does not track tonnages, and report tonnages for deposit—for redeemed containers. That would be the way. They used to. That would be the way for us to measure that.

CHAIRPERSON REYNOSO: So, can—who are the two canning I guess locations that report to you.

SAMANTHA MACBRIDE: The two redeemers?

CHAIRPERSON REYNOSO: The two redeemers. Thank you.

SAMANTHA MACBRIDE: The two redeemers are Envipco and Tomra. They are big consolidated redeemers.

CHAIRPERSON REYNOSO: And I guess they own those machines where you put the cans and the glass in?

SAMANTHA MACBRIDE: I would need to bone up on the details of exactly their—their business model, but they are the ones that supply us voluntarily with the tonnages that they redeem in New York City per se.

CHAIRPERSON REYNOSO: Okay. So, I know we can can't change the 5% deposit or get rid of it or do any of that in the city, but can we mandate that these—if you're doing business in the city and you're collecting metal or glass that you report to the Department of Sanitation? Is that something that within our program?

GREG ANDERSON: We could look at the specifics of the state law, but I believe that we are preempted from-from acting on this in the same way that state law preempts us from local enforcement or

reporting responsibilities for other types of producer responsibility and recycling, plastic bag recycling. For example, we are prohibited from enforcing the law in New York City or collecting any data from participating retailers.

CHAIRPERSON REYNOSO: Okay, thank you for that. So, I will—I'll try to get that up to the state some way. The government is really hot right now. So, we might want to take advantage of this. We've only got a couple of months left. So, we—we got to get the ball rolling. [laugher/background comments] So, that's—that's good to know that the canners are someone, you know, a lot of folks it's a very hard issue to tackle here. We know it's a legal action to pick up curbside. Once it's on the curb it belongs to the city of New York right. So, can you explain that as well?

GREG ANDERSON: So, just to clarify it is—it is not illegal to be a canner walking around with a bag or in a shopping cart. It is technically illegal under city law, a law that was passed by the Council in 2012 to collect those products with a motor vehicle. It's also illegal to take things like refrigerators, like stoves, air conditioners, and

other large bulky metal appliances that are set out for collection, and of particular concern there is—is things that contain CFCs. We have a program turned into those CFCs—CFCs safely, and want to make sure that's happening and that the products are also being recycled.

CHAIRPERSON REYNOSO: So, the individual canners that are on the sidewalk and they collect cans that is legal to do?

GREG ANDERSON: That is—it is not explicitly illegal under city law.

CHAIRPERSON REYNOSO: Can you repeat that?

GREG ANDERSON: It—it is not illegal under city law that the department does not oppose that—that action. Obviously, you know, we—we're sending trucks out to pick up that material. So, so we would love to have that and be able to put in our—our nice pie charts, but, you know, we—we have no issue with that practice continuing because we-we know that that material is getting recycled. So--

CHAIRPERSON REYNOSO: [interposing] Okay, I see.

GREG ANDERSON: --but we would love to be able to keep track of—of how much material they're collecting and really be able to take credit for the great work that New York is doing.

CHAIRPERSON REYNOSO: I appreciate it. So, I appreciate that then. You know, there's no enforcement happening to these canners that are traditionally poor people that are just walking through trying to make—trying to make some—literally survive and make a—and make a lot of time here. So, but I do agree that we need to get this into the Waste Characterization Study. Also, other cities [bell] we—we hear a lot about all these great cities that are doing 50 and 60 and 80 and 90% and the city of New York is at what? 18, 19%. Could we explain that to folks? I always like to have a—like an educational component to exactly why we're not doing the numbers that what San Francisco and maybe Seattle is doing? These other progressive cities?

GREG ANDERSON: So, Samantha MacBride is going to answer here, but before she does I want to note that she is actually one of the nation's leading experts on this—this area, and has studied the differences between cities for probably several

decades at this point. So, she is more than qualified to—to set the record straight here.

CHAIRPERSON REYNOSO: Well, I'm happy to have an expert that's going to do that and, you know, a lot of these folks that are going to make comments after you leave are all going to say this. So, I wanted them to cut this out of their testimony after you speak. [laughter] So, go ahead for that.

SAMANTHA MACBRIDE: The first thing to bear in mind is that when we—we talk about our diversion rate of 17% in New York City we're talking just about our residential DSNY collected diversion rate. Many other cities are looking at combined residential and commercial diversion. Moreover, many other cities are also including construction and demolition debris diversion, and the rates of recycling in that sector are far higher. If we did that equivalent calculation based on sort of the best estimate that we have of commercial recycling, our diversion rate would be about 55%, right. So, when—that's not something that we publish because that is not the way that we present diversion statistics in New York City, and there's a long history connected with that, but when you want to compare rates such as

San Francisco to New York City that is really the type of rate that you should be looking at. Another aspect that I would just like to point out. Is if you look at the diversion rate of let's say Seattle, which is a city that unlike San Francisco is extremely transparent like New York City is on their data. Their diversion rate is about 60% per combined commercial and residential. If we look at the pie chart up there, and we see that 68% of the residential waste stream is either traditional recyclables, paper, metal, glass and plastic or organics, we start to get a sense of what that 60% is reflecting. So, very mature recycling programs and organics programs plus additional programs to pull thing like E-waste, textiles, furniture and things like that out—out of the waste stream, can get a city to 60% diversion, and if you look at Portland, Oregon for example, they have a similar 60% rate. So, in my studies of these—of these rates across the country I have come to the conclusion that as of today in 2018 a 60% diversion rate is pretty much state-of-the art if you're not looking at construction demolition debris. This does not mean that we cannot reduce waste further, but to me that's a more useful

comparison than, for example, Seattle. I'm sorry, San Francisco is the 80%. I could go on further about this and I could actually talk about this for hours. I—I will finally point out that there is a lot of work that's being done in the federal and state waste measurement community to start to become much more specific, clear, transparent and comparable about these statistics so that we can do exactly what you're talking about, which is to get over saying San Francisco diverts 80%; New York diverts 17% and think that that is a realistic comparison because frankly, most cities find that problematic. So, I'll stop here, but I could talk for hours about this.

CHAIRPERSON REYNOSO: Yeah, we might have a hearing just on that.

SAMANTHA MACBRIDE: Okay.

CHAIRPERSON REYNOSO: I knew that San Francisco is—is—is known to—to put asterisks alongside a lot of its goals and accomplishments. We know it Barry Bonds and now [laughter] and now obviously with how they measure their trash. I really appreciate you saying that because this happens every single time we have a meeting on diversion that we have testimony coming from folks that just—just flare

up and say, you know, we are terrible. There's 50, 60, 70, 80%, and I just want to put in perspective while we might not be where we ant to be, and there's always a place for improvement, those numbers don't necessarily tell the full story. So, the diversion rates are set to—so actually been—we've been joined by Council Member Chaim Deutsch as well from Brooklyn. So, all the Brooklyn members are here representing and I want to allow for my colleagues to ask questions because they also have other engagements that they need to attend, and I want to make sure that they can make those. So, I want to call on Council Member Espinal.

COUNCIL MEMBER ESPINAL: Thank you, Mr. Chair. So, I'm doing a lot of catching up and learning how—how DSNY interacts with our city outside of our homes. So, I've been focusing a lot on—on plastics in general, and one of the concerns I'm hearing in my district or probably even citywide is the amount of plastic that our schools produce when it comes to the cutlery they use, right. Is there any plan by DSNY to kind of work with our school system to cut down on the use of plastic?

SAMANTHA MACBRIDE: Yeah, actually a couple of years ago, the entire school system switched from foam to compostable trays. So, that was a huge impact. It's about a million trays a day. So, a very large impact there, and in addition, and this is really a DOE question, not a DSNY question, but the DOE is also looking to replace all of their plastic cutlery with compostable cutlery this fall.

COUNCIL MEMBER ESPINAL: Oh, that's amazing. Thank you. How—how big of a problem is—alright sorry. What about the plastic bags, right, not—not the bag, not the—not the carryout bags, but just bags in general what we—what we wrap our trash in, how big of a problem is—are those bag to our waste stream and to our landfills, if at all?

