

CITY COUNCIL  
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

Of the

COMMITTEE ON CONSUMER AFFAIRS

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October 26, 2105  
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HELD AT: 250 Broadway - Committee Rm.  
16th Fl.

B E F O R E: RAFAEL L. ESPINAL, JR.  
Chairperson

COUNCIL MEMBERS:

Vincent J. Gentile  
Julissa Ferreras-Copeland  
Karen Koslowitz  
Rory I. Lancman

## A P P E A R A N C E S (CONTINUED)

Dr. Sherri Mason, Professor  
State University of New York at Fredonia

Peter Washburn, Policy Advisor  
Environmental Protection Bureau  
Office of the Attorney General NYC

Julie Menin, Commissioner  
NYC Department of Consumer Affairs (DCA)

Alba Pico, First Deputy Commissioner  
NYC Department of Consumer Affairs (DCA)

Amit Bagga, Deputy Commissioner  
External Affairs  
NYC Department of Consumer Affairs (DCA)

Tamala Boyd, Deputy General Counsel  
NYC Department of Consumer Affairs (DCA)

Mary Cooley, Director  
City and Legislative Affairs  
NYC Department of Consumer Affairs (DCA)

Eric Lindau, Associate Commissioner  
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NYC Department of Environmental Protection (DEP)

David Lipsky  
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Mike Thompson, Senior Vice President  
Personal Care Product Council

Sean Moore, Associate Director  
Consumer Healthcare Products Association

Steven Lazario, Senior Director  
American Chemistry Council

Anna Angin (sp?)  
Environmental Advocates of New York

Eric Goldstein, Lawyer  
Natural Resources Defense Council

Ya Ting Liu  
New York City Program Director  
New York League of Conservation Voters

Jordan Christiensen  
Citizens Campaign for the Environment

John Coghlan  
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Nicole Robinson-Etienne  
Assistant Director  
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Wildlife Conservation Society-New York Aquarium

Dr. Susan Elbin  
Ornithologist  
New York City Audubon

Sandra Meola  
Communications and Policy Director  
New York/New Jersey Baykeeper

Sarah Crane  
NYU Environmental Law Clinic

2 [sound check, pause]

3 [gavel]

4 CHAIRPERSON ESPINAL: Good morning, and  
5 welcome to today's hearing on Microbeads. My name is  
6 Rafael Espinal, and I'm the Chair of the Consumer  
7 Affairs Committee. Joining me from the Committee, we  
8 have Karen Koslowitz, and we also have Dan Garodnick,  
9 who's one of the prior sponsors of one of the bills  
10 that we'll be hearing today. Today, the committee  
11 will take on the important issue of how our habits as  
12 consumers and the products we use impact the  
13 environment we live in. Specifically, we will talk  
14 about consumer products that add plastic--that add to  
15 plastic pollution of our rivers, lakes and oceans.  
16 We will discuss three pieces of legislation related  
17 to personal care products that contain microbeads.  
18 Intro 928 (coughs)--Intro 928 is a Local Law that  
19 would ban the sale of all personal care products that  
20 contain microbeads. Reso 3665 calls upon the State  
21 of New York A.5896 and S39332 known as the Microbead-  
22 Free Waters Act, which prohibits the sale of personal  
23 cosmetic products containing microbeads. Finally,  
24 Reso 3696 calls upon the federal government to adopt  
25 HR 1321/S.1424, the Microbeads-Free Waters Act of

2 2015, which would amend the Federal Foods, Drug and  
3 Cosmetic Act to ban the sale or distribution of  
4 cosmetics containing synthetic microbeads.

5           The problem with plastic pollution is  
6 well documented with all the stories about fish and  
7 other wildlife ingesting or getting trapped in the  
8 many plastic products we flush out to sea.

9 Microbeads are tiny manufactured plastics often  
10 round, simply less than 3 millimeters in diameter,  
11 but are added to many personal care products and  
12 cosmetics such as facial scrubs, body cleansers,  
13 toothpaste even sunscreen and mascara. These tiny  
14 plastics are used as scrubbers and exfoliate in body  
15 wash and toothpaste. In most cases, consumers are  
16 wholly unaware they are using plastic to wash their  
17 face. After use, microbeads are rinsed away down the  
18 drain. They pass through our sewers and wastewater  
19 treatment facilities and end up polluting our rivers,  
20 lakes and oceans. According to some estimates a  
21 single bottle of face wash may have as many as  
22 300,000 microbeads, all of which get washed down the  
23 drain. Due to the small size and buoyancy, they  
24 bypass our wastewater treatment facilities and are  
25 discharged into our waterways. Once in the water,

2 microbeads like plastic generally will absorb the  
3 toxins that are already present in the marine  
4 environment. In our heavily polluted waters, these  
5 chemicals include PCBs and DDT. Small buoyant and  
6 colorful fish and other marine wild life will mistake  
7 the microbeads for food and eat the beads. Once  
8 ingested, the microbeads cause physical damage to  
9 delicate digestive tracts and introduce harmful  
10 toxins into the food chain. Once microbeads are  
11 discharged into our waterways, there appears to be--  
12 there appears to be no practical--practicable way to  
13 remove them from the aquatic environment.

14 In July of 2012, a joint research project  
15 of SUNY Fredonia, and the 5 Gyres Institute conducted  
16 a survey of plastic pollution in the Great Lakes.  
17 The team recovered an average of 43,000 particles of  
18 micro-plastic per square kilometer. Many of these  
19 micro-plastic particles were identified as  
20 microbeads. According to a report by the New York  
21 State Attorney General Eric Schneiderman we are  
22 discharging as much as 19 tons of microbeads into New  
23 York's water every year. The committee looks forward  
24 to hearing from the Attorney General, a steadfast  
25 leader on this issue, key researchers, the Department

2 of Consumer Affairs, consumer environmental--and  
3 consumer environmental advocates. I strongly believe  
4 that as a society, we have a responsibility to use  
5 the earth's resources in a way that minimizes the  
6 damage that we cause. The committee is also eager to  
7 hear from the personal care product industry. In  
8 response to the same concerns that motivated this  
9 hearing, I understand that the personal care product  
10 industry has made efforts to reformulate their  
11 products to eliminate plastic microbeads in many of  
12 their products, and to return to using the many  
13 natural alternatives that are readily available, and  
14 have been used for centuries. It is great to hear of  
15 these initiatives. While I am committed to passing  
16 bill that aggressively protects the environment, I  
17 want to ensure that we are not unnecessarily  
18 burdening the industry and innovation. So thank you  
19 all for being here. I look forward to hearing your  
20 testimony. I will now turn it over to my colleague  
21 Councilman Dan Garodnick, the prime sponsor of Intro  
22 928 and Reso 3665 to speak a little further about the  
23 bill and the issue.

24 COUNCIL MEMBER GARODNICK: Thank you very  
25 much, Chair Espinal for holding this hearing on Intro



2 928 and Reso 3665, which would locally ban the sale  
3 of products that contain microbeads and also would  
4 support the state bills to do the same respectively.  
5 Microbeads are tiny pieces of plastic commonly found  
6 in facial cleans, foaming scrubs, shampoos, and  
7 toothpaste. In fact, they appear in over 100  
8 personal care products. Unfortunately, they are too  
9 small to be filtered out, as you noted, Mr. Chairman,  
10 by our water treatment plants. So when New Yorkers  
11 use these products to wash their face or brush their  
12 teeth, the microbeads go down the drain and right  
13 into our waterways. It is estimated that 19 tons of  
14 these microbeads get flushed into New York's lakes,  
15 rivers and oceans every year. Once the microbeads  
16 end up in the Hudson River, the East River or Jamaica  
17 Bay, they act as sponges, they act as sponges for  
18 pesticides and other chemicals adding to their  
19 toxicity. And when fish and other marine animals  
20 mistake them for food, these polluted microbeads pass  
21 into the food chain, and yes that ultimately includes  
22 humans. Plastics are estimated to compose 60 to 80%  
23 of all marine debris. The National Oceanic  
24 Atmosphere Association stated in 2011 that plastic  
25 debris accumulates pollutants such as PCBs up to one

2 million times the level found in seawater. Those  
3 plastics in our face wash can easily end up inside  
4 our bodies along with all the toxins that they have  
5 absorbed along the way. Now, New York City prides  
6 itself on being one of the greenest cities in the  
7 country. To keep that status, we need to stop  
8 allowing microbeads to destroy our waterways. We  
9 must go after this pollutant, and the best way to do  
10 so is by simply addressing the consumer products that  
11 contain them. Armed with the knowledge of the harm  
12 that they are causing, it's time for the industry to  
13 adjust. Some companies have already agreed to  
14 voluntarily pull products with microbeads from their  
15 shelves. The environmental risks here now far  
16 outweigh any benefit to having them in our products.  
17 It's not even close and, of course for New Yorkers  
18 who are unaware that those small little beads are  
19 actually harmful, we want to raise awareness with  
20 them today as well. It is plastic. It is plastic.  
21 It is going down the drain, and right into the ocean  
22 and right into our lakes and rivers. When I explain  
23 this to friends and colleagues who did not previously  
24 know, they are surprised and they are troubled, and  
25 they commit to me that they are going to continue to

2 use the products with or without any legislation in  
3 any event. But today, we're going to hold a hearing  
4 on a bill that bans the sale of these products that  
5 contain microbeads. I look forward to asking  
6 questions to the panels in the hope that we can get  
7 down to the nuances of what these plastics do to our  
8 environment and what products deserve to be covered  
9 by this bill. So again, Chair Espinal and to my  
10 colleagues I thank you for your interest and for your  
11 support of this and I look forward to the hearing  
12 today.

13 CHAIRPERSON ESPINAL: Thank you, Dan.  
14 With that said, I want to thank my committee staff  
15 Laboni Rahman and Israel Martinez for the hard work  
16 they put--to put this all together. Thank you all.  
17 Let's call up the first panel.

18 LEGAL COUNSEL: For the first panel we're  
19 going to have Peter Washburn from the Office of the  
20 Attorney General and Dr. Sherri Mason.

21 [background conversation, pause]

22 CHAIRPERSON ESPINAL: Whenever you're  
23 ready just state your name before you give your  
24 testimony. [pause] I'd also like you to know we've  
25 been joined by Julissa Ferreras of Queens.

2 [pause]

3 DR. SHERRI MASON: (coughs) Okay. Hi, I  
4 am Dr. Sherri Mason. I'm the Professor from the  
5 State University of New York at Fredonia, and I'm  
6 largely here to report on my research with regard to  
7 plastic pollutions starting in the Great Lakes. I  
8 wanted to first just kind of make sure that we all  
9 understood exactly what plastic is. When we use  
10 there term plastic, we're referring to synthetic  
11 polymer. They are modeled after naturally occurring  
12 polymers, but unlike naturally occurring polymers,  
13 they do not biodegrade when they are released into  
14 the environment. They are amazing molecules. I'm a  
15 chemist, you know, so I can see it from a chemistry  
16 standpoint. They're really, really quite amazing.  
17 They're, you know, so versatile that you can make  
18 anything from a baby doll to buttons to a water  
19 bottle all from the same material. They're very  
20 lightweight so from a transportation standpoint,  
21 they're very attractive, and they're very durable.  
22 But these last two properties that make them so  
23 attractive from an industrial standpoint are also  
24 what is an issue with regard to environmental  
25 concerns. They're lightweight so they can be

2 traveled all over the world, and so they've been  
3 found in the Arctic and the Antarctic. Everywhere we  
4 look, we find them and they don't biodegrade. There  
5 are microorganisms that can use plastic as food, but  
6 they're so unavailable that, you know, we basically  
7 say that it's a non-biodegradable substance. And  
8 lifetimes of plastics are anywhere from decades to  
9 centuries. But plastics were born at the dawn of the  
10 20th Century. It wasn't really until World War II  
11 that the infrastructure for the mass production of  
12 plastics was put into place. When the war movement  
13 ended, they turned their attention from military to  
14 the consumer, and that's where you see this  
15 exponential increase in plastic that has occurred  
16 over our lifetimes. We're now in the last year we  
17 produced over 300 million tons of plastic. Some of  
18 that each year does get disposed of properly. Some  
19 of it does get recycled although as a material it's  
20 very, very difficult to recycle plastic, and so  
21 that's why the recycling rate is so low. But  
22 increasingly more and more that we're finding in our  
23 water estimates of 10 to 15--I'm sorry, 5 to 10% of  
24 the plastics that we produce every year and dump in  
25 our water, and that's where I come into play.

2           In 2012, we did have the inspiration I  
3 guess to survey the Great Lakes for plastic  
4 pollution. As an issue, this--the issue of plastic  
5 pollution started in the world's oceans, and had  
6 been survey for 10 to 15 years, and the story, you  
7 know, looking at the United Nations' estimate that  
8 our colleague Dan reported earlier, 60 to 8--60 to  
9 80% of plastic that we find in the world's ocean  
10 comes from land. So the story that we've been  
11 telling is that a plastic bat that you see blowing in  
12 the wind makes its way into a river, which makes its  
13 way into a lake and eventually flows to the ocean.  
14 So we've been telling that story for 10 to 15 years  
15 when I was sailing in the Great Lakes for the first  
16 time, and wondered simply if there was plastic in the  
17 Great Lakes. So in 2012, we ran our first survey.  
18 We sailed--we started up in Lake Superior. We sailed  
19 into Lake Huron and then to Lake Erie. Based upon  
20 the data that we obtained in 2012, we did a second  
21 survey of Lake Erie in 2013, as well as Lake Ontario  
22 and Lake Michigan. So between the two years we have  
23 surveyed all five of the Great Lakes. For the  
24 record, the largest freshwater ecosystem in the  
25 entire world. People want our water to the point

2 where they want to build a canal all the way across  
3 the United States to get it to California. That's  
4 how wonderful a resource, an amazing resource this  
5 is. In terms of what we do, we drive a manta trowel  
6 across the surface of the water. It looks--it's  
7 called a manta trowel because it looks like a manta  
8 ray swimming on the surface of the water. It has  
9 wings that keep it on the surface of the water. So  
10 all the numbers I'm going to be reporting to you are  
11 surveys of surface plastic. About half the plastic  
12 that we manufacture float, and those would be the  
13 ones that we find. About half of them sink. So in  
14 theory all the numbers that I'm reporting to you  
15 could be mirrored in the sediment of the Great Lakes  
16 and other bodies of water. Actually, the sediment  
17 numbers are starting to come back not from my lab,  
18 but from my colleagues and we're actually finding  
19 more in the sediment, which isn't actually a surprise  
20 because it will settle out there. So we dragged this  
21 net through the water. I always like to show images  
22 of what our samples look like when they come into the  
23 boat. Because one of the questions that any plastic  
24 pollution researcher gets is can't we just go out  
25 there and just clean it up? This is what a sample

2 looks like coming into the boat, and I want--probably  
3 the very first thing you notice when you look at it,  
4 you don't see plastic. What you see is life, okay.  
5 And that's the majority of what we catch because  
6 we're catching anything that's bigger than a third of  
7 a millimeter. So we catch plankton. We catch  
8 blastula plants. We collect--we catch bugs,  
9 everything. We catch lots and lots of stuff, and  
10 just kind of in the midst of all this, we're looking  
11 for the plastic. But actually what looks like a worm  
12 on the screen is actually a piece of plastic that  
13 came off of the cigarette pack when you open it. And  
14 so this plastic is enmeshed within this life. So to  
15 clean up the plastic, as was mentioned earlier, is  
16 actually really quite impossible. If you really want  
17 to solve the plastic pollution problem, you have to  
18 solve it at its source. You have to prevent the  
19 plastic from getting in the water to begin with  
20 because once it's there, it's--it's basically  
21 impossible to get out. Because in the process of  
22 trying to clean out the plastic, you would cleaning  
23 out all of the life that makes the Great Lakes and  
24 other fresh water bodies of water great.



2           So what we do then is we have to take our  
3 samples to chemical processing and we separate them  
4 into three different size classifications. We  
5 chemical process them in order to decompose all of  
6 the living organic material. We then filter them and  
7 count all the plastics that are left over that are  
8 resistant to this chemical oxidation. Count them and  
9 count them, count them and categorize them. We then  
10 can extrapolate our numbers based upon the counts  
11 that we actually obtain in the lab and knowing how  
12 long and how wide our net is, and to how many  
13 particles we captured per square kilometer. This is  
14 referred to as the plastic abundance and those are  
15 the numbers that I'll be reporting.

16           So looking at our data from 2012, these  
17 are all the 21 samples that we captured in 2012.  
18 Lake Superior and Lake Huron, Lake Superior counts  
19 for slightly higher than Lake Huron. I think that's  
20 larger because we were closer to the shoreline, but  
21 within standard deviation in both lakes. We had  
22 about 7,000 plastic particles per square kilometer.  
23 Lake Erie blew us out of the water in 2012. 90% of  
24 the plastic that we obtained in 2012 came out of Lake  
25 Erie with an average plastic abundance of 46,000

2 plastic particles per square kilometer. The two  
3 largest samples, Sample 20 and 21 are actually really  
4 close to where I live. One of them was 288,000  
5 plastic particles. The other one was 460,000 plastic  
6 particles per square kilometer. These are on the  
7 orders of the most polluted areas of the world's  
8 oceans that you find, and this is my lake. So I take  
9 this very personally. (laughs) Looking at these  
10 numbers in more detail. So this is showing our  
11 counts. Along the top you see there are different  
12 size classifications, a third to one millimeter in  
13 size, one to five and then those that are bigger than  
14 five millimeters. Along the left hand side you see  
15 that the fragments, pellets, fibers and lines, films  
16 and films that we categorized them into. What really  
17 caught our attention in addition to just the sheer  
18 numbers that I was just talking about was the size of  
19 the plastic that we found. The vast majority, 80% in  
20 2012 and if you incorporate data that we've gotten  
21 from 2013 to 2014, up to 75% of the plastic that we  
22 pull in is actually smaller than one millimeter in  
23 size. Incredibly small pieces of plastic, and then  
24 what really captured our attention was the number of  
25 these round pellets. To give you an idea of what

2 these look like, this is one of our samples. All of  
3 the smallest plastic particles from one of our  
4 samples is even in a little bit more. What I want  
5 you to notice is the number of perfectly round  
6 spherical balls of plastic. Many of them highly  
7 colored, orange, blue, purple, green. Looking at  
8 these under a scanning electronic microscope, I just  
9 again want to point out how round they are. When a  
10 plastic item is discarded improperly, as you see  
11 frequently along the streets of our fair city here,  
12 as it breaks down as it gets run over by a car, as it  
13 gets beaten by waves, it will fragment. It won't  
14 form a perfectly round spherical ball of plastic.  
15 This is what captured our attention so much is these  
16 round balls of plastic, because we knew that they had  
17 to be released as round balls of plastic. And so the  
18 question is to what would be the source of these  
19 plastic particles. After some detective work, this  
20 is how we came up on the personal care products.  
21 These advertised microbeads on the front as an  
22 exfoliant, and then they list Polyethylene as an  
23 ingredient on the back. So basically plastic balls.  
24 We took a couple of products off of store shelves and  
25 began analyzing them under a scanning electron

2 microscope. I do want to point out here while I have  
3 this image up here that we used the round particles  
4 as indicators of this type of pollution. But I want  
5 you to notice all of the other pieces that don't look  
6 as round. Those are what actually I would classify  
7 as a fragment, and actually we've done a study that  
8 we're working on writing up right now looking at the  
9 amount of these fragment pieces versus the round  
10 particles. There's actually 90% of the plastic that  
11 are in these products are fragments. Only 10% on  
12 average are actually these round beads. So while we  
13 focus on the round beads, I want you to be aware of  
14 the fact that it's not just the round beads that  
15 we're worried about, okay. So we used that as kind  
16 of the canary in the coal mine, but if we just look  
17 at the pellets, we're underestimating the impact of  
18 these products actually on our waterways. We then  
19 compared these particles that we pull out of consumer  
20 products to the particles that we pulled out of the  
21 lake, and that gave us the support for our hypothesis  
22 that these round particles from the lake were  
23 actually coming from these products. And that's what  
24 led to our 2000 and--well, it came out in 2013, but  
25 it was based upon our 2012 study.

