CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON WATERFRONTS

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HELD AT: Council Chambers
City Hall

B E F O R E:
MICHAEL C. NELSON
Chairperson

COUNCIL MEMBERS:
Gale A. Brewer
Melissa Mark-Viverito

A P P E A R A N C E S

COUNCIL MEMBERS:

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

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Senior Vice President, Maritime Department
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Kathryn McGuckin
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Executive Director
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CHAIRPERSON NELSON: --including its economic benefits, the environmental concerns, the legal and regulatory requirements of dredging projects and, of course, the costs associated with dredging and disposal.

The Committee also looks forward to hearing the details of EDC's new Dredge Material Management program. And, our first panel will consist of Kathryn McGuckin, of New York City EDC, Venetia Lannon, also of New York City EDC, and I think it's Dr. Tom Wakeman, Davidson Laboratories, the Stevens Institute of Technology in Hoboken and Mr. Tom Shea of the U.S. Army Corps of Engineers. Please, if the first panel would begin. And, before you speak, whoever's going to speak first, would just identify themselves for the record. Thank you.

MALE VOICE: Good morning.

VENETIA LANNON: Hi. Ready? Good morning, Chairman Nelson and members of the Waterfronts Committee. My name is Venetia Lannon. And, I am Senior Vice President of the Maritime Department at the New York City Economic Development Corporation. With me here today is,

to my left is Kathryn McGuckin, Assistant Vice President in the Maritime Department and Director of our Dredge Material Management program.

EDC would like to thank the New York City Council for convening this hearing on dredging in the New York Harbor and for inviting EDC to offer testimony to report on the progress that has been made to date, as well as the challenges that lie before us. By way of introduction, EDC is a public benefit corporation empowered by the City of New York via its Maritime contract to retain the City's maritime businesses, attract additional maritime business to the City and to promote maritime agreements for the City's waterfront properties. Dredging to maintain adequate water depths throughout the Harbor and at the City's waterfront berths is paramount to fulfilling these responsibilities. I will now turn it over to Kathryn to provide today's testimony.

KATHRYN McGUCKIN: Thank you, Venetia. My name is Kathryn McGuckin. And, my testimony today will center on three topics; dredging, what it is and why it's needed, the cost

of dredging and Dredge Material Management, what it is and why it's needed.

Dredging, the removal of sediments from waterways, allows for the survival and continued growth of the entire port of New York and New Jersey, the third largest port complex in the U.S. and the largest on the East Coast, as previously stated by the Chairman. Furthermore, maintenance dredging of waterfront berths located throughout the five boroughs, publicly and privately owned, is essential to maritime-related economic growth.

The United States Army Corps of Engineers, along with their local sponsor, the Port Authority of New York and New Jersey, is presently deepening the New York/New Jersey Harbor to a depth of 50 feet, the largest deep draft navigation project in U.S. history. Maintenance dredging to maintain depth is a constant in the Harbor with frequency varying throughout the Harbor's many rivers, bays and channels. As an example, the Passenger Ship Terminal on the westside of Manhattan requires annual dredging of approximately 300,000 cubic yards of sediments

annually. Facilities on the East River, such as the South Brooklyn Marine Terminal, require dredging less frequently, about once every five years. The volume of sediment deposited in any given area is dependent upon several factors, most notably the flow rate of the water body and the number, size and shape of waterfront structures.

Historically, open water disposal at an ocean site has been the primary method of disposing of sediments dredged from the New York/New Jersey Harbor Estuary. The New York Bight Dredge Material Disposal Site, known as the Mud Dump Site, was designated in 1984 for disposal of up to 100 million cubic yards of dredge material from the Port and nearby Harbors. The Mud Dump Site and its environs located 5.3 nautical miles east of Highlands, New Jersey and 9.6 nautical miles south of Rockaway, New York, has historically been the major option for dredged material disposal since 1914. An average of four to five million cubic yards of dredged material from the New York/New Jersey Harbor has been disposed in the ocean each year.

In July 1996, in the interest of

maintaining sustainable port development and environmental protection of the estuary and ocean, a letter signed by the Administrator of the U.S. Environmental Protection Agency and the Secretaries of the Departments of the Army and Transportation set forth the Administration's Plan to close the Mud Dump Site for disposal of dredged material. In a final rule that became effective September 29th, 1997, EPA de-designated and terminated the use of the 2.2 square nautical mile area of the Mud Dump Site. Simultaneous with the closure of the Mud Dump Site, the site and a 13.5 square nautical mile area surrounding the site were re-designated as the Historic Area Remediation Site, also known as HARS.

Pursuant to this rule, the HARS is restricted to receive only dredged material suitable for use as Remediation Material which is defined as uncontaminated dredged material; more specifically material that meets the Category I standards set for the former Mud Dump Site and which does not cause significant undesirable effects, including through bioaccumulation.

On September 27th, 2000, to ensure

that the remedial goals of the HARS would be met, the U.S. Environmental Protection Agency tightened the guideline for PCBs in dredged material placed at the HARS from 400 parts per billion in worm tissue to 113 parts per billion in worm tissue. This significant, more stringent change resulted in approximately 75% of the region's dredging projects being ineligible for placement at the HARS, which in turn resulted in the affected parties, being the Corps, the Port Authority and waterfront businesses, both public and private, taking a more focused look at other possibilities for beneficial reuse of dredged material. Upland beneficial reuses for dredged material include construction fill, brownfields remediation, landfill closures and wetland/habitat enhancement. Dredged material from New York/New Jersey Harbor has been used for these and other beneficial uses.

The bioassay tests required to determine the HARS suitability of dredged material as well as the conditioning of sediments, generally the addition of cement, and testing required for beneficial reuse of dredged material

at upland sites significantly affect the cost of dredging projects. Prior to the closure of the Mud Dump Site, the cost of dredging, including placement at the Mud Dump Site, was approximately $4 per cubic yard. Today the cost averages about $16 per cubic yard plus the cost of the required bioassay test, which adds approximately $242,000 per composite sample to the total project cost.

EDC recently paid $836,000 to determine whether sediments from the Passenger Ship Terminal were suitable for HARS placement. The cost of dredging roughly 300,000 cubic yards, including transport to the HARS for placement, was approximately 2.8 million. The project also included about 69,000 cubic yards of project sediments that were deemed unsuitable for HARS. This material was retested for suitability for beneficial use upland and upon being deemed suitable, was dredged, processed with cement and beneficially reused as landfill closure material at a cost of approximately $5.5 million. Total cost of the Passenger Ship dredging project approximated $9.1 million compared to the approximately $2 million cost of eight years ago.

Understandably a portion of the increase in the cost of dredging is due to the rising costs of labor, fuel and conditioning materials like cement. However, additional costs related to testing of dredged material have significantly increased the per cubic yard cost of dredging. The cost of bioassay testing required for determination of HARS suitability of dredged material, is approximately 242,000 per composite sample; upland testing runs approximately 15,000 per composite sample for pre-dredge testing and $1,200 per composite sample for pre-placement testing. Furthermore, the basic components of dredging and placement, such as fuel and cement, are commodities subject to lower prices when purchased in higher volumes. In the end these fixed costs makes dredging a volume economics business, the greater the volume of material proposed to be dredged the lower the per cubic yard cost.

As an example imagine three separate and distinct, yet geographically co-located dredging projects all proposing HARS placement, a moderately sized marina dredging

50,000 cubic yards, the EDC's annual dredging of 300,000 cubic yards from the Passenger Ship Terminal and a one million cubic yard Army Corps Federal Navigation Channel dredging project. Since the three projects are co-located, the mobilization and demobilization costs can be expected to be the same for each, approximately $200,000. All three projects will submit one HARS composite for testing and analysis, about $242,000. Therefore the per cubic yard cost of mobilization, demobilization and HARS testing for the three projects breaks down as follows; for the marina $8.84 per cubic yard; for the Passenger Ship Terminal $1.48 per cubic yard; for the Federal navigation channel project $0.45 per cubic yard. Similarly, because the dredger can lock in a better price for fuel when purchasing large volumes, a lower per cubic yard price for the actual dredging of a high-volume, million cubic yard project can be expected to be less than for a 50,000 cubic yard project.

Dredging with beneficial reuse upland has similar economies of scale. However, project cost has two major differences. First,

testing for upland placement is significantly less, costing $15,000 per composite sample for pre-dredge testing and approximately $1,000 per composite sample for pre-placement testing. Second, placement costs are about $110 per cubic yard. Placement costs are expected to escalate to two to three times today's cost of $110 if local placement sites reach capacity with no new sites coming online.

In summary, the cost of dredging to small and moderately sized businesses, regardless of whether the placement site is the HARS or an upland beneficial use site, can almost be 20 times higher than for Federal projects of large volume, an amount so onerous as to be prohibitive.

Planning, in the form of local and regional dredged material management, seems to be the best way to reign in and possibly control escalating dredging costs.

The New York/New Jersey Harbor has a Dredged Material Management Plan, a DMMP, that serves as an important guide for the appropriate treatment and/or placement of material dredged

pursuant to the Harbor Deepening Project as well as maintenance dredging of Federal Navigation Channels. EDC was a partner in the preparation of the original DMMP as well as the recently released 2008 update. To ensure that the approach to dredged material management remains environmentally and economically sound, the DMMP is a dynamic document that will be revised periodically to reflect the most current information relevant to dredged material management.

The implementation of the DMMP requires communication, coordination and cooperation-- and no coughing-- against and between a myriad of Federal, State and City agencies. To that end, a monthly Regional Dredge Team meeting and a quarterly Senior Partners meeting are convened. The City is represented at these meetings by EDC, the City's Office of Environmental Coordination and City Planning.

The recently implemented EDC Dredged Material Management Program is a direct result of being a participating member of the Regional Dredge Team. It is designed to

beneficially use dredged material from throughout the New York/New Jersey Harbor Estuary region as alternative fill material at City-owned and/or privately owned sites requiring grading fill anywhere in the City. Eliminating the cost of fill for redevelopment projects through the beneficial reuse of dredged material is projected to result in up to $30 million in savings to New York City and $9 million in savings to EDC during fiscal year 2009. The Program anticipates collecting approximately $3 million in placement fees during fiscal year 2009, 15% of which will be directed to a Dredged Material Management Fund, designed to assist local businesses with dredged material management issues through a grant and/or low- interest loan program.

A pilot project undertaken pursuant to the new Dredged Material Management Program resulted in savings to City Parks of approximately $900,000. Placement fees of $68,700 were collected, with just over $10,300 being directed to the Dredged Material Management Fund.

The most significant impediment--I can do this-- to the success of the Dredged

Material Management Program will be the fact that in the State of New York dredged material is classified as a solid waste. Defining dredged material as a solid waste generally means that it must be regulated as such. As a result, public perception of dredged material tends to be negative and the use of dredged material is met with a variety of regulatory hurdles. Regulating dredged material as a "waste" severely limits beneficial reuse projects because the philosophy behind solid waste management is one of containing wastes to prevent their escape into the environment. Though recycling or reuse of wastes has become commonplace in municipal, and to some extent, industrial waste management, the same concept has not yet pervaded the area of dredged material management. As a result, regulating dredged material as a solid waste, even under a series of exemptions, known as Beneficial Use Determinations or BUDs, is not optimal.

Technically, once granted a BUD, the exempted dredged material is no longer a waste. However, it is still perceived as such even though its use as grading fill requires it

to meet the same site-specific chemical specifications as all other fill being accepted. Needless to say contractors are reluctant to use dredged material and communities reluctant to embrace it because of the stigma attached to solid waste. Thank you.

Beyond a doubt there is dredged material that is highly contaminated and unsuitable for beneficial reuse at upland sites. However, the same can be said of most any type of fill proposed as grading material. Declassifying dredged material and managing it as a regulatory material will provide the testing and oversight necessary to ensure the health and welfare of the public and the environment while allowing for a myriad of beneficial reuses.