GREG ANDERSON: So, I think for those for—you're talking about garbage bags and actually the recyclables?

COUNCIL MEMBER ESPINAL: [interposing] Garbage bags and the actual bags, clear, blue, black.

GREG ANDERSON: Yeah. So, I think we wouldn't necessarily call them a problem. We see them as a necessary evil, and we are a—a very dense city, and we—we put our garbage out on the curb in

bags. There's, you know, we're not the type of city that can—can use the fancy automated carts because we love our, you know, we love having the ability to park, and those two things just—just can't work together. So, we see bags as a necessary evil. We have the—the infrastructure in place at our recycling facilities to be able to manage them and take them out. I think our recycling vendor vendors and one of them is sitting right in the front row there smiling. I think he would agree that if we could get to a bagless recycling system, which many other cities have, it would probably make his life easier, and I think Sims would agree, but we've-we've designed a system that can accommodate them, but we don't—we don't want to encourage New Yorkers to use more bags than they're already using.

COUNCIL MEMBER ESPINAL: Are New Yorkers able to recycle without using a bag?

GREG ANDERSON: Absolutely.

COUNCIL MEMBER ESPINAL: Aluminums and plastics?

GREG ANDERSON: If—if you have a bin either—some—some folks out there still actually have the original curbside recycling bin from the early

90s. Others have something you can buy at a—at a local hardware store. You can get a sticker from us for paper or NGP or even just write on there with a permanent marker, and we'll collect it without a bag as well.

COUNCIL MEMBER ESPINAL: Alright, great. Thank you. So, yeah. So, you can separate your metal, glass and plastic without a bag, without bags. You can just throw it in a bin and then put it out if you are in a—one time at your home let's say, and then the organics could go in your brown bin without a bag as well, and then already you might have only less than 30% of your trash left over, which are like diapers and furniture waste and I—I actually did one for like about a week, and I had like less than 5%. I have diapers now. There's no way to get around diapers, [mic feedback] but outside of that there was—there was very little trash left over. We have a feedback. Can you guys turn off your mics for a—a—let me see. One, two, alright, we have one—yeah, we can. They're very sensitive today. So, I want to speak to—to—can you—can you get into explaining how we are—there's less trash in the system overall, and there's

more people. How do—how do we accomplish that? What—what—what can we attribute that to?

SAMANTHA MACBRIDE: There are many reasons for it. One of them is just the changing nature of our waste stream. I mentioned the decline in the paper. We're all aware of that. We all see that. That is somewhat counteractive by the increasing corrugated cardboard, but another trend that has been happening for a long time, and is really gathering speed is the substitution of lightweight plastics for glass and for heavier plastics. So, light weighting is a trend that is taking place in products, and we're seeing the results of that in the waste stream. So, that's part of it. Another part of it is increases in recycling in donation, in reuse. Some if—if—if we're looking at curbside collections we can directly measure those. If we're looking at other forms of diversion, we only have partial knowledge of it. There are no doubt additional trends that we think are going on but we cannot measure at all such as increased donation of—or resale of items on eBay or Craigslist or things like that. So, it's what you would call multi-determined. There are a number of different

factors that go into making a lighter weight waste stream. Some of them may also be a growing environmental awareness, and a desire to consume less. It's hard to quantify that.

CHAIRPERSON REYNOSO: Okay, so, the extended producer responsibility, which we know—we know a lot of and I always get a vendor that comes to me and says, there's a certain amount of weight that you have to buy back I guess or you have to take responsibility for as a vendor especially in electronic waste, and you mentioned the fact that, you know, in the 1990s and the 2000s when we had computers we had these big screens that are extremely heavy and now we have these light flat screens. So, for five of these flat screens you could—you submit one big screen, it's the equivalent of submitting five. So, they're really not doing their job when it comes to producer responsibility I guess. Do we modify what that looks like? Is that the rule through law? Who's responsible for that? Is it the federal government, the state government, are we responsible for it, and if so, why haven't we modified it to be more reflective of—of what we're actually purchasing now?

SAMANTHA MACBRIDE: So, I think you're speaking about the New York State E-Waste Law, and the way that the manufacturers' responsibility is calculated, and so it's a state law. We've actually been waiting on the state to issue regulations for over five years now. So, hopefully that will happen soon, but that would have to be a legislative change to the state law.

CHAIRPERSON REYNOSO: So, so now this is their responsibility I guess is what we're going to extend the producer responsibility or EPR of plastic bags and a five cent fee are all things responsible—the state is responsible for that we're kind of waiting on so that we can start getting to more diversion or better diversion are all that could—that have value. Is that a potential perspective for people? Who's responsible for what because I go to a lot of those meetings, and I don't understand necessarily why people are meeting with me. They should be meeting with the state reps. I also want to allow for just a quick question from Council Member Chaim Deutsch.

COUNCIL MEMBER DEUTSCH: Thank you. Thank you very much. So, today's goal we're hearing

to amend the Administrative Codes in relation to people littering out of their vehicles. I haven't seen in your testimony—do you support this bill?

GREG ANDERSON: Yes, we do.

COUNCIL MEMBER DEUTSCH: You do?

GREG ANDERSON: Both of us.

COUNCIL MEMBER DEUTSCH: So, can you explain how your—how your officers enforce this—this law of people littering out of their vehicle? Can you just give me an example of how someone would be throwing trash out, and how your officers—enforcement officers would then stop them and issue a summons?

GREG ANDERSON: Sure. So, and just to—to clarify if I have at the start, there are two different provisions under the Sanitation Ad Code that apply to littering. The first is 16.118(1) which is standard littering. That's, you know, walking down the sidewalk and—and just throwing a cop on the ground. What we're talking about here would modify 16.118(4) which is specifically material coming from a moving vehicle. So, it can be littering. There's also we can issue violations for spillage from private garbage truck, spillage from other types of trucks like dump trucks, et cetera,

but specifically for littering from a moving vehicle it's a very difficult violation to issue. Especially for Sanitation. We have to do two things. (1) witness the violation occurring and (2) actually pull over the car in order to serve the violation. So, it's—it's not something that we can do easily. We only have about 50 Sanitation police officers citywide, and they're focused on other important things like illegal dumping. So, it's a—a tradeoff of—of concerns. The Police Department can also issue violations under this code, and I think if—if the—the—these bills were to pass, I think we would sit down with them and talk about how we could leverage their resources as well.

COUNCIL MEMBER DEUTSCH: You mentioned moving vehicles. What happens if the vehicle is not moving? They're just parked and they throw their trash out the window?

GREG ANDERSON: It would probably be easier for us to issue the violation. It—the vehicle doesn't have to be physically moving just a, you know, a motor vehicle.

COUNCIL MEMBER DEUTSCH: So, anyone sitting in the vehicle whether it's moving or parked so this bill would—so this would apply to both--

GREG ANDERSON: That's correct.

COUNCIL MEMBER DEUTSCH: --anyone looking out. So, you have 50 Sanitation Enforcement Officers citywide. Do you believe that that is adequate?

GREG ANDERSON: So, we have-we have two different types of enforcement staff. The first is sanitation police officers. These are peace officers in New York State. They are armed and—and they generally enforce things like illegal dumping, theft of large recyclable products, things that can have an element of-of criminality if not under Criminal Law at least an element of criminality to them. We also have enforcement agents and enforcement agents are—are on foot patrol. They look for things like recycling violations. They also enforce illegal posting. They enforce the pooper scooper law. They enforce, they can enforce littering as well. So, they have a much broader range of—of actions that they can take. We have significantly more enforcement agents. I don't have the number with me today, but it's somewhere around 200 total in the

Enforcement Division. So, I think back to your—your question of—I think you asked do we have enough. I think, you know, we've been relatively straight forward about on the illegal dumping issue that more—more staff can help but just the—the nature of these violations makes them very difficult to enforce. So, having—just having more enforcement agents or Sanitation police officers isn't necessarily the only step that we think we should take. We think that for a lot of these things violations should carry much higher penalties. We have a—a bill that we discussed a the rat mitigation hearing that would increase the penalty for illegal dumping, and I think this—this bill to increase the penalty for littering from the vehicle is—is a good step as well because creating that sort of—that sort of penalty I think dissuades people from—from what they know is wrong.