2           Looking at our 2013 data, the numbers  
3 don't look any better. Lake Michigan is kind of a  
4 dumb beast in terms of the water flow. Water in Lake  
5 Michigan tends to stay there for about 100 years  
6 before it flows back out to Lake Huron, and the  
7 counts are very well distributed across the entire  
8 Lake Michigan surface, about an average of 17,000  
9 plastic particles per square kilometer. Lake Erie we  
10 did some additional surveys. So you see both our  
11 2012 and our 2013 numbers. One of the things that I  
12 just want to point out is just that some people--  
13 Yeah, questions. That's okay. I'm a scientist. We  
14 question. The--the two values that we did get off of  
15 Lake Erie where I live and if they were maybe  
16 statistical outliers and if you look at the data that  
17 we got from 2013, you'll see that no they're not. We  
18 continue to see very high counts across the lake, and  
19 in the rivers that flow from Lake Huron into Lake  
20 Erie.

21           Kind of like how Lake Erie blew us out of  
22 the water in 2012, Lake Ontario blew us out of the  
23 water in 2013. Every count that we got that we  
24 obtained from Lake Ontario was as big as, if not  
25 bigger than the counts that we were getting in Lake

2 Erie, which isn't a surprise because the water in  
3 Lake Erie flows into Lake Ontario. So what you're  
4 finding in Lake Ontario is not just from the people  
5 who live around Lake Ontario, but what's flowing in  
6 from Lake Erie. So it's an additive effect. The  
7 largest count that we've obtained in the Great Lakes  
8 to date is 1.3 million plastic particles per square  
9 kilometer and that was right outside of Toronto and  
10 it's huge. It's bigger than any other count that's  
11 been obtained anywhere else in the world. That big.  
12 Looking at our data combined from two years ago, I'm  
13 just pointing out the fact that the majority of what  
14 we're finding are particles that are less than one  
15 millimeter. Fragments do make up the majority of it,  
16 but the pellets coming from personal care products  
17 largely are in part, and then the fibers and lines  
18 are third. These pellets and the fibers and lines in  
19 order for those to make their way into the water,  
20 they would have to be making their way through our  
21 wastewater treatment plant process. So we have  
22 actually done a study, part of which was in  
23 collaboration with the Attorney General's Office.  
24 Although that was a more of a qualitative study where  
25 basically we analyzed 34 facilities from across New

2 York State and just do we have microbeads or not?

3 And found that 75% of the facilities across New York

4 State do release microbeads. But the study that I

5 want to show you today was the other part of that

6 study, which was a quantitative study where we looked

7 at 17 different facilities, took 90 samples from 17

8 different facilities from across the entire Unite

9 States. Different sizes, different populations,

10 different treatment types. And while on a per gallon

11 basis, they're releasing less than a particle of

12 plastic per gallon, if you account for the fact that

13 these facilities are processing millions of gallons

14 every day, we actually find on average that the

15 releasing each facility on average is releasing four

16 million particles, over four million particles of

17 plastic every day. (coughs) Now, not all of that

18 are coming from personal care products. Some of them

19 are fibers. Okay, but these fragments and the

20 pellets are the particles that we would associate

21 with the personal care products. And if you

22 incorporate how much of those are in the--what

23 percentage of the plastic that we find are fragments

24 and pellets as well as the number, the amount of

25 water and number of facilities of wastewater that we

2 process everyday. We get estimates from 2 to 20  
3 billion of these microbeads being released into U.S.  
4 waters everyday. I do realize it's a very big range  
5 and it's just because actually the data on how much  
6 wastewater we treat in the United States is very  
7 difficult to find. It's actually almost nearly  
8 impossible. So it has more to do with the estimates  
9 on how much wastewater we process and the number of  
10 facilities we have than our end of it, the data.

11 But, at any rate, we are releasing billions of these  
12 particles every single day, and then why do we care?  
13 And our councilman spoke on that very nicely.

14 Ultimately, what we're concerned about is not really  
15 the plastic itself, but the fact that the plastic can  
16 act as a sponge for chemicals like PCBs, which were  
17 banned in the 1970s, but we know that they're still  
18 prevalent in the Great Lakes today because they are  
19 so persistent. And molecules like PHs, which are  
20 known, they're actually the first group of compounds,  
21 which were proven to be carcinogenic, mutagenic and  
22 teratogens. So not only do they mutate your DNA  
23 leading to cancer, but they affect multiple  
24 generations down the line. These are released in  
25 combustion processes and so they're perpetually being



2 added to the water. And we find them stuck to our  
3 plastic particles in concentrations greater than what  
4 you would find in the water. Ultimately, then the  
5 concern is that these particles as I mentioned are so  
6 incredibly small that they can actually be ingested  
7 by planktonic organisms. And then when the fish eat  
8 the plankton and bigger fish eat little fish, they  
9 can make their way into the food chain. So we did a  
10 food web study where we actually analyzed 25 species  
11 of fish as well as the double-crested cormorant,  
12 which is a bird that eats fish. I only have here the  
13 data for--before we had finished analyzing all 25  
14 species. But let me tell you that all 25 species of  
15 fish that we analyzed every single species had  
16 plastic, every single one. There was not a species  
17 that was immune to plastic.

18 Here I show you the data on the species  
19 that we had analyzed at the point that I put this  
20 slide together. It's set up as like a food web with  
21 the species, the smaller species, the lower trophic  
22 level species at the bottom, and then moving to  
23 higher trophic levels as you move up. The arrows  
24 indicate who eats who, and the numbers in red are the  
25 average number of plastic particles per fish or bird.

2 The species that do not have numbers, again, it's not  
3 that they didn't have plastic. We didn't have data  
4 on them by the time I put this slide together--or at  
5 the time that I put this slide together. And what  
6 you see is that the average number of plastic  
7 particles is one to three at lower trophic levels  
8 moving to five to eight at mid-trophic level and then  
9 the double-crested cormorant has on average 36 pieces  
10 of plastic per bird. So, ultimately why do we care?  
11 We care because we are water. Our bodies are 70%  
12 water. The planet is 70% water. I don't think  
13 that's coincidence. If it's in the water, it's in  
14 us, and I thank you very much for the time.

15 [background noise, pause]

16 PETER WASHBURN: Good morning Chairman  
17 Espinal, members of the Consumer Affairs Committee,  
18 and Deputy Leader Garodnick. My name is Peter  
19 Washburn. I'm Policy Advisor for the Attorney  
20 General's Environmental Protection Bureau. I  
21 appreciate the opportunity to speak with you today on  
22 behalf of Attorney General Eric T. Schneiderman and  
23 the support of the City Council Intro 928. New York  
24 City is recognized nationally indeed internationally  
25 as a leader on the environment. The City's PlaNYC,

2 One NYC are often held up as models for urban growth,  
3 sustainability, resiliency and equity, and the City  
4 Council has been central to this leadership. For  
5 example, when the Council joined with the Mayor's  
6 Office to enact an ban on No. 6 and No. 4 heating oil  
7 in new boilers installed in buildings in the city and  
8 to set a deadline for a ban on the use of these fuels  
9 in existing buildings, the council took a strong  
10 stand against their pollution and for the protection  
11 of the health of New Yorkers. These bans have  
12 already been effective reducing harmful soot  
13 emissions from buildings in the city up to 65%. As a  
14 result, the NYC Clean Heat Program have become a  
15 model for cities across the globe. Now  
16 notwithstanding the tremendous progress made in the  
17 city and across New York, our environment and the  
18 public health continue to face important challenges,  
19 challenges that demand a continued commitment to  
20 leadership. Today, the health of New York's waters  
21 and the health of the fish, wildlife and people who  
22 depend on them are threatened by a little know form  
23 of plastic pollution, microbeads. While consumers  
24 are largely unaware, these tiny plastic particles,  
25 which are smaller than grains of sand, are ubiquitous

2 in face scrubs, body cleansers, toothpaste and other  
3 personal care products. And when these products  
4 containing microbeads are used in the home, the  
5 plastic particles are washed down the drain. A  
6 report issued by the Attorney General's Office in  
7 2014, which you all have a copy of, estimated that  
8 almost 19 tons of microbeads wash down drains across  
9 the State of New York annually with over eight tons  
10 of this plastic pollution estimated to be washed down  
11 drains in New York City alone. And if you haven't--  
12 if you'd like to see microbead up close and personal,  
13 I brought some. These are actually microbeads that  
14 we extracted from these various pro--these various--  
15 these products. So you can see a--an anti-blackhead  
16 cleanser, and an acne scrub, base scrub will contain  
17 this many--it must be thousands of microbeads.  
18 Thousands of microbeads. We know that many of the  
19 plastic microbeads that go down our drain end up in  
20 our waters. Last year, Attorney General Schneiderman  
21 conducted a first of its kind study and directly  
22 documented that treatment plants across the state are  
23 not effectively removing microbeads from their  
24 wastewaters. I've given you a copy of this study as  
25 well. In this study, which sampled the discharges of

2 34 plants from Long Island to Niagara County,  
3 including the Newtown Creek plant in Greenpoint,  
4 microbeads were found to slip past treatment in  
5 almost three-quarters of the plants. This result is  
6 not surprising because our treatment plants are  
7 simply not designed to remove tiny plastic particles  
8 from wastewater before it is discharged into our  
9 waters. And once microbeads enter our waters they  
10 can persist for decades or longer. We know that in  
11 the waters plastic microbeads act like sponges for  
12 PCBs, DDT, PAHs and other highly toxic chemicals  
13 accumulating them on their surface. When mistaken  
14 for food by small aquatic organisms microbeads can  
15 transfer their toxic loads and serve as pathways for  
16 dangerous chemicals to enter the food chain and  
17 concentrate as they are passed to ever-larger fish  
18 and wild life including those that end up on our  
19 families' dinner plates.

20 We can stop this unnecessary pollution of  
21 our waters and its threat to our environment and our  
22 health. We don't need plastic in personal care  
23 products. There are host of readily available,  
24 equally effective and completely safe alternatives.  
25 Already, public pressure has caused--caused industry

2 leaders such as Colgate Palmolive and Johnson &  
3 Johnson to replace microbeads with natural  
4 alternatives. Additional companies have committed to  
5 replace microbeads although some without a firm  
6 deadline. Still others have remains silent. We  
7 cannot afford to wait for every company to act  
8 voluntarily. With almost 19 tons of plastic  
9 microbeads pollution washing down drains in New York  
10 each year, we must act now. That is why Attorney  
11 General Schneiderman supports legislating--  
12 legislation banning the sale of personal care  
13 products containing microbeads, and that's why the  
14 Attorney General supports Intro 928.

15           Like the Attorney General's Microbead-  
16 Free Waters Act, which has been offered in the State  
17 Legislature, the proposed New York City Council  
18 legislation contains appropriate scope, applicability  
19 and enforcement to achieve an effective and timely  
20 ban on microbeads in consumer care products. And  
21 critically, it avoids loopholes that have undercut  
22 other legislation, and would all for certain types of  
23 microbeads to continue polluting our waters.  
24 Leadership is critical to ending the widespread  
25 contamination of our waters by these unnecessary

2 plastic pollutants. The legislation being heard  
3 today represents such leadership. The Attorney  
4 General applauds bill sponsor Council Member  
5 Garodnick, this Committee and the 20 members of the  
6 City Council who have co-sponsored already this  
7 legislation. For joining his effort and that of an  
8 increasingly broad coalition of elected officials,  
9 advocates and citizens from across the state to ban  
10 plastic microbeads in personal care products sold in  
11 New York. We are confident that together we can ban  
12 the bed. Thank you for the opportunity to speak  
13 before you this morning.

14 CHAIRPERSON ESPINAL: Thank you for Dr.  
15 Mason and thank you Peter for actually framing the  
16 issue and giving us the information we need I think  
17 to move this hearing forward. It's really disturbing  
18 to hear the amounts of microbeads that could  
19 potentially be in our waterways and to think for  
20 years we've been using these products, and no one has  
21 really raised the issue, you know, over the decades  
22 of how--you know, how--how this could actually be  
23 hurting our environment. So thank you for all the  
24 work you've done. I don't have any questions.  
25 Councilman, do you some?

2 COUNCIL MEMBER GARODNICK: Oh, yeah.

3 Well, first of all, thank you both for--for your  
4 testimony and, you know, I will note before I ask  
5 questions that the alternatives that you mentioned  
6 there--there are many alternatives. You know, they--  
7 they range from things like ground almonds to apricot  
8 seeds, oatmeal, sea salts, even volcanic ash. There  
9 are lots of things that you can use as natural  
10 alternatives to what is being put in these products  
11 today. So it is not that people will lose their  
12 opportunity to exfoliate here. They will always have  
13 an opportunity to do that, and they will do it in a  
14 way that is not at the expense of the environment.  
15 So let me just pose a couple of questions about--  
16 technical questions frankly to Dr. Mason. The--the  
17 large majority of the pieces of plastic that you're  
18 finding in your studies, they're very, very small.  
19 So you noted most of them are less than a millimeter  
20 in size. You have pellets, as you identified that  
21 are largely coming from personal care products  
22 something like these with the microbeads, and then  
23 you have fragments that are--

24

25



2 DR. SHERRI MASON: They're--they're hard  
3 plastics that have edges to them as opposed to being  
4 rounded.

5 COUNCIL MEMBER GARODNICK: So where--I  
6 guess the--the essential question is where are they  
7 all coming from? I mean I know you've identified  
8 some of them are coming from--right from here.

9 DR. SHERRI MASON: Right.

10 COUNCIL MEMBER GARODNICK: But there--I  
11 mean you noted some of them are coming from plastic  
12 bags that have fallen apart over time, but from your  
13 experience where are they--where are they coming  
14 from?

15 DR. SHERRI MASON: Well, ultimately it's--  
16 -it's I mean, you know, so--so one point that has  
17 been brought up is the fact that--that microbeads  
18 are--are not the only issue, and they're not. About  
19 20--you know, 15 to 20% of the plastic that we're  
20 finding are what I would classify as coming from  
21 these microbeads. There's--so they're a significant  
22 portion. They're not the only portion. The biggest  
23 contribution are--are fragments. Those are just--and--  
24 -and sourcing those fragments is incredibly difficult  
25 because they're so--so small. So, you know, you have

2 this--this blue shard of plastic. You don't know if  
3 it came from a kid's sand pail or, you know, a flip-  
4 flop or, you know--I mean there's so many plastic  
5 products--or if it came from a bottle cap. And  
6 knowing where all of it's coming from, and ultimately  
7 it's coming from our addiction to plastic. And this  
8 kind of single use society that--that we've created  
9 over life--over a couple of generations, right, since  
10 World War II, that--that picture. That's why I love  
11 to show that Time Life picture advertisement of  
12 throwaway living. And--and so ultimately then, you  
13 know, in time we really need to be looking at our  
14 entire relationship with plastic. That being said,  
15 when you can identify a source, and it's that one  
16 most people, as you pointed out--I've never had  
17 anybody come up after I've given this talk and say,  
18 oh, no, I really want to wash my face with plastic,  
19 you know. (laughs) You know, people don't say that.  
20 Most people don't know that it's plastic, and they  
21 don't want it. So when you know that people don't  
22 want it, and--and you know that there are readily  
23 available alternatives, you know, so that's when this  
24 becomes like easy picking, right. This becomes a  
25 focal point because it's an easy thing to just stop

2 and change, and then hopefully that gets people  
3 thinking about other things, too.

4 COUNCIL MEMBER GARODNICK: When you--when  
5 you said that in your study of the fish and birds  
6 that you had found some component of plastic when you  
7 did your study. You said that every species that you  
8 studied had plastic. Where are you finding this, and  
9 forgive the lack of sophistication of the question,  
10 but where--when you--when you study a fish where are  
11 you finding the plastic?

12 DR. SHERRI MASON: No, that's actually a  
13 really good question because where we focused was on  
14 the gastrointestinal tract so we--we actually  
15 separated it out. It actually started with ice  
16 fishermen. When they were coming to shore, and they  
17 would bring the perch we said we'll fillet your perch  
18 if--if you let us keep the guts, and for some reason,  
19 they never declined. So, so we weren't looking in  
20 the meat of the fish, we weren't looking in the skin  
21 and actually in the--the, you know, where they  
22 breathe. I'm a chemist. I'm not a biologist. Had I  
23 thought (laughs) had I thought as a biologist I  
24 probably would have done more of a whole sample and  
25 looked in different compartments in the fish. But we

2 focused just on the gastrointestinal tract, basically  
3 looking to see if they were eating the plastic, if it  
4 was being ingested. Now, studies have come out since  
5 then showing that some of these particles are so  
6 small they actually can make their way across the  
7 gastrointestinal tract and end up in the meat of the  
8 fish that we actually eat. One really interesting  
9 study looking at muscles. I basically went to  
10 grocery stores and pulled muscles off of the store  
11 shelves. So these are muscles that people would be  
12 eating and found plastic within those muscles, and  
13 it's disturbing. Yeah, and then another study did  
14 actually look at the--the fins and the outside  
15 because basically fish are covered in a basic mucus  
16 membrane, and so they're actually covered, the whole  
17 outside of them is covered in plastic as well. But  
18 in our study I was basically looking to see--and it's  
19 one thing to show that the plastic is in the water,  
20 but if you're not showing that it's having an impact  
21 on the species that live there, then quite frankly  
22 most people would be like who cares. I wouldn't  
23 because that's just not how my brain works, but a lot  
24 of people you really have to show them that it's  
25 having an impact. And so we were looking at the fish

2 to show that it was being ingested. So we focused on  
3 the GI tract.

4 COUNCIL MEMBER GARODNICK: Okay, but what  
5 you're saying is that you have found circumstances in  
6 which the plastic is going beyond the GI tract into  
7 the meat of the fish. You found it in muscles.

8 DR. SHERRI MASON: Well, we didn't, but  
9 other people have.

10 COUNCIL MEMBER GARODNICK: Other people  
11 have found it in muscles--

12 DR. SHERRI MASON: [interposing] Yeah

13 COUNCIL MEMBER GARODNICK: --which means  
14 that it is-it is not that farfetched to--to suggest  
15 that humans are actually eating microbeads.

16 DR. SHERRI MASON: Well, I--I would say  
17 even the fact that it's in toothpaste and, you know,  
18 the dental hygienists have come out and had x-rays of  
19 people and they see the particles of plastic that are  
20 still stuck in their gum line after they brush their  
21 teeth in the morning, and what's going to happen to  
22 that plastic when it works its way out of the gum  
23 line. I mean people are obviously going to swallow  
24 it. So, yeah. Are people ingesting plastic? Yeah,

2 they certainly are. Nobody's done any of those  
3 studies, for the record, but--

4 COUNCIL MEMBER GARODNICK: [interposing]

5 But, of course, the study of what is the impact on  
6 human beings for having, you know, consumed plastic  
7 small, medium and large in size, that is an  
8 appropriate question here, but it can't be good.

9 DR. SHERRI MASON: Right, and I think,  
10 you know, the bigger thing, too, is beyond the  
11 plastic. It's--it's the--it's the chemicals that  
12 absorb, and so while we can't say that--that anybody  
13 that has cancer got it from eating plastic or got it  
14 from this or that or the other, we do know that  
15 cancer rates are increasing: ovarian cancer, breast  
16 cancer, prostate cancer. We know that there's  
17 earlier onset of girls hitting puberty. Men, excuse  
18 me, are becoming feminized, um, no offense, but it's  
19 true, and all of these studies are--they're linking  
20 all of these studies to the prominence of these  
21 synthetic chemicals that are in our environment, the  
22 ones that you were talking about that get absorbed  
23 onto the plastic or that are already incorporated in  
24 the plastic.