The EDC Dredged Material Management Program will be a significant asset to finding upland beneficial reuses for the cleaner dredged material coming from the New York/New Jersey Harbor. It does not, nor was it meant to, address the fate of the dredged materials too dirty to be used as grading fill at City redevelopment sites and yet not dirty enough to be

classified as hazardous waste. The management of these dirtier materials, after stabilization with cement, has to date included use as below-the-liner landfill closure material and mine reclamation material. It is management of these not clean, yet less than hazardous, sediments that is the true challenge, management that is environmentally and economically sound. This will require a multi-multi agency, regional approach to research, create and implement beneficial reuse opportunities.

To recap, the economic vitality and continued growth of the Port of New York and New Jersey, the third largest Port complex in the United States, is dependent upon keeping the Federal Navigation Channels and Port berths dredged. Regulating dredged material as a waste severely limits beneficial reuse projects. Dredging is expensive and the cost of dredging has become onerous for small and moderately sized businesses. The cost of dredging will continue to escalate unless local and regional beneficial reuse opportunities are identified and brought online. Dredge Material Management is a federal,

state and city multi-agency responsibility requiring immediate action and solutions that are environmentally and economically sound.

I thank you for you time. Please note that, for your convenience, our presentation has been attached to the back of the testimony. I'll now turn it over to Venetia and for any questions you may have.

CHAIRPERSON NELSON: I know that Professor Wakeman has to get back to teach class soon. So, I don't know if you need to speak next?

KATHRYN McGUCKIN: Oh, his students won't mind if he's not there, will they? I never minded when the Professor didn't show.

CHAIRPERSON NELSON: Get the - - right?

TOM WAKEMAN: Miss McGuckin really provides you a broad description of the issues that face the City, as well as the region. What I'm planning to do based on the [off-mic] was to simply give you 101, very basic. It turns out that Mr. Shea's office is going to do something similar.

Most ports, whether they be coastal

ports or river ports need to be dredged because they get sediment in from the drainage basins or they get sediment from moving along the coast. When we try and bring a ship up to the land, we've got to make the berth there for them. Modern ships, because of economies of scale and because trade policies we put in place over about the last 25 years has caused all trade to be part of a global marketplace. That said, containerization, which also evolved around here starting in 1956, has caused larger and larger ships to be built. And, we're at about the eighth generation of container ships at this point.

Ports are significant economic engines. But, more importantly, ports are now the commercial gateways that we have to the world in order to get goods. About 50% of the goods that we use in this nation, excuse me, in our region, that's shows how provincial I am, come from our local port. About 30% come from LALB, which is hitting its capacity very quickly because they're not able to build new projects. They don't need dredging. However, they need expansion, a plan. And, about 20% come from along the other East

Coast ports. In other words, if we lose parts of other ports, which we could from the West Coast, we will not be able to take care of the consumer demands that we have in this region.

The other thing that becomes a thought to consider is the economic engine of this region has the potential to grow with the opening of the expanded Panama Canal, which will occur in 2014 or 2015. Ships that earlier were only going to the East, excuse me, the West Coast, will be able to come to the East Coast and serve us directly.

There's two types of dredging. There's the excavation of the material. And, there's the disposal of material with a link in the middle of transport. For a very long time, this region, unlike many other regions in the country, didn't have to worry about disposal of dredge material because it all went to the ocean. And, under the Federal rules, if you have an ocean site, or if you have any other option besides the ocean site, you have to use it. So, when things started to change here, about 12 years ago, the region galvanized, got together, led by the Corps

of Engineers. I was working for the Port Authority at that time responsible for their waterways development, and came up with a program called the Dredge Material Management Plan for disposal of this.

Most of the material we have here, about 50%, is clean and can be used beneficially either by covering the Mud Dump or in reef. Contaminated material has to be treated in some fashion, as Miss McGuckinton mentioned. Either initially, it was put in pits and then, after that, in this region, we developed a very expensive processing method that turned it into a resource. The first utilization of that was for a parking lot at Jersey Gardens over in Elizabeth. The reason that the contractor wanted to use it was because it doesn't have differential settling. It's all nice graded fill.

We have maintenance issues in this Harbor and we have new construction. In order to be part of the 21st century global port complexes, we have to be at about 15.2 meters, or 50 feet. That project's underway. The City is a participant. And, there's about 20 million cubic

yards left to be done on that project out of a total of 50 million. So, it's very well on the way.

The other things, there's an ongoing maintenance problem. The area is challenged by three principal superfund sites. One, PCBs in the Upper Hudson; two, dioxins on the Passaic River and three, mercury on the Hackensack. Those three chemicals come in and have been part of the reason the material's not ocean acceptable any longer. Those legacy sediments will be us for another several decades.

The principal places that we've been focusing on for dredging and will have to continue are the connecting channels to where those berths are and the container terminals. And, this port really is a combination of container activities, auto activities and break bulk. Most of the break bulk is salt coming in; going out, it is scrap metal and waste paper.

The dredging challenge essentially comes down to making sure that the federal government's able to maintain their schedule, which is-- had the Corps receiving on the order of

100 million a year to keep this project moving and completing it before the Panama Canal opens because the Panama Canal will be able to take these larger vessels, carrying about 8,000 to 9,000 20-foot equivalents. And, without 50 feet, we will see that cargo go to Norfolk or South. And, it's going to come here then by truck, which is not a real good way to move cargo these days, particularly on I-95.

The other projects that we have in this area are influenced by regulatory requirements of both New Jersey and New York. And, as Katie mentioned already, DEC classifies dredge material as waste, therefore, it falls under federal regulations for RCRA and that changes, not only the public perception, but the rules for placement. New Jersey doesn't handle it that way. So, there's been more flexibility there. Pennsylvania the same thing. In general, the federal government, I believe, does not treat it under RCRA, nor do most other states.

Finally, the expanding financial concerns, the amounts of money were already mentioned in dredging, and it's only going to go

up if fuel goes back up. And, in this day and age, we have to be cognizant that all project costs limit the ability to actually do a project. And, the question's whether or not it's the best place for the city, the state, the federal government to put their money.

The challenges are we don't have any disposal sites here. The ocean site was closed in one year. They had one last shot in '97 to put what remaining material that could go there that could be capped. Thereafter, we had a pit in Newark Bay for a short period of time. It's still there, but it can't be used. It's not permitted. So, everything else has been going on land. There are some long term opportunities. But, there're also large cost associated with that, such as taking the material to Pennsylvania and using it for acid mine drainage pit cover; reclaiming mines, in other words.

There is a 1.2 million yard requirement every year for disposal on land because it's not acceptable for ocean or inland waterway disposal. These are issues that we'll have to grapple with because, to me, dredging is,

as you said, an unseen infrastructure requirement, if, indeed, you want to be a port. If you want to be a port this day and age and not a feeder port or a barge port, which means it's rehandled somewhere else and brought to you, which adds to the cost of delivery. Then, you have to maintain the channels, just like you have to maintain the roads and driveways and parking lots.

It's the choice that the region faces, not recognizing, I don't think, that the rules of the international trade are changing and changing rapidly. Thank you.

CHAIRPERSON NELSON: Thank you. [Pause] appreciate it. You said the whole panel.

MALE VOICE: Yeah, Mr. Shea's next.

CHAIRPERSON NELSON: Okay. Sorry, I was requested to have Mr. Shea go next. That okay?

TOM SHEA: Yeah, we're going to--

CHAIRPERSON NELSON: Thank you. Army Corps of Engineers who were so pivotal to our economic situation right now.

TOM SHEA: Briefly change out - - - -

CHAIRPERSON NELSON: Um, hm.

TOM SHEA: -- slide mount.

CHAIRPERSON NELSON: No problem. Please, let me introduce Council Member Melissa Mark-Viverito, who joined us. Remiss I didn't do that earlier.

MALE VOICE: Gale's here, too.

CHAIRPERSON NELSON: Oh, and Council Member Gale Brewer. Nice to see you, Gale.

COUNCIL MEMBER BREWER: - -

CHAIRPERSON NELSON: You're welcome.

TOM SHEA: Okay. Good morning. I'm Tom Shea. I'm a project manager at the United States Army Corps of Engineers. We're the world's oldest and largest engineering construction firm. Now, I'm blind 'cause I-- I'm going to be doing a Dredging 101. That's what I was asked to do. I will not go into as many details of our projects that we have going on and focus more on mechanics, why we do things and some of the issues involved. Again, some of this-- got some stuff on here doesn't make me look good, here. I don't know

what it is. Oh, no, don't. Hopefully, this'll work.

Again, New York Harbor was originally, you know, when Henry Hudson came in, about 17 feet and we were first and naturally deep. So, anything, all big ships come in because we've dredged. And, we've dredged a lot. The Corps of Engineers maintains over 240 miles of channels in New York City. Those range from 45 feet deep along the Kill Van Kull. And, in some areas, they're 4, 6, 10 feet. Some of the smaller ones that we get for recreation or some barge movement in some of the small rivers, like the Bronx River, say. And, we're deepening approximately 45 miles right now.

These numbers, you've all seen, we're the largest port on the East Coast. Lots of money, 35% of the U.S. population served. That goes up to almost 60 or 70% that's almost a day or day and a half travel time away from us. A huge amount of goods come in because there's a huge population and we, as Americans, like to buy stuff. And, that stuff, a lot of it all comes in and that's generating the big stuff.

Why do we dredge? Provide access to land facilities; provide economic loading of the ships; maintain anchorages or channels for recreation; remove contaminate materials and provide source material for beaches. We have a program where when we're dredging sand, we can place that on a beach at a really good deal for the local sponsor.

Graphically, here's how things have gotten started. When containerization started in the 1960s, there were maybe a thousand, less than a thousand TEUs or 20-foot equivalent units. So, that's essentially one container each. And, they range from 20 to 53 feet long. They didn't require a lot. They were converted oil ships. And then, the shipping lines start building specific ships to handle these. And, currently, we're in the-- around 6,000 TEU, getting up to 8,000 and there's even rumors or there were some rumors going on, maybe a 15,000 TEU ship; huge things. And, as they get bigger, they actually, you know, they get longer, wider and they get deeper. And, as they get deeper, we do the economics to see if we should deepen the channels.

All of our channels must be economically justified, which I'll touch upon in a second.

I classify dredging for three reasons; one, new work. And, that's to deepen the existing channel so that we can bring in the newer vessels. An example of that is the New York Harbor, deepening that I'm the project manager for. And then, we also maintain channels. Channels, because of the flow of sediment down, they'll shoal up and then, the draft decreases. For federal channels, Congress authorizes a specific depth. And, we have a program where we can go in and remove channels. They're typically on a certain basis. And then, an example of that would be like the Intrepid earth required maintenance dredging. There's Jamaica Bay, even the New York Harbor. And then, finally, environmental. This is outside of dredging for economic purposes. This is to remove material, either because of superfund concerns or non-superfund, environmental restoration or superfund.

New work, when the Corps does it, we do a feasibility study for the New York Harbor. That actually only took two years. And, hence the

loss of all my hair, or most of it. It was fast-paced. And, fortunately, we were able to get the funding to do that. The depths are based on an economic analysis. And, the bottom line is the benefits have to outweigh the costs for the Corps to recommend the project, unless certain things happen. And, I wasn't going to get into those type complications at this. And, we do the calculations based on transportation cost savings.

When we know, like a 6,000 TEU ship can come in, it comes in lightly loaded. It may have 4,000 TEUs. The cost to operate that ship is going to be the same whether it's fully loaded or lightly loaded. So, if we can bring that in loaded, fully loaded, the unit cost per container decreases and that's essentially your benefits.

Maintenance dredging, we have a certain depth. It shoals. Every so often we'll do surveys. We do-- I'm lacking the name of it-- controlling depth reports that we publish on the internet that tell you what the controlling depth of the channel is. And then, if it goes below the authorized depth, we have programs. We get money from Congress to go and dredge it. That usually

happens maybe every two years. Some projects every ten or 30. Some channels, like the Anchorage Channel has enough flow and energy that it doesn't require any maintenance.