COUNCIL MEMBER DEUTSCH: The headcount of 50 is this something—when was the last time you increased the headcounts? So, you had 50 currently that enforce illegal dumping. So, that—those 50 enforcement officers, was the headcount raise to 50 over the last three years or was 50 the head count because New York City's population just crease to 8.6

million. So, we need to go with the flow, with the population, and to me I remember I think it was last year or two years ago we mentioned the same thing do like 50 enforcement—Sanitation Enforcement Officers, but we keep on remaining at the same—these low numbers, and you did mention that it's more difficult to actually catch someone who is illegal dumping, who is illegally dumping or someone that's throwing a—some trash out the window of especially a moving vehicle. So, these are the more difficult enforcement, you know, issues that we have to tackle, but the headcount is kind of low opposed to the headcount of ticketing those private homeowners who have trash in front of their houses. I think you had a few hundred of those officers that do—that don't have the power like this—like the—like the Sanitation Enforcement Police. So, can you—can you just give me the numbers of the headcount and--

GREG ANDERSON: [interposing] Sure, sure.

COUNCIL MEMBER DEUTSCH: --when was the last time it was increased?

GREG ANDERSON: So, the 50 number is—is an approximation. We can provide you the exact number after this hearing, and we'd be happy to—to

sit down with you and—and speak to those numbers in more detail. But we-we did actually increase the Sanitation Police Officer headcount. In the fall, we added additional police officers for an illegal dumping squad and, you know, I think that the department would support efforts to increase the Sanitation Police Officer headcount. Obviously, there are a lot of things that we would support increased funding for, but there are a lot of difficult decisions that have to get made, but we would—we would be happy to work with the Council to jointly advocate for—for increased headcount on that.

COUNCIL MEMBER DEUTSCH: So, it is okay to send me—to send the committee a request of—you said you would support to increasing the headcount and is it—is it okay to send the committee a request of what Sanitation feels—what resources you feel that you need that this way we could advocate and, you know, now we have the—the budget just around the corner and, you know, we could fight to ask the administration, you know, to—to increase the headcount, to increase collection or any—anything thing else that you feel may help Sanitation. We'd love to hear from you rather than us bringing it up

to you, and then you'll say you support it, but as being in, you know, a Director of Research and Operations and Recycling and Sustainability for the new—the Department of Sanitation, we'd love to hear form you. If you could—if you could just let us know what resources you need in order to—to better do--the Sanitation workers could better do their job, and to keep our city more clean. And also, I just want to ask you what hours do the Sanitation Enforcement Officers work? Is it a steady tour or is it a rotating tour?

GREG ANDERSON: We have Sanitation Police Officers that work both a night tour and a day tour. Primarily illegal dumping take place at night so, we-we tend to focus resources on that shift, but we have—we have Sanitation Police Officers on both shifts, but to your—your earlier question I think we're happy to-to follow up with you after this hearing with a discussion about Sanitation Police Officers resources. I think also exactly what this bill that—that Council Member Matteo proposes is the Sanitation—the—the Sanitation Department to look at enforcing these types of violations and—and put together a—a study that would show what enforcement

resources we think are appropriate, or what types of creative actions we can take. Something that we haven't discussed yet here--and not to go entirely off topic—is we have proposed previously that it would be great if we could write these kinds of tickets based on license plates, and not have to actually pull the care over because in that case we could use Sanitation supervisors, enforcement agents, et cetera. Unfortunately, that requires state legislation. To go back to the Chair's early point, a lot of what we work on does involve the state and so, thee conversations have to-have to involve them as well.

COUNCIL MEMBER DEUTSCH: Thank you. So, what I understand is that these 50 Sanitation Officers these are only officers that have enforcement power that can actually stop someone. So, illegal dumping may happen overnight. People throwing their trash out of their moving vehicles occur during the day. So, you have to align to different tours in order to catch those that are littering. So, if you—if you only have 50 and you have to divide them throughout the city by tour and you have 50 of them, so what does leave all five

boroughs if you need during the day, you need those resources during the evening and you need those resources in the early morning hours?

GREG ANDERSON: So, I think we—we agree with where you're going, which is—which is it's a—it's not an easy decision. We have heard more generally from Council Members about illegal dumping. So, we emphasize enforcing against illegal dumping, but all—all of these considerations have to take into account the fact that, you know, we have to work with OMB to come up with a budget, and there are a lot of competing priorities both within the Sanitation Department and generally within the city. So, I think we—as I said earlier, the Sanitation Department, not the city at large, but the Department believes that we—we could use more enforcement resources on this matter. We'll be happy to work with the Council, with your office, with the committee and with OMB to see what we can do, but that's—that's sort of where it stands.

COUNCIL MEMBER DEUTSCH: Yeah, and enforcement does bring in revenue. So, even if you had 50 officers or you have three tours let's say, and you have 50 officers per tour citywide, in all

five boroughs that is still quite a few of enforcement officers. So, I mean it is a revenue maker. So, I think this is something that we definitely need to talk about, and-and send a message to those that are illegal dump and—and throw trash out of the cars or those vehicles that are parked at hydrants and just throw out all their trash while they're parked in the evening. So, we need to go after them, and this is something that the city could—has the revenue that, you know, by enforcing these laws. So, thank you. I'd love to have a further discussion on this.

GREG ANDERSON: And I think we could follow up on this discussion at the Executive Budget hearing in a few weeks also.

COUNCIL MEMBER DEUTSCH: Thank you.

CHAIRPERSON REYNOSO: Council Member Deutsch, I want to—so in the Waste Characterization that we're doing, if we increase diversion, we actually save money by diverting trash from the landfill to recycling. So, when we talk about organics for example, and the importance of organics we're talking 34% of trash is organics. If we were able to divert all of that, that's 34% savings in

exporting trash to landfill, and we spend about half a billion dollars, almost half a billion dollars exporting trash. That's a significant amount of money just to get our trash to get to get thrown out, and now we're also hearing that states and locations don't want our trash, which means the few that do, charge a ridiculous rate for it, and that's going to continue to happen. We're going to continue to have sates that are staying no, and other states that said yeah, we'll take it, but we're going to double our price because we just four out Philadelphia doesn't take it any more, or we just found out Delaware doesn't take it any more. Before you know it, there will only be one place, and they could charge whatever they want to take our trash. So, again, we can save money by diversion by expanding organics, by mandating that organics happen throughout the city of New York by being aggressive about these tactics and with that savings, we could get more enforcement officers for Council Member Deutsch, which is what I think is important. So, we're-we're—it's a balance here. So, I want to talk about organics, which I care deeply about. It's said to reach 3.3 million New Yorkers by the end of 2018. What is DSNY's long-

term vision for engaging households in diverting this material from the stream?

GREG ANDERSON: Sure. So, just to clarify, we reached 3.3 million New Yorkers at the end of last year.

CHAIRPERSON REYNOSO: Oh, okay.

GREG ANDERSON: So, we now-we now serve 3.3 million New Yorkers with the largest curbside organics collection program in the country. Arguably one of the largest in the world, and I think as—as Samantha mentioned earlier, it is still a very new program. We only actually started the Curbside Organics Collection pilot in 2013 with just over 1,000 households in Staten Island, and in just the last five years I think we've seen a tremendous outpouring of support in terms of participation, in terms of growth and awareness about community composting, about, you know, the importance that not only diverting organics from—from landfill, but also using it beneficially to improve the health of our local soils, to create renewable energy. I think that—that we've seen great signs of progress there. Obviously, we have a lot more to do, and we are-are constantly working communities that have the service

to-to educate New Yorkers to enroll apartment buildings because as—as you know, we only rolled out the program to 98 buildings. Buildings with 10 or more units can enroll and we'll deliver a bin to your house. So, we encourage those—those buildings in those districts to have the service to enroll. We do community meetings, tabling events, door-to-door outreach, and so we're—you know, we're really trying to—to get New Yorkers excited about the program, and we're excited to keep—keep growing the program as we move forward.