2 COUNCIL MEMBER GARODNICK: Talk about  
3 that a little bit more because I want to--that was  
4 going to be my next question about how exactly these  
5 plastic are attracting toxins and, you know, and what  
6 the, you know, the--

7 DR. SHERRI MASON: [interposing] Impact.

8 COUNCIL MEMBER GARODNICK: Yeah, the  
9 impact of when that happens because it's not just the  
10 plastic. It is plastic plus--

11 DR. SHERRI MASON: [interposing] It's--  
12 it's more than chemicals.

13 COUNCIL MEMBER GARODNICK: --PCBs, it's  
14 chemicals.

15 DR. SHERRI MASON: Yeah, and as a chemist  
16 I'm actually more concerned with the chemicals almost  
17 than the plastic itself. Because here's what you  
18 have to understand that plastic isn't just polymer.  
19 I defined it as these synthetic polymers, but  
20 actually in order to make plastic moldable in all of  
21 those features, we incorporate what-- You know,  
22 plasticizers, UV stabilizers, all sorts of chemicals.  
23 So actually any piece of plastic that you pick up  
24 this is actually a mixture. It's not just the  
25 polymer. It's going to have all of these other

2 chemicals in--inherent with it, and so--and these  
3 are--sorry. These chemicals are not chemically bound  
4 to the plastic, and so as a consequence they can be  
5 leached out in addition to that. So those are like  
6 the phthalates and BPA. BPA is probably our most  
7 infamous, right, of the plasticizers and it's been  
8 shown to leach out, and that's why the EPA has at  
9 least banned it in baby bottles, but you can still  
10 find it in the lining of your soup can. Flame  
11 retardants, you know, we're really concerned that  
12 that bottle of water we're drinking is going to  
13 apparently spontaneously combust. So we put flame  
14 retardants into plastic as well. Um, so you (laughs)  
15 Um, I have a very weird sense of humor. Apologies.  
16 So we have these chemicals that are incorporated into  
17 the plastic, but they're not chemically bound. So  
18 they can leach out. In addition to that, plastic is  
19 inherently--well, as a chemist, you would say  
20 hydrophobic or water-fearing molecules, and things  
21 like PCB and PHs, DDT. These chemicals that are in  
22 the water are also hydrophobic. They're also water-  
23 fearing molecules. So even though they're in the  
24 water, they don't really want to be. So they will  
25 naturally move out of the water if they can. If



2 there's something for them to latch onto, some way  
3 for them to move out of the water, they will. Kind  
4 of like, you know, oil and vinegar dressing and you  
5 shake it, and they naturally separate, you know. So  
6 you shake it and it can get an emulsion to form for a  
7 period of time. But eventually you give it time and  
8 they will just naturally separate, and the same thing  
9 happens here where they just naturally stick on the  
10 surface of the plastic in order to move out of the  
11 water. And then when they're ingested, those  
12 chemicals are under the heat of an internal or a  
13 body, can then desorb from that plastic into the  
14 organism that is ingested. And it would be stored  
15 within the body tissue and within the meat of the  
16 fish, and we know that these chemicals are in the  
17 fish in the Great Lakes. That's why there are fish  
18 advisories, right. You're told not to eat more than  
19 two perch a month from Lake Erie. So we know that  
20 the chemicals are in the fish, and basically the  
21 plastics are just acting as another means to move  
22 them into the fish aside from just the fish breeding  
23 in the water.

24 COUNCIL MEMBER GARODNICK: Okay, so let's  
25 talk about the interaction with waste-- wastewater

2 treatment facilities because obviously a lot of  
3 microbeads are just going right through and into the  
4 waterways. Is there no way to either funnel them  
5 out, segregate out at that point in the process or  
6 even to neutralize them with chemicals as part of our  
7 wastewater treatment process?

8 DR. SHERRI MASON: So you're asking a  
9 scientist if there's absolutely no way. So  
10 scientists don't work in absolutes. So, of course,  
11 as a scientist--

12 COUNCIL MEMBER GARODNICK: [interposing]  
13 Do you know of any--I guess do you know of any way?

14 DR. SHERRI MASON: Well, actually--so--so  
15 our study focused in on the effluent because sampling  
16 influent is really difficult because there is so much  
17 stuff in it. But there have been some studies out of  
18 Sweden that they sampled both the influent and the  
19 effluent and they did actually show that they were  
20 fairly good at removing these plastics. And despite  
21 having a 95 to 99% efficiency, they're still  
22 releasing two billion tons of plastic a day. (laughs)  
23 So even at having a high efficacy of removing  
24 plastic, there is still a lot of plastic that's  
25 making through, and are you ever going to get

2 something that's 100% effective? No, never, ever,  
3 ever. Um, it's just--it's not going to happen. The  
4 microfiltration that would be required wouldn't be  
5 viable. And so there's a lot of kind of layers to  
6 this, right. It's one, can it be done, and can it be  
7 done economically. I mean the Great Lakes used to,  
8 you know, used to have a huge algal bloom problem  
9 because of the fact that we didn't have wastewater  
10 treatment plants. We were basically just flushing  
11 our sewage out into the Great Lakes. This was, you  
12 know, before the 19--basically '50s and '60s and  
13 '70s, and that's when the wastewater treatment plants  
14 were put into place, and that took billions of  
15 dollars. And now you're looking at if we were--if we  
16 were to say devise something, then you're looking at  
17 having to implant that into every single wastewater  
18 treatment plant across the nation, which for the  
19 record there's about 15,000. And for many of them  
20 because they're gravity fed systems, you would have  
21 to actually redesign the entire--you'd have to  
22 basically completely destroy what's there, and  
23 redesign the entire system. Because the water comes  
24 in and it's pumped up, and from then on out, it's  
25 totally gravity fed. So some of the facilities that

2 we sample literally the effluent is coming out maybe  
3 six inches above the waterline. So there's no room  
4 in terms of the gravity fed system to put another  
5 filter into place, right. So you'd have to redesign  
6 the entire wastewater treatment. And so from an  
7 economic standpoint it just really doesn't make sense  
8 when why don't we just get rid of it in the face  
9 wash, you know, so--

10 PETER WASHBURN: I--I don't think it's--  
11 just to add--I don't think it's--it's a hyperbole to  
12 say that this country faces a infrastructure funding  
13 crisis. I think you all as members of the City  
14 Council recognize what happens yearly when the City  
15 considers a water rate increase. It is likely  
16 possible to engineer these facilities to remove more  
17 of these microbeads than they currently do, but what  
18 would that cost the taxpayers of New York to achieve  
19 those reductions?

20 DR. SHERRI MASON: And what does that  
21 mean. I mean even if you do it New York City, what  
22 about the rest of the world. I mean because water is  
23 a common, right. So what happens here--what we drink  
24 in the water here isn't just because of what you guys  
25 choose to do with your water, right. It's what I

2 choose to do with my water that affects you guys  
3 living in New York City because water connects us all  
4 to each other, right. And so that's another thing to  
5 consider, and that's why, you know, doing a city ban  
6 isn't ideal. Doing county bans isn't ideal but why--  
7 why are we looking at this? Because the state hasn't  
8 acted, right. And so the cities and the counties are  
9 starting to do this on an individual basis basically  
10 to push the state to finally act. And then you get  
11 enough states coming together, and then it pushes the  
12 nation to finally act, right? And so it's becoming a  
13 very grassroots effort.

14 COUNCIL MEMBER GARODNICK: Okay, so let  
15 me--let me move onto an additional area of inquiry  
16 here, which is we have not limited in our bill the  
17 applicability of this ban to just rinse out products  
18 that are intended to be, you know, washed off, go  
19 right down the drain, you know, things like this.  
20 But, it is also clear that plastics are in so many  
21 products. They're not always things that you can  
22 look at with the naked eye and see little beads like  
23 you see here. They're in a lot of products. So, my  
24 first question is a scientific question and the  
25 second question is a state legislative question. So,

2 you know where those both are going. So on the  
3 science question, when there are--when you have  
4 plastic elements of polymer in a hair spray, and the  
5 hair spray is not immediately washed down the drain,  
6 but it ultimately is--

7 DR. SHERRI MASON: [interposing] Yes.

8 COUNCIL MEMBER GARODNICK: --washed down  
9 the drain, a similar impact.

10 DR. SHERRI MASON: Yes, correct.

11 COUNCIL MEMBER GARODNICK: So, this bill  
12 today does not just include the--the wash down the  
13 drain stuff immediately. There are plastics in  
14 sunscreens. There's plastics in cosmetics. This is  
15 all new to a lot of New Yorkers that plastics are in  
16 a lot of the things that they use. And again, not in  
17 a way that are necessarily obvious to their site when  
18 looking at them on the shelves of a--of a drug store.  
19 How harmful are the plastics when they are in a form  
20 that are presumably even smaller than the visible  
21 ones, and where they're not necessarily only just  
22 washed off? The cosmetics the plan is to wipe them  
23 off, and frequently they will get washed off, but--  
24 but the plan is not to just wash them off. So tell  
25 us what--what you regard as the risk of all of the

2 other realm of products. You have the face washes,  
3 and the toothpaste and things that just go right down  
4 the drain, and then everything else. So give us your  
5 flavor on that.

6 DR. SHERRI MASON: Plastic is plastic.  
7 This is the problem with plastic that even as it  
8 photo degrades and gets--you take a plastic water  
9 bottle and run over it with a car and it breaks into  
10 smaller and smaller pieces. It maintains it's  
11 molecular integrity largely, and so even as it gets  
12 smaller and smaller it still has that same basic  
13 inherent perils that a large piece of plastic would  
14 have except for the fact that actually as it gets  
15 smaller, it's more easily ingested. So, the smaller--  
16 -

17 COUNCIL MEMBER GARODNICK: [interposing]  
18 Are you saying that it's more dangerous the smaller  
19 it is?

20 DR. SHERRI MASON: Yes, that is exactly  
21 what I'm saying. The smaller the pieces of plastic.  
22 One, you have a higher surface ratio--surface area.  
23 So you have a greater probability for things to stick  
24 to the surface, and it's more easily ingested by--by  
25 fish and other organisms. And it's going to be harder

2 to filter out at say a water filtration plant. And  
3 so, in--in my mind I guess I would say that a plastic  
4 is a plastic whether you can see it or it's a polymer  
5 oil like you would find in a cosmetic. You know, our  
6 cosmetics that fill in the wrinkles, ladies. How do  
7 you think they're filling in the wrinkles. Okay.  
8 It's plastic. (laughs) Sorry. I mean we don't want  
9 to hear that. We don't want to think that, but it's  
10 true, right, is ultimately that's plastic and  
11 obviously, you know, properly disposing of plastic  
12 and I don't know that you could say proper, but a  
13 landfill is better than the water for sure. So if  
14 it's wiped off as opposed to washed off, but I would  
15 dear to say that most women wash their face to get  
16 rid of their makeup. The hair spray is definitely  
17 going down the drain when they take a shower, and so  
18 all of those things ultimately are ending up in the  
19 water. And they're going to have the same influence  
20 whether it's a particle that you can see, or a  
21 molecule that you can't.

22 COUNCIL MEMBER GARODNICK: So then the  
23 question becomes one of New York City is not the  
24 first jurisdiction to take up this issue. There are  
25 states that have imposed bans. New York has pending



2 legislation. You know, the way that this is being  
3 defined in other jurisdictions and how that  
4 conversation has gone. To the extent that you can  
5 share any of that with us to help us think through,  
6 you know, how broad this should be and just the  
7 Attorney General's perspective on that.

8 PETER WASHBURN: As you--as you might  
9 expect based on the Attorney General's Micro-free--  
10 Microbead-Free Waters Act, we think that an expansive  
11 definition or expansive scope for a ban is  
12 appropriate. There are a number of issues associated  
13 with legislation that has been passed in other states  
14 as well as some of the counties in New York. As I  
15 mentioned in my testimony, our testimony, that we  
16 believe that there are loopholes in those  
17 legislation--that legislation that will allow certain  
18 types of microbeads to continue to be discharged into  
19 New York's water. And, you know, there are two big  
20 issues and we can address both. One is the--the  
21 notion of biodegradability. But the second is  
22 limiting the scope for example to exempt cosmetics  
23 and we have--we have spoke to--have had an  
24 opportunity to have conversations with  
25 representatives of companies--from the cosmetic

2 companies, and it's--you know, we value that  
3 opportunity. We really do, but at this time we think  
4 the scope of the state bill and your proposed bill  
5 is--is correct, and let me give you an example, one  
6 with cosmetics. One of the, as I understand it, one  
7 of the classic microbeads' composition is  
8 polyethylene. And as I understand it, polyethylene  
9 is one of the most common plastics. Last Friday in  
10 15 minutes at the Duane Reade on Wall Street, which  
11 is a huge chain--Duane Reade, in--in one section of  
12 one aisle, I was able to find, you know, a number of  
13 cosmetics that contained polyethylene as ingredients.  
14 You know, to the extent that there are plastics in  
15 these products, to the extent that those products are  
16 washed off people's face, you know, they will be  
17 going down the drain. And as we've heard before  
18 documented that wastewater treatment plants do a very  
19 poor job at removing these plastic particles. It's  
20 going to end up in our waters. You know, what--in  
21 our meetings with the representatives of the cosmetic  
22 industry you would talk to them about the form and  
23 characteristics of plastics that are in their  
24 products. And, you know, we would like to learn more  
25 about these products, but at this point today, we

2 think the scope of our legislation, the scope of the  
3 City Council bill is appropriate to address the  
4 problem that we're trying to address.

5 COUNCIL MEMBER GARODNICK: Well, thank  
6 you for that, and the additional component of  
7 understanding that the smaller the particle, the more  
8 dangerous it is. I think it is also important in  
9 that--in that conversation, and I--I'm with you. I  
10 welcome those conversations, too, from scientists and  
11 how they can explain. You know, we'd be willing to  
12 hear an argument that they're not so harmful. I  
13 would be surprised if we were persuaded by that, but  
14 I would certainly want to hear it. Two more  
15 questions and then I know my colleagues want to jump  
16 in. One is about the chemical composition of a  
17 microbead when it combines with other things. Like  
18 if you put it into a lipstick or a hair spray, does  
19 it change at all when it interacts with these  
20 products or is it just say I am a microbead. I am,  
21 you know, maintain my integrity and I'm going down  
22 the drain eventually. Like how--does it do anything  
23 different when you're thinking about cosmetics or  
24 when you're thinking about something like this?

2 DR. SHERRI MASON: [off mic] I think  
3 the--[on mic] Sorry. The--the--you have a--you have  
4 a polymer, which is polyethylene, for example. It's  
5 the most common, and polyethylene is by far the most  
6 common polymer that's manufactured. And then you mix  
7 in--you--you mix that--that polymer in with all of  
8 these plasticizers and UV stabilants and all that.  
9 But they're not chemically bound. So the  
10 polyethylene structure stays polyethylene. It's  
11 actually a terribly un-reactive molecule. And that's  
12 why I said it's not actually the plastic that we're  
13 worried about. It's--it's more how the plastic  
14 interacts with all of these other chemicals that we  
15 know are in the environment. And then the ability of  
16 it to move to act as an--what we call as vector. To  
17 move those chemicals from the increased (sic)  
18 environment into the food chain, and ultimately into  
19 us. So that's what we're worried about.

20 COUNCIL MEMBER GARODNICK: Okay. On  
21 biodegradability and I just wanted to get clarity on  
22 this before we go to my colleagues. Is there a way  
23 for these microbeads today or even conceptually to  
24 biodegrade in a way that is not biodegrading in 20  
25 million years. Let's say biodegrading within

2 DR. SHERRI MASON: [interposing] A  
3 reasonable time frame.

4 COUNCIL MEMBER GARODNICK: --a more  
5 responsible period of time. And also, are there any  
6 organizations out there who can establish or who have  
7 established standards as to what biodegradability--

8 DR. SHERRI MASON: [interposing] Means.

9 COUNCIL MEMBER GARODNICK: --is or means  
10 that we should be thinking about or focusing on here?

11 DR. SHERRI MASON: So, yeah, I mean you  
12 hit the nail on the head with the last question  
13 because the issue right now allowing that term  
14 biodegradable into the legislation is that there is  
15 no definition of what that means. So it's almost  
16 like the word natural, right. I mean technically,  
17 gasoline is all natural. It doesn't mean I want to  
18 wash my face with right? Because there's not a  
19 definition of what that means. So you can find all  
20 natural written on all sorts of products because it  
21 doesn't have a definition. And so that's the problem  
22 we have with biodegradable. Actually, you can go to  
23 the grocery store probably even right now, and find  
24 quote, unquote biodegradable cups and plates and  
25 silverware, you know, for a summertime picnics and

2 stuff like this. And actually, in those cases  
3 they're not really biodegradable. They're compostable  
4 would be the more precise term, and they're precisely  
5 compostable in an industrial compositing facility.  
6 You stick them in your back yard compost pile, the  
7 temperature doesn't get hot enough for them to  
8 actually degrade, and I can attest to this because I  
9 have them sitting in my compost pile. (laughs) It  
10 has to be an industrial composting facility like what  
11 San Francisco has, and in those cases where you have  
12 lots of microorganisms and high temperatures they  
13 will break down. So are they're biodegradable  
14 plastics? Yes, there are. They're working toward  
15 making more of them, and--but really I shouldn't have  
16 said biodegradable. There are compostable plastics.  
17 There are not biodegradable plastics. You take those  
18 same plastics and you put them in an aqueous  
19 environment where the temperatures are way, way  
20 lower, and there are just not the number of  
21 microorganisms present, and something that would  
22 compost in a San Francisco compost bin will not in  
23 the Great Lakes or Hudson Bay. It's just--that's  
24 just the reality, you know. And so there does need  
25 to be a definition of what biodegradable means. It

2 does need to include a timeline because actually  
3 everything is biodegradable if you give it enough  
4 time. But are we talking about, you know, seconds,  
5 minutes, hours or geologic time scales and right now  
6 plastics are on the geologic time scale and of the  
7 spectrum, and in terms of how long it will take them  
8 to return to their basic elements. So we need to have  
9 a standard in place as to what biodegradable means.  
10 It means to incorporate not just industrial  
11 composting facilities but all environmental aspects,  
12 right, any way that it could be disposed of, which  
13 would include the water. And it needs to incorporate  
14 a time scale. Are we talking about seconds, minutes,  
15 hours? And in terms of an ASTM, the American  
16 Science, Technology and Measurement that organization  
17 is kind of the standard. With regard to having these  
18 policies in place as to what, you know, a method or a  
19 definition would be, to my knowledge they have  
20 nothing, in fact, worldwide at all. I don't think we  
21 have anything in place as to what biodegradable means  
22 or a standard.

23 COUNCIL MEMBER GARODNICK: Okay. So as I  
24 understand what you're saying, there are some  
25 plastics that are compostable, and will degrade a

2 high, high heat in an industrial environment, but  
3 there are none that if you put it into the ocean that  
4 it will simply biodegrade except on a geologic  
5 timetable, which to me means like hundreds--

6 DR. SHERRI MASON: [interposing]  
7 Centuries. Yeah, actually, I should just say it's  
8 centuries.

9 COUNCIL MEMBER GARODNICK: Centuries of  
10 time.

11 DR. SHERRI MASON: Yeah.

12 COUNCIL MEMBER GARODNICK: Okay. Now, I  
13 guess my last question here is to whether or not we  
14 should leave some room in this bill to allow for any  
15 innovative biodegradables here that don't harm the  
16 environment, or whether it is just so farfetched that  
17 it's--it's meaningless.

18 PETER WASHBURN: From the Attorney  
19 General's perspective, the key is, as you alluded to  
20 earlier, the standard you use to determine what is  
21 biodegradable. This is how we look at it. I mean  
22 first of all we don't believe that our water should  
23 be dumping grounds for plastic pollution period. An  
24 appropriate standard for something that may be  
25 biodegradable as a component of a consumer care



2 product would be something that is demonstrated  
3 through a proven verified method to degrade into  
4 safe, non-plastic components before it is discharged  
5 into New York's waters under real world conditions.  
6 And before it's discharged in the--to the New York  
7 waters means that it needs to be able to degrade to  
8 the safe non-plastic components within the resident's  
9 time of a wastewater treatment plant. But the key is  
10 to have a standard that makes sense and is protective  
11 to waters. We can talk. You can get into extremely  
12 technical discussions about this method versus that  
13 method used in this country, but the bottom line is,  
14 you know, are you meeting a protective standard.

15 COUNCIL MEMBER GARODNICK: And just--  
16 we're talking about hours or days here as opposed to  
17 saying years or decades or hundreds of years from  
18 your perspective. Is that correct?

19 PETER WASHBURN: Yeah, my understanding  
20 is that wastewater--you know, there are people that  
21 know this much better than I. My understanding that  
22 a wastewater treatment facility in New York it's a--  
23 it's a matter of, you know, days or a month that it  
24 takes to, you know, treat wastewater. But that is we  
25 think prevents New York waters from becoming dumping

2 grounds for plastic pollutants that the condition in  
3 the receiving waters may be very different from the  
4 conditions in the wastewater treatment plants. If  
5 you depend on the environment to break down plastics,  
6 I think it's a recipe for continuing to dump these  
7 into our water for continuing to have the risk to  
8 both the environment and the public health that we  
9 face today.