And then, environmental, this is for restoration or CERCLA. It's based on human environmental risk assessments, not really tied in with economics. When the Corps recommends an environmental dredging that's not CERCLA, we look at the cost of the first unit cost to dredge, say, 10 feet, as a base, automatically justified. And then, we try to go down and look at what the optimal amount is or when that last increment just costs way too much to justify it.

How we dredge really depends on what we're dredging. Here's some of the types of stuff we have; sand, soft mud, Glacial Till, clay, bedrock. And, we go down from the stuff that's really easy to the stuff that's really hard.

I have two graphics that show what we're doing, if you want to use this one. We have essentially two types of dredges. We have the clamshell here. And, the dredge basically stays in one place and drops its bucket. And, the

bucket just scoops up material and then lifts it up. And, the bucket looks like that. And then, we have an excavator. This is basically a back hoe. But, it's a really, really big back hoe. Both of these have been on Marne and Marvels and all the History Channel things. There's a couple of shows on that have them. And then, when we get into bedrock, we throw in a third barge, which is our drill barge, where we're required to drill holes into the bedrock on a certain pattern. And then, we put in charges and then, that fractures the rock.

And then, we'll go back with the excavator and clean that up. All the mud is then put on a scow, or the dredge material's put on a scow. Depending upon what material that is, the scow may be a bottom dumping scow like this, where, like, for sand, it goes out to the HARS; goes out, the bucket opens up, the material drops from the bottom and then it comes back in and re-cycles. The other type is more like a bowl. And, the material to remove it, they typically have a smaller clamshell that removes the material.

Here's another example of one.

This would demonstrate how the rock would have been broken up. You have a excavator, just scoops it all up, puts it in the barge. A little bit further behind it, the dredging barge would be removing it. And then, in most areas, we have material, even though we're going to like a project depth, which would be this dotted line, there's softer material usually on top of it, perhaps clay, Glacial Till, sand, whatever. So, we have to remove that so that the progress is remove it with the clamshell. Whatever we can't remove with that, they may try to remove with the excavator. And, if they can't, go back, drill it and then, remove it. Essential thing.

Now, we're getting in the fun part, where we have some pictures. This is an example of a hopper dredge. It's a huge boat with pipes that go down to the bottom. This is what's on the bottom. Essentially, it's a vacuum machine. Using hydraulic pumps, it just pumps water, sucks the sand with it. It then goes into hoppers that's on the dredge. Once the hoppers are filled, usually to an economic fill, which means it's pumping water out 'cause there's a large

amount of water that gets pumped in also. That's allowed to flow overboard so you're getting just the sand in the hopper. It takes off. It'll go to the HARS or it'll go to someplace when we're doing, like, environmental restoration building an island. It'll go there to pump the material out to stockpile it or move it on to the beach. And then, it comes back and it just continues to do that.

This is the New York. This is an example of the excavator. To give you a size, that's the size of the bucket. It's huge. This is one of our former district engineers standing inside of it. Huge teeth. And, you can see why that thing's great for digging up rock. The problem we have with this is it does generate a lot of maintenance requirements, a lot of hydraulics. But, it just, you know, might say gobble it up and it just really nice. When you're out there watching, this does not look so big until you actually get to go on it.

These are the clamshells. This is just a normal-- actually it's what we term a "environmental bucket." Same with this. They

function the same way. They're both designed to scoop it out. A normal clamshell mud or water can flow out. It's kind of messy. The environmental bucket is designed to help contain it, reduce the amount of water. And so, you reduce suspension in the water. It's a bit more, when you're dealing with contaminated materials, that's the bucket we're required to use. And, we have one that's about 26 cubic yards. And, it's great for production.

There's a drill boat, three of them. You can see, basically, just like any drill that you might see drilling for water or drilling onshore. They drill. When they're getting ready to blast, there's a whole line of yellow charges that come out. We will only do two blasts during the day; one typically an hour after sunrise and then, no later than an hour before sunset. So, any of our gurat [phonetic] blasting only occurs during daylight hours, Monday through Friday. And, we don't allow our contractors to blast on Sundays or federal holidays.

CHAIRPERSON NELSON: That's good.

TOM SHEA: Excuse me?

CHAIRPERSON NELSON: You don't want to scare the hell of everybody.

TOM SHEA: Well, we have a lot of issues, especially in the Kill Van Kull where we do most of that. A lot of residents, you know, they feel the vibrations. They feel we're going to tear their house down. And, that's not the case. And, we have a large program to go and every time we're in the area, we will survey the house, take pictures, make drawings, take video of it. And, if they have a complaint, they file a claim. We'll investigate it. And, you know, if it is, you know, we bring in the experts to figure out if this was caused by vibration. A lot of the vibrations are garbage trucks or buses. I mean, that's generating much more damage to any structure than us.

CHAIRPERSON NELSON: This is a - - you distribute, like, information to the locals.

TOM SHEA: Right. We distribute pamphlets to every house, every property in the area, well, within a 15 foot radius of where we're going to dredge or band, more appropriate. And then, we'll advertise in the newspaper for public

meeting that's held at least two weeks prior to the start of blasting. And then, our schedules are posted to Staten Island Borough President office and then, our website.

What do we do with the dredged material? This has been discussed in detail. But, again, it depends on the material. Sand, we can send it to the HARS or we can use it for island creation or put it on a beach. Unfortunately, a lot of material we're dredging now is so fine that, if it was to go on a beach, it would wash off over the first year. So, it's not beneficial to do that.

Soft mud requires testing. And then, it can either go upland if it doesn’t meet the HARS suitability. Or, it goes out to the HARS. Glacial Till, we tend to send that out to the HARS. It makes good capping material. Clay, we send out there, too. And then, bedrock, the two states usually fight over this material so that they can create artificial reefs.

Here's what one of the landfills, this is in Bayonne. This is the former Marine Ocean Terminal Bayonne. This is the Port Jersey.

Manhattan and Brooklyn are over here. This was a landfill. It required closing. And so, we were bringing the dredge material to a processing site that was right onsite. A scow would come in. It would be off-loaded, processed and then, distributed around the landfill based on the engineering and ultimately the designer's requirements. And, this project is finished and it's a rather nice looking golf course. It looks rather challenging, too.

And then, Tom mentioned mine closure. This is one picture of one. This is before and an after shot. Again, mines, basically open rock and then, they get acid rain or they generate a bad runoff, similar requirements to landfill closure, where you can cap the material, cap whatever it is and then, landscape it so that it's nice looking.

Sediment stabilization is the heart of reusing the dredge material. Again, it's brought in by scows. Each process is slightly different. Some of them are even patented now. When it's brought to the cycling material, it's typically dewatered or pumped out. And then,

dewatered, mixed with fly ash or cement or some stabilizing product. And then, the end result is similar right here. It basically looks like dirt that, you know, if you went to, you know, you called a company for landfill dirt, it would be very similar. And, it's a great resource.

Island restoration, this is Elder's Island, that's out in Jamaica Bay. We have two authorities that do this. One was the Dredging Authority and then, an environmental restoration authority. This is where we brought sand from the Anchorage One and Ambrose Channels to Elder's. It was basically the island almost went away. And now, we've rebuilt it. I don't have the specifics on the number of acres we've rebuilt. We planted grass, landscaped it and now, we're monitoring it with the Anchorage 1B Channel. And, we're going out with a second contract to continue building the island. That's been postponed due to bidding concerns. But, this is a great opportunity to restore Jamaica Bay and the natural resources and great habitat that we have out there while doing something with the dredge material.

Funding, for me, in the new work,

the projects are funded partially by the federal government and then, the local sponsor. That share depends on the depth it is. It goes 25, actually 15, 25 or 50% share. And, most of the work in New York Harbor is cost shared with the Port Authority. And then, they have supporting agreements with the State of New York or the State of New Jersey for some specific channels in the deepening project.

Federal maintenance, the federal projects are deepen at 100% federally funded, unless the project is post-1986. So, for instance, the 50-foot project-- actually, it's when depths go beyond 45 feet, then they get cost shared for the incremental costs of maintaining. And, beyond 50 feet, there's only one project that we do that. And then, the 50-foot we'll have that.

And then, there's the local maintenance. When you have a marina or the berthing areas to a huge channel, that's all local owner responsibility. And, that's, again, where you get, as very well described by Katie, the problems associated with the cost of dredging,

cost of testing the material and it gets-- however, we have done in the past, for instance, Merrimac, I know for one, we had a maintenance, federal channel maintenance project. And then, the Anchorage channel was non-federal. We were able to combine the total area, dredge it under one contract and then, we basically divvied it up on who pays for what. That helps the local because it reduces a lot of the-- you increase your unit quantities, which drives down the unit cost of dredging. And, it also drives down the-- or, you save money on the mobilization and demo, which can typically be about 10% of the total cost.

Various issues, again, dredge material testing. It's expensive. It gets expensive 'cause someone ends up counting the number of shrimp that have died after a certain number of days. The shrimp are not the type you eat. They're really small. You got get them under a microscope and do all that. And, that takes time and that drives up the costs.

Upland placement, again, they can range from 50 to $100. Back in, it was '97, Tom,

we sent material out to Utah at about $115 a cubic yard. That barge got sent on a rail car. It used just about every transportation means, except for a bicycle to do it. At that point, we said no, there's got to be a better way. And, that's when we all started working together to do that.

And then, there's environmental issues. There's loss of habitat at times. There's an impact to specific species of concern, for instance, winter flounder is a species we look after as an indicator of the overall health of other species. Air pollution, the New York Harbor is funding because we were not in compliance with the Clean Air Act for the construction of the project. We're going to spent up to $28 million in repowering all the Staten Island ferries so that they reduce their emissions, especially Knox [phonetic], so that they're all going to be cleaner. We've also had a program through the Port Authority that's going to get cost-shared to repower a lot of the tug boats that spend about 90% of their time in New York Harbor.

Noise is an issue for the residents out in Staten Island, in Bayonne. Even though we

tend to be in compliance with the City Noise Regulations, it's this constant drone. It's constantly there. It's something that's new and it's an issue.

And then, finally, we have suspension of solids. This is more of a concern when you're dealing with contaminated materials. And, that's where we tend to-- and we have ways to manage that, reduce it and so we're not causing impacts.

And, I think that's it. There's my contact information. Again, Corps of Engineers is a extremely large organization. We have experts in just about anything so that if I can't answer it, I've got about 30,000 people who can.

CHAIRPERSON NELSON: Well, that 101 was really, I think fascinating. I think many people in this audience probably know a lot about that already. But, it was so interesting. I have to tell you. It really was. I think Council Member Brewer has a question.

COUNCIL MEMBER BREWER: You want to lead questions?

CHAIRPERSON NELSON: No, we'll go

right to you. It's okay.

COUNCIL MEMBER BREWER: Thank you very much. The couple questions I have, I know Jerry Nadler [phonetic] may not be your favorite. I just e-mailed him. What should I ask? But, anyway. When you have the challenge of trying to be a very competitive port, what kind of-- obviously, that would be post-Panama Canal, that you have to be ready for-- what's your goal in all of this? In other words, what would Jerry Nadler say that you had to do between now and the opening of the Panama Canal? What's kind of-- where do we need to be at that point in terms of dredging?

TOM SHEA: Well, from the Corps' perspective, we have the 50-foot project that's being deepened. We're on a schedule. As long as Congress funds us, we're going to meet that schedule. The goal is to have a channel to 50 feet that gets into the South Elizabeth Channel. And, that's the Port Authority's goal.

COUNCIL MEMBER BREWER: And, that will make us competitive with other ports, strongly, 'cause that's what I think what our goal is is that New Yorkers and New Jersey?

TOM SHEA: Yes.