CHAIRPERSON REYNOSO: So, I saw a post in my building about organics recycling, but I have no organics recycling bin yet, no brown bin. So, is that a post that you put there encouraging us to call 311 or someone to get bins? Like explain that process because there are no bins, but they're talking about organics in my building. So, I want to know what—what I do as a—a regular New Yorker. When I see that post, what-how should I react to that?

SAMANTHA MACBRIDE: Right. You live in a building over 10 units?

CHAIRPERSON REYNOSO: Yes, I do.

SAMANTHA MACBRIDE: Okay. So, you can go to nyc.gov/organics. We have a form for signing up. You can request a site visit, and we can get you enrolled. The most important thing is to talk to your super and make sure your super is onboard. Without that support we can't make the program move forward.

CHAIRPERSON REYNOSO: Okay, my super is not going to be happy. [laughter] I can tell you that right now, but I will have a conversation. I'm the Chair of the Sanitation Committee. It would be very difficult for me not to have this conversation with my super. I'm going to do it. I'm going to tell you about the experience. I'm going to Tweet it out. It's going to be Antonio's experience trying to get organics into his over 10-unit building. Wish me luck, okay. So, I want to—Yes, I will-and I will, I will. I hope. What can—what can be done to reduce the barrier to organics collection? Should organics collection in residences be mandatory? What's your take on mandating it first? I imagine you've got to get it out to the city of New York before you consider mandating it, but is mandatory collection something that's important to you and then barriers?

Like the one I'm talking about. You're going to have to take a, you know, a regular resident from the city of New York to go and engage with his super who probably won't be too delighted to have to add another layer of—of trash management.

GREG ANDERSON: So, I think you'd be surprised how many of those conversations end with the super agreeing that organics collection is—is a good thing for the building, but yes, you're—you're 100% correct. We are focused on expanding the program to serve as many people as possible right now before we look down the road toward—to mandatory participation. We think that that's probably going to—to happen at some point in the future, but we-we haven't started to think about timeline or—or what the parameters might be. Obviously, in 1991 when recycling became mandatory, we saw a huge increase in participation after that. So, I think we would expect the same increase in participation by making organics mandatory, but I think it's—it's a little premature to—to talk details at this point, and really I think the-the big challenge that we face is that it's—it's something totally new. It's not something that—that New Yorkers have been used to

doing. It's not something that really happens in—in most other major cities. You have other cities across the Northeast and—and across the country that are today where we were in 2013 they're just piloting organics collection, and I think we have an opportunity to lead the way, and to figure out what works especially in apartment buildings especially when people have very little space and, you know, have busy schedules during the day, and—and can't devote a lot of time to—to separating their waste, but I think we—we embrace that challenge and—and look forward to working with all of our community partners, and neighbors across the city to—to be successful.

CHAIRPERSON REYNOSO: Well, I'm going to—I'm going to invite you to come to our—to my district to meet with several not-for-profit organizations that are doing—that have apartment buildings throughout the entire-my entire system, La Sudas and St. Nicholas, our two not-for-profit developers in my district. I'm going to see if they would buy into, you know, trying to do this at other buildings and having the entire system, and see if that works. Then they could speak to me about their challenges,

and all their experience positive or negative, and see if it's something that can work. Do you give—do you give out free small bins to like—to tenants where they're supposed to put their organics before they put it into the brown bin? Can you just explain that? And I know this is not an organics hearing. I'm just trying to get this information.

SAMANTHA MACBRIDE: Yeah. So for any building that 1 to 9 units we do give out what we call a kitchen container. So, it's a little container that you can put on your counter to take your material out to the curb.

CHAIRPERSON REYNOSO: Alright thank you for that. Now, as we move towards increasing diversion rates, would-would the department require more expanded facilities to process organics or recyclables? This is very important to me especially when it comes to siting facilities, but did not come to Brooklyn, North Brooklyn specifically, and I know right now that a lot of the contracts, organics contracts that exist by the Department of Sanitation are again in North Brooklyn and in the South Bronx, and when we talk about a fair city, I'm not necessary sure that DSNY is contributing to that. We have huge

equity concerns, and every time there's a new—a new way, a new material that's going to be introduced to the waste stream, a new recycling idea, a new anything idea, the burden falls on these two especially significantly poor communities in North Brooklyn and—and the South Bronx. What are you doing to not let that be the case that when you do have a program like organics that we can be supportive and not worry about it being burdensome on, you know, a few communities?

GREG ANDERSON: So, I think the department would—would wholly support any recommendations that the Council or local communities have for siting new compost or compositing or interim (sic) digestion facilities within New York City or—or in the immediate vicinity. Unfortunately the composting takes up a lot of space and, you know, it—there just isn't a lot of space left in New York for those kinds of things. We are currently expanding our compost facility on Staten Island to be able to handle significantly more food waste. Right, it predominantly handles yard waste, and we would love to expand that model to other boroughs. Unfortunately, we don't have the space to do so. As

to the—the specific concerns about transfer stations in the South Bronx and North Brooklyn, I think we—we—we hear your concerns, and I think the—the Administration has been very clear that we support waste equity. We support efforts to—to reduce the burden of waste management infrastructure on—on all over-burdened areas of the city, particularly North Brooklyn, the South Bronx and Southeast Queens, but unfortunately we—we—we have to go where—where—where we can I think. We don't -because we don't have a huge amount of processing facilities, actual composting facilities in New York City, we have to transfer that material into—into other trucks to take it out of the city, or use available infrastructure at DEP's wastewater treatment plants, and at this—at this moment in time the only wastewater treatment plants that takes food waste is Newtown Creek. It's in your neighboring Council District, but we would—we would also love to expand that program and look to the other I think it's 13 or so wastewater treatment plants that are spread across the city as well.

CHAIRPERSON REYNOSO: Just to think that the—it's like what comes first? If you're serious about waste equity, why would you continue to expand

a program that puts a larger burden on these communities instead of figuring that part the—where the garbage goes and the facilities to process it before you institute it. We have—out of all your contracts, private contracts that you do to take on organics recycling, there are almost exclusively in North Brooklyn and South Bronx. It kind of speaks to this whole like what comes first? You can't talk about bringing justice to these communities, and continue to expand the amount of trucks and services that are being—that are being through these communities because you can't be both. Right now, it's more talk than anything else when it comes to this specific issue so much so that it makes me uncomfortable. I'm a huge supporter of recycling or organics. I want it to be expanded citywide. I want it to be mandatory, but then I see all the trucks coming into my district, the DSNY trucks coming through my district, and that there is no solution there, and I'm—I'm torn between being a Council Member in the 34th District and-and being the Chair of the Sanitation Committee, and wanting to be supportive of something that's extremely important, and I don't feel that there is enough urgency within

the department to try to figure this out to try to crack this egg, and-and when you said it has to go somewhere, it does have to go somewhere, but maybe if we don't do it all, it doesn't need to go anywhere. So, like that's a balance here that—that we haven't figured out, and I hope that you—you do eventually. Also, stopping it from coming to our communities would maybe incentivize other cases to want to take it on. If they know that all the contracts in Brooklyn and South—in Brooklyn and in the Bronx are not going to exist and that they need to push this somewhere else, there's some value that that could be—that could be created, and it would go. Ann another facility would say, look if we're going to take on all that trash, then we'll do it because there's some value. It's a couple of tons or—and so forth, it doesn't matter, and another thing is Staten Island. Staten Island is getting a brand new park, and the shutting down of Fresh Kills is what brought in the 16 waste transfer stations into our district, and now they're taking organics. They should really consider or you should really consider expanding the organics recycling program, and sending all the trucks to Staten Island so that we could have some

balance, and Matteo is not here, but when he comes I'm going to let him know the same thing, right. [laughter]

GREG ANDERSON: Unfortunately, the—the committee is now longer represented by a member from Staten Island. I think they would beg to differ.