10 COUNCIL MEMBER GARODNICK: Thank you both  
11 very much. I know there are more questions, but I'm  
12 going to defer to my colleagues. So thank you and  
13 Mr. Chairman, thank you for all the time.

14 CHAIRPERSON ESPINAL: Thank you, Dan.  
15 I'd like but before we begin, I will do some  
16 housekeeping. We were joined by Rory Lancman from  
17 Queens. We have Vinny Gentile from Brooklyn. They  
18 are both on the committee. I'd like to pass the mic  
19 to Cabrera.

20 COUNCIL MEMBER CABRERA: Thank you so  
21 much, Mr. Chair, and thank you for hosting, and I  
22 want to also take a moment to thank the Attorney  
23 General and Council Member Garodnick for their  
24 leadership in dealing with this issue that is  
25 affecting literally all of us. I have first kind of

2 a curious question regarding we know that the  
3 microbeads are getting into the fish. What happens  
4 when you cook the fish? Is there like a chemical  
5 reaction that takes place? What is the--what happens  
6 at that point? Because most people will cook their  
7 fish. I'm just curious as to what happens at that  
8 point?

9 DR. SHERRI MASON: Well, cooking I mean  
10 if it was plastic the cooking would enhance the  
11 release of the chemicals from the plastic--

12 COUNCIL MEMBER GENTILE: [interposing]  
13 Interesting.

14 DR. SHERRI MASON: --but the temperatures  
15 that you cook at you're not going to do anything to  
16 the plastic itself. It's not going to melt. It's a  
17 very resistant material. So nothing would happen,  
18 but you would enhance actually the release of  
19 chemicals from the plastic into the--the meat that  
20 you're eating. So that--that would actually make it  
21 worse I guess. (laughs)

22 COUNCIL MEMBER GENTILE: Wow.

23 DR. SHERRI MASON: Yes.

24 COUNCIL MEMBER GENTILE: But I--I  
25 actually I expected the opposite. (laughs) And so I

2 think the fact that we really need to deal with this  
3 because it's actually making it worse. It's almost  
4 better to have Sushi.

5 DR. SHERRI MASON: (laughs) Possibly.

6 COUNCIL MEMBER GENTILE: Actually, there  
7 is no better here.

8 DR. SHERRI MASON: There is no better  
9 here. Yeah.

10 COUNCIL MEMBER GENTILE: There is no  
11 better here. What are the kinds of arguments that  
12 corporations--I mean these are very powerful  
13 corporations that are--that are putting for these  
14 products. What are their--what are their arguments  
15 and what are your counter arguments towards those?

16 DR. SHERRI MASON: Um, the arguments that  
17 I've heard from one is that this isn't the only  
18 plastic that's out there, and it's not, and I  
19 mentioned that earlier. Some people have called it  
20 the low hanging fruit and, you know, I live in  
21 Upstate New York where we actually grow food, and you  
22 don't find farmers that bypass the low hanging fruit  
23 to get to the fruit at the top of the tree, right?  
24 It's called low hanging fruit for a reason. You take  
25 it first and so, you know, my argument is that right

2 it's not the only plastic that's out there. It's not  
3 the majority, but it's a significant portion, and  
4 it's a--it's a portion that again, you know, people  
5 don't want. They--they--they assume when they go to  
6 the grocery store and they buy a product off of a  
7 store shelf that it's been tested for human health  
8 impact, that it's safe for them to bring into their  
9 homes. They assume that and it's sad that that's  
10 just not true. And so when you kind of tell them  
11 that, you know, they tell you--I mean I have people  
12 flooding. You know, I've mentioned in a couple of  
13 mass media that people can send me their products.  
14 So if you--you decide that you don't want to use this  
15 face wash any more, you can send it to me and we'll  
16 use it in our studies because we've been doing a lot  
17 of this research and our lab is just filled with--  
18 with products because that, you know, people don't  
19 want it, and they don't want to just throw it out.  
20 They want to see it going for some good since they  
21 already bought it. So that's one argument you may  
22 have heard. I'm trying to think. Do you know of  
23 others?

24

25

2 PETER WASHBURN: You know, I--you'll hear  
3 them. There are probably best to make their argument--  
4 -

5 COUNCIL MEMBER GENTILE: [interposing]  
6 Well, the reason why I'm asking--

7 PETER WASHBURN: [interposing] You know,  
8 I just want to make--make one point on that is that,  
9 you know, they--as far as I know, the industry is not  
10 monolithic. We know there are companies already, and  
11 I mentioned it in my testimony that Colgate-  
12 Palmolive, Johnson & Johnson who already have  
13 eliminated plastic microbeads from their products.  
14 There are others who have committed to doing it and  
15 are working on it. There are others who haven't  
16 mentioned it, but anyway, the industry is not  
17 monolithic. And, you know, one thing for this--the  
18 Council to consider is are we talking about when we--  
19 when we hear that there are not plastics in certain  
20 products are we talking about the entire industry,  
21 the entire category, or are we talking about leaders  
22 within that? And certainly there are leaders within  
23 the industry that have taken the bull by the horns  
24 and have eliminated this. There are others who are  
25 not leading on the issue. So I mean that's important

2 for you to consider, but in terms of the arguments,  
3 you know, we'll hear those.

4 COUNCIL MEMBER GENTILE: The reason why  
5 I'm asking is because you're not coming back.

6 (laughter) So they're going to--in her statement I  
7 would like to hear--

8 PETER WASHBURN: [interposing] I  
9 understand. I will meet with you at any time to talk  
10 about what we hear.

11 DR. SHERRI MASON: Right. Yeah, I would--  
12 -I would actually--I think his comments I mean by and  
13 large the industry has actually been very supportive  
14 of the idea. It's mostly been an argument of  
15 timeline, how quickly it happens, and I understand  
16 that processes need to change. They need to find new  
17 sources, and they need to get rid of stocks, but I--  
18 but at the same time, I think, you know, waiting  
19 until 2019 or 2020 is--is really pushing it, and  
20 that's what a lot of these timelines are. When you  
21 think about how many--like I said, we're releasing at  
22 the minimum two billion of these everyday, and you  
23 want to wait for five more years? You know, that's  
24 just--that seems a little unnecessary--

2 COUNCIL MEMBER GENTILE: [interposing]

3 Uh-huh.

4 DR. SHERRI MASON: --and then the  
5 biodegradable alternatives allowing for these  
6 biodegradable alternatives, and the issue there is  
7 just that if you--if you allow for it right now that  
8 there is no definition of what that means.

9 COUNCIL MEMBER GENTILE: Since we're  
10 dealing with plastic, this is my last question and  
11 please excuse my negativity on this issues, styrofoam  
12 are related in chemical composition--

13 DR. SHERRI MASON: [interposing] They're  
14 processed.

15 COUNCIL MEMBER GENTILE: --and do you  
16 both of you recommend recycling styrofoam in New York  
17 City?

18 DR. SHERRI MASON: I recommend banning  
19 foam to plastics in New York City. (laughs) It's  
20 actually really good for cold, you know, material.  
21 Plastics as I said in general are very, very  
22 difficult materials to recycle.

23 COUNCIL MEMBER GENTILE: But there is a  
24 way to recycle styrofoam. I mean there is brand new  
25 technology and I'm just curious from a chemist and



2 also from the Attorney General's point of view, if  
3 you have a preference?

4 DR. SHERRI MASON: The first would be to  
5 ban it and then I say recycling would be better than  
6 just throwing it out.

7 COUNCIL MEMBER GENTILE: Got you

8 DR. SHERRI MASON: Does that work?

9 (laughs)

10 COUNCIL MEMBER GENTILE: Thank you.  
11 Thank you very much. Okay. Thank you. Thank you so  
12 much, Mr. Chair. Thank you so much.

13 CHAIRPERSON ESPINAL: Thank you, Council  
14 Member. I'm going to ask a relatable question as  
15 well. The Council is looking at measures to reduce  
16 the amount of plastic bags that are being used in the  
17 city. Are you finding plastic bags in these lakes?

18 DR. SHERRI MASON: Um, we find scraps. I  
19 actually, to be honest, when I said that the size of  
20 the plastic really surprised us, it did. I thought--  
21 first of all, I wasn't sure we would find anything  
22 going into the Great Lakes because I mean you fly  
23 over like the Hudson and it's gorgeous. You don't  
24 see anything, you know. So I wasn't sure we'd find  
25 anything. But I thought if we found anything we'd

2 finding bags and bottles. I thought we'd find big  
3 things. Instead, everything that we find is  
4 incredibly small. So do we find--I actually captured  
5 a big--big bag once, but by and large we're not  
6 capturing, I won't say bags, but we capture films.  
7 So fragments from bags. Sometimes you can tell if  
8 they came from a food wrapper. Sometimes it's just  
9 really impossible to tell because the particles are  
10 so small. If it was a food wrapper or a plastic like  
11 a bag from a grocery store, but I'm very supportive  
12 of--of fees on plastic bags, because they--they--  
13 right now you go to a grocery store they're handing  
14 them out for free. But they're not free, right.  
15 They cost the companies them money, they cost  
16 everybody else. They cost you guys right, money,  
17 because people have to clean them up. I mean New  
18 York City it's--it's the state flower right of New  
19 York City (laughs) is what I've heard because you  
20 find them caught in all the trees and--and so you  
21 have to pay people to go out and clean those up.  
22 They get tangled in the wastewater treatment plant  
23 process. You're paying people to clean them out of  
24 the sewers. So there is a real cost associated with  
25 them. And so, you know, people say well, I have a

2 right to a plastic bag. Okay, then pay for it, you  
3 know. You have a right to a styrofoam cup, too, I  
4 guess. I mean freedom and all that. Pay for it. If  
5 you're going to create the waste, then you should pay  
6 for what it costs to properly manage that waste.

7 PETER WASHBURN: Thank you. May I answer  
8 this? I'm not a representative of the Attorney  
9 General's Office. I now in my small apartment's  
10 bedroom have a bag of plastic bags that is literally  
11 this big, and wife is about to kill me. (laughter)  
12 So anything this body can do to solve the plastic bag  
13 problem that New York City and I personally face  
14 would be very, very helpful.

15 CHAIRPERSON ESPINAL: And I would presume  
16 that you would prefer a ban and charge it? (sic)

17 PETER WASHBURN: Just get them out of my  
18 house. (laughter)

19 CHAIRPERSON ESPINAL: All right, thank  
20 you guys. I appreciate it. We're going to call up  
21 the next panel. [pause] Thank you again. Next up  
22 we'll have Commissioner Julie Menin from DCA, Alba  
23 Pico from DCA, Amit Bagga from DCA, Tamala Boyd from  
24 DCA, Mary Cooley from DCA, Eric Lindau from DEP and  
25 David Lipsky from DEP. [pause]

2 COMMISSIONER JULIE MENIN: Great. Thank  
3 you, Mr. Chairman. I'm Julie Menin. Ah, yes.  
4 [pause]

5 CHAIRPERSON ESPINAL: Is everyone  
6 situated? Would you all--all please raise your right  
7 hand. Do you affirm to tell the truth, the whole  
8 truth, and nothing but the truth in your testimony  
9 before this committee, and to respond honestly to  
10 Council Member's questions?

11 COMMISSIONER JULIE MENIN: Yes.

12 CHAIRPERSON ESPINAL: Thank you.

13 COMMISSIONER JULIE MENIN: Great. Thank  
14 you so much, Mr. Chairman. I'm Julie Menin,  
15 Commissioner of the New York City Department of  
16 Consumer Affairs and I'm delighted to be here today.  
17 So let me just first of all start off by introducing  
18 members of the DCA team. We have Alba Pico our first  
19 Deputy Commissioner. We have Amit Bagga our Deputy  
20 Commissioner o External Affairs. We have Mary Cooley  
21 our City Legislative Director and Tamala Boyd who is  
22 our Deputy General Counsel over here. So first of  
23 all, I want to thank you and the members of the  
24 committee so much for the opportunity to testify in  
25 support of Intro 928, which would, as we have heard,

2 ban the sale of personal care products that contain  
3 microbeads. As my colleagues from DEP will testify,  
4 microbeads are small plastic beads added to cosmetic  
5 and personal care products such as facial scrubs,  
6 body washes, toothpaste, soaps, shampoos and a  
7 panoply of different consumer products and are  
8 clearly harmful to marine life, to human health and  
9 to the environment at large. I know we heard  
10 testimony from the Attorney General's Office where,  
11 of course, they were saying their report last year  
12 that estimated that approximately 19 tons of  
13 microbeads are washed into New York State's waterways  
14 annually. And as you have clearly heard, our  
15 wastewater treatment system is ill-equipped to  
16 mitigate the harmful impact of microbeads on our  
17 environment and food systems. Ending the sale of  
18 products of microbeads is clearly aligned with DCA's  
19 core mission to protect New York City consumers and  
20 we fully support the intent of Intro 928. As the  
21 Committee is aware, DCA has also been fully  
22 supportive of legislation that protect the city's  
23 environment evidenced by our robust enforcement of  
24 the so-called AC Bill, and our advocacy for the  
25 recent expansion of the existing law requiring

2 certain types of businesses to keep their doors  
3 closed while the air conditioning is on. The  
4 importance of removing microbeads from products  
5 simply cannot be understated. As nine other states  
6 as well as Canada have already passed legislation to  
7 end the manufacturing of products with microbeads, it  
8 is clear that the threat posed by microbeads to our  
9 environment is indeed very serious. While DCA  
10 commends and fully supports the goal of Intro 928,  
11 DCA and our city's small businesses will face  
12 challenges with respect to enforcement of compliance  
13 with this bill as it's currently written. And so,  
14 what we want to do today is recommend a few tweaks  
15 that will enhance our ability to enforce this  
16 important bill.

17           So let me first of all talk about two  
18 aspects. One is the effective date. The bill in its  
19 current form would ban the sale of personal care  
20 products containing microbeads starting just two  
21 months from now on January 1, 2016. Considering the  
22 amount of time retailers both large and small would  
23 need to assess which products because quite honestly  
24 we know there are so many products that unfortunately  
25 contain these microbeads. Which products in their

2 existing and pre-ordered inventories contain  
3 microbeads, and expenses that will likely be incurred  
4 to order and then remove these products. We believe  
5 that it is fair to offer the retailers more time.  
6 While DCA appreciates placing the responsibility of  
7 not selling products with microbeads on retailers,  
8 they might facilitate the phasing out of such  
9 products in the New York City market. Retailers are  
10 ultimately not the manufacturers. So for all the  
11 thousands of bodegas and stores that are carrying  
12 that, now they're bearing the onus when the onus also  
13 needs to, of course, be on the manufacturer to quite  
14 frankly phase these products out. So indeed many  
15 major manufacturers of such products as we heard  
16 earlier are already responding to microbeads bans now  
17 in place in many jurisdictions by beginning the  
18 process of eliminating them. California,  
19 Connecticut, Indiana, Maine, Colorado, Wisconsin,  
20 Maryland and Illinois have all banned both the sale  
21 and the manufacture of products with microbeads where  
22 their bans on manufacturing are not taking effect  
23 until 2018, and bans on the sale are not going into  
24 effect until 2019 at the earliest.

2           So let me just say--I'm going to deviate  
3 from the testimony here. We fully support what we  
4 said earlier that the ban clearly cannot be 2020 and  
5 2019. So what we are proposing so that we don't  
6 overly burden the bodegas and the small businesses in  
7 New York City is that we will allow sufficient time  
8 for retailers who have no power over the  
9 manufacturing processes of the products they sell to  
10 comply with the ban. So we recommend the  
11 consideration of an effective date of January 1,  
12 2017, which clearly then will help these bodegas to  
13 get these products out of their shelves, and it's  
14 still two years earlier than similar bans of the sale  
15 of microbeads containing products enacted by the  
16 other jurisdictions that I just mentioned.

17           In addition to the timing issue, we want  
18 to highlight a few tweaks on the enforcement side  
19 because we really want to be able to enforce this as  
20 vigorously and as properly as possible. So, several  
21 enforcement concerns that we just want to raise. The  
22 first is the ability of our inspectors to  
23 unambiguously identify which products contain  
24 microbeads, and the second is their ability to  
25 actually inspect dozens sometimes hundreds of



2 personal care products that are on the shelves of  
3 thousands of retailers across New York City. So the  
4 agency's inspectors would need an accurate,  
5 comprehensive list of chemicals designated as plastic  
6 microbeads to fully ensure that all products to the  
7 banned microbeads can be identified on product  
8 packaging. Such a list could be developed by perhaps  
9 a sister city agency such as DEP or perhaps the  
10 Mayor's Office of Sustainability or a state or a  
11 federal agency. This list would then have to be  
12 likely adapted by rule not code so it can easily be  
13 amended to keep up with changing formulations used by  
14 manufacturers. And that's such an important point  
15 because you really want to get ahead of this, and not  
16 just be reactive. Absent such a list, our inspectors  
17 would not be able to unambiguously identify all the  
18 various products that contain these microbeads. And  
19 as such, would not be able to fully effectively  
20 enforce this. The bill in its current form would  
21 require our inspectors to inspect as many as 14,000  
22 retailers in New York City as there are approximately  
23 600 chain pharmacy locations and over 13,000 food  
24 retail stores, a category that, of course, includes  
25 grocery stores, convenience stores, bodegas, delis

2 and gas stations. At many such retailers, our  
3 inspectors would have to inspect potentially hundreds  
4 of products from cleansers to shampoo to toothpaste  
5 to soaps to determine whether or not these products  
6 contain any of the banned chemicals considered to be  
7 microbeads. Such an inspection could potentially  
8 require hours of an inspector's time, and considering  
9 that DCA already has the responsibility of inspecting  
10 tens of thousands of businesses across the five  
11 boroughs every year, enforcement of this type would  
12 not really be possible without the infusion of  
13 significant resources. So we did want to, of course,  
14 mention that.

15 DCA proposes that in addition to  
16 extending the effective date to January 1, 2017, that  
17 the committee consider perhaps having a number of  
18 products that an inspector could assess while  
19 ensuring that a wide variety of products are  
20 assessed. So, for example, an appropriate and  
21 effective analog could be what Suffolk County did.  
22 That law requires that the County's Department of  
23 Health Services, which is responsible for  
24 enforcement, select 10 personal care products for  
25 inspection for microbeads. Such an approach to

2 enforcement will be significantly more efficient and  
3 we could ensure effectiveness by requiring inspectors  
4 to inspect different types of products. But I do  
5 want to be clear about that. We fully support a  
6 total ban on microbeads, but what we want to be able  
7 to do is equip our inspectors with exactly the kind  
8 of tools so that they can both efficiently and  
9 properly do the kind of enforcement.

10           So in conclusion, the threat the  
11 microbeads pose to human health, to marine life, and  
12 to the environment is unequivocal and clear. There  
13 is no question that they should be eliminated from  
14 all products as quickly and efficiently as possible.  
15 Banning the sale of products with microbeads is a  
16 potentially useful method to encourage the personal  
17 care product industry to eliminate them from  
18 products. And any such ban needs to be designed in  
19 a way that allows for more effective and efficient  
20 enforcement. And then I would just mention that the  
21 ban, of course, we want to make sure that it's not  
22 preempted by state or federal law. So the Law  
23 Department I know is looking at that. Our Deputy  
24 General Counsel can answer any questions related to  
25 any kind of preemption issue. We really look forward

2 to working with the City Council on Intro 928. We're  
3 very pleased that the Council is considering this  
4 bill, and any member of our team is happy to answer  
5 any questions you might have for DCA.

6 [pause]

7 ASSOCIATE COMMISSIONER LINDAU: Good  
8 morning, Chairman Espinal, Deputy Leader Garodnick  
9 and members of the committee. My name is Eric  
10 Lindau, Associate Commissioner of Public Affairs, the  
11 New York City Department of Environmental Protection.  
12 I'm joined today by David Lipsky, our Senior Policy  
13 Advisor in our Bureau of Sustainability, and we  
14 appreciate the opportunity to testify on Introduction  
15 928. As you know, DEP's mission is to protect public  
16 health and the environment by supply clean drinking  
17 water, collecting and treating wastewater, reducing  
18 air and noise and hazardous materials pollution.  
19 Much has already been said this morning about the  
20 bill, about the research, about the science. And so,  
21 I'm going to submit my written testimony for the  
22 record and just summarize a couple points.