COUNCIL MEMBER BREWER: Okay.

TOM SHEA: Although from the Corps' perspective, we don’t look at being competitive.

COUNCIL MEMBER BREWER: I know, but we do.

TOM SHEA: I know. And so, we're helping you do that.

COUNCIL MEMBER BREWER: Thank you.

VENETIA LANNON: Yeah, I think, and we, at EDC, we engage in these conversations with the Army Corps and the Port Authority and with Congressman Nadler's office on a frequent basis. It's foremost in our minds that our Port, which provides so much, as many of the panelists said, so much economic--

COUNCIL MEMBER BREWER: Yeah.

VENETIA LANNON: -- activity, jobs, tax benefits to this region that it remain competitive. Our main concern, when the Panama Canal widens, one of our big competitors is Norfolk, Virginia. And, they have naturally deep water at their port. They don't have a lot of these dredging-- they have some dredging concerns,

but not on the scale that we do.

And, I think one of the other really important things that isn't a topic of this conversation is just to have enough land. I mean, you can't expand Port Newark or Port Elizabeth, you know. We're looking right now to expand the New York Container Terminal at Hallan Hook. But, there's a delicate balance between, you know, when you're on the water, there are going to be wetlands. And, it's a conversation with DEC. And, I'm sure we'll be coming back to have it with you, sort of the need to get more land and to also what's called densify throughput, meaning that you can move lots of containers on a small amount of land. So, you know, these kinds of things, densification, better efficiency, better labor practices, you know, more competitive labor force is something that comes up. These are all things as well as dredging that we can do to keep our Port competitive.

And then, you know, on top of that, we have to be competitive environmentally. The Port of LA and Long Beach are taking many initiatives to really put an additional charge on

some of these goods that are coming through that benefit these big box stores, but have lots of local impact, especially on the environmental justice front with people suffering from asthma around the Port, especially in New Jersey. So, you have to also be competitive on the environmental front. But, as Congressman Nadler said, that's something perhaps the federal government should be addressing so that we're not competing with each other on that front. And, that's just something that everybody base-line has to take care of.

COUNCIL MEMBER BREWER: Thank you for that comprehensive answer. The other question I have is I know that you talked about the 50% that is clean; that some of it is contaminated. I guess my question is are there ways that are new due to new technology that can address some of this fill? In other words, obviously, you talked about what you can do with the brownfields, etcetera and the coal mines and so on. But, is that taking care of the problem? In other words, I'm trying to say is there something new that can be done 'cause you can't dump where you have in

the past in many cases? So, between the--

KATHRYN McGUCKIN: Not that there aren't new technologies, there are new technologies.

COUNCIL MEMBER BREWER: Okay.

KATHRYN McGUCKIN: However, they're very expensive--

COUNCIL MEMBER BREWER: Okay.

KATHRYN McGUCKIN: -- as both Toms could attest to. There has been a lot of research on how to actually decontaminate these materials and make them garden soil that you would purchase at Home Depot.

COUNCIL MEMBER BREWER: Yeah.

KATHRYN McGUCKIN: And, that can be done. But, it's very expensive. So, how do you do that and still remain economically viable? The sediments that are the easiest to beneficial reuse, as I was mentioning, are those that are contaminated, because it's, I mean lead occurs everywhere.

COUNCIL MEMBER BREWER: It's going to be contaminated.

KATHRYN McGUCKIN: It's going to be

in your backyard. It's going to be everywhere. It's something that occurs in nature. But, they're not anywhere near hazardous. They're not any type of hazardous type of material. Okay, great. We can beneficial reuse those. We mix them with cement because they're very fine silt and they have no structural stability. So, we mix them with cement, which bulks them up. It makes them look like regular soil, just as Tom mentioned.

But, there's an ancillary benefit to that. When you add the cement, not only does it bulk it up, but it locks in those contaminants so that when we run an acid leach test that's required by the State of New York, the water that comes out the other end is clean. That lead that was in there, that mercury that was in there, those things that were in there, they're all locked up in that little cement matrix. And, the water that comes out is clean. So, it's not that they're gone. They're still there.

COUNCIL MEMBER BREWER: Um, hm.

KATHRYN McGUCKIN: But, they're locked in that matrix. But, that makes a good use

for putting below a parking lot, like the Jersey Garden Malls, using it as road embankment fill, using it to close landfills, using it to close brownfields. Those are perfect uses for those type of material because there's not going to be a human exposure pathway there. And, there's not going to be a ground water exposure pathway, 'cause we locked up all those contaminants with that cement. So, it's perfectly reusable.

It's that stuff that's not hazardous material, but not really clean enough to do that, that's going to present the challenges for us. Those are the types of material that we have used in closing landfills and stuff. But, the landfill opportunities are going away.

COUNCIL MEMBER BREWER: Correct.

KATHRYN McGUCKIN: You know, they're all closed or really close to being closed, you know. The below the liner material that is the only stuff that can be accepted, the dirtier stuff. Those opportunities are going away. So, our challenge for the future is where is the next opportunity to use material that is not hazardous, but not really clean enough to use

in most of our redevelopment projects and, to do that and still be economically viable. There are things out there, but they're very expensive.

COUNCIL MEMBER BREWER: I got it. Now, is there dredging going on in European cities? And, are they doing anything with that material that you just discussed?

TOM WAKEMAN: This has been going on worldwide, probably 30 years.

COUNCIL MEMBER BREWER: Right.

TOM WAKEMAN: The last 15--

COUNCIL MEMBER BREWER: I've been on dredges, actually.

TOM WAKEMAN: -- we started looking at ways to decontaminate and beneficially use sediments that were contaminated. The construction of making bricks, Homburg--

COUNCIL MEMBER BREWER: Right, yeah.

TOM WAKEMAN: -- they still have the pile of bricks. Nobody wants them.

COUNCIL MEMBER BREWER: Got it.

TOM WAKEMAN: If it's contaminated, I don't want that in my house.

COUNCIL MEMBER BREWER: It's like the cell phone towers. I got it.

TOM WAKEMAN: Well, the perception stops people. In terms of looking at aggregate, engineered fill, variety of other potential beneficial uses including the creation of tiles by vitrification of this material was done by Brookhaven National Laboratories--

COUNCIL MEMBER BREWER: Um, hm.

TOM WAKEMAN: -- with the EPA and the Corps of Engineers, the Port Authority and others, the two states, spending about 25 million and the bottom line was we put most of our effort into turning this material into a structural fill, which is probably the best use for it. It's where we have the greatest demand. It keeps the price down. And, the public is protected. There are loss of those opportunities as we quickly use up the available space. The Governors made a decision, both of them, in '96, when we sent the material from Hallan Hook to East Carbon, Utah by a combination of the scow and railroad at $118 a yard, that we're not going to send our money to Utah anymore.

COUNCIL MEMBER BREWER: Um, hm.

TOM WAKEMAN: We're going to keep it here and we're going to make it beneficial uses for us here. The problem that we're going to face is two things; your first question, how do we stay competitive. To me, not an issue. It's how do we get the goods. Estimates are that we'll go double the number of goods that we need in this region between 2007 and 2027.

COUNCIL MEMBER BREWER: Wow.

TOM WAKEMAN: Now, how to get double that amount of cargo in here to meet the region's needs, demands, because the population increased, because of affluence--

COUNCIL MEMBER BREWER: Um, hm.

TOM WAKEMAN: -- because of all the other good things that are happening. You do that by having a logistics chain that is served end to end to make sure you can bring the goods in and put it on the shelf on the far end of Long Island. How do you do that? By having the transportation connections to do that.

COUNCIL MEMBER BREWER: Absolutely.

TOM WAKEMAN: The most economical,

energy efficient and least carbon emitting is to bring it in here by sea--

COUNCIL MEMBER BREWER: Yeah.

TOM WAKEMAN: -- and then, put it on land with inner mobile connections. I think Mr. Nadler would be the first to say I want to make sure that the residents of New York are able to get the goods they want in the most efficient fashion possible.

In talking with Mr. Godheim about this, he wants to continue discussions and look at what are the options that we can get into the T bill, to further that function, that objective of not only having a commercially viable Port, but making sure we meet the demands.

COUNCIL MEMBER BREWER: Thank you very much. I won't take more time. But, for EDC, my 79th Street Boat Basin, is anybody thinking about my 79th Street Boat Basin? What do you--you say yes. What does that mean, translated? It's high dry.

VENETIA LANNON: Right.

COUNCIL MEMBER BREWER: High and dry.

VENETIA LANNON: We were just using it as a case study the other day for when dredging becomes so cost prohibitive that really boats are just perched on, when at low tide, just perched right on the ground.

COUNCIL MEMBER BREWER: So, how do we get it dredged?

VENETIA LANNON: Well, as Katie started to mention, EDC has just-- we've gotten, just started this program called the Dredge Material Management Program. And, it's sort of a mini business within EDC, if you will. So, for some of these cleaner materials that are coming out of the federal projects, we will be sort of getting the beneficial use determination from EDC and managing the placement. So, rather than paying to dump, the dredger pays us to place. We will, therefore, generate a source of revenue to be able to either-- we didn't get too much into our testimony, but we--

KATHRYN McGUCKIN: But, she has--

VENETIA LANNON: Yeah.

KATHRYN McGUCKIN: -- our handout.

VENETIA LANNON: Yeah, either it's

a revolving loan fund or it's a grant--

COUNCIL MEMBER BREWER: Okay.

VENETIA LANNON: -- that we will go to be able to aid places like low basins, like small maritime businesses on the Gowanus Canal.

COUNCIL MEMBER BREWER: Okay. So, 79th Street could be the first test case? Thank you very much.

KATHRYN McGUCKIN: We did do a test and it worked out really well. And, the idea is that we want to be able to beneficial reuse and we want that-- we want to be able to put aside money for small and intermediate-sized businesses--

COUNCIL MEMBER BREWER: Right.

KATHRYN McGUCKIN: -- to help them with Dredge Material Management.

COUNCIL MEMBER BREWER: Okay.

KATHRYN McGUCKIN: That's the real benefit to having EDC do this. We're not-for-profit. We're not doing this to make money. So, the idea is we're setting aside money specifically to help these smaller businesses.

COUNCIL MEMBER BREWER: Perfect. Unfortunately, this business is the Parks

Department. But, let's work on it.

KATHRYN McGUCKIN: We're working with Parks, too.

COUNCIL MEMBER BREWER: Good. All right. Thank you very much, Mr. Chair. I could go on and on, but thank you.

CHAIRPERSON NELSON: Thank you [pause]

COUNCIL MEMBER MARK-VIVERITO: Thank you, Mr. Chair. And, somehow it feels like, you know, we're cramming for a test, like so much information that's being given. And, it's, at least for me, it's a relatively new topic. So, it's fascinating. But, just quick questions, 'cause you kept bringing up the issue of the classification of the material, that in New York State it's classified as solid waste. So, and in other cities, I'm sorry, in other states, it's not, correct? Now, is it to infer that in maybe changing the classification of the material that it would be more cost effective? Or, it would be, you know, in terms of the--

KATHRYN McGUCKIN: [Crosstalk] cost effective because you have more opportunities for

beneficial reuse. And, the best example I can give is the State of New Jersey.

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: They, too, had this classified as a solid waste. But, in 2002, they declassified it and it is a regulated material, just like any other material that would be fill material at a redevelopment site. And, that's all we're looking for.

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: We're not looking to have no regulation.

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: It's the stigma attached to, this is a solid waste.

COUNCIL MEMBER MARK-VIVERITO: Correct.

KATHRYN McGUCKIN: Even though I could demonstrate to everybody in a room that this material is just as clean, if not cleaner, than this stuff that's coming from over here. That

stuff doesn't have the title solid waste, though.

COUNCIL MEMBER MARK-VIVERITO: Where does the classification come from? Is that at a state level?

KATHRYN McGUCKIN: Regulatory classification.