CHAIRPERSON REYNOSO: Yeah, I would love to have that conversation about justice, and how one community loses a landfill site that's a beautiful park, and in turn all that trash moves to black and brown communities with no parks and no justice, and how hard it is to get you guys to be onboard with that one. The difference between, you know, a more prominent affluent white community versus a poor or black and brown community. So, school is now—let's move onto schools. [coughs] Fifty-one percent of the organic material in the school waste stream was identified as suitable for composting. Knowing this information can you provide an update on the number of schools participating in the Zero Waste and Organics Collection Program for Fiscal Year 2018, and why we haven't at least in our facilities expanded it citywide?

SAMANTHA MACBRIDE: Yes. So there's just over half of schools a little over 720 schools are currently enrolled in the Organics Program. We are working very closely with the Department of Education's Sustainability Office and Grow NYC Recycling Champions to improve the organic separation in these existing schools, and I think until we can see real improvement in those schools it doesn't make a lot of sense to expand.

CHAIRPERSON REYNOSO: So, you're looking to like almost perfect it and find the model that works, and then expand it or it's just that you're not encouraged by this.

SAMANTHA MACBRIDE: I wouldn't—I wouldn't—I wouldn't use the word perfect. I think we want to get to a place that we feel really good about.

CHAIRPERSON REYNOSO: And right now it's not—it's not doing so well?

SAMANTHA MACBRIDE: There's a lot of room for improvement.

CHAIRPERSON REYNOSO: Okay. I just feel like there's such a controlled environment there how we would not be doing a good job, and it has, you

know, custodians or—or folks that are specifically responsible to make sure that they separate it appropriately. There's ways to separate, you know, the trash cans inside the schools so that the kids throwing out the organics, their plates and if all—and it's all organic, they could all throw it in one once we get the forks and the spoons I guess, I guess the sporks to be compost—to be all put in the same container. But it's still a problem?

SAMANTHA MACBRIDE: Yeah, unfortunately I think that we are working very hard and like I said with our partners at DOE and at GrowNYC to improve the separation there, but there's still a challenge. One thing that I can point to that we are doing is that we're—a couple years ago we launched the Zero Waste School Program. So, we're working with over 100 schools intensively to give them targeted outreach and resources to properly separate their waste, and what we're going to do is take the best practices from those schools and apply them to all schools, and so a recent example is that the DOE provided uniform setups for waste in all the cafeterias in DOE schools. So, now every time, any DOE school cafeteria that you go into will have the

exact same sorting station, and signage, and so I think that's really important as students move around the system to have that uniformity in the bins.

CHAIRPERSON REYNOSO: Yeah, I—I really think that that's a perfect place to make this work. Again, it's contained. It's something that's extremely controlled and I hope to see progress on that one, but I hear the contamination is extremely high, and it doesn't seem to be something that's working. In my school, we actually have a like a sanitation team in one of our schools in my district. There is like a sanitation team that goes around every single classroom to make sure it works in the Young Women's Leadership School. We should actually highlight those if we think about, but they just do a really good job at paying attention to it, and the sanitation team walks around and makes sure that they handle all this trash, and I'm pretty sure they have a high diversion rate. Single stream the one NYC Plan states that converting to single stream recycling will increase diversion by 20% presumably after contamination. What is the basis for that estimate? Where—how did you—how did you get there?

GREG ANDERSON: So, we back in—in 2015 when we were developing the OneNYC Plan, we looked at a number of cities across the U.S. that in the last few decades have converted from dual stream recycling to single stream recycling, and what we mean by single stream recycling is not just throwing all your garbage away, and we'll sort it later. It means combining the blue bin, which is metal, glass, plastic and cartons with the green bin, which is co-mingled paper. And so—so we looked at a number of cities, and I think a 20% increase in diversion, which would translate to an extra about four points on our diversion rate, is a relatively reasonable and conservative estimate.

CHAIRPERSON REYNOSO: Okay, are there any drawbacks to single-stream collection? There are some folks in this room that are concerned about single-stream. Can we just—can we just talk about what I guess the cost benefit or—or the—the pros and cons, and how you—you came to an understanding that this might be the better way?

GREG ANDERSON: Sure. So, and—and just to be clear, right now, we—we have not announced a—a timeline or sort of a path to single-steam. We—we

are very much committed to the idea, and we have exactly because of concerns raised by a number of activists and members of the community have spent a lot of time with Sims who's our recycling—our primary recycling vendor to work through some of these concerns. They've also expressed concerns about things like contamination about the value of—of the material that—that they have to sell at the end of the day, and I think we—we are going to take a very measured approach, but we also—we know that one of the biggest factors for New Yorkers when it comes to recycling or—or participating in any of our programs is convenience. And one bin is just t hat much more convenient than two bins. It's easier to find space in your home, easier to find space in an apartment building. It's easier to understand, easier to remember. So, we think that in the end those pros will overcome the cons, but we—we definitely appreciate that there—that there are some potential concerns, and we're taking those into account.

CHAIRPERSON REYNOSO: NYCHA. So, so I guess I wanted to with—with schools and NYCHA accordingly. There must be some internal measurements that you guys are taking in regards to

progress being made on a year-to-year basis not waiting for the Waste Characterization that has to happen to kind of get those numbers. Do you feel that you're making progress in NYCHA or you're making progress in schools in regards to that version?

SAMANTHA MACBRIDE: So, on schools we have been looking at, you it's hard to get an actual diversion rate for schools, but we have been looking at their set-outs making sure that they're doing a good job. Particularly, we're looking at the schools in the rat mitigation zones to make sure that they're doing a good job with their waste setout, and we have seen improvement over the last few months that we've—as we've been looking at set-out, the amount of rat activity and things like that.

CHAIRPERSON REYNOSO: This is my—my last question is a Waste Characterization Study of the commercial waste stream. I believe, and-and correct me if I'm wrong, that the SWAMP Plan called for a waste characterization study of the commercial—of commercial waste. We've yet to see that, hear that. Just want to know what's the status of it, and—and whether or not it's something we believe you will do?

GREG ANDERSON: So, the—the 2016 Solid Waste Management Plan did call for the Sanitation Department to study the commercial waste system, and in 2008 we started a study. It lasted about four years, but unfortunately because of the financial crisis was—the scope was—was pared down a little bit. So, we've released that study. The results are on our website, but unfortunately, I didn't include a full Waste Characterization of the commercial waste sector. The last time something like that was done in great detail was 1990. So, quite—quite some time ago, and as we move forward with the Commercial Waste Zone Project, and—and a number of other changes to the way commercial waste is managed, commercial recycling, commercial organics, we—I think we could benefit from the Commercial Waste Characterization Study, but we are also—we're taking in a lot of different sources of information data that we collect, data collected by BIC by the State, data that—that—that looks at similar business types and other jurisdictions, and we are—we are sort of combining all of that together into what we think is a relatively accurate model of—of how much waste is out there, what the waste is comprised of, but yes,

obviously a true characterization study would give us a better picture of that.

CHAIRPERSON REYNOSO: So, we should look into that. I'm going to talk to the Commissioner and to the Mayor and just ask if that would be something we'd consider. I think it would help our argument long term when it comes to zoning and franchising to have a Characterization Study. So, I'm done with the questions. I appreciate your time. I hope that you guys would stay because we have one panel? We have one panel, and it's going to be a lot of fun. So, you should—you should definitely wait. I want to call up Anna Champeny, Jacquelyn Ottman, and Melissa. You can't do it still, Melissa. You can't do it. [background comments] I know. [background comments] Yeah, Sean, yeah, Sean. It will be the last time. Is no one else signed up to speak? Okay, and thank you. They love what the Department of Sanitation is doing so much they just came to support you. [background comments, pause] We're going to call up James Pfeiffer to speak as well. So, keep—keep—you can fill it out over there. Go ahead. Don't worry about it. We just need that before you leave today.