23 Unlike other forms of plastic pollution  
24 the microbeads and personal care products such as  
25 facial scrubs, washes are designed to wash down the

2 drain. DEP treats an average 1.3 billion gallons a  
3 day of wastewater at it's 14 wastewater treatment  
4 plants around the city. The treatment process is  
5 complex and highly regulated. The resulting effluent  
6 is chlorinated and meets permanent effluent levels  
7 when it's--before being discharged into local  
8 waterways. However, as already stated, the vats  
9 (sic) already at wastewater treatment systems  
10 including ours here in New York City are not capable  
11 of capturing microbeads and, therefore, they're  
12 allowed to pass directly into the surrounding waters  
13 and eventually to the ocean. Aquatic organisms  
14 cannot distinguish these plastic pieces from small  
15 fish, plankton or krill, and they ingest them. In  
16 addition to the physical impacts of plastic  
17 pollution, micro-plastics may have toxicological  
18 effects. And research suggests that micro-plastics  
19 attract and absorb persistent organic pollutants such  
20 as PCPs, DDTs and PDDs. These pollutants accumulate  
21 in the flesh of fish, and have the potential to  
22 affect marine ecosystems and ultimately the health of  
23 people who consume them.

24 We believe that microbeads are an easily  
25 replaced source of plastic pollution that presents

2 unnecessary risks, better avoid--avoided by removing  
3 them from personal care products. Not only is it  
4 preferable to remove them from products beforehand  
5 than try to remove them during the treatment process  
6 at our plants. The biodegradable alternatives to  
7 microbeads and personal care products that cannot  
8 contribute to marine debris already exist including  
9 natural abrasive materials such as bees wax, shells,  
10 nuts, seeds, which are widely used by some product  
11 manufactures. It's for these reasons that the  
12 Department of Environmental Protection fully supports  
13 the intent of the legislation and looks forward to  
14 working with the Council, the Department of Consumer  
15 Affairs on questions of enforcement implementation.  
16 Again, we appreciate the opportunity to testify  
17 today, and David and I, of course, will be happy to  
18 answer any questions, and I submitted my written  
19 testimony today.

20 CHAIRPERSON ESPINAL: Thank you, Eric. I  
21 guess my--my first comments to DCA--By the way, thank  
22 you for your testimony and, of course, we want to  
23 pass a bill that DCA is able to enforce, and we can  
24 be a bit flexible with the time? [pause] We can be  
25 a bit flexible. I'm checking with the bill's

2 sponsors. We can be a bit flexible with--with the  
3 effective date, and I agree that making a list, you  
4 know, perhaps an incomplete list would be key to  
5 enforcing the law. In your testimony you state that  
6 you will need rule making power, but the bill does  
7 enable you to do that. Would you need additional  
8 legislation in order for you to partner with DEP and  
9 other agencies to compile that list?

10 COMMISSIONER JULIE MENIN: I'm going to  
11 turn that over to our Deputy General Counsel to  
12 answer.

13 TAMALA BOYD: [off mic] All right.

14 CHAIRPERSON ESPINAL: You need the mic.

15 COMMISSIONER JULIE MENIN: Yeah, Tamala,  
16 do you want to come over here?

17 TAMALA BOYD: Sorry. [pause] Thank you.  
18 I would agree we need anything--Tamala Boyd, Deputy  
19 GC of DCA. The law as written does actually give us  
20 rulemaking authority. I'm not sure what it gives to  
21 DEP, but I think that it also give DEP authority. I  
22 don't think that we would need anything in addition  
23 to work with them. I think that was your question,  
24 right?

2 CHAIRPERSON ESPINAL: Uh-huh. Okay,  
3 great. Are there any other products that DCA  
4 currently looks for when they go into pharmacies that  
5 are currently banned?

6 COMMISSIONER JULIE MENIN: Well, we look  
7 for volatile organic compounds, but the VOC issues is  
8 rather different in that we're not testing products  
9 to determine do they contain VOCs. We're basically  
10 looking at signage, making sure for example that  
11 stores that sell carpets have signage about VOCs. So  
12 the real issue here with the microbeads is that so  
13 many times products contain microbeads, but it's not  
14 apparent from the product labeling. And so our  
15 concern is we want to be as vigilant as possible. So  
16 we know that there are thousands and thousands of  
17 these products in literally thousands of stores. So  
18 we want to make sure that we can through our  
19 inspectors properly be able to determine which  
20 products contain--or contain these microbeads, and  
21 then test a relevant sample of such products.  
22 Because we believe we need to be able to actually  
23 test them and not just look at the face of the label,  
24 which quite honestly could be deceptive.



2 CHAIRPERSON ESPINAL: Do you believe it's  
3 okay to start with an incomplete list and then build  
4 from there?

5 COMMISSIONER JULIE MENIN: I'm sorry.  
6 Say that again.

7 CHAIRPERSON ESPINAL: Do you believe it's  
8 okay to start with an incomplete list and then build  
9 from there?

10 COMMISSIONER JULIE MENIN: Well, we  
11 certainly don't want it to be incomplete. We want  
12 the list to be as expansive as possible so that we  
13 can give as much salient information to our  
14 inspectors as possible. We know the list is going to  
15 have to change because manufacturers are constantly  
16 changing their formulation, but the list would be  
17 quite instructive for our inspectors as they go out  
18 and do their inspections.

19 CHAIRPERSON ESPINAL: Now, there is also  
20 penalty scheme of \$2,500 for the first offense plus  
21 \$1,000 for each extra offense on that same day. Do  
22 you believe that will be a meaningful deterrent?

23 COMMISSIONER JULIE MENIN: It's  
24 definitely going to be a strong deterrent. It's  
25 quite frankly significantly higher than other penalty

2 structures these days. So it certainly will serve as  
3 a deterrent.

4 CHAIRPERSON ESPINAL: Great. Dan.

5 COUNCIL MEMBER GARODNICK: Thank you, Mr.  
6 Chairman. Just a couple of questions. One,  
7 Commissioner, we get it that your inspectors are not  
8 to be expected to go out and determine, you know,  
9 chemical composition. They need a list. They need  
10 to understand what they're looking for. The--you  
11 proposed that perhaps your sister agency could assist  
12 in that.

13 COMMISSIONER JULIE MENIN: Uh-huh.

14 COUNCIL MEMBER GARODNICK: SO let me just  
15 ask the sister agency then as to whether they feel  
16 equipped, whether you feel equipped to be able to put  
17 together a list of products that actually could be  
18 used for enforcement by DCA.

19 ASSOCIATE COMMISSIONER LINDAU: So let me  
20 start and then I'm going to pass it over to David  
21 Lipsky from our Bureau of Sustainability, and say  
22 that department stands ready, willing and able to  
23 assist DCA in development of that list. There is  
24 some research already out there to our advocacy  
25 groups for example that run--there is a website that

2 is run by an advocacy group called Beat the Bead,  
3 which has a list of products broken down by multiple  
4 states, products that are--that contain microbeads.  
5 Products that are in transition to getting rid of  
6 microbeads, a products that have already removed  
7 microbeads. That--that website in particular does  
8 have an app. We're not sure whether or not that's  
9 the way to go or not. You know, we're not advocating  
10 on behalf of one website or one over the other, but  
11 we obviously stand ready to work with our sister  
12 agencies.

13 COUNCIL MEMBER GARODNICK: Okay.

14 ASSOCIATE COMMISSIONER LINDAU: David, do  
15 you have anything to add?

16 DAVID LIPSKY: Yes. I mean we've tried  
17 to find an official list from a regulatory agency,  
18 and so far I have not been able to find a, you know,  
19 a good list produced by a state or a federal or  
20 consumer product agency in the U.S. that lists  
21 everything that has microbeads.

22 COUNCIL MEMBER GARODNICK: Well, I  
23 suppose here's--

24 ASSOCIATE COMMISSIONER LINDAU:  
25 [interposing] We're supposed to have that.

2 COUNCIL MEMBER GARODNICK: --here's DEP's  
3 chance. The whole country will be using your  
4 guidance then if that is the case. (laughter) and I  
5 think we should embrace that. On the--the suggest,  
6 Commissioner Menin about Suffolk County--

7 COMMISSIONER JULIE MENIN: [interposing]  
8 Uh-huh, uh-huh.

9 COUNCIL MEMBER GARODNICK: --I'm not sure  
10 I totally understand what they did because with the  
11 way you describe it that--that the agency that's  
12 responsible for enforcement was going to select no  
13 more than ten products.

14 COMMISSIONER JULIE MENIN: Uh-huh.

15 COUNCIL MEMBER GARODNICK: So, if they  
16 select ten, then does that mean, you know, everybody  
17 knows which ten they are and that everything else is  
18 officially not evaluated?

19 COMMISSIONER JULIE MENIN: Well, I'm  
20 going to let our City Legislative Director, Mary  
21 Cooley, who spoke to Suffolk County on this very  
22 issue, answer that question.

23 MARY COLLEY: Yes. Hi, I'm Mary Cooley,  
24 and Suffolk is--is just beginning their enforcement  
25 plan. So I think they--from our conversation with

2 them was they are planning on having a list of  
3 products that they test or they--they inspect. But  
4 as I said, at each retailer the department wills  
5 elect no more than ten personal care products upon  
6 expectation comprised of any of the following  
7 ingredients: Polyethylene, polypropylene and they  
8 list them all from there.

9 COUNCIL MEMBER GARODNICK: It was at each  
10 of--?

11 MARY COLLEY: At each retailer. So at  
12 each business.

13 COUNCIL MEMBER GARODNICK: So when  
14 they're enforcing they're--they're picking ten?

15 MARY COLLEY: Yeah.

16 COUNCIL MEMBER GARODNICK: They're not  
17 going--I see, it's about over-enforcement against a  
18 particular business not about which products have  
19 microbeads.

20 MARY COLLEY: Right, yeah.

21 COUNCIL MEMBER GARODNICK: Right?

22 MARY COLLEY: Just enough so that the  
23 retailer is mindful of--

24 COUNCIL MEMBER GARODNICK: [interposing]  
25 I got it. Okay.

2 MARY COLLEY: --to look for it.

3 COUNCIL MEMBER GARODNICK: I

4 misunderstood it. Now it--

5 MARY COLLEY: [interposing] A cross-  
6 section of products.

7 COUNCIL MEMBER GARODNICK: --it makes  
8 much more sense to me that the idea is we're not  
9 going to, you know, we're not going to hit one  
10 retailer for, you know, 20, 30, 40 violations as  
11 opposed to what I thought it was, which was we're  
12 picking ten products that we're enforcing, you know,  
13 countywide.

14 MARY COLLEY: [interposing] No, it's for  
15 each retailer.

16 COUNCIL MEMBER GARODNICK: Okay. I got  
17 it. Okay, good. Thank you.

18 CHAIRPERSON ESPINAL: Okay. So one final  
19 question for DEP. Is it possible that the water I'm  
20 drinking from my faucet contains microbeads?

21 ASSOCIATE COMMISSIONER LINDAU: I--I  
22 don't think so. No, the--the water supply goes  
23 through significant testing process along the way.

24 [background comments]

25

2 CHAIRPERSON ESPINAL: All right, thank  
3 you.

4 ASSOCIATE COMMISSIONER LINDAU: It's also  
5 worth mentioning that some of the Upstate have micro  
6 filtration by the Upstate plants when the--the  
7 filtration plants when that water comes through.

8 CHAIRPERSON ESPINAL: Okay that's good to  
9 know. Thank you. I appreciate it. Thank you, guys.  
10 I'm going to call up the next panel.

11 COMMISSIONER JULIE MENIN: Okay. Thank  
12 you very much.

13 CHAIRPERSON ESPINAL: Thank you,  
14 Commissioner. [pause] Thank you. I'd like to call  
15 up the--[background comments]--the next panel. We  
16 have Mike Thompson from Personal Care Product  
17 Council. We have Steven Lazario from the American  
18 Chemistry Council, and we have Sean Moore from the  
19 Consumer Healthcare Products Association.  
20 [background comments, pause] You may begin. Just  
21 state your name before you give your testimony.

22 MIKE THOMPSON: [off mic] My name is

23 CHAIRPERSON ESPINAL: And turn your mic  
24 on. The button.

2 MIKE THOMPSON: Chairman Espinal and  
3 members of the committee. Good morning, my name is  
4 Mike Thompson. I'm from the Personal Care Products  
5 Council and I, too, have a written statement, and  
6 will excerpt from it rather than reading the entire  
7 remarks. The Personal Care Products Council is a  
8 leading national trade association representing the  
9 cosmetics and personal care products industry. We  
10 have over 600-member companies that distribute and  
11 supply the vast majority of products in this  
12 category. Many of our companies have corporate  
13 facilities in New York. The overall personal care  
14 and beauty industry contributes \$20 billion annually  
15 to the state economy and \$5 billion in taxes and  
16 employs over 190,000 statewide.

17 Microbeads are used in some personal care  
18 products because they are safe and have excellent  
19 exfoliating properties with no adverse health effects  
20 on consumers such as allergic reactions and because  
21 they are sensitive to the skin, especially to  
22 consumers that may have acne or other sensitive skin  
23 situations. Our member companies have voluntarily  
24 committed to move ahead on microbeads and to stop  
25 using microbeads. Last year a wide range of



2 stakeholders came together in Illinois to develop  
3 legislation that would phase out plastic microbeads.  
4 This passed both houses unanimously, and was signed  
5 into law in June. In August, the Illinois law was  
6 adopted as suggested State Legislation by the Council  
7 of State Governments. Language consistent with  
8 Illinois and the Council of State Governments, as you  
9 heard earlier, has been adopted now in seven states  
10 including Connecticut, New Jersey and Maine. We  
11 supported all of these laws in other states and have  
12 been supportive of the Council of State Governments.  
13 The prohibitions in these laws began in 2017 ensuring  
14 that manufacturers have adequate time to reformulate  
15 what alternative ingredients that are safe for  
16 consumers. And ensure that they meet the regulatory  
17 requirements of the Federal Food, Drug and Cosmetic  
18 Act. The development of new cosmetic products  
19 involves numerous scientific disciplines in multiple  
20 areas of expertise can often take years to complete.  
21 Unfortunately, it's not a simple replacing one  
22 ingredient for another. Reformulation times vary  
23 based on company size, ingredients, retrofitting, et  
24 cetera. The proposed January 1, 2016 timeframe would  
25 be extremely problematic not only for manufacturers

2 and retailers who want to use new products, but also  
3 for consumers. These consumers may not be aware of  
4 the reason for the change and might use--go to other  
5 neighboring jurisdictions to purchase products.  
6 Companies need adequate time to reformulate to ensure  
7 that their products are efficacious and  
8 environmentally friendly.

9 We endorse the two resolutions that are  
10 before you today, but we feel that a statewide or a  
11 national solution is clearly preferable. However, if  
12 you wish to enact a microbeads law here in the city,  
13 we encourage you to adopt one that is consistent with  
14 other jurisdictions. This industry has led the way  
15 and shown their environmental stewardship, and only  
16 ask for reasonable timeframes and consistent laws  
17 especially in the New York City Metropolitan area  
18 since New Jersey and Connecticut have moved ahead  
19 within the past year. We appreciate your  
20 consideration, and look forward to working with the  
21 council member on this important issue. Thank you.

22 Good morning Chairman Espinal and members  
23 of the Committee. My name is Sean Moore. I'm here  
24 today on behalf of the Consumer Healthcare Products  
25 Association or CHPA. CHPA is a national trade

2 association that represents the manufacturers and  
3 marketers of over-the-counter medications. I  
4 appreciate the opportunity to speak to you about  
5 Introduction 928. CHPA does have concerns. I do  
6 want to mention that we share the concern of this  
7 body, and the public about plastic pollution to the  
8 environment. Despite a lack of scientific consensus  
9 about the environmental impacts of microbeads, our  
10 members have moved forward voluntarily for the  
11 introduction of any legislation on this issue before  
12 the introduction in Illinois even, to begin phasing  
13 out microbeads. While we don't oppose the phase out  
14 of microbeads, we do feel very strongly these laws  
15 should not create a patchwork of different  
16 requirements across jurisdictions, and that  
17 manufacturers should be provided adequate time to  
18 identify and phase in viable alternatives. As has  
19 been discussed quite a bit already this morning, to  
20 date nine states and four New York counties have  
21 adopted laws to ban microbeads. CHPA is concerned  
22 that the scope of this bill is defined so big that it  
23 could have the unintended effect of banning products  
24 that do not even contain microbeads. Such action is  
25 not expected to have any measurable environmental

2 benefit, but would make--consumers would negatively  
3 be affected as hundreds of additional products could  
4 potentially be pulled from store shelves. To prevent  
5 such unintended consequences CHPA proposes to revise  
6 the definition of microbeads so that it applies only  
7 to those products that actually contain microbeads  
8 and would match the scope of the bills that have been  
9 adopted in nine other states and four New York  
10 Counties to date. As Mr. Thompson mentioned, we  
11 would ultimate prefer that this issue be addressed at  
12 the federal or state level. However, we understand  
13 Council Member Garodnick's interest in having New  
14 York City lead on this issue. We are committed to  
15 working with him and the rest of the City Council to  
16 address the concerns that we have with this  
17 legislation. I appreciate your time, and I'm happy  
18 to answer any questions you may have.

19           STEPHEN LAZARIO: Good morning, Chairman  
20 Espinal and members of the committee. For the  
21 record, my name is Steven Lazario. I'm Senior  
22 Director for the American Chemistry Council. I based  
23 here in New York. I was actually born and raised in  
24 Brooklyn and Queens and I still live here in New  
25 York. I welcome the opportunity to comment on Intro

2 928 and I certainly look forward to working with the  
3 Council on this issues. ACC is a national trade  
4 association representing the chemical and plastics  
5 industry in the United States. For those of you who  
6 may not know, New York is the seventh largest  
7 chemical producing state. And most people think of  
8 our neighbor across the river in New Jersey, but we  
9 have a sizeable presence and we are the largest  
10 manufacturing sector in New York. What's important  
11 about that, Chairman, and members of the committee is  
12 that not only are we an industry, but we employ many  
13 men and women--men and women who live here, work  
14 here, have families here, and are just as concerned  
15 about the environment. Sometimes we lose sight of  
16 that fact when we talk about industry or when I'm  
17 asked what is it that I do. I'm here because there  
18 is a chemistry component to all of this. You heard  
19 from Dr. Mason, and chemistry is a complex and  
20 difficult issue to understand. I know from  
21 experience when I was in college I hated chemistry,  
22 and somewhere along the line someone had a sense of  
23 humor because here I am representing the chemistry  
24 for 25 years.

2           While we know that plastics provide many  
3 important benefits to modern life, we all agree that  
4 they do not belong in lakes, oceans and other water  
5 ways. We have created a new division dealing with  
6 marine debris and are working with scientists and  
7 countries from around the world. We view our  
8 industry as a solution provider, and we hope to work  
9 with the Council and obviously and other scientists  
10 in countries. On the issue of microbeads we have  
11 several concerns. One is the definition of  
12 microbeads. The other is the definition of plastics,  
13 and you've heard a lot about everything that is a  
14 plastic, and yes about 96% of every product  
15 manufactured in the United States and worldwide is  
16 some derivative of a plastic or polymer. You've  
17 heard about the effective date, which we also are  
18 concerned with as DCA and my colleagues have pointed  
19 out. We have supported legislation at the state level  
20 at the various states that have been mentioned. We  
21 believe that the federal standard and national  
22 standard would be the best, and we look forward to  
23 working with the Council on a solution to this issue.  
24 Thank you very much.

2 CHAIRPERSON ESPINAL: Thank you. Just  
3 one question. What practical impact would this bill  
4 have on the average neighborhood pharmacy, would you  
5 say?

6 SEAN MOORE: On the average neighborhood  
7 pharmacy first of all, if the bill were to move  
8 forward as drafted, the time frame would be such that  
9 the manufacturers would not have the ability to  
10 reformulate all these products before the bill went  
11 into effect. So products will have to be pulled off  
12 the shelves, returned to the manufacturer. Drugs  
13 that come back to manufacturers cannot be resold so  
14 they would have to be destroyed. And I would assume  
15 for at least some period of time before manufacturers  
16 were able to reformulate and get the new products on  
17 the shelves, there would be holes in the shelf space.