COUNCIL MEMBER MARK-VIVERITO: Right, but, who--

VENETIA LANNON: DEC.

KATHRYN McGUCKIN: From DEC [crosstalk]

COUNCIL MEMBER MARK-VIVERITO: And, it's the state, the state. Now, has there been any efforts to change the classification to get support…

KATHRYN McGUCKIN: I do understand that years ago, and maybe Tom would remember this, I want to say it was probably about 12 years ago or so, there was an effort. And, I'm not quite sure why it fell apart. All I know is that it did. And, they do have-- they recently rewrote their Park 360 [phonetic], which are their solid waste regulations. And, in that rewrite, they did not declassify it. But, they did give it some

more automatic beneficial reuses than it has right now. But, they did not declassify it. But, those were never actually passed and put into…

COUNCIL MEMBER MARK-VIVERITO: Now, but in the plan or the thinking that you're taking on, you know, has there been any thought given to doing some sort of an analysis as to what the savings would be if the classification would change. What would be the, you know, what would be beneficial in changing the classification and how that would maybe get you to a better place in terms of the work that needs to get done? I don't know that level of--

KATHRYN McGUCKIN: [Interposing] I don't have anything written down. But--

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: -- - - if I sat down, Sandy Grizzlick [phonetic] can hand me a whole bunch of stuff.

VENETIA LANNON: It is something that we're thinking about--

COUNCIL MEMBER MARK-VIVERITO: Okay.

VENETIA LANNON: -- in terms of not, you know, not our legislative agenda this year, but in, you know, I think that's a very good point to put it in the context of, you know, cost benefit. But, generally, the DEC is less sensitive to cost benefit. And, they are very conservative when it comes to reevaluating regulations because of, you know, potential precedents that they're unaware of. And, generally, especially with regards to their solid waste regulations, it's a very lengthy process to get anything changed. But, I think, you know, I do think that with a concerted, you know, evaluation that demonstrates the benefits and with the coalition of people, you know, putting, you know, making that request, I think it is something we could overcome collectively.

COUNCIL MEMBER MARK-VIVERITO: Right. Okay. And then, the other question was I just saw one slide here and it was presented up here before. But, with the beneficial reuse of dredge material when it comes to brownfield remediation. Now, how exactly, 'cause I kind of picked up on your presentation something about

just like maybe slapping material on top of a brownfield and then, it's, you know-- I mean, how does that contribute to brownfield remediation, dredge material? I guess I want to just understand that for myself.

TOM SHEA: Usually in a brownfield or landfill, whatever, there's [pause] to redevelop it, they want to bring it up to a certain grade.

COUNCIL MEMBER MARK-VIVERITO: Right.

TOM SHEA: So, first off, the material that's going to go from the dredge will never been dirtier, as it [crosstalk]--

COUNCIL MEMBER MARK-VIVERITO: Right, than what the brownfield is.

TOM SHEA: -- more contaminated that what's going there. And, dredge material is almost always a lot cleaner than half the material you have in your backyard. We call it contaminated because it usually doesn't meet the standard for the ocean disposal, where it's at the very root of the food chain and then, when you get into the bioaccumulation and the effects there.

So, that's why the standards are so tight. All right.

What happens is to get it there, if it meets all the requirements, the mechanics of it, is the scow will bring the material to some processing site. The material is mixed with some binding agent and whatever, dewatered, and then, it's treated just like dirt. All right.

COUNCIL MEMBER MARK-VIVERITO: Right. I guess my question, and it's not questioning the hazardous aspect of the dredge material. I guess my question is if it's just grabbing that material and throwing it on top of a brownfield and not actually remediating the brownfield itself. That's my question.

KATHRYN McGUCKIN: [Crosstalk] Well, it depends on what your remediation plan is. Every site's going to have its own plan, either dictated by federal or state government, depending on what--

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: -- type of a brownfield it is. The idea is, in many cases,

they do require, and I'm going to give an example of the Old Gatech [phonetic] site in Staten Island because that's one I'm familiar with. When DEC go to a remediation plan for that, they were required to bio-remediate the material that was contaminated with petroleum. And, they had to remove it and bio-remediate it. And, that got it clean to a certain level that was acceptable. But, it still wasn't great.

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: So, they want it capped.

COUNCIL MEMBER MARK-VIVERITO: [Interposing] And, that's what the material--

KATHRYN McGUCKIN: [Crosstalk] capped with cleaner material.

COUNCIL MEMBER MARK-VIVERITO: Okay.

KATHRYN McGUCKIN: Now, the whole benefit to the Dredge Material Management Program by EDC is that for a City redevelopment project, whether that site's a brownfield like a Gatech site or just a standard redevelopment site, it's

going to cost you in today's dollars about $60 a cubic yard/ton for every ton of material that you have to bring to that site to bring it to the FEMA flood plain or to cap, you know, your remediation site. And, that ends up being a lot of money. Fifteen thousand cubic yards, which is a very small project, $900,000 just to get the fill to make that project happen. Instead of paying $900,000, we were paid $68,000 to accept dredge material as that fill. That dredge material had to meet the same chemical specifications of the material that we would have had to purchase. But, we didn’t have to purchase it. So, we saved $900,000. We made 68,000, which we had to pay-- we had to pay out money to get it sampled and tested and all that. But, still, there still was $10,300 to put into the environmental, you know, fund, to the Dredge Material Management Fund, when we were all done.

So, it's fill that these brownfields will have to have. But, one of the reasons brownfields go undone, unremediated, is the expense. And, using dredge material as that fill helps to cut down on that expense. And,

that's the advantage to using it as a brownfield closer, as to using regular fill.

The other is the environmental benefit of not taking pristine materials from upstate New York or Canada or Virginia, wherever it's coming from, and ruining some other environment so that we can have the fill that we need for our sites here.

COUNCIL MEMBER MARK-VIVERITO: Okay. Well, those were my two questions for now, Mr. Chair. Thanks.

CHAIRPERSON NELSON: Thank you, Council Member. Thank you panel. My apologies to Professor Tony DeLernia. I guess he had to go back to Kingsborough Community College. He's has that program out there as well. And, I feel terrible about that. If you're watching on Crosswalks, Tony, about one o'clock in the morning, I apologize. I'm sorry.

I'm going to get, for a second, also, a little parochial. Sheapshead Bay, which is a tremendous area for great resource the City has. I know there's something like a cost return ratio, of course, to the Army Corps. But, it's

also the economics of Sheapshead Bay, money plays a role in there as well, besides the recreational and educational, because the students at Kingsborough Community College utilize this facility. So, hopefully, we'll be discussing this a little bit more as the days or weeks go on. I know you're very stretched. What is it, approximately a $60 billion budget the Army Corps has nationally?

TOM SHEA: About, yeah, I don't think - - the numbers that they use. It's large.

CHAIRPERSON NELSON: It was very large and yet, of course, if we have 578 miles, you know, of oceanfront property, if you will, or beach or river and all that kind of stuff, waterfront, I can't imagine what the Army Corps has to deal with and you have to take it, of course, and a lot of times it's political clout, where it may go. But, of course, it has to be based upon, you know, factual information as well. So, I'm hoping we can get to New York City areas really quickly.

I know, even like Seagate and Coney Island was renourished, for instance, about 13, 14

years ago. Money has been put in I believe by the aforementioned Congressman Jerry Nadler to renourish again. But, that's another issue, as a matter of fact, soon playing at a theater near you. We are going to have a hearing on that as well. But, we are based now, of course, on the dredging issue situation. And, please, I'd like to follow up with the Sheapshead Bay item as well. And, again, the Chair of Community Board 15 is here, Theresa Scavo, as well. And, that's why Tony DeLernia was here.

Would you describe the process for obtaining a permit for a dredging operation, as far as government, non-governmental entities as well?

TOM SHEA: Sure. Basically, say it's a, you know, a marina wants to dredge. They will typically hire a copy and engineering firm to help do the design work and cost estimates, things like that and do the material testing. They will gather a bunch of information. They will come to the Corps of Engineers in a pre-application meeting, where we meet with the local, state and probably, in New York City, DEP also. So, all the

regulatory agencies are at the table at the single time to meet with the applicant and go over the concerns they may have. Then, the applicant typically goes back, does some additional work and then, submits their permit. Corps of Engineers will then typically issue a public notice saying that there's a permit application; provide all the information.

And then, after a certain amount of time, they'll close. They'll consider anything that they heard and decide whether the permit should be issued or additional environmental analysis done, for instance an environmental impact statement or environmental assessment. At the same time, the Corps will also wait for all the other permits to come in. And then, once everything's in, it typically issues a permit for the work.

CHAIRPERSON NELSON: Are there any funds or grants available from either the feds or state or-- I won't even say city. I see, you know, the shaking of the head to the negative-- to offset the cost of dredging?

TOM SHEA: Not from the Corps of

Engineers. There may be some from Department of Transportation or, you know, because it's a ferry terminal, there may be money that way or something. I honestly don't know.

CHAIRPERSON NELSON: Certainly not to any non-governmental entities then. Okay. And any measures that could be taken that could prevent or retard the sedimentation in critical areas of New York City Harbor? Or, is it just the periodic dredging? Is that the only long term solution?

TOM SHEA: I guess there's a lot of different land-- 'cause all the sediment, you know, starts from the land, then through the rain cycle, washes through. It erodes the rivers and all. So, a lot of it's coming from upstate, not necessarily New York City. Although there is-- or, it's just the movement of the way the tides or the currents run that will move sand around.

CHAIRPERSON NELSON: Um, hm.

TOM SHEA: I don't know of any specific measures we take. However, in New Jersey, one of the driving forces of the Corps' participation in the Lower Passaic River, is to

help dredge that river, which the whole 17 miles is a designated superfund site, because that material makes its way down to Newark Bay and into our channels. So, by cleaning it up there, through superfund and other and then, the Corps has some other authorities, we capture the material at its source, stop it there. So, that as sedimentation will continue, it should be cleaner and ultimately reducing the cost.

CHAIRPERSON NELSON: - - like a screen type of a vehicle, device to stop the sediment?

TOM SHEA: No.

CHAIRPERSON NELSON: How is that done?

TOM SHEA: Well, Lower Passaic, there'll be dredging done.

VENETIA LANNON: I think they're just saying that they are cleaning it up upstream from--

TOM SHEA: Yeah.

VENETIA LANNON: -- from New York City so that the sediment, when it does - - come isn't contaminated when it gets here. So, it'd be

then cheaper for us when we need to - - waters not so--

TOM SHEA: But, then--

VENETIA LANNON: [Crosstalk]

TOM SHEA: Right. And then, there are measures--

VENETIA LANNON: [Crosstalk] sedimentation, I guess - -

CHAIRPERSON NELSON: No, no.

TOM SHEA: Right. But then, as I'm saying, there are measures. For instance, New York City has a large number of combined sewer outflows. All right. Basically, shutting those down so that anything that should go into a sewer and into a waste treatment is sent there to get cleaned before it goes into any of the water. On a huge storm, you know, there's a lot of chemicals that are washed off from the streets or dumped down the drain, 'cause, you know, Drano or whatever--

CHAIRPERSON NELSON: Um, hm.

TOM SHEA: -- there's a huge number of sources all over the City that eventually makes its way into the water system, the sewer system

and then, through combines overflows, U-drain storms gets dumped into Gowanus, for instance. If you shut that off, you'd somehow prevent-- I mean the storm water still needs to make its way in. But, being able to separate the storm water from stuff that needs to be treated would go a long way into reducing the contaminate load and placing new loads there.

CHAIRPERSON NELSON: Um, hm.

TOM WAKEMAN: The textbook answer to your question, separate from the chemical contamination, which Tom has addressed--

CHAIRPERSON NELSON: Can you all hear that?