[pause] I'll let you guys choose your order. [background comments] Thank you.

JACKIE OTTMAN: Good morning, Chairman Reynoso, and all the members of the committee. My name is Jackie Ottman, and I'm testifying on behalf of the Manhattan Solid Waste Advisory Board, the SWAB. New York City's ambitious goal to send zero waste to landfill by 2030 was set in the OneNYC Plan in 2015. In order to reach this goal, the city must increase participation in existing recycling programs, encourage waste prevention and develop and promote new and different opportunities to reuse products and materials, an well designed Waste Characterization Study can provide sufficient data to understand the performance of existing programs across the city as well as inform the design of future programs to reach 0 by 30. However, the methodology used to carry out the 2017 Waste Characterization Study was the same as that used in 2013 and, in fact, close to 2005's. This means it did not take into account the programs that have been created and expanded since the city's declaration of zero waste goal in 2015. While we understand the need to consistently compare changes in waste

composition over time, more granular data on recyclable materials and reusable products that are still exported and disposed of are critical to achieving at least the 90% diversion. For starters, the Characterization's design told us very little about the composition and distribution of the residual waste including its reuse, recycling and organics waste streams, the very waste streams we want to divert more of in different building types and across different demographics. The 20 million percent, and that's the portion of—of non-recyclables and refuse not the overall. That is deemed as non-recyclable is a very larger figure that needs to be understood even more urgently than the numbers for typical recyclables. Some of this 29% is potentially reusable, and some like products and packages that are not designed to be recycled could be reduced by legislative remedies such as bans and fees we spoke about before. But we can't identify these potential reductions and diversions without the refined data. The Characterization Study also failed to show how effective organics collections have been in those neighborhoods that have the program and the difference in our aversion rates between the curbside

and drop-off program collection areas. Lastly, the 2017 Waste Characterization Study provides very little specific data to inform what education and strategies are needed where, and also what policy may be required to reduce specific waste streams such as single-use plastics or increase the re-use of bulky and E-Waste as well as residuals. If the 20 dead— 2030 deadline is serious and intended to be met, Zero Waste Program expenditures need to be increased. The city is spending over $400 million on just the export disposal of waste and another $735 million-$39 million per annum on collecting it from households. If only a fraction of this was spent on understanding residents' views on and behavior towards recycling programs and education could be adapted to change long-term behavior and ultimately reduce both collection and disposal costs. Zero waste can only be achieved with a very high participation rate. We at the Manhattan SWAB therefore recommend another in-depth study be conducted in the near future to collect data that would lead to a better understanding of the attitudes and behaviors of New York City's residents to its waste reuse and recycling in different areas of the city, in

different building types and among different demographics. The last time the city did a usage and attitude study was over 12 years ago in 2005, and much has changed since then. Understanding what is preventing residents from engaging in existing programs will help inform education and communications as well as the design and provision of targeted outreach while informing the budgets needed to fund these programs. Finally, since there is great reuse potential left in New York City that is not being addressed by the private or public sector, we recommended DSNY characterize the reuse potential at curbside. What is the weight and volume of different types of the durable products that can be repaired or salvaged and their condition, i.e., repairability that are left curbside? With information like this, DSNY can design programs to collect the usables at curbside as well as inform the design and use of repair shops, and sales outlets or other means to recover more reusable products. Thank you for the opportunity to testify on behalf of the Manhattan SWAB this morning.

CHAIRPERSON REYNOSO: Thank you and I just want to ask about the reuse portion, which is

something that it seems like you're highlighting in your testimony, and I always talk about how New York City and reuse I jus don't—it's just very hard to see, but it's definitely possible. We went to several—I went to several events and—and was on a panel at a reuse event, and it made it feel like it's definitely something we can do. What you're saying is have opportunities for reusable material on the curb, maybe to roads like a central location that can then be picked up or—or—or by anyone including, you know, thrift stores or whoever, reuse like a—what do you call it? Flee markets and so forth, and then whatever doesn't get picked up can get—get to it or not, but there's some type of—of diversion that can happen just through having maybe a central location for it.

JACKIE OTTMAN: Absolutely, absolutely, and why should we be throwing away all this reusable stuff just because it shows up on a curb, and is not a diverted through donations? And so, what we're asking for is more granular data on what percentage of these seemingly reusable materials are, in fact, reusable with simple repairs or just diverting them into shops and other resale outlets.

CHAIRPERSON REYNOSO: Okay, and recently on my curb there was a table, a perfectly good table. It looks like somebody just bought a new one. It's tax season. People were excited. They got a—they got a table out there. That table was perfectly fine by any other means and somebody needed a table they could have used it.

JACKIE OTTMAN: Absolutely.

CHAIRPERSON REYNOSO: But I thank you for that testimony and definitely pay attention to the fact that the Characterization Study seems to be similar across the board. I do say this about Sanitation, they've been doing the same thing for a long time, and they like—they like consistency or—they don't like change let's say, while this commissioner is I think an agent of change, and is trying to turn this ship around. It still takes some time, and I, you know, it being I believe her first Waste Characterization Study under her, you know for it to be modified in some significant way what I think would be difficult to do for her. That her Characterization Study be something that's for—and that's modified to what we traditionally have done, but I will be paying attention and making sure that I

advocate that we be more cognitive of the value of what a Waste Characterization can have outside of just knowing information, but actually assisting with decision making and so forth.

JACKIE OTTMAN: Right and so we—we-we don't want to burden the current Waste Characterization Study and—and, you know, prohibit it from understanding long-term trends, but things are changing rapidly in the city as we saw between 2013 and 2017, and we also need that additional data as we are proposing in the companion study. Consider it a companion study to update the update and attitude study so that we—we understand why—so that we can better understand things like why that aluminum foil is actually not getting into the recycling stream. Is it because of food soil or is it because of something else.

CHAIRPERSON REYNOSO: Alright, well thank you. Thank you for your testimony.

JACKIE OTTMAN: Thank you.

MELISSA IACHAN: Good morning. My name is Melissa Iachan, and I am Senior Staff Attorney in the Environmental Justice Program at New York Lawyers for the Public Interest, which is a member of the

Transform Don't Trash Coalition, and I'm happy to be here to provide a response to the recently released results of the 2017 New York City Residential School and NYCHA Waste Characterization Study. We are grateful for our continued partnership with DSNY in working toward establishing a much more sustainable, efficient and equitable commercial waste system in the city, and we'd like to thank Chair Reynoso and the members of the Sanitation Committee for the opportunity to comment here today. The Waste Characterization Study revealed important information that can help shape the city's policy decisions and our attempts to move towards zero waste to landfills by 2030. The information revealed in the study will guide DSNY and the Council in prioritizing public education efforts around waste reduction, reuse, organics and recycling. Unfortunately as Chairman Reynoso pointed out, we lack anywhere near this level of knowledge about that our city's biggest waste stream, the commercial waste stream and the millions of tons of material thrown out by our huge and diverse business sector every year. As Mr. Anderson mentioned, the last Commercial Waste Characterization Study was done in the city in 1990 almost 30 years

ago. I don't have to tell you how much has changed in the city since 1990. Since then there have been profound changes in how we consume information in the media, food and electronics, but we have no measure of how this has changed the composition of the city's enormous commercial waste stream. The only way we can craft meaningful policies, infrastructure and educational campaigns to reduce, recycle and diverse waste is by knowing what is in that waste. Conducting a thorough citywide commercial waste commercial analysis is more timely now than every, as the city does move towards major reform of a broken commercial waste system. Our city has committed to fixing this broken system by adopting a zoned commercial waste system, which we strongly endorse and are excited to working hand-in-hand with DSNY in preparing for it. Under this zone system, the city will be able to incentivize private waste hauling companies to make major changes to how they collect and process recyclable materials and can encourage major investments in waste reduction and prevention strategies for businesses. Mr. Chairman, this is also an opportunity to incentivize investments in increasing composting capacity in and equitable