18 COUNCIL MEMBER GARODNICK: Thank you, Mr.  
19 Chairman. Just a couple of questions. The first is  
20 for Mr. Moore. You noted that you were concerned  
21 about a patchwork of rules here, which I certainly am  
22 sensitive to. I'm also concerned that perhaps the  
23 other jurisdictions did not get it right, and that  
24 perhaps, in fact, the fact that there are a handful  
25 of states and other local jurisdictions that--that

2 have done it means that most jurisdictions have not.  
3 And we want to make sure that we set the standard  
4 here in New York City. So, I just wanted to flag for  
5 you that while I agree ideally you do not have a  
6 patchwork, I am not as we sit here convinced that  
7 they're right and this draft is wrong. But I did  
8 want to ask you about the--the--what you regard as  
9 the vagueness of the bill that it would prohibit the  
10 use of ingredients that are not plastic microbeads  
11 and do not contribute to the environmental concerns  
12 that the bill seeks to address. Tells a little bit  
13 about that. What you're concerned about, you know,  
14 and what you have in mind when you say it.

15 SEAN MOORE: Sure. I think that as was  
16 discussed earlier, we--the definition of microbeads  
17 in this bill differs from the definition that has  
18 been adopted in a number of other states. As came up  
19 in the discussion earlier products like hair sprays,  
20 I'm not aware off hand of any over-the-counter  
21 hairsprays, but another product example that came up  
22 was sunscreens. So I think we're concerned that some  
23 of the ingredients that were mentioned earlier that  
24 are mid polymers that are not microbeads, would--  
25 could be prohibited under this bill because we are



2 talking about, as was mentioned, things on the  
3 molecular level. And I don't think that there is any  
4 other incidents that we've seen that shows that  
5 molecules of plastic in the environment have been  
6 contributing to this--this concern that the bill  
7 seeks to address. And I think that the things we've  
8 heard discussed this morning the--the things that  
9 were talked about when this bill was introduced those  
10 types of materials are the--are the beads that our  
11 members have committed to phasing out the--the actual  
12 microbeads that are being detected in Dr. Mason's  
13 research.

14 COUNCIL MEMBER GARODNICK: Do you have  
15 any reason to believe that plastic in its smallest  
16 form maybe not a bead but something even smaller is  
17 less susceptible to say drawing toxicity to it, or to  
18 being consumed by fish or find its way into the food  
19 chain?

20 SEAN MOORE: Sure. I'm not a scientist so  
21 I can't really answer that. I can point you to other  
22 sources specifically the National Oceanic and  
23 Atmospheric Administration. I think some of their  
24 research on this issue was referenced earlier. And  
25 yes while micro-plastics in the environment may

2 attract toxins at a greater rate than it is in sea  
3 water, they also indicate that there is no evidence  
4 that--or it's unclear whether or not those toxins  
5 once consumed by an organism could migrate out into  
6 that organism's flesh. So, I--I'm unable to say  
7 whether or not they present the concern that this  
8 bill seeks.

9 COUNCIL MEMBER GARODNICK: Okay.

10 STEVEN LAZARIO: [interposing]

11 Councilman--

12 COUNCIL MEMBER GARODNICK: Go ahead.

13 STEVEN LAZARIO: Can I just add and again  
14 I think this goes to the chemistry involved and why  
15 definitions are so important. We really need to  
16 understand what it is that we want to go after, and  
17 if I may respectfully disagree from Dr. Mason, a  
18 plastic is not a plastic. You change the molecules  
19 or the carbon rings, and you could have two very,  
20 very different products. And that's why the  
21 definition of what it is in terms of a microbeads the  
22 City Council hopes to address and what other states  
23 have attempted to address is very important. This  
24 VPA, which you've heard, and again, may I correct the  
25 record. VPA is not a plasticizer. It is actually

2 something that hardens plastic. So the water jug in  
3 your cooler that is VPA because it's hardened. It's  
4 also in my bicycle helmet and my motorcycle helmet.  
5 Same chemical, two different applications. Both to  
6 provide safety. So, when we talk about micro beads,  
7 you have to really look at the chemistry.

8 COUNCIL MEMBER GARODNICK: Agreed, agreed  
9 and I believe that we need to figure out here where  
10 the--the line is, but I will tell you that I am  
11 getting more concerned rather than less concerned  
12 when I hear about the prevalence of these polymers in  
13 almost every product that you can imagine that are,  
14 you know, being advertised and that are present and  
15 on the shelves. So I do think that there is an  
16 important question here, but I--you know, again I'm  
17 not sure that the other jurisdictions actually got it  
18 right. And I would be interested in a study, which  
19 said, "Don't worry about it." You know, small,  
20 small, small fragments piece of plastic coming out of  
21 hair sprays, sun screens, you know, cosmetic products  
22 that you shouldn't worry about them because they're  
23 actually not doing any harm to anybody. That study  
24 may not exist. Maybe they're doing harm. Maybe  
25 they're not doing harm. We have a very strong, you

2 know, testimony from a scientist who studied this  
3 today who says, yes, good for you for worrying about  
4 microbeads, but in fact the--the things that are even  
5 more dangerous are as they get smaller and smaller  
6 and smaller. So I take that pretty seriously, and I  
7 think we should all take that seriously.

8 STEVEN LAZARIO: [interposing] Can I  
9 respond--

10 COUNCIL MEMBER GARODNICK: Please.

11 STEVEN LAZARIO: --to that point because  
12 I hear it. It's an excellent point, and really  
13 brings to what is missing here a little bit, and had  
14 I known and I would have had the right person here.  
15 But we talked about microbeads as pollution and you  
16 heard a lot about the health issue. What is missing  
17 here is someone who has a toxicology background  
18 because, you know, toxicology is the study of harmful  
19 effects of the environment on living organisms.  
20 We're not hearing any of that information. You heard  
21 from my colleague that there is much safety built  
22 into it because of the agencies that regulate us  
23 whether it's FDA, EPA, the Agricultural Department  
24 and a whole bunch of others. So, I think if you're  
25 going to look at not only the pollution side but the

2 health side, which is what you just mentioned,  
3 Council Member, I really think we need to then start  
4 looking at some of the toxicology issues and the  
5 toxicological studies that are out there, which are  
6 different than chemistry. Toxicology covers  
7 chemistry, biology, pharmacology, and those are the  
8 people that unfortunately I was remiss in not  
9 bringing that person with me because I didn't think  
10 we were going to get into that area.

11 COUNCIL MEMBER GARODNICK: Okay, well  
12 look--

13 STEVEN LAZARIO: [interposing] I take  
14 responsibility.

15 COUNCIL MEMBER GARODNICK: This is not  
16 your only opportunity here. I mean we'll--we'll read  
17 anything you send to us and we're--we're interested  
18 in the question. So let us continue that  
19 conversation. And then I would just make one--one--  
20 one final point, and Mr. Thompson I appreciate that,  
21 you know, many of your member companies have  
22 voluntarily committed to stop these and microbeads in  
23 favor of the other alternatives. That is--it's very  
24 good and we appreciate that. I will also note that I  
25 do not share your concern about consumers who can't

2 find the products and they have to go to other  
3 jurisdictions. I think they will survive, and I  
4 think they will be okay, and I think that to the  
5 extent that there is a balance here between hey I  
6 can't find my favorite body wash or will we continue  
7 dumping those beads into our waterways, that we have  
8 to err on the side of protecting the waterways.

9 STEVEN LAZARIO: We agree. I think that  
10 what we want to leave the message was that our  
11 companies get it, and that environmental stewardship  
12 is extremely important. So thank you. So we find it  
13 something that consumers have spoken and companies  
14 are acting. We hopefully have companies that are  
15 doling positive things. Thank you.

16 COUNCIL MEMBER GARODNICK: Last question  
17 for the group. Is there a way to make any of this  
18 stuff biodegradable? Again, let's just distinguish  
19 between high heat biodegradability or compostability,  
20 and you put in the water, and it sits for hundreds of  
21 years. Is there a way for plastics, microbeads,  
22 things smaller than microbeads to actually biodegrade  
23 in water?

24 MIKE THOMPSON: You bring up an excellent  
25 point. That's what we call the technology forcing

2 aspects of this and there is an awful lot of research  
3 that's going on. Most of our members do not make the  
4 bead. They would buy them from a supplier, and there  
5 is extensive research that's going on at this point  
6 in time to develop biodegradable plastics, and it's  
7 very exciting. Is it commercial viable today for  
8 mass use? Probably not available right now, but we  
9 think that the implications are significant because  
10 the microbeads versus the use let's say of water  
11 bottles in other areas is significant. So we're glad  
12 to have the research going. We just don't want to  
13 have it stop.

14 STEVEN LAZARIO: As my colleague said we--  
15 --I--I think what makes our industry very innovative  
16 keeping us ahead of the Chinese and everyone else  
17 around the world is the fact that we are constantly  
18 trying to innovate. I have two facilities right here  
19 in Westchester County. That is all they do is R&D  
20 and test. So in answer to your question, Councilman,  
21 yes I think there is always the possibility that we  
22 could come up with something, but we have to be given  
23 the opportunity to do so. I started by--I'm not  
24 saying that we're going to invent biodegradability,  
25 but innovation requires the opportunity to invent.

2 COUNCIL MEMBER GARODNICK: Okay, I  
3 certainly agree with that, but what I hear you all  
4 saying is that there is no known biodegradability of  
5 plastics today. Is that correct?

6 STEVEN LAZARIO: I can't say--my  
7 companies are involved in so much research I can't  
8 answer that question.

9 COUNCIL MEMBER GARODNICK: [interposing]  
10 Okay, so you don't know. You don't know of any way  
11 to biodegrade plastics today?

12 STEVEN LAZARIO: No, actually, there are  
13 some plastics that are biodegradable--

14 COUNCIL MEMBER GARODNICK: [interposing]  
15 Tell us.

16 STEVEN LAZARIO: --and compostable.

17 COUNCIL MEMBER GARODNICK: Tell us. Not  
18 under high heat in water. You dump it in water and  
19 it--it takes a day or a week or a month to  
20 biodegrade?

21 STEVEN LAZARIO: I--I would have to go  
22 back to my technical folks to get you that, and we'd  
23 be pleased to get you that information.

24 COUNCIL MEMBER GARODNICK: Okay, and  
25 certainly, we don't want to limit the industry's



2 desire to deal with that. I also am rather certain  
3 as we sit here today, there is no way to actually do  
4 it. So the question then for us becomes how do you  
5 deal with that in the legislative capacity? You  
6 know, if you left an opportunity as some  
7 jurisdictions have for biodegradability where no  
8 biodegradability exists today, it really is--it's a  
9 bit of a fallacy because it doesn't exist. I don't  
10 think that would limit the industry from trying to  
11 create and innovate because once such a thing exists,  
12 the industry will come back and say oh, wait a  
13 minute, we have a way to do that now. Please help us  
14 get this onto the shelves. I do think the issue is  
15 serious enough that we should be dealing with it from  
16 the perspective of public health and environmental  
17 security rather than the hypothetical of future  
18 development. But that's I suppose a future  
19 conversation.

20 MIKE THOMPSON: I think that states like  
21 Connecticut and Maryland have struggled with this  
22 same question and they did include processes where  
23 the state agency I guess determines a standard like  
24 ASTM, which was referenced earlier. If a standard  
25 comes into existence for a material that will

2 biodegrade in say a marine environment or in a  
3 wastewater treatment process that those materials  
4 then could be allowed there. I think what we're  
5 struggling with is again any ending up with a  
6 patchwork of--of different laws. So if Connecticut  
7 decides on using one standard versus New York City  
8 decides on another standard. But I think that there  
9 is a mechanism that some states have tried to get at  
10 to ensure that any biodegradable materials will  
11 actually biodegrade in the anticipated ways on that.  
12 (sic)

13 COUNCIL MEMBER GARODNICK: So we are right  
14 to the extent that we were to look to an independent  
15 standard here? You will now be the second person to  
16 testify today that ASTM is an appropriate standard.  
17 Is that--is that correct?

18 MIKE THOMPSON: I think that ASTM is one  
19 body that might have standards that I believe would--

20 COUNCIL MEMBER GARODNICK: [interposing]  
21 That you believe would be acceptable?

22 MIKE THOMPSON: I think they are an  
23 internationally recognized standard setting body. So  
24 I think ASTM is one I would be comfortable with.

2 COUNCIL MEMBER GARODNICK: And how about  
3 the Organization for Economic Cooperation and  
4 Development?

5 MIKE THOMPSON: I think that would be  
6 another example that we could support.

7 COUNCIL MEMBER GARODNICK: Are there  
8 other examples that I do not know of?

9 MIKE THOMPSON: Those are the two major  
10 ones.

11 COUNCIL MEMBER GARODNICK: Okay. Thank  
12 you.

13 CHAIRPERSON ESPINAL: Thank you, Dan.  
14 Cabrera.

15 COUNCIL MEMBER CABRERA: Thank you so  
16 much. I just have a simple question. I know you're  
17 looking for a viable substitute for the microbeads,  
18 but for example if I take this toothpaste and I take  
19 the microbeads out, are my teeth still going to get  
20 clean?

21 MIKE THOMPSON: I would have to assume  
22 so. I don't believe that--that the microbeads--the  
23 lack of microbeads would harm that product's efficacy  
24 in helping your teeth get clean.

2 COUNCIL MEMBER CABRERA: And are there  
3 any products that if you take away the microbeads  
4 they would not be affected? Because as a consumer  
5 I'm a little concerned here. Is it the microbeads or  
6 is the--the real product that is making the  
7 difference?

8 MIKE THOMPSON: The--the--the issue  
9 really is on the alternative, and the problem for,  
10 you know, to pick on one item for example, a  
11 nutshell, last week I flew Southwest Airlines and they  
12 gave everyone pretzels because one person had  
13 declared a nut allergy, and there were not nuts  
14 allowed on the plane except for me. And there--  
15 that's the issue is allergies and abrasions and what  
16 happens in the product. The current plastic  
17 microbead is excellent from a health and safety  
18 standpoint for consumers. It's out of the abundance  
19 of caution for the environment that the industry has  
20 moved.

21 COUNCIL MEMBER CABRERA: Right, no, I--I  
22 understand your position, but the point that I keep  
23 hearing raised by you is that you need time to find  
24 viable replacements, right, for microbeads. And what  
25 I'm saying is, what--I--I think that it would do two

2 things, in the product if you really don't need them,  
3 I would rather have--and I don't know how much  
4 microbeads count in what you're putting here, I would  
5 rather have more toothpaste product than microbeads.  
6 And the same thing with the other product. If you  
7 don't need them, I mean is it a cost saving? Is--is  
8 it cheaper? Is it more inexpensive to the--to have  
9 microbeads on it or more expensive?

10 MIKE THOMPSON: It--that's a--that's a  
11 question that is best posed for the individual  
12 companies, and if you would like information about  
13 that product and that company we will clearly connect  
14 you. As a trade association I couldn't answer on  
15 their behalf.

16 COUNCIL MEMBER CABRERA: No, I just--  
17 what--the point I'm--I'm sure you understand I'm  
18 making I don't want people to use microbeads as a  
19 substitute for the real product to put fluff in  
20 there, and I'd rather have the real product. I mean  
21 it worked for my mom. She still had her teeth, and  
22 we didn't have microbeads, and I'm sure for the other  
23 products I'm--I'm confident that--I'm really  
24 confident really in--in companies that the actual  
25 content of what makes the difference in your face, in

2 your teeth or whatever are the agent that is actually  
3 because of what's the substance in it and not the  
4 microbeads. And if it's not the microbeads, we  
5 really don't need them. We might--we might not even  
6 need a replacement, a viable replacement because it's  
7 already working.

8 MIKE THOMPSON: So, um, so I think the--  
9 the issue is that one product can be intended to do  
10 multiple things. Say you have, for example, a face  
11 wash that has microbeads in it. The face wash might  
12 have salicylic acid, which is going to neutralize oil  
13 and help clean out oil out of your pores. Whereas the  
14 microbeads are in there to exfoliate dead skin and  
15 keep dead skin from clogging up your pores as well.  
16 So the--the function of the microbead in a product  
17 like face wash is to exfoliate dead skin off of--off  
18 of your face or your body.

19 COUNCIL MEMBER CABRERA: So you're saying  
20 if you didn't have the microbeads it wouldn't work?

21 MIKE THOMPSON: It--it would be a less  
22 effective product to exfoliate the skin, and so the--  
23 the process is really about determining what  
24 alternative exfoliant could be interpreted into that  
25 product, will it remain stable in the solution. We

2 have to do stability testing. We have to ensure that  
3 the products still meet the requirements of the FDA  
4 so that they can sit on the shelf for their shelf  
5 life and still be effective when the consumer uses  
6 them.

7 COUNCIL MEMBER CABRERA: Look, I have to  
8 tell you that last week I ended up in the hospital.  
9 I had an artery block 99%, and I almost died. And I  
10 have to tell you that I have become so much conscious  
11 as to what goes into this body in this last week and  
12 a half. We can have a week--a week and a half or a  
13 week--about a week and a half it's been. That I--  
14 I've--I've take it even more serious. I'm sharing a  
15 personal story here because not only for me, for my  
16 children, for my grandchildren and--and for our  
17 constituents. I appreciate the fact that it  
18 voluntarily has been taken out the product and what  
19 it could do in an environment. Sometimes what we  
20 don't know can hurt us, and I'm--and I'm not blaming  
21 it specifically on these products, but just--you  
22 know, just like we have cigarette companies telling  
23 us for so many years, you know, there's nothing wrong  
24 with it. You know, it doesn't produce cancer. You  
25 know when I hear a chemist here and many other

2 doctors saying that it attracts toxins and  
3 concentrated toxins, and then when you cook it, it  
4 actually even makes it worse--the situation, it--it  
5 just--you can understand a healthy paranoia sometimes  
6 is a good thing. And so, I--I would hope that we  
7 could all work together here. My Reso is at the  
8 federal level that I have--am reintroducing here, and  
9 hopefully we can do this at a national level, and we  
10 can work together. So our and--and I'm sure that  
11 your intention is to get the best possible product,  
12 and that's what I want. I want a good product that  
13 really will not involve microbeads 'cause I think at  
14 the end of the day we really if we look at it, we  
15 didn't need them before. We don't need them now.  
16 Thank you so much.

17 CHAIRPERSON ESPINAL: Thank you, Cabrera.  
18 No question. I'm going to call up the next panel.  
19 Thank you fine.

20 STEVEN LAZARIO: Thank--thank you very  
21 much.

22 [background noise, pause]

23 CHAIRPERSON ESPINAL: I'd like to call up  
24 Syma--Symer Angin, Eric Goldstein, Ya Ting Liu and  
25 Sarah Crane. [pause] How are you all doing. Just



2 state your name before you give your testimony.

3 [pause]

4 ANNA ANGIN: Jim? [background comment]

5 Yep. My name is Anna Angin (sic) I'm with  
6 Environmental Advocates of New York, and you all are  
7 going to be getting copies of my testimony. So I  
8 won't read it word for word, but I will go over the--  
9 the highlights I suppose. So as Environmental  
10 Advocate of New York our mission is to protect our  
11 air, land and water and wildlife and the health of  
12 all New Yorkers. We're based in Albany. We monitor  
13 state government, evaluate proposed laws and champion  
14 policies and practices that would--that ensure the  
15 responsible stewardship of our assured environment.  
16 We support Intro 928 and we applaud the leadership of  
17 Council Member Garodnick for introducing this  
18 measure, which would ban microbeads from personal  
19 care products. Thank you, Councilman Espinal for  
20 hosting this, and thank you so much to Council Member  
21 Cabrera. We are really glad to have you here with us  
22 today.

23 We also support Resolution 3665, which  
24 calls upon the New York State Legislature and the  
25 Governor to take action on the statewide bill,

2 Assembly Bill 5896 and Action Senate Bill 3932, which  
3 is also known as the Microbead-Free Waters Act. The  
4 bill referenced in the resolution passed the New York  
5 State Assembly with overwhelming bipartisan support.  
6 In fact, it actually passed 139 yes votes to only one  
7 no vote. Unfortunately, it was not taken up by the  
8 Senate despite co-sponsorship by 59% of that body.  
9 This is a common sense measure that will reduce the  
10 impact of plastic pollution in the waters of New York  
11 State. Washing your face should not contribute to  
12 water pollution. The State Senate's inaction has  
13 forced the whole governments like New York City to  
14 take-to take the lead, and we applaud you for your  
15 efforts. Since July, two counties have enacted bans,  
16 but Erie and Chautauqua in Western New York, and two  
17 more pass bans, which are awaiting signatures of the  
18 county executives, and so those are Suffolk and  
19 Cattaraugus Counties. And several more have measures  
20 in the legislative process, and so I pass map, which  
21 shows where--where these beads bills are in the  
22 process. They're at the state.