TOM WAKEMAN: -- is that there's three ways that you basically stop sedimentation from being a dredging problem. One is to do erosion control, as Tom mentioned, from the upper drainage basin. Second is some kind of deposition basin. I mean, you dig a pit or you build a dam. You build a dam, you stop all the sediment coming down streams, except what comes over the wier which causes erosion generally downstream. Or, you can increase the velocity of the water to keep

the material in suspension, so that it goes past the project area. And, there's been some attempts to do that by building wiers or [pause] had one wier in [pause] near the Arthur Kill filled up after about 12 years, 15 years.

So, those three methods are used. Probably the best approach for this region, given the cost of doing business, is to do erosion control upstream in the drainage basin. Make sure the construction sites are carefully monitored. Make sure that the contractor that's responsible for keeping sediments from going down the waste water or the storm drain because it'll end up in the Hudson and then, ultimately, it'll end up in the Passenger Ship Terminal.

One of the things that you face in this region is we are still developing our understanding of the hydrodynamics of sediment transport characteristics of this Harbor. Although it is 300 years old, there hasn't been a lot of studying here. There's been an enormous amount of studying in about the last ten years. But, prior to that, there were no books. So, we're still learning.

One of the things that I find very gratifying is that you're having this hearing. Nobody paid attention for a very long time with what a fabulous resource you have here. The other thing is what EDC's doing; finally, looking strategically at combining the cost and the benefits and looking at this pragmatically and saying what are our best opportunities here. I'm delighted to hear that somebody's actually making money on dredge material, 'cause that was one of our dreams was to actually get rid of the stuff, see it as a resource that has some commercial value instead of seen as a waste that we're going to pay for.

One of the problems with, and the reason that the state didn't continue was they ran out of funding. So, they ran out of the ability to maintain staff on the project. However, if you treat it as a waste to the State of New York, you have difficulty sending it to Pennsylvania or any other place because they're saying, we're taking New York's waste. They will pay for that. Utah said that. Utah got a lot of money.

KATHRYN McGUCKIN: To speak to your

sedimentation issue, though, and I want to bring this to your Sheapshead Bay project, there's a more global sense of dealing with sedimentation, as was already mentioned. But, in an area like Sheapheads Bay or anything like that, where you have several marinas that are all co-located, the key there is to work together. None of them want to do that. But, that's the key. And, the reason is if Joe, Tom and Sally all have marinas and Joe dredges his, but Tom and Sally don't, guess what happens to Joe's. His fills up with the sediments from Tom and Sally's. Okay.

So, if they don't work together, it's a huge battle. And, they also, by working together, they get the economies of scale that are awarded to larger projects, because Joe only has to dredge 20,000 and Sally has to dredge 20,000. But, if you put them all together, now maybe you have 100,000 or a 200,000 cubic area project. And, you're sharing that mobilization and demobilization cost and you're sharing those testing costs. So, you're actually bringing down your per cubic area price if you work together.

CHAIRPERSON NELSON: The synergy is

there. I heard that happened at Kingsborough Community College. That was the problem. So, word to the wise. We've got to move forward with this as a team effort, without a doubt.

KATHRYN McGUCKIN: Correct.

CHAIRPERSON NELSON: I know. We have some other people who want to also to testify. But, just one last question from me. How long does it take for a typical dredging project? And, I know, of course, it would based upon size and so on. But, let's say, from the smallest to the largest, sort of, if we can.

KATHRYN McGUCKIN: - - take the largest.

TOM WAKEMAN: Federal projects, first have to come through a congressional request.

CHAIRPERSON NELSON: I'm sorry.

TOM WAKEMAN: If you're going to do a federal project, a large dredging project, a national dredging project, it has to come through a congressional request.

CHAIRPERSON NELSON: Sure.

TOM WAKEMAN: Then, you do the, the

Corps does a recognizance. If it's found that it's in the national interest, then they go on. That process can take on the order of ten years and then, another 15 years to do the project, the construction. That's a large project, 100 million plus. And, that's been the average time. At least it was until Tom Shea did his feasibility study in two years.

For smaller projects, the hang up will be whether or not you can get both your local and your federal permit. And, that can take anywhere from two to five years. The LA Basin, they're not able to get their permits. They've been waiting the last seven years for permits on 13 different projects. That's why they're not expanding. For a small marina, unless you have a disposal site, the state will not issue you a permit because the Congress gave them the authority for Clean Water Act certifications. And, unless you can-- remember we talked about you dredge it and you transport and you dispose of it? Well, if you can't dispose of it, you're not going to dredge it. And so, until you're able to generate that disposal site, you're not able to

get your dredging permit. And, that's the nexus between these two parts, as has been very clearly stated to you by EDC, if you can't find a disposal site, New York will not dredge because New York EDC will got to DEC and DEC will say no.

CHAIRPERSON NELSON: I believe Council Member Brewer has a question related to that.

COUNCIL MEMBER BREWER: Well, thank you, because I guess that was what I was trying to say earlier is that how much of our dredging is curtailed because we don't have a place to put what you just described, where DEC and Pete Grannis [phonetic] will not allow it. In other words, is that an impediment to, as you suggested, sir, expanding to deal with our population?

KATHRYN McGUCKIN: It is an impediment, yes.

COUNCIL MEMBER BREWER: I mean--

KATHRYN McGUCKIN: The fact that the permitting process, especially in the last couple years, is just being extrapolated to years instead of six months is something that we're all having to deal with. But, you know, a dredging

project can be simple. Small project like South Brooklyn Marine Terminal, we dredged 50,000 cubic yards; 45 days, it was all dredged and put upland. Perfect, no problem. The whole key is getting a program like this beneficial reuse program, that EDC has started out there and advertised so people know that there are ways to reuse it. Okay. So, that somebody who has a project that he needs fill for, he comes to EDC. I need some fill. Do you have some that meet my needs? And so, that we actually develop more sites.

COUNCIL MEMBER BREWER: That makes sense. So, that's what EDC is doing now--

KATHRYN McGUCKIN: That's what--

COUNCIL MEMBER BREWER: -- correct?

KATHRYN McGUCKIN: -- we're working on now.

COUNCIL MEMBER BREWER: Okay.

KATHRYN McGUCKIN: But, it will--

COUNCIL MEMBER BREWER: That's exciting.

KATHRYN McGUCKIN: -- take time to do that. And then, there is, like I said, there's a certain type of material that our project isn't

meant to address. And, mine reclamation is something that is really excellent. But, we don't want to take it to the Pennsylvania mines, (a) because that's Pennsylvania, and (b) it's too far away. It costs a lot of money. But, you know what, we have quarries and mines right here in New York. Shouldn't we be looking at maybe we can reclaim some of our own quarries and mines with our dredge material? So, these are the long term issues that we want to look at that takes, like I said, the coordination of federal, city, state agencies to look at together.

COUNCIL MEMBER BREWER: So, what you're doing is then, you're working with state agencies, too, to try to come up with some solutions.

KATHRYN McGUCKIN: We try real hard, but they come kicking and screaming. Can I say that?

VENETIA LANNON: Yeah, I think, you know, step one is to change the classification so it's not a solid waste. And, that's going to take time. And then, over that time, I think it's the same thing, and Council Member Brewer, you were

active in the Solid Waste Management Plan, you know, for the notion--

COUNCIL MEMBER BREWER: Not always on the right side, according to you, but, yes.

VENETIA LANNON: We got there in the end. And, I mean, that is the point that I think that when you're looking at exporting New York City's materials to places outside of the City, I mean, first of all, it would help if it wasn't being called a waste, which it's not. But, second of all, you know, we want to look first at places in-state, you know, to places like mines and quarries. But, again, you can just imagine the difficulty when we say to Westchester, oh, we want you to take this mud and don't worry about the PCBs in it, you know, trust us, it's clean, you know. That's going to be--

KATHRYN McGUCKIN: [Interposing] [Crosstalk] even know it's a waste, it's not a problem.

VENETIA LANNON: Right. It's going to be difficult. And, like the Solid Waste Management Plan, I think it's going to take a lot of stakeholders and a lot of, you know, coalition

builders.

COUNCIL MEMBER BREWER: So, is there a coalition of environmental groups and EDC and Port all thinking about this? Or, is everybody thinking about it together?

VENETIA LANNON: Yes. And, I think it's coming to a head as Fresh Kills closes to accept dredge material, you know, as they go through their closure.

COUNCIL MEMBER BREWER: Um, hm.

VENETIA LANNON: You know, then it'll become more acute. But, you know, the representatives are here from the New York Shipping Association today.

COUNCIL MEMBER BREWER: Right, I see them.

VENETIA LANNON: Yeah, there are lots of people from the business perspective, from the environmental perspective. And, it's really, it's just beginning. I mean, your hearing is well timed.

COUNCIL MEMBER BREWER: Okay. Thank you.

CHAIRPERSON NELSON: [Off-mic] I'm

sorry. Instead of solid waste, maybe something like regulated material.

KATHRYN McGUCKIN: Exactly right.

CHAIRPERSON NELSON: It is a challenging name, fearsome name when you hear the other one.

KATHRYN McGUCKIN: Yes.

CHAIRPERSON NELSON: So, yeah, let's get rid of this waste business here. So, Council Member Viverita. Wow, I mean, I have another question. But, we really have to move, 'cause, again, I feel so sorry, again, about Tony having to leave. This has been extremely illuminating.

FEMALE VOICE: - - all of us.

CHAIRPERSON NELSON: Yes. We're going to track you down, especially for our little provincial, little situation as well. And, I'm sure all of my colleagues have a little touch, except the landlocked ones. So, we eliminate that many. But, wow, you know, Professor and Army Corps, EDC, tremendous. And, we really appreciate your testimony. And, it was so incredibly interesting. I think everybody in the room would

just about agree. So, thank you so much.

VENETIA LANNON: Thank you.

CHAIRPERSON NELSON: We'll be speaking to you soon. Thanks. Melissa, thanks. And, again, two experts in the field, the university of probably bedrocks, they're professors. And, we have with us, right now, we have Roland Lewis and Ed Kelly, two people who probably knew all of this already, plus more. And, they can add with their expertise to more information, no doubt about it. Thank you, Melissa. Thank you.

ROLAND LEWIS: Which one works? Okay. All right. Well, good afternoon, Chair Nelson and the Committee. I'll echo the sentiments of everybody that spoke before. I think this is well-timed and incredibly important hearing that you're holding. And, I think it's a start of something very, very-- a dialogue that needs to go on and hopefully action will follow that. I'll just summarize, 'cause most of what was said before is dead on it.

I often have the opportunity and the obligation to try and present the dredge issue

to lay public. And, the best example I always comes to my mind is something that was, in all our minds, that just a couple weeks ago when the mighty Intrepid returned to its berth up on Pier 86, 'cause I remind folks that when it left a couple years ago for necessary repairs, it didn't leave. The press was there. The politicians were there. The brass bands were there. And, it was stuck in the mud. And, you know, fortunately for the museum and for all of us, Congressman Nadler and a bunch of other folks who had a lot of clout with the Army Corps and others, got on the horn and got some-- the dredging material and got the mud removed and the ship was able to get out and get repaired and come back again.

This isn't as true for many other folks. And, we've touched on them a little bit. But, I bring to mind, actually, a small business. It's Schildwachter Oil, up in the Bronx. They're a oil company up on Westchester Creek, a navigable water. They are now, and as you were talking about the large Army Corps budget, which is just not adequate to dredge all navigable waters in our City. They're still waiting for Westchester Creek

to be dredged. And, as they wait, half-filled barges are now going up and down the Creek 'cause they can't fill a barge up all the way 'cause it will scrape bottom. And so, in thinking about, you know, play that out in terms of wasted effort, energy loss, money, exactly, it's insane.