fashion. This reform represents a crucial opportunity to make systemic changes that would bring us closer to our zero waste goals while also offering an opportunity to reduce our city's greenhouse gas emissions, improve working conditions for the many workers in the private sanitation industry, vastly improve safety in our streets and, of course, increase equity. In order to for the city to design the most efficient and sustainable new commercial waste system, we must make the effort to understand what is in our commercial waste stream, and how the various waste streams and concentration may differ in different regions of the city. For example, we know that Downtown Manhattan has much more commercial waste than Northeast Queens per block, but is there a difference in how much recyclable material is actually being recycled amongst the various neighborhoods by these businesses. Knowing information such as that could be incredibly useful when designing the waste zones and determining each area's particular needs. We strongly urge the city to initiate the process for a Commercial Waste Characterization Study as soon as possible. Finally, as an Environmental Justice attorney and advocate, I

as again the Chairman, would be remiss if I did not point out the disturbing implications of the 2017 study results, and what they have for one of the greatest environmental inequities in our city. Both communities that are overburdened by the clustering of transfer stations that process waste before trucking it out to landfills. The Waste Characterization Study reveals that more than half of what we're sending to landfills should have been recycled, composted or otherwise diverted. This means that half of the trash that continues to be trucked through low-income communities of color could have and should have been diverted if for no other reason than to reduce the impacts on communities who for so long have lived with the daily reality of inhaling the fumes of trucks carrying the entire city's garbage. We must do a better job educating the residents of our city about composting, recycling and waste reduction strategies. We look forward to continuing our work with the Council and with DSNY to accomplish these important goals.

CHAIRPERSON REYNOSO: As usual, thank you Melissa for being part of our choir, which is extremely important and DSNY does need to hear that.

I really don't think again there's any level of urgency when it comes to truly addressing the issue of—of inequities in these communities, and NOPLI's (sic) is always on the front end of making sure that they don't forget that. So, I appreciate it and thank you for that.

ANNA CHAMPENY: Chair Reynoso and Council Members, thank you for the opportunity to testify today. My name is Anna Champeny and I'm the Director of City Studies at the Citizen's Budget Commission. CBC was a non-partisan, non-profit civic organization whose mission is to achieve constructive change in the finances and services of New York State and New York City government. My remarks are a condensed version of the written testimony I submitted. CBC commends the city's commitment to completing these waste studies on a regular basis and we're releasing detail results, which allow policy makers and advocates an opportunity to better understand the waste stream and assess the city's waste management strategies and programs. CBC has written extensive about the economics of waste management in the city, and I want to comment on the fiscal and policy implications of the results. While

aggressively pursuing 0 waste by 2030 the city should be seeking productivity gains in waste collection in order to realize savings including meeting collection targets, increasing the volume of recyclables and optimizing labor contracts. Focusing on increasing participation in the curbside organics program before expanding it and pursuing the use of in-sink disposers, continuing policy and development of policy initiatives such as data's (sic) referral and single-stream recycling and revisiting a plastic bag man with a fee on alternatives. I won't recap the Waste Characterization Study. DSNY did that pretty thoroughly. So, the—the reality of recycling economics is that collecting a ton on recyclables is much costly thank collecting a ton of refuse. $629 compared to $291 according to the Mayor's Management Report. If all else stayed the same having household sort 55% of their recyclables up from the current 50% would cost the city about $20 million more. Labor productivity at the Department of Sanitation measured in tons per truck shift presents opportunities for the city to achieve savings. In 2017, the average recycling truck collected 5.6 tons per truck shift while the average refuse truck collected 9.6 tons,

and because the cost to run a truck shift is basically the same regardless of the material being collected, it's mainly a cost for the salaries and benefits of the two workers. Its costs substantially more per ton to collect recyclables. This presents three opportunities. First the city's labor contract with DSNY workers sets productivity targets as 10.7 tons for refuse and 6.2 tons for recycling and actual collections are below targets. Meeting targets could save $120 million per year. Recommendations in CBS's 2014 Report Getting the Fiscal Waste our of Solid Waste Collection in New York City included lengthening routes, reducing collection frequency in areas with low waste volume and altering shifts. For example have four 10-hour shifts. The city could continues—should continue efforts to increase recycling participation. More recyclables at the curb will increase recycling productivity. If the city were able to increase capture rates to 55%, and meet productivity targets, then that reduction in costs would be $105 million. And thirdly, the labor contracts with the USAF, the Uniformed Sanitation Men Association expire in January of 2019, and the city should pursue collective bargaining changes to

increase flexibility, productivity and end certain differentials and bonuses such as the Productivity Bonus and the Dump On Shift Differential as well as to expand the use of large containers and automated trucks where appropriate. Moving onto organics. Organic materials present a major opportunity to decrease the amount of waste being sent to landfills. Organics, which can be readily composted are currently 34% of an average household's waste. However, as CBC documented in the 2016 Report: Can We Eat our Cake and Recycle it, too? the current curbside organics program is costly and inefficient. The city reports a No Waste Study that just 13,000 tons of organics were separated and collected in 2017. That's just one percent of the citywide organic waste stream and still a small portion of the waste stream, the organic waste stream in the districts that have curbside collection. Data suggests that DSNY collects an average of one ton per truck shift for organics, which would translate into an annual collection cost of about $40 million. So, while the program is well intentioned, and highlights the substantial potential that exists in organics, the city should prioritize fiscal considerations when

deciding our next steps. CBC has argued for slower expansion with a focus on districts likely to attain significant participation. This city should halt expansion until participation can be increased. CBC has also advocated the use of in-sink disposers, which can crush food waste and send it into the wastewater treatment plants without incurring additional curbside collection costs. Lastly, the Organics Program is currently voluntary. Ultimately, the city will want to make it mandatory as was done with their recycling. [bell]

CHAIRPERSON REYNOSO: You can continue. Go ahead.

ANNA CHAMPENY: The city is pursuing two policy avenues: Single-Stream Recycling and Save as You Throw, which have the potential to substantially improve voice (sic) management. The city plans to improve implementing Single-Stream Recycling, which presents an opportunity to realize improvements and efficiencies. Under Single-Stream Recycling, New Yorkers would not longer need to separate paper and metal, glass and plastic. All recyclables would be put in one container, which would reduce the cost of recycling contamination rate, and is also expected to

increase participation and collection productivity for the trucks. The city is also studying a volume based garbage fee program called Save as You Throw. CBC advocated for such a program and supports the city's efforts. An economic incentive is an effective way to get residents to reduce their waste production. In order to encourage more diversion especially of organics, the program should be designed to charge lower fees for recyclables and organic waste as compared to refuse. And lastly, on plastic bags, while not a substantial part of the waste stream, plastic bags represent a missed opportunity for the city. In 2017 plastic bags were 1.9% of the waste stream about 71,000 tons annually and cost about $12 million to landfill. In a blog we put out last week, we advocated for the city to once again act on this issue and pass a plastic ban—a plastic bag ban along with a fee on alternatives. The Waste Characterization Study provides significant data about the make-up of New York City trash and changing consumer behavior. It also provides a lens to evaluate current an proposed DSNY policies, with regards to waste management with an eye to increasing

efficiency and cost effectiveness, and I'm happy to answer any questions. Thank you.

CHAIRPERSON REYNOSO: So, Anna, I got two questions. The Organics Program.

ANNA CHAMPERY: Yes.

CHAIRPERSON REYNOSO: And so it's like a necessary evil to begin it, and we need to start somewhere. Right. I'm going to say it. Sanitation might not say it. There's a goal here to make it mandatory in the future. The only way to do that is make sure that it's citywide, and then after it's citywide we—we make it mandatory and then we start realizing a lot of these—this—this cost efficiencies I guess that we don't have right now because we're getting a very small amount of organics through this program. Obviously, a voluntary program is not netting the results that we would like it to, but understanding the long-term goal is to make it mandatory I guess. These are like necessary evils of—of inefficiencies when it comes to the budget right. What do you—what do you say to that I guess?