23               So, I want to reiterate obviously  
24 microbeads are tiny little particles, but they pose a  
25 macro problem. So, we've talked a lot about the

2 reasons why and how these microbeads threaten public  
3 health by ecosystems on a nationwide scale. And like  
4 we've talked about, microbeads are designed to be--to  
5 be poured down the drain. Our wastewater treatment  
6 plants are not designed to handle them. So again,  
7 they get past the filters and they continue on into  
8 our open water bodies acting like sponges and  
9 absorbing toxics like PCPs and pesticides. And then  
10 they travel up the food chain from there. We know  
11 that there is really no--no method of preventing  
12 these microbeads from entering and then being removed  
13 from our waterways. I've got a couple of notices  
14 that are interesting. The United States washes down  
15 almost 308 tons of microbeads down the drains each  
16 year. That's more than the weight of the Statute of  
17 Liberty. New York State alone washes down 19 tons of  
18 microbeads down the drain annually. It's--it's  
19 pretty sad. We've already talked a lot about the  
20 work that Dr. Mason has done in my testimony. So I  
21 won't harp that too much, but it's great work.  
22 Another team of scientists have also found some more  
23 similar things in the water. So plastic tides  
24 they've collected samples from water bodies on an  
25 attempted trip between Paver (sic) Lake in Ithaca

2 last year, and the New York State Capitol in Albany.  
3 They didn't get to complete the trip because of  
4 weather conditions, but 70% of their samples  
5 collected along the waterway fall in different water  
6 bodies contained microbeads, and some samples were  
7 collected as far as 100 yards from shore.  
8 Alternatives do exist. So there are alternatives  
9 available. We've talked a little bit about them  
10 ground up walnut shells and sea salts. They  
11 exfoliate just as well if not better than these  
12 hydrophobic microplastics. The bottom line is there  
13 is no justifiable reason for companies to continue  
14 manufacturing products that contain these harmful  
15 beads. They are not essential in personal care  
16 products. It's unfortunate that the New York State  
17 Legislature has not addressed this problem. Luckily,  
18 counties like New York City are stepping in to take  
19 care of this manufacturing problem. Microbeads are  
20 obviously bad for the environment, and they don't do  
21 anything to make you more beautiful. So we support  
22 the New York City Council for proposing this Local  
23 Law, which will benefit both the consumers and our  
24 environment. Thank you for this opportunity, and I'm  
25 happy to [pause]

2                   ERIC GOLDSTEIN: Good afternoon Chairman  
3 Espinal, Council Member Garodnick Council Member  
4 Cabrera. Nice to see you feeling well today. We  
5 wish you the best. My name is Eric Goldstein. I'm a  
6 Lawyer with the Natural Resources Defense Council.  
7 As you know, we're a national non-profit legal and  
8 scientific organization active since 1979 on  
9 environmental health and related issues both New York  
10 and nationally. We're pleased to be here today to  
11 offer our strong support for Intro 928. We will  
12 submit a detailed written statement, but today I'd  
13 like to address some of the questions that have  
14 surfaced at the hearing regarding possible amendments  
15 to this excellent bill.

16                   Question Number 1: Should the  
17 legislation include and except for so-called  
18 biodegradable microbeads as some in the industry have  
19 urged in other jurisdiction. We believe the answer  
20 is no. The biodegradable exception is a wolf in  
21 sheep's clothing. First, biodegradability provides  
22 no assurances, none, regarding how plastics would  
23 degrade in the water or the marine environment.  
24 Because a product might theoretically biodegrade in  
25 the presence of sunlight or under other ideal

2 conditions, that is of little consequence when you're  
3 talking about materials that are ending up in our  
4 waterways. Second, biodegradability doesn't  
5 guarantee a timeframe within which the plastics would  
6 degrade. Would it be months or years instead of  
7 centuries? If so, microbeads would still pose a  
8 significant problem in our waterways. And even if  
9 the industry were to claim that their products were  
10 somehow marine biodegradable, we have no way of  
11 confirming such claims at this point. There is no  
12 current independently verified standard for marine  
13 biodegradability, and the ASTM, which is one of the  
14 two independent governing bodies for establishing  
15 such standards has adopted and the withdrawn last  
16 year a standard regarding the marine biodegradability  
17 apparently due to questions regarding the standard's  
18 reliability. In short, the biodegradability  
19 exception could undercut the whole purpose that this  
20 bill is attempting to accomplish.

21           Regarding the idea of leaving open  
22 somewhere in the bill some option for some future  
23 theoretical biodegradability provision, this is  
24 simply too speculative at this point. If at some  
25 later date the concept of marine biodegradability

2 becomes more certain, there's an easy route that's an  
3 amendment to the statute. We urge you to follow in  
4 the footsteps of those jurisdictions that have  
5 adopted microbead legislation without any such  
6 loophole.

7           Similarly troublesome is the idea of  
8 exempting certain cosmetics from the requirements of  
9 Intro 928. Although cosmetics are not immediately  
10 flushed down the drain bypassing sewage treatment  
11 plants and entering our waterways as quickly as body  
12 scrubs and facial abrasives, they are, of course,  
13 ultimately washed off and often end up in exactly the  
14 same place as other microbeads and with the same  
15 adverse consequences for our rivers, lakes and  
16 oceans. In terms of the environmental impacts, the  
17 consequences of microbeads in cosmetics are no  
18 different from microbeads in scrubs and abrasives.  
19 Accordingly, Intro 928 should cover all microbeads in  
20 personal care products whether they're cosmetics or  
21 not--or not. Regarding the proposed Council  
22 resolutions calling upon the State and the federal  
23 government to act, NRDC supports those resolutions,  
24 but we support them only as additions to, not as a  
25 substitute for Intro 928. Experience on many other

2 public policy issues has established that the best  
3 way to get the State and federal governments to act  
4 is to take action at the local level. Thus, it is  
5 action by this Council in the form of passage of 928  
6 that will even more than the pending resolutions  
7 provide the incentives for Washington and Albany to  
8 act. We have no objection to the extension of the  
9 effective date of the ban to January 1, 2017 for all  
10 care products. And regarding the listing that was  
11 discussed by Commissioner Menin, if we understand her  
12 objectives the idea is to limit the number of  
13 potential summonses issued at any one retail facility  
14 to not more than ten. If that's the case, that makes  
15 sense to us. It's similar to the issue the Council  
16 faced a number of years ago with illegal postings and  
17 issuance by the Sanitation Department where on a  
18 single pole a person might put up 20 signs and  
19 therefore theoretically might be subject to 20  
20 violations. Obviously, common sense ought to apply  
21 in this. We believe that this--addressing that issue  
22 or this other issue of preparing a comprehensive  
23 listing to assist in enforcement, we believe that all  
24 of those items can be dealt with under the existing



2 section of the bill giving the Department of Consumer  
3 Affairs power to adopt rules and regulations.

4 In sum, Intro 928 is in all likelihood  
5 the most significant piece of environmental  
6 legislation this county--this committee and this  
7 Council is likely to act on this year. NRDC applauds  
8 your leadership Chairman Garodnick, as well as, of  
9 course, the role of the New York State Attorney  
10 General in advancing this, and we urge its swift  
11 passage. Thank you.

12 YA TING LIU: Good afternoon. My name is  
13 Ya Ting Liu and I'm the New York City Program  
14 Director with the New York League of Conservation  
15 Voters. We are a statewide environmental  
16 organization. We have over 22,000 members in New  
17 York City. Nothing I have in my written testimony  
18 will trump what Dr. Mason has said, and from the  
19 great line of questioning as well from Council Member  
20 Garodnick, Cabrera and Espinal. So I won't read from  
21 it. I think I'll just recap kind of what I've heard  
22 this morning, which is that the environmental and  
23 potential health impacts of microbeads, you know, far  
24 outweigh the--the marginal benefits in these  
25 products. I also heard that industry is already

2 moving in the direction of phasing it out anyway. So  
3 we completely echo Dr. Sherri Mason's sentiments when  
4 she said that this is, you know, low hanging fruit  
5 legislation. And make no mistake about it, New York  
6 City is always--has always been a leader when it  
7 comes to sustainability. 400,000 people came to the  
8 city a little over a year ago to show their concern  
9 for climate change and environment. And what it takes  
10 is these incremental steps and the seizing of every  
11 opportunity to make a difference in our environment.  
12 That's ultimately going to get us to these ambitious  
13 goals, and as Eric said, this is a significant piece  
14 of legislation that has national implications, policy  
15 indications. So we commend Chair Espinal, Council  
16 Member Garodnick and Cabrera for your leadership  
17 today, and to continue to pave the way and be bold  
18 and pass this legislation this year. Thank you.

19 COUNCIL MEMBER GARODNICK: Thank you, Mr.  
20 Chair. Very quickly. First, for Mr. Goldstein on  
21 the subject of the biodegradability standards. So  
22 you noted that one of these entities--I don't know  
23 whether you said it was OECD or ASTM, which had  
24 adopted them and then reversed them. Can you say a  
25 little bit more about one, whether you believe these

2 are the two entities that could be independently  
3 targeted here as a metric, and two why they did what  
4 they did?

5           ERIC GOLDSTEIN: Yes. First, these are  
6 two entities that are national recognized and  
7 internationally recognized as independent standard  
8 setting establishments. So their overall credibility  
9 is high. Regarding the specifics of why one of them  
10 first proposed and then withdrew a potential standard  
11 my colleague who is our scientist in our San  
12 Francisco office can provide additional information,  
13 and I will get that submitted to the committee. But  
14 I think it's safe to say that generally people have  
15 been looking at this issue of biodegradability to  
16 address the very serious problem posed by a wide  
17 range of plastics. And it's sufficient to say that  
18 at this point that problem has not yet been solved.  
19 Again as you indicated in your questioning and others  
20 have testified here, if you were taking compostable--  
21 there is the possibility of taking some plastics in  
22 under ideal conditions having the break down in a  
23 compost--industrial compost setting. Yes, that is  
24 true, but as you've heard, plastics when they break  
25 down, they crumble into smaller pieces. And right

2 now, that poses more of a problem on their way to  
3 ultimately theoretically biodegrading. So even the  
4 industry panel here did not--it was clear not only  
5 what they said, but what they didn't say. And what  
6 they were unable to say today is that there is today  
7 an available biodegradable mechanism for breaking  
8 down plastics, at least the plastics we're talking  
9 about here, microbeads, and having them break down  
10 rapidly, convincingly and in a marine environment in  
11 a way that they would not pose a risk to our  
12 waterways and to fish and to other species. So, they  
13 had the opportunity to present that information.  
14 You're keeping the record open. Let's see what they  
15 come up with, but the literature and my colleague at  
16 NRDC and that others have done an extensive  
17 literature search on this, and they're just not there  
18 yet. If they are, this statute could always be  
19 amended.

20 COUNCIL MEMBER GARODNICK: Okay. My only  
21 other question has to do with the applicability of  
22 this bill to when soft products or all products  
23 contain microbeads less than five millimeters in  
24 size. You know, we've come to appreciate the fact  
25 that micro plastics exist in a lot of different

2 categories of products. There are some who would say  
3 limit it to rinse off products. I don't include, you  
4 know, things like sunscreens and cosmetics and hair  
5 sprays and things like that. What say you--how  
6 should we be thinking about that and, of course, I'm  
7 sure you would agree, too, that having a patchwork of  
8 rules around is less than desirable. But do you  
9 agree with me that we should be setting the standard  
10 here in New York City as opposed to following anybody  
11 else's lead?

12 ERIC GOLDSTEIN: Yes. We'd--we'd agree  
13 with you. (laughter) The--the reasoning is simple.  
14 There's no scientific difference between the  
15 microbeads that are contained in the abrasive and the  
16 microbeads that are contained in toothpaste or  
17 sunscreens or makeup. And ultimately, they all find  
18 their way, many of them, into our waterways, and  
19 they're all causing the same environmental and  
20 potentially health problems as well down the line. In  
21 fact, there was just an article in the New York Times  
22 Science section the other day about how sunscreens  
23 were causing significant problems for coral reefs  
24 around the nation because of the chemicals that were--  
25 --that are floating off into the local waterways from

2 users there. What that establishes is that these  
3 products and again, we're not talking about something  
4 that's necessary for health here. This--these are  
5 products that are cosmetic in nature, and for which  
6 there are many, many natural substitutes that have  
7 been used for decades, centuries before the--some  
8 genius in some laboratory came up with the idea of  
9 adding plastics to our toothpaste, or to sops. We  
10 were using sand and walnut shells and apricot seeds,  
11 and all kinds of other natural products to perform a  
12 similar function. So in this case it's--it's a--a  
13 new use of a product that--of a material that is  
14 unnecessary to the product. And as you say, look,  
15 everything is a balancing test, but in this instance,  
16 the record is pretty clear. The risks of microbead  
17 plastic into our waterways from these products far  
18 outweighs the benefits that they provide. There are  
19 readily available substitutes, and even the industry  
20 panel was sort of hanging their heads today because  
21 they couldn't really quibble with you on the overall  
22 thrust of this legislation. So, New York would be a  
23 leader on this, and yes, ideally, we'd want to have a  
24 national law or a state law that covers this. But

2 lets have New York City as the model that the State  
3 and ultimately we hope Congress will adopt.

4 COUNCIL MEMBER GARODNICK: Okay, I  
5 realize I do have one additional question and that  
6 relates to how long we have seen the inclusion of  
7 plastics in products like hair spray or cosmetics. Is  
8 this a new phenomenon? What are they doing in the  
9 products that, you know, fall into those categories?  
10 Are they essential to those products? You know, we  
11 have a sense as to what they're doing here. It's  
12 just that it's an exfoliator. It's something, which  
13 feels abrasive on your face, and maybe it cleans it  
14 better or doesn't. I don't know but at least there  
15 is the perception that it cleans it better. What is  
16 it doing in those other products and how long has it  
17 been in those products? Is this a new phenomenon?

18 ANNA ANGIN: I think that plastics have  
19 been in our products for a long time. I don't know  
20 exactly how long. Dr. Mason looks like she might  
21 have an answer to that question specifically, but  
22 plastic is in our products. We--I don't even  
23 necessarily understand the purpose that it serves.  
24 For some products I'm sure it makes them more long-  
25 lasting, but you're talking about--if you're talking

2 about other products we--you know, we could be  
3 talking about mascara, lipstick. It's in a lot of  
4 different things, but we should be--we should be  
5 talking about all of them.

6 ERIC GOLDSTEIN: And again, as you said,  
7 Chair--Council Member Garodnick, when most people  
8 find out that they have plastics in their products,  
9 let alone their toothpaste, they are surprised and it  
10 seems as if consumer demand will also be pressing to  
11 get these materials out of--out of our products.  
12 Americans, New Yorkers, we want to be able to wash  
13 our face and brush our teeth, and put on makeup. But  
14 we want to be able to do it safely in a way that's  
15 not destructive of the environment. That's the whole  
16 concept of sustainability, and there are many tough  
17 issues in the battle to make New York and to make our  
18 consumer society a more sustainable one. This is a  
19 pretty easy issue.

20 COUNCIL MEMBER ESPINAL: Well, doctor,  
21 let's come up and answer the question.

22 DR. SHERRI MASON: Oh, okay.

23 CHAIRPERSON ESPINAL: Thank you.

24 [pause]

25



2 DR. SHERRI MASON: They--they were  
3 introduced slowly over the period of the 1990s and  
4 going forward. So it is a fairly new phenomenon that  
5 you see taking place. Pinpointing an exact date or  
6 an exact product at this point is kind of impossible  
7 because nobody wants to own up that they were the  
8 first.

9 COUNCIL MEMBER GARODNICK: But it--but is  
10 fair to say that the products that we have come to  
11 rely on in the non-wash off category that they will  
12 continue to exist, that the industry knows how to  
13 make them, and that it will mean that cosmetics and  
14 hair sprays and sun screens, et cetera will no longer  
15 be available in--in ways that people have come to  
16 enjoy.

17 DR. SHERRI MASON: Maybe not in ways that  
18 people have come to enjoy, but they--they were  
19 available before, and they will come--they will be  
20 available again. They'll be different but not  
21 necessarily in a bad way. I mean, as was pointed out  
22 we--

23 COUNCIL MEMBER GARODNICK: [interposing]  
24 Well, I suppose, you know, we talk about exfoliators  
25 and apricot seeds versus plastic. You know, people

2 may not notice the difference at all, but I really am  
3 just trying to pinpoint exactly when they became--  
4 when this became so prevalent. But clearly, it was  
5 a--in a modern era, and actually not even such  
6 distant history that we could not actually continue  
7 to do all these things without the components of  
8 polymers and polyethylene and everything that they're  
9 putting into them today.

10 DR. SHERRI MASON: Correct.

11 COUNCIL MEMBER GARODNICK: Okay. Thank  
12 you.

13 CHAIRPERSON ESPINAL: Thank you. I'm  
14 going to call up the next panel.

15 [background comments, pause]

16 CHAIRPERSON ESPINAL: Jordan Christiensen  
17 from Citizens Campaign for the Environment. John  
18 Coghlan? Coghlan. Sorry if I--if I mispronounced  
19 that--from Surfrider Foundation, Nicole Robinson from  
20 the Aquarium. Susan Elbin from the New York City  
21 Audubon, and Sandra Meola from the New York/New  
22 Jersey Bay Keeper.

23 [background comments, pause]

24 CHAIRPERSON ESPINAL: You may begin. You  
25 state your name before your testimony.

2 JORDAN CHRISTENSEN: Hi, I'm Jordan  
3 Christensen. I'm with Citizens Campaign for the  
4 Environment. So as the panel before said, I think a  
5 lot of what we were going to say has already been  
6 covered in detail and excellently by the first few  
7 panels. So I'll keep my comments brief, and I'll  
8 submit written comments a little more extensively on  
9 mine. So CCE we're an 80,000-member non-profit, non-  
10 partisan organization working to protect public  
11 health and the environment in New York and  
12 Connecticut, and we're here to strongly support  
13 Introduction 928 to ban the sale of microbeads in  
14 personal care products as well as the two resolutions  
15 to pass both the State and Federal Legislation with  
16 the same aim. As many of you are already aware,  
17 we've already talked about it, but over 100 products  
18 contain these microbeads. And we, of course, first  
19 noticed them in the facial scrubs, then toothpaste,  
20 then children's toothpaste, dish soap, shampoo,  
21 makeup. Everywhere you look these products seem to  
22 contain these tiny beads, which, of course, are not  
23 filtered by out wastewater treatment plant. They end  
24 up in our water, in fish and then on our dinner  
25 plates. I would also like to just express the

2 particular public health issue with the toothpaste,  
3 which is that these beads are getting caught in  
4 people's gum lines and in their cavities. Our office  
5 since we started working this has gotten calls from  
6 Buffalo to Long Island from dentists saying these  
7 beads we find them in teeth. They're ruining  
8 people's sealants. It's attracting bacteria. It's a  
9 huge dental health issue. Unfortunately, we know we  
10 already have the safe alternatives. So we have the  
11 things like walnut shells, apricot shells, sugar  
12 crystals, sea salt, sand, et cetera. And one of the  
13 things is that while these are alternatives for the  
14 abrasives that we see in stuff like our facial  
15 scrubs. Councilman, I think you were exactly right  
16 to say do we need this in toothpaste because the  
17 truth is what we're finding out is that a lot of  
18 these are simply aesthetic. So you can take them  
19 out, and the product remains exactly the same. And  
20 I'd also just like to echo Eric Goldstein and many  
21 other's comments that the quote "biodegradable"  
22 plastic alternatives are, in fact, not safe  
23 alternatives. There is no timeline for how long they  
24 have to take to break down. So they are essentially  
25 the same as the traditional plastics that we've

2 already been using. There is no proof that they are  
3 any safer for our ecosystem or environment than the  
4 plastic that is already in the products. And the--I  
5 think the goal of this legislation is to not replace  
6 one plastic with another, but to replace plastic with  
7 a safe and a biodegradable option that protects our  
8 waterways. And as for the patchwork comment, that  
9 was a very interesting one, and I think that the  
10 Councilman is exactly right. That what's happening  
11 is we're trending towards getting rid of this  
12 biodegradable loophole. That every place that's  
13 introducing legislation it's getting stronger and  
14 stronger most recently California and the four New  
15 York counties. And what we have the chance to do  
16 because we have such a large market here is really  
17 influence not only the state, but also, you know, the  
18 national products. So my--I'm urging you to pass  
19 this, this year and to make sure that you do not  
20 include the loophole for the biodegradable beads.