And, it goes for education, recreation. We've talked about Sheapshead Bay. We've talked about the 79th Street Boat Basin. Thinking about the Science Barge. And, you know, think about Caddell Dry Dock. I brought a few of these for the audience. We're having a waterfront conference in about two and a half weeks. And, we're having a session on-- some of the same folks you're hearing today will be presenting. One guy's going to be presenting on a session on mud or on the silt is Steve Kalil of Caddell Dry Dock, who has a, you know, one of the largest repair facilities. He had to pay $300,000 to just test the mud in front of his facility. And then, you know, millions more to dredge it. And, he dredged it before that and as he will say much more articulately and powerfully than I can, he was told by DEC that he did it once, you don't have to

do it again.

But, it turns out, of course, that we came up with the dioxins from the upper Passaic and the PCBs from the upper Hudson are what's polluting him. He's picking up someone else's garbage on - - Basin, a tremendous cost in a very competitive business. He's a small businessman making a go of it in New York. And, you know, he's being harmed by this mud issue. And, it's our, you know, our collective responsibility to help the Schildwachter Oils and the Caddell Dry Dock, 'cause it's as much as we pave the roads and fill the potholes, dredging is our responsibility.

I'd just like to, again, reiterate the cost factor is what is driving this as much as anything else. It's a matter of money. And, you know, in these times, it's hard to talk about it. But, it's an, you know, just as many of the presidential candidates are talking about investment in infrastructure. This is an infrastructure. It's not seen by the common eye. It's not like a big bridge. But, it's an infrastructure investment that must be made to maintain our economy and our quality of life.

I'll talk just very briefly about a couple of other things. And, I'll mention something that was mentioned by the Army Corps a minute ago. The upriver contamination, which, you know, you know, by Diamond Shamrock and GE, costs $25 million a year in extra-- by a new report that Regional Sediment Management Work Group has put out. And, that's Army Corps, Port Authority, all those guys together, $25 million a year in extra money to clean up. So, those folks, who polluted in the first place and are sending that poison downstream to us, have a economic responsibility to us to clean up.

There are solutions that need to be explored. Everything we should put on the table to do things. I'm so happy about what EDC is doing to try and help small business and use the dredge material in various creative ways. But, again, building islands in Jamaica Bay, all sorts of ideas should happen. You asked about Europe, in Rotterdam, they actually expand the port outward. They're building with dredge material to increase the land size of their city.

And, lastly, I was, again, the

point made by Tom, from the Army Corps, about combined sewer overflow, you know. This goes to show you the holisticness and comprehensive nature of what our waterfront is. That's a dredge issue. I actually didn't think about that, but, absolutely. That's now going to be a standard talking point. My eyebrows went up the same time as yours did, Mike. It was exactly right, the solving the CSO issue is so important for things in the waterfront, but it's important for dredge because that garbage is being put in every time it rains, as well, and poisoning our environment.

So, I'll leave you with that. I'll leave you with my testimony and leave you with the invitation to please join us over at the Customs House, the Museum of American Indian - - . I think it'll be a great conference, including a session just on mud.

EDWARD KELLY: I'm going to be there.

CHAIRPERSON NELSON: Thank you, Roland. Please, and Mr. Kelly.

EDWARD KELLY: My name is Edward Kelly. I'm the Executive Director of the Maritime

Association, Port of New York, New Jersey. And, I'm here today testifying on behalf of the over 500 paid members of our organization, which relate to maritime commerce. We are a firm believer in the responsible mixed-use over this waterfront. And, dredging is a paramount issue.

As you can imagine, the waterfront, the interface between water and land is where maritime commerce really commences and begins. Ships leave from docks. They arrive at docks. Recently, the New York Economic Development Corporation had done a survey on maritime support services. And, it had revealed the high number of jobs, the activity of all of these relatively small businesses that are clustered here in our City, along our waterways that support the larger economic flow of international shipping, tanks, cargos, communities, trash, etcetera, that the maritime community handles every day.

Dredging is particularly onerous and important to these smaller operations. Roland, I'm glad you did mention Steve Kalil. You know, I've been working with Steve for several years now. We've gotten him to become a member of

our Board of Directors. He has an issue that could actually prove embarrassing to the City of New York. The new Molinari class of the Staten Island ferries will probably not fit in his dry docks anymore because of dredging issues.

He, as has been mentioned, is on the Kill Van Kull, which is unfortunately a tidal flush area for the Passaic River. Now, I am one of the few people on the planet and a few of my classmates and friends who may be alive because of Agent Orange. So, I kind of have a soft spot in my heart for dioxin. But, nonetheless, you know, it's a bad thing. It comes down. Through no fault of his own, he's never produced dioxin, or had any reason to produce dioxin on or near his facility. But, nature flows downstream and he is the receptacle and because he's a dredged area, sediments tend to drop to the lowest levels. He's faced with a horrible issue. There is no place for him to dispose of these dredged materials.

Now, the problem is that yes, it has been mentioned that HARS and several other areas are around. But, not for partially contaminated material such as he has. And, most

certainly, even for some of the upland facilities, Fresh Kills, etcetera, although there are spaces available, they're already committed to the large scale dredging projects, such as the Federal Navigation Channel, the 50-foot channel, etcetera. So, that they really don't have access to get to these locations, therefore, pushing the cost for dredge material disposal to a very high and a prohibitive level.

To suffice, let me say that government is probably at its best when it can enhance the public good by enabling situations that cannot possibly be achieved by individuals or by individual entities. That being the case, we're thoroughly enheartened with what New York Economic Development is doing to develop the Dredge Management Disposal opportunities. No individual business or entity along our waterway is going to have the political clout or the foresight to be able to engineer such deals as can be done by an entity of the government.

Now, we also would support that there be further state opportunities here, most notably with DEC, which has been, let's say, not

the best partner to work with to get things done. They're doing their job. But, some of their parameters, definitions, etcetera, really should be readdressed, such as reclassifying this from solid waste to some less horrible-sounding thing. You know, if you noticed, we used to say in the business that it used to be dredge spoils. And, I hadn't heard that term all day. And, I'm glad because it gives it a negative connotation. And, to call it solid waste makes it even worse than spoils. So, I think we have to reassess some of our terminology.

And, we've got to find productive uses for what can be a constructive material. This will create opportunities for our businesses, particularly near shore and non-deep water federal dredging projects to be able to afford to participate in dredging opportunities. And, we would hope that perhaps EDC can also help to foster perhaps a cooperative operation here in our City, where we can combine dredging jobs and perhaps get a neutral third party dredging entity involved to help to spread costs.

When a small operator, who once

every, anywhere from two to ten years has to dredge a relatively small amount of material, for him to go up against DEC, to go up against trying to develop a landfill project someplace, it's obviously not going to happen. And, as a result, even something as integral to our Harbor, as the Caddell Dry Dock, which services our tugs, our barges, most of the vehicles and vessels mentioned in our Marine Support Services Study, this guy's running out of space. He has to reprofile. He has to dredge. And, he can't do it.

Now, one other thing that hasn't been mentioned today, and there is in particular as a possible source of resource for Caddell and several others in the Kill Van Kull, in particular, and Arthur Kill, there has been created, as a by-product of the 50-foot federal channel, the states have also created a Bi-State Dredging Fund. That fund is a bi-state fund with New York Empire State Development Corp. and it was the equivalent in New Jersey. It's currently being held by the Port Authority. We have been absolutely and totally frustrated with getting any of that money to be used for the purpose it was

specifically designated for. And, we would appreciate any help on that front as well. We have repeatedly gone to Empire State Development and we've been over to the Port Authority. And, we get this. And, we've been told, you know, so, we really are looking for how we can free up that money. There's 20-some odd million dollars in that fund. We have not been able to accurately determine. It's between 20 and $23 million that we've been told is in there. And, we hope that that also can be put to productive use to assist primarily the small business owners that are addressed in our Marine Support Services groups.

So, in closing, we welcome government intervention because these smaller business are incapable of wrestling such huge economic, environmental issues without some type of an intermediary and perhaps, you know, not me to say and I don't give you the budget, but EDC may seem to be the best place for this to happen. And, we're very much encouraged that they're grabbing the bull by the horns and starting to move some of this along. Thank you.

CHAIRPERSON NELSON: Wow, thank

you, Mr. Kelly, for bringing up that resource, too. Now, we can start looking into. As a matter of fact, Kathleen Wah [phonetic], from the EDC would like to say something. I think you have to go up here formally to do so.

FEMALE VOICE: I believe that was what he was talking about.

CHAIRPERSON NELSON: Oh, okay. Oh, this part. Oh, that's right, yeah.

KATHLEEN WAH: First of all, I should tell you all that before I started working for EDC, which I just celebrated my third anniversary, I was the Regional Dredging Coordinator for the DEC Region Two office. So, that's how EDC stole me away. Sometimes, they're kind of sorry they did because now they have no one on the other side.

But, the idea is that there is a Bi-State Dredge Fund. There is in excess of $20 million dollars in the New York portion of that fund. That fund is what paid my salary when I was at DEC. But, the personnel portion of it, the funds expired. The idea is that we, at EDC, have actually had internal discussions about the

possibility of approaching the Port Authority and ESDC about the ability to manage those funds. And, the reason that we have thought of that is that we do have dredging expertise. We how have a Dredge Material Management Program. Neither one of them has dredging expertise. And, neither one of them has a Dredge Material Management Program.

And, therefore, when someone wants to use those funds, nobody knows what to do. Nobody knows how to get them. There's no protocol. There's no nothing. So, the fact that I'm hearing today that Ed would actually support EDC being able to manage those funds is actually a benefit to me to hear that.

ROLAND LEWIS: If I may add, on the panel, there will be a representative from the Port Authority and also Chris Ward, the head of that Port Authority will be there at our conference. So, we can all get together, cut the deal right there on November 13th.

CHAIRPERSON NELSON: That's some great information that came out of this hearing.

ROLAND LEWIS: Um, hm.

CHAIRPERSON NELSON: Okay. Now,

where do we go with it? We'll have to follow through with this from this Committee through input from you waterfront geniuses. That'd be terrific. And, Council Member Brewer has a question.

COUNCIL MEMBER BREWER: Thank you very much. I think Kathleen deserves all the credit for that. So, congratulations. My question is something similar to what I asked before, is there anything technologically going on in other countries that could help us dispose-- what we heard earlier was that the thought of this cost benefit is going on, thanks to EDC. But it's expensive to try to think of some of these technologies that could convert. That's question number one. And then, also for the waterfront conference, Roland, do you have some of the environmental groups also coming so that they can help smooth the way with--

ROLAND LEWIS: Yeah--

COUNCIL MEMBER BREWER: -- Mr. Grannis?

ROLAND LEWIS: The Baykeeper's coming and, as a matter of fact, Jim Tripp, from--

COUNCIL MEMBER BREWER: Okay.

ROLAND LEWIS: -- Environmental Defense is moderating the panel--

COUNCIL MEMBER BREWER: Perfect.

ROLAND LEWIS: -- on our dredge.

COUNCIL MEMBER BREWER: All right. Go ahead, Mr. Kelly.

EDWARD KELLY: I would say that yes, there are active and productive undertakings in such exotic foreign locales as Norfolk, Virginia--

COUNCIL MEMBER BREWER: Um, hm.

EDWARD KELLY: -- who is--

COUNCIL MEMBER BREWER: That is definitely foreign.

EDWARD KELLY: -- who is a direct competitor to this port--

COUNCIL MEMBER BREWER: Correct, that's--

EDWARD KELLY: -- that have huge dredge materials to reconstitute and expand a 543-acre terminal island, Craney Island, that will be in operation very shortly and will compete directly with this Port. Also, they've got the -

- Port-a-Port, courtesy of the U. S. Navy. You know, they maintain those depths because the submarines have to access in and out. So, they have a very low cost of operation for dredging. But, using dredge materials, yes, throughout the world and as nearby as Hampton Roads, Norfolk, Virginia. This has been used to reconstitute islands, to expand port facilities. It's been used to create golf courses, parking lots, etcetera. I think a few of the uses were mentioned here. And, that's happening all over the world.

COUNCIL MEMBER BREWER: Okay. Thank you.