ANNA CHAMPENY: Well, I—we—the city has had mandatory curbside recycling paper, metal, glass and plastic, and we are still only at a 50% capture

rate there. So, I think especially in organics, which is a—a substantial change in behavior for New Yorkers, and also noting that for example they—they did say that most of the organics that they're getting more than half is yard waste. It's not food waste. So, getting New Yorkers to separate food waste is going to be a big challenge, and I think what we're seeing is in the districts where they've already got the curbside, you—you have low participation and you've had for a few years. So, work to get the participation up because making it mandatory does allow you to find will increase participation, but you aren't guaranteed to have the tonnage even then to make it cost-effective. So, I do understand. It's very much, you know, the cart before the horse. Like what's—what's the right order, and there's no perfect story, and no perfect answer, but I think given how low the participation rate have been in districts where you would expect more uptake of the program that that we should try to figure out how to make it more attractive to—to the department there. (sic)

CHAIRPERSON REYNOSO: Yeah, and understanding that none of this stuff is black and

white. There's a lot of gray area. You mentioned Save as you Throw--

ANNA CHAMPENY: Yes.

CHAIRPERSON REYNOSO: --which is also a—an incentive based system to get folks to recycle what we're currently recycling at a better rate. So, I just I guess I just don't want to just so black and white. You know, there's inefficiencies throughout the system or we're wasting and we're spending a lot of money or wasting a lot of money. I see it as short-term investments or short-term losses for long-term success or goals. So, I just wanted to put it in perspective because seeing these numbers is a shock sometimes when you look at it, and you're saying oh, we're just doing a terrible job. I just think it's-it's too short-term or we're going to—we're going to take our losses in an effort to hopefully have a better system long-term.

ANNA CHAMPENY: Sure. I mean I think we do see it as some opportunities for the city to improve collection and—and sort of generate savings on one side, which then you can use to offset sort of the expansion of new programs.

CHAIRPERSON REYNOSO: Then you said the city can take $4 million in sink disposers, in sink disposers. So, I just want to—how did you get to the $4 million number? I—I imagine that you're—you're taking it from—you don't need a truck to take any of that garbage because it's going through pipe and the pipes are free, or the transportation of trash through pipes to the wastewater treatment plant are free, but when they get to the wastewater treatment plant, does it need again of any waste so that they'll eventually get on truck to go to some landfills.

ANNA CHAMPERY: So, the—the analysis was completed in that report and it looked at using four districts where there is currently substantial capacity in the wastewater treatment plants to handle the additional volume, and it did include both on the cost side, the cost of providing and installing the disposers, the additional costs at DEP in electricity -in utilities because of the greater volume that they're getting offset by some biogas revenue that DEP can collect. So, that's sort of—there was a DEP portion and then there was the DSNY portion, which was the averted disposal costs because you're not

taking them to the landfill, which is currently I think about $170 per ton. So, we did try to consider all of the components and figure out a net savings. So, it's not a—it's not a huge savings, which the collection piece itself is much bigger, but we did account for the DEP costs of having the additional hurdle. (sic)

CHAIRPERSON REYNOSO: Yes, and I don't know if it's happened and I'll ask, but DEP's the answer is receive any—to work a deal out with National Grid as to how they can get some capture essentially, value capture I guess from—from this the gas that is produced from the bioswales. There's something wrong with the pipes. It's not in the system yet.

ANNA CHAMPENY: Okay.

CHAIRPERSON REYNOSO: So, I just want to let you know that I'm waiting because actually North Brooklyn is the one that would benefit from this.

ANNA CHAMPENY: Uh-hm.

CHAIRPERSON REYNOSO: They're talking about giving a discount to the community because they're giving thee this—this free gas and there's something going on that it's not working just yet,

but we're excited. You're right. We're excited to eventually get that and hopefully savings to all of New York City once—once it's completed. I just want to thank you for your testimony. Very—very well done, and we're going to see if we can use some of the information you gave us today in a couple of weeks when we have our—our finance. What do you call that? The Budget—the Budget, the Executive Budget hearing.

ANNA CHAMPENY: Great.

CHAIRPERSON REYNOSO: So, it will be reflected, and our last testimony of the day to close it out.

MALE SPEAKER: Right, my name is—[pause] I'd like to speak about energy conversion. A lot of the issues that were brought up today could be handled by an energy conversion system. So, dirty diapers were mentioned, plastic forks, Styrofoam, those ubiquitous coffee cups that are paper, but lined with plastic. They all could be converted to energy. More than half of what you're sending out actually has a calorific value, and could be converted to energy, and an energy conversion facility could be started in a pilot operation and probably started at one of your transfer stations

just to prove that it works, and a largescale, a thousand ton per day facility could produce 25 megawatts of power, which could be beneficial to the city in a lot of areas. In terms of the—the vegetative matter going to the facility in Staten Island, an energy conversion facility there taking just that type of waste would be less than half the physical footprint in size, and process a larger volume of waste of that type of waste, and would actually reduce the physical amount of waste at the end dramatically and leave a beneficial soil nutrient that could be sold. So, a much, much different scenario. They city has been reluctant to try anything new. Nashville and other cities are starting to go into these areas and-and test. It's about time for New York to test.

CHAIRPERSON REYNOSO: Well, we have a—doesn't that Covanta—Covanta do this in New Jersey and the city sends a track?

MALE SPEAKER: They're—they're burning it.

CHAIRPERSON REYNOSO: Isn't that what you're saying.

MALE SPEAKER: I'm not talking about burning.

CHAIRPERSON REYNOSO: So, how do you—who would do that?

MALE SPEAKER: I'm talking about—well this technology is Pyrolysis. There is also gasification where you create a synthetic gas out of the waste, and then that is used—can be used in generators to make electricity or it can be perhaps put in this pipeline that you referred to before.

CHAIRPERSON REYNOSO: Okay. So, and I think I've—I've heard of both of these styles. Just introducing these alternatives to communities especially mine, it wouldn't—it wouldn't bode—it wouldn't bode well to some of these--

MALE SPEAKER: [interposing] Well, so—so—you've probably heard of combined heat and power systems little generators that actually our apartment building is putting into—in its basement with that. So, they can be stationed any place in New York City because they'll meet the emissions requirements. So, this energy conversion facility does not have a big smoke stack. It has the same emissions levels of this—these combined heat and power systems.

CHAIRPERSON REYNOSO: Okay, well thank you for that information. I'll—I'll pass it along to

the Commissioner and see where her head is at on this stuff, but when it comes to most of these energy conversion conversations that we're having, a lot of folks just—it's like modern day incineration, and that's why--

MALE SPEAKER: [interposing] Right and it's not and that's why—

CHAIRPERSON REYNOSO: [interposing] You have to break that, you got to break that—a misnormer I guess, that's—that's--

MALE SPEAKER: Right, I know.

CHAIRPERSON REYNOSO: I know you're trying today but I guess what I'm saying is until we don't feel comfortable with getting there, we're talking about two-we have two incinerators in North Brooklyn that we had to shut down, and just reintroducing that. We have members out here that won't even take a waste transfer station in their district because they're—they're so I guess the PTSD of incinerators. So, I just want to—I just want to just put it in perspective. You have a long—a long road ahead of you, sir.

MALE SPEAKER: Right, but there's just like your cell phone technology and all that has

changed over the years, this technology is changing and it's time to start a real look because you have a big problem and of the trains, you know, being turned around in Alabama and whatnot with your—your sludge waste and things like that. They can all be avoided.

CHAIRPERSON REYNOSO: Well thank you for your testimony. I appreciate your time.

MALE SPEAKER: Thank you.

CHAIRPERSON REYNOSO: And thank you all. At this point, the meeting is adjourned. Thank you. [gavel]

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 May 24, 2018