21 JOHN COGHLAN: Sure. (coughs) My name is  
22 John Coghlan. I'm from Surfrider Foundation New York  
23 City. We're a national organization that's concerned  
24 with protecting our oceans waves and beaches, but I  
25 just represent the New Yorkers. You know of all the

2 New Yorkers I would say myself and the other members  
3 of Surfrider are really the good people who spend the  
4 most time in the ocean because we all tend to be  
5 surfers. And so, you know, for me this is like a  
6 particularly frightening issue because when I hear  
7 about all these like animals and birds and fish with  
8 these, you know, pellets in their system, I'm like  
9 starting to wonder what my gut looks like, and if  
10 these toxins are like getting into my digestive  
11 system when I swallow a little bit of water after  
12 wiping out. But yeah, so on a personal level it's a  
13 big concern, but also for our organization it's a big  
14 concern because of the threat that these microbeads  
15 present to the environment and to the creatures that  
16 we share the ocean with. So we just want to express  
17 our support for this introduction and also just kind  
18 of echo Eric's comments that, you know, if there was  
19 a biodegradable loophole, you know, our organization  
20 would not support this legislation because we think  
21 that that kind of language would be very detrimental  
22 to--to the legislation.

23 DR. SUSAN ELBIN: Thank you Council  
24 Committee Chair Espinal and esteemed members of the  
25 committee. I'm very happy to be here, and that

2 you're holding this important meeting about this  
3 plastic microbead legislation. I am Dr. Susan Elbin,  
4 and I'm an Ornithologist and a biologist and the  
5 Director of Conservation and Science at New York City  
6 Audubon. New York City Audubon is a science based  
7 conservation organization whose mission is to protect  
8 wild native birds and their habitat in New York City.  
9 We represent 3,000 members in New York City and we're  
10 also an affiliated member of the National Audubon.  
11 So represent and additional 7,000 members in the  
12 city. Based on the ongoing scientific research and  
13 habitat needs for birds species, avian species of  
14 conservation concern, New York City Audubon strongly  
15 supports introduced Bill No. 928 and also the  
16 preconsidered No. 5896/Senate 3932 bills that are  
17 being discussed this morning. As my colleagues have  
18 already stated, I'm not going to rehash the solid  
19 science that Dr. Mason presented so elegantly and  
20 eloquently. But we have a lot of acts that we know,  
21 and they're indisputable. There's a lot of plastic  
22 in the habitat. Plastic attracts contaminants.  
23 Plastic can't be filtered out of the waterways, and  
24 it's these products and there is way around it. What  
25 I did want to focus on was--was one issue and it was

2 brought up about not having a toxicologist. I'm not  
3 a toxicologist, but I have done toxicology work on  
4 water birds in the New York Harbor. So when I read  
5 the range of marine wild life including sea birds,  
6 crustations and fish have been found to ingest these  
7 micro plastic, I was indeed concerned. So, I am--I  
8 would read from my read from my testimony this  
9 paragraph: Although plastics are considered to be  
10 biochemically inert, additives are typically used to  
11 change their properties as we've heard. They can be  
12 heat resistant and resistant to degradation, bio-  
13 oxidation, and microbial action. So, polybromide--  
14 brominated diphenyls, which are human carcinogens  
15 with proven deliterious effects to non-human thyroid  
16 and liver function. Those things are used in these  
17 products. Nonyphenol is also used. It's a persistent  
18 in the aquatic environment. Moderative labile  
19 cumulative and extremely toxic to aquatic organisms.  
20 And these things may leach out of those little  
21 plastic bits in all plastic. So extraneous  
22 pollutants have been reported to adhere to these  
23 micro-plastic and this is what we need to prevent.  
24 New York City Audubon has been monitoring the suite  
25 of birds in the harbor called harbor herrings, the



2 long-legged wading birds. Since 1982, they've been  
3 recording the numbers of the birds in the populations  
4 here, and we found that numbers are just recently  
5 starting to decline. And there's a lot of--probably a  
6 lot of things going on with the colony. But also,  
7 and I haven't analyzed this specifically to this  
8 question, but we were looking at toxins in eggs or  
9 herring gulls. Long-legged wading birds are sort of  
10 the top of the feeding chain. They're eating those  
11 fish. They're eating the plastic. They're eating  
12 all the little bits and pieces. So they're the bio-  
13 indicator or the canary in the coal mine. Several  
14 years ago--a couple years ago right before Super  
15 Storm Sandy, we had done a study to look at organic  
16 contaminants and heavy metals in herring gull eggs,  
17 and they are present. These birds are carrying that  
18 body burden. They have that load. So anything else  
19 that we put into the water is just going to come over  
20 what's the tipping point. I guess the question that--  
21 --that may be asked is well if the birds have in  
22 their--in their tissues so what. But we've seen non-  
23 lethal effects. We've seen issues with birds not--  
24 like with heavy metals birds don't do--don't have the  
25 proper behavioral responses like to kind specific so

2 they don't know their parents. They fall off cliffs  
3 because they don't have 3D vision or appreciation of  
4 depth perception. And someone mentioned feminization  
5 here earlier. We see that as well. We see  
6 infertility, and then we see when these--when these  
7 contaminants get at a higher level we see  
8 deformities, and then fall off in the population.  
9 And that's why we're looking at these water birds as  
10 bio-indicators, and we feel that why continue to do  
11 these environmental insults when there's alternatives  
12 around, and time is of the essence. So I think that  
13 if--if the line is extended of course for the--the  
14 shop owners that's understandable, but we can't keep  
15 extending these deadlines forever because time is  
16 running out. So just in summary, I'd like to say  
17 that based on the state of the science, microbeads  
18 when forced into our sewers and rivers pose a  
19 significant threat to wild birds. For the most part,  
20 the small beads persist in the environment and do not  
21 biodegrade and the biological impacts are many as we  
22 heard today. But to fill their stomachs with  
23 plastic, and that is the big pieces of plastic and  
24 some of those bags and things, they feel full even as  
25 they starve to death from the lack of nutrients that

2 they need. And then they have those microbeads that  
3 are attracting contaminants, organic pollutants like  
4 PCBs, and heavy metals like mercury, and this is just  
5 another way of poisoning these birds, and reflecting  
6 what's happening to humans as well. Water birds are  
7 consuming an even greater amount of toxins through  
8 this bioaccumulation. New York City is a city of  
9 water, and it provides an important habitat for 350  
10 species of both resident and migratory birds many of  
11 which feed on aquatic resources. So banning the sale  
12 of microbeads in the five boroughs will make a  
13 difference to the survival of New York City as well  
14 as birds, and we--we applaud--New York City Audubon  
15 applauds Councilman Garodnick and this committee for  
16 pushing forward this legislation. Thank you.

17 NICOLE ROBINSON: Good afternoon. Thank  
18 you Chairman Espinal and members of the committee for  
19 this opportunity to testify regarding the sale of  
20 personal care products containing microbeads in New  
21 York City and the important role of Intro 928, the  
22 New York City Waterway Protection Act of 2015. And  
23 to really address the concerns of plastic pollution  
24 in our waters. My name is Nicole Robinson-Etienne.  
25 I am the Assistant Director of Government and

2 Community Affairs at the Wildlife Conservation  
3 Society, New York Aquarium. My organization, WCSA,  
4 it's a wild life and wild place. It's worldwide  
5 through science, conservation action, education and  
6 inspiring people to value nature. We combine our  
7 expertise in the field. We're in over 60 countries  
8 over the world. Our zoos--we have the four zoos  
9 including our headquarters at the Bronx Zoo and, of  
10 course, the New York Aquarium based in Coney Island,  
11 Brooklyn. To achieve our conservation mission with  
12 the aim of conserving the world's largest wild places  
13 in 15 priority regions, home to more than 50% of the  
14 world's biodiversity. One of the 15 regions includes  
15 the New York Seascape, which consists of the coast  
16 and seas or the Mid-Atlantic. And in an effort to  
17 support the New York seascape, we recently launched  
18 the Blue York Campaign, which strives to enhance  
19 three tenets to it: Develop an ocean ethic for the  
20 water surrounding New York City; Protect our ocean  
21 wildlife and wild places; and decrease pollution in  
22 our waters. So to learn more about that you can  
23 visit our website [BlueYork.org](http://BlueYork.org) to learn more about  
24 the campaign. I don't want--really want to reiterate  
25 the science, and the comments of our--our colleagues

2 that testified previously. But as--just briefly just  
3 to mention, you know, microbeads and plastic  
4 particles are ingested by wildlife, which then ingest  
5 the microbeads for food and become part of our food  
6 chain and thus larger animals eat the larger ones.  
7 This is a, of course, concern to all of us, and we  
8 know that many of the large companies such as Proctor  
9 & Gamble, Johnson & Johnson have already or beginning  
10 to phase out the use of microbeads in their products,  
11 a strong ban is still necessary to make sure that  
12 these microbeads laden products are completely off  
13 the shelves and there are no loopholes that will  
14 still allow for microbeads to enter New York waters.  
15 We have seen other states pass bills that are exempt  
16 so-called biodegradable microbeads. We've already  
17 mentioned previously the problems with this statement  
18 of micro--biodegradable plastics. One of our  
19 scientists, Dr. Emily Darling, has referenced the  
20 issue directly in a paper she completed with several  
21 other colleagues entitled *Scientific Evidence*  
22 *Supports a Ban on Microbeads*. And if you need a link  
23 to that we can provide that to you. We know it's  
24 difficult for the plastics to break down in aquatic  
25 environments, and that's what they stated previously.

2 Through this legislation New York City has opened up-  
3 -has the opportunity to take a strong uncompromising  
4 stand to ban the sale of products containing  
5 microbeads. On Friday, you may have received a sign-  
6 on letter that was sent to the New York City Council  
7 representing the support for this bill that includes  
8 signatories from 29 environmental and conservation  
9 groups many of whom have testified here today. So to  
10 reiterate, please keep this bill strong so that we  
11 can set a precedent in New York City that can be  
12 emulated in Albany and across the country. So thank  
13 you so much for this opportunity.

14 SANDRA MEOLA: All right. Hello,  
15 everyone. Thank you so much committee members for  
16 the opportunity to testify. My Sandra Meola. I am  
17 the Communications and Policy Director for New  
18 Yorker/New Jersey Baykeeper. Baykeeper is a  
19 501(c)(3) environmental non-profit that focuses on  
20 protecting clean water and preserving (coughs)  
21 preserving everything this region has to offer within  
22 the New York/New Jersey harbor, which is also known  
23 as the Hudson Valley and Estuary, which is notably  
24 the most urban estuary in the world. So, it's  
25 important stuff we're dealing with here today. I'll

2 just mention that--I'm not going to reiterate my  
3 entire testimony because pretty much everything that  
4 I was going to say has been said before. So I will  
5 say that we are in full support of this Intro 928,  
6 and I just think that it's completely ridiculous that  
7 these plastic beads were in our products to begin  
8 with. Every time I talk to people and say, you know,  
9 you're probably toothpaste, I get looks that, you  
10 know, they're appalled. So--and I really hope that  
11 the Council will stay--stay true to language as is  
12 and not include a loophole that will exclude  
13 biodegradables from--from this language, but there is  
14 such thing as biodegradable plastics in an aquatic  
15 environment. We--there--our waters are not 140  
16 degrees plus so they will not break down. I also  
17 agree with what my colleagues mentioned that a--this  
18 bill I--I don't think it will stifle innovation  
19 whatsoever because don't even have any leads on so-  
20 called biodegradable bio-plastics that would  
21 biodegrade in an-in an aquatic environment. So,  
22 Baykeeper is in the process of analyzing water  
23 samples that we've trawled similar to the study Dr.  
24 Mason completed. She trained us and our staff to do  
25 that around New York/New Jersey harbor waters

2 including East River, Hudson River, and Lower New  
3 York Bay, and we have already found hundreds of  
4 plastic beads and similar particles. So that really  
5 just goes to show you that these in--these are in  
6 our--right in our back yard, and we really need to do  
7 something about it. I'll be happy to share this--  
8 that data once we're completely done. It takes an  
9 excruciating amount of time to actually count all the  
10 plastics that we come across. So--and just to sum  
11 up, it's clear that these little beads cause big  
12 problems, and I commend the Council and the  
13 community--community members for their leadership,  
14 and I'm confident that this bill once it's passed  
15 will influence lawmakers to quickly pass a New York  
16 State bill to prevent further harm to public health,  
17 and marine the environment. So thank you.

18 CHAIRPERSON ESPINAL: Thank you so much.  
19 I believe my colleague has a question.

20 COUNCIL MEMBER CABRERA: Yeah, I have  
21 just two quick questions. Has there every been a  
22 study done on comparing birds that feed off of fish  
23 versus those who don't, and to try to measure if  
24 there is a disparity or a gap between the amount of  
25 plastic that is found in the birds?



2 DR. SUSAN ELBIN: I--I'm not up to speed  
3 on all the amount of plastic that's found in the  
4 birds, but there's a huge toxicological community  
5 that's done a lot of work with birds. A lot of our--  
6 the work that I've done--well, the herring gulls eat  
7 garbage. And we've also looked at--Dr. Mason  
8 mentioned double-crested cormorants so this is  
9 another species that we work with, and we have looked  
10 at concentrations of contaminants in their eggs  
11 versus herring bird eggs, and we found--I don't have  
12 the numbers off the top of my head, but the--the--the  
13 concentrations in cormorants was higher than the ones  
14 in the herring gulls. So the fish eaters were--that  
15 are--again, I--I don't know the source of all these  
16 different contaminants. But the fish eaters are bio-  
17 -are bio--are benefitting from the effect of bio  
18 accumulation. So, for example, the amount of mercury  
19 in--in the eggs of double crested cormorants is way  
20 about the amount of mercury in herring gull eggs.  
21 Does that answer your question.

22 COUNCIL MEMBER CABRERA: Yeah.  
23 Absolutely. Actually, it concerns me and it--and it  
24 goes to an intentionality that because I know there  
25 are many people, and some them are in this room, and

2 some of them they are watching now that prefer wild  
3 fish in stead of farm fish, and they want to eat  
4 healthy. To hear this concerns me if it's affecting  
5 fish. I mean we're going to--we're eating the same--  
6 some of the same type of fish. It concerns me that  
7 we are also consuming, you know, these levels.  
8 Obviously, we--we're--we're bigger than birds, but in  
9 the long-term effect we could have a long term. It  
10 could be a long-term effect in humans let alone all  
11 the other stuff that we are using like the toothpaste  
12 and the microbeads. And we have a--I think humans  
13 have a greater accumulation and so far. And also I  
14 wanted to know if it was--it if was really the water  
15 or was it the concentration of plastic that is found  
16 in fish. And it sounds to me that the accumulation on  
17 these microbeads and plastic and the toxicity levels  
18 that are--that is attracted by the microbeads is  
19 concentrating in the fish over an amount of time and,  
20 therefore, when the--the birds ingest this, that, you  
21 know, unfortunately like you used the word benefit,  
22 but I--I get it. They're--they are the ones who are  
23 suffering as a result of it.

24 DR. SUSAN ELBIN: Yeah, some of these  
25 birds don't drink any water. Some birds can drink

2 sea water and then they--they deal with the salt, but  
3 some of those birds are getting most of their water  
4 needs through the fish that they eat. Again, I'm  
5 not--I'm not as deeply embedded in the literature and  
6 know if anyone has followed the toxins, the chain  
7 through--from their little bio--from the--from the  
8 microbeads through the fish. But definitely the--the  
9 cormorants and the herring gulls are getting their  
10 contaminants through what they're eating, and there  
11 are eating fish. And also there's warnings on, you  
12 know, how many fish you should eat. We've seen  
13 people cooking fish on--like by burning those signs  
14 that say, you know, only eat so many fish out of this  
15 river. And so they're using that to--to stoke their  
16 bond fires as they're cooking the fish that they  
17 fished out of the water. (laughs)

18 COUNCIL MEMBER CABRERA: My second  
19 question it goes to all the panelists. You know, my  
20 resolution is actually kind of at the federal level  
21 to duplicate what we're going to be doing here in the  
22 city. Can you--does anybody have any update how  
23 we're doing at the national level? Any of the  
24 national organizations here? Any updates on how  
25 we're doing?

2 DR. SHERRI MASON: As far as I know,  
3 there are no updates on the national. Of course, it  
4 was introduced but I think what's going to have to  
5 happen is that several larger cities and states are  
6 going to have to move forward.

7 COUNCIL MEMBER CABRERA: Got you. Well,  
8 thank you so much. Thank you for all the good work  
9 that you do and I'll turn it back to our chairman.

10 CHAIRPERSON ESPINAL: Thank you, Cabrera.  
11 Thank you. We have--we have one final person, Sarah  
12 Crane from NYU Environmental Law Clinic. [pause]  
13 Just state your name and you begin.

14 [pause]

15 SARAH CRANE: Whoo. My name is Sarah  
16 Crane. Thank you for the opportunity to testify.  
17 I'm testify--testifying on behalf of the New York--  
18 New York University Environmental Law Clinic, which  
19 is directed by the staff of the Natural Resources  
20 Defense Council. In my testimony I will summarize  
21 the actions that other jurisdictions in New York  
22 State and across the country have taken to curb the  
23 pollution problems associated with the discharge of  
24 plastic microbeads into surrounding waterways. So  
25 New York State there are local legislatures in three

2 counties: Erie, Cattaraugus and Chautauqua that have  
3 already passed bans on microbeads in personal care  
4 products. In addition, legislative bodies in six  
5 other New York counties, that's Albany, Monroe,  
6 Ulster, Suffolk, Tompkins and Niagara Counties are  
7 now considering bills that would prohibit microbead  
8 use. Significantly, the language in the laws of the  
9 three Upstate New York counties that have already  
10 enacted microbead prohibitions is similar to the  
11 proposed language in the legislation before the City  
12 Council today. All three of these counties now ban  
13 microbead particles of less than five millimeters in  
14 size from personal care products sold within their  
15 jurisdictions. Across the country, nine states have  
16 also enacted legislation banning microbeads. These  
17 states are California, Colorado, Connecticut,  
18 Illinois, Indiana, Maine, Maryland, New Jersey and  
19 Wisconsin. The details of the prohibitions in these  
20 state bills vary, but at least three state laws are  
21 quite stringent and were drafted to minimize the  
22 introduction of additional microbead pollution into  
23 nearby waterways. Jurisdictions with the strongest  
24 provisions include our neighboring states, that's  
25 Connecticut and New Jersey as well as Maryland.

2 Thus, passage of the pending legislation by New York  
3 City would mean that the Tri-State New York  
4 Metropolitan area could well have the toughest  
5 microbead protections of any region in the country.  
6 The remaining six states that have passed microbead  
7 legislation have incorporated watered down provisions  
8 of one sort of another. Several of the laws apply to  
9 microbead ban only to microbeads found in rinse off  
10 products. That language appears to exempt cosmetics  
11 in the ban. This limitation is problematic because  
12 cosmetics, while not intended to be rinsed off  
13 immediately are ultimately washed from the skin,  
14 which sends those microbeads down the drain. Several  
15 other states include language in their laws limiting  
16 the prohibition on microbead to microbeads that are  
17 non-biodegradable. The non-biodegradable  
18 specification is problematic because there is  
19 considerable dispute as to the definition of  
20 biodegradable and as to whether these biodegradable  
21 microbeads are benign when reduced--when introduced  
22 into the marine environment. New York City's  
23 proposed ban commendably avoids the shortcomings of  
24 these other bans and follows in the path of more  
25 effective bans in Connecticut, Maryland, New Jersey

2 and Erie, Cattaraugus and Chautauqua Counties.

3 Accordingly, the proposed legislation would be an  
4 effective measure to reduce New York City's pollution  
5 of plastic particles into marine environments. Thank  
6 you.

7 CHAIRPERSON ESPINAL: Well, thank you so  
8 much. We appreciate it. Thank you everyone for all  
9 your testimony. We look forward to having a second  
10 hearing on this bill and hopefully pass this and so  
11 it will go to the full Council at some point. But  
12 until then, I'm going to adjourn this meeting, and  
13 call it a day. Thank you. [gavel]

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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 October 30, 2015