CHAIRPERSON NELSON: Wow, sometimes this Committee feels like a kid in the candy store that it's like, it's there. It's there. How do we get to it? Purchase it? Do we break the window and take out the M and Ms or what? But, this is really-- some things are really evolving here, which is terrific. With no more questions, I suppose and no more statements, really we thank you so much. And, the panel before you, which was very, very interesting information, which will be

utilized. We can go forward with it and have another hearing on this. And, see what we can come up with in the forms of trying to pressure organizations, governmental, to work within the framework and help our economy and our City, as a whole, recreational, as well. So, thank you so much, gentlemen. And, with no further questions--oh--

ROLAND LEWIS: No, no, I'm good.

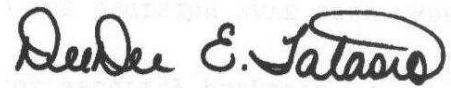
CHAIRPERSON NELSON: Oh.

ROLAND LEWIS: Thank you.

CHAIRPERSON NELSON: Thank you. With that, the Committee on Waterfronts is adjourned. Thank you.

C E R T I F I C A T E

I, DeeDee E. Tataseo certify that the foregoing transcript is a true and accurate record of the proceedings. I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

Signature 

Date November 24, 2008

CITY COUNCIL
CITY OF NEW YORK

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TRANSCRIPT OF THE MINUTES

of the

COMMITTEE ON WATERFRONTS

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October 27, 2008
Start: 10:44am
Recess: 12:35pm

HELD AT: Council Chambers
City Hall

B E F O R E:
MICHAEL C. NELSON
Chairperson

COUNCIL MEMBERS:
Gale A. Brewer
Melissa Mark-Viverito

A P P E A R A N C E S

COUNCIL MEMBERS:

Anthony Como

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

Venetia Lannon
Senior Vice President, Maritime Department
New York City Economic Development Corporation

Kathryn McGuckin
Assistant Vice President, Maritime Department
Director of Dredge Material Management Program
New York City Economic Development Corporation

Tom Wakeman
Professor, Davidson Laboratory
Stevens Institute of Technology

Tom Shea
Project Manager
United States Army Corps of Engineers

Roland Lewis
President and CEO
The Metropolitan Waterfront Alliance

Edward Kelly
Executive Director
Maritime Association, Port of New York/New Jersey

Kathleen Wah
New York City Economic Development Corporation

CHAIRPERSON NELSON: --including its economic benefits, the environmental concerns, the legal and regulatory requirements of dredging projects and, of course, the costs associated with dredging and disposal.

The Committee also looks forward to hearing the details of EDC's new Dredge Material Management program. And, our first panel will consist of Kathryn McGuckin, of New York City EDC, Venetia Lannon, also of New York City EDC, and I think it's Dr. Tom Wakeman, Davidson Laboratories, the Stevens Institute of Technology in Hoboken and Mr. Tom Shea of the U.S. Army Corps of Engineers. Please, if the first panel would begin. And, before you speak, whoever's going to speak first, would just identify themselves for the record. Thank you.

MALE VOICE: Good morning.

VENETIA LANNON: Hi. Ready? Good morning, Chairman Nelson and members of the Waterfronts Committee. My name is Venetia Lannon. And, I am Senior Vice President of the Maritime Department at the New York City Economic Development Corporation. With me here today is,

to my left is Kathryn McGuckin, Assistant Vice President in the Maritime Department and Director of our Dredge Material Management program.

EDC would like to thank the New York City Council for convening this hearing on dredging in the New York Harbor and for inviting EDC to offer testimony to report on the progress that has been made to date, as well as the challenges that lie before us. By way of introduction, EDC is a public benefit corporation empowered by the City of New York via its Maritime contract to retain the City's maritime businesses, attract additional maritime business to the City and to promote maritime agreements for the City's waterfront properties. Dredging to maintain adequate water depths throughout the Harbor and at the City's waterfront berths is paramount to fulfilling these responsibilities. I will now turn it over to Kathryn to provide today's testimony.

KATHRYN McGUCKIN: Thank you, Venetia. My name is Kathryn McGuckin. And, my testimony today will center on three topics; dredging, what it is and why it's needed, the cost

of dredging and Dredge Material Management, what it is and why it's needed.

Dredging, the removal of sediments from waterways, allows for the survival and continued growth of the entire port of New York and New Jersey, the third largest port complex in the U.S. and the largest on the East Coast, as previously stated by the Chairman. Furthermore, maintenance dredging of waterfront berths located throughout the five boroughs, publicly and privately owned, is essential to maritime-related economic growth.

The United States Army Corps of Engineers, along with their local sponsor, the Port Authority of New York and New Jersey, is presently deepening the New York/New Jersey Harbor to a depth of 50 feet, the largest deep draft navigation project in U.S. history. Maintenance dredging to maintain depth is a constant in the Harbor with frequency varying throughout the Harbor's many rivers, bays and channels. As an example, the Passenger Ship Terminal on the westside of Manhattan requires annual dredging of approximately 300,000 cubic yards of sediments

annually. Facilities on the East River, such as the South Brooklyn Marine Terminal, require dredging less frequently, about once every five years. The volume of sediment deposited in any given area is dependent upon several factors, most notably the flow rate of the water body and the number, size and shape of waterfront structures.

Historically, open water disposal at an ocean site has been the primary method of disposing of sediments dredged from the New York/New Jersey Harbor Estuary. The New York Bight Dredge Material Disposal Site, known as the Mud Dump Site, was designated in 1984 for disposal of up to 100 million cubic yards of dredge material from the Port and nearby Harbors. The Mud Dump Site and its environs located 5.3 nautical miles east of Highlands, New Jersey and 9.6 nautical miles south of Rockaway, New York, has historically been the major option for dredged material disposal since 1914. An average of four to five million cubic yards of dredged material from the New York/New Jersey Harbor has been disposed in the ocean each year.

In July 1996, in the interest of

maintaining sustainable port development and environmental protection of the estuary and ocean, a letter signed by the Administrator of the U.S. Environmental Protection Agency and the Secretaries of the Departments of the Army and Transportation set forth the Administration's Plan to close the Mud Dump Site for disposal of dredged material. In a final rule that became effective September 29th, 1997, EPA de-designated and terminated the use of the 2.2 square nautical mile area of the Mud Dump Site. Simultaneous with the closure of the Mud Dump Site, the site and a 13.5 square nautical mile area surrounding the site were re-designated as the Historic Area Remediation Site, also known as HARS.

Pursuant to this rule, the HARS is restricted to receive only dredged material suitable for use as Remediation Material which is defined as uncontaminated dredged material; more specifically material that meets the Category I standards set for the former Mud Dump Site and which does not cause significant undesirable effects, including through bioaccumulation.

On September 27th, 2000, to ensure

that the remedial goals of the HARS would be met, the U.S. Environmental Protection Agency tightened the guideline for PCBs in dredged material placed at the HARS from 400 parts per billion in worm tissue to 113 parts per billion in worm tissue. This significant, more stringent change resulted in approximately 75% of the region's dredging projects being ineligible for placement at the HARS, which in turn resulted in the affected parties, being the Corps, the Port Authority and waterfront businesses, both public and private, taking a more focused look at other possibilities for beneficial reuse of dredged material. Upland beneficial reuses for dredged material include construction fill, brownfields remediation, landfill closures and wetland/habitat enhancement. Dredged material from New York/New Jersey Harbor has been used for these and other beneficial uses.

The bioassay tests required to determine the HARS suitability of dredged material as well as the conditioning of sediments, generally the addition of cement, and testing required for beneficial reuse of dredged material

at upland sites significantly affect the cost of dredging projects. Prior to the closure of the Mud Dump Site, the cost of dredging, including placement at the Mud Dump Site, was approximately $4 per cubic yard. Today the cost averages about $16 per cubic yard plus the cost of the required bioassay test, which adds approximately $242,000 per composite sample to the total project cost.

EDC recently paid $836,000 to determine whether sediments from the Passenger Ship Terminal were suitable for HARS placement. The cost of dredging roughly 300,000 cubic yards, including transport to the HARS for placement, was approximately 2.8 million. The project also included about 69,000 cubic yards of project sediments that were deemed unsuitable for HARS. This material was retested for suitability for beneficial use upland and upon being deemed suitable, was dredged, processed with cement and beneficially reused as landfill closure material at a cost of approximately $5.5 million. Total cost of the Passenger Ship dredging project approximated $9.1 million compared to the approximately $2 million cost of eight years ago.

Understandably a portion of the increase in the cost of dredging is due to the rising costs of labor, fuel and conditioning materials like cement. However, additional costs related to testing of dredged material have significantly increased the per cubic yard cost of dredging. The cost of bioassay testing required for determination of HARS suitability of dredged material, is approximately 242,000 per composite sample; upland testing runs approximately 15,000 per composite sample for pre-dredge testing and $1,200 per composite sample for pre-placement testing. Furthermore, the basic components of dredging and placement, such as fuel and cement, are commodities subject to lower prices when purchased in higher volumes. In the end these fixed costs makes dredging a volume economics business, the greater the volume of material proposed to be dredged the lower the per cubic yard cost.

As an example imagine three separate and distinct, yet geographically co-located dredging projects all proposing HARS placement, a moderately sized marina dredging

50,000 cubic yards, the EDC's annual dredging of 300,000 cubic yards from the Passenger Ship Terminal and a one million cubic yard Army Corps Federal Navigation Channel dredging project. Since the three projects are co-located, the mobilization and demobilization costs can be expected to be the same for each, approximately $200,000. All three projects will submit one HARS composite for testing and analysis, about $242,000. Therefore the per cubic yard cost of mobilization, demobilization and HARS testing for the three projects breaks down as follows; for the marina $8.84 per cubic yard; for the Passenger Ship Terminal $1.48 per cubic yard; for the Federal navigation channel project $0.45 per cubic yard. Similarly, because the dredger can lock in a better price for fuel when purchasing large volumes, a lower per cubic yard price for the actual dredging of a high-volume, million cubic yard project can be expected to be less than for a 50,000 cubic yard project.

Dredging with beneficial reuse upland has similar economies of scale. However, project cost has two major differences. First,

testing for upland placement is significantly less, costing $15,000 per composite sample for pre-dredge testing and approximately $1,000 per composite sample for pre-placement testing. Second, placement costs are about $110 per cubic yard. Placement costs are expected to escalate to two to three times today's cost of $110 if local placement sites reach capacity with no new sites coming online.

In summary, the cost of dredging to small and moderately sized businesses, regardless of whether the placement site is the HARS or an upland beneficial use site, can almost be 20 times higher than for Federal projects of large volume, an amount so onerous as to be prohibitive.

Planning, in the form of local and regional dredged material management, seems to be the best way to reign in and possibly control escalating dredging costs.

The New York/New Jersey Harbor has a Dredged Material Management Plan, a DMMP, that serves as an important guide for the appropriate treatment and/or placement of material dredged

pursuant to the Harbor Deepening Project as well as maintenance dredging of Federal Navigation Channels. EDC was a partner in the preparation of the original DMMP as well as the recently released 2008 update. To ensure that the approach to dredged material management remains environmentally and economically sound, the DMMP is a dynamic document that will be revised periodically to reflect the most current information relevant to dredged material management.

The implementation of the DMMP requires communication, coordination and cooperation-- and no coughing-- against and between a myriad of Federal, State and City agencies. To that end, a monthly Regional Dredge Team meeting and a quarterly Senior Partners meeting are convened. The City is represented at these meetings by EDC, the City's Office of Environmental Coordination and City Planning.

The recently implemented EDC Dredged Material Management Program is a direct result of being a participating member of the Regional Dredge Team. It is designed to

beneficially use dredged material from throughout the New York/New Jersey Harbor Estuary region as alternative fill material at City-owned and/or privately owned sites requiring grading fill anywhere in the City. Eliminating the cost of fill for redevelopment projects through the beneficial reuse of dredged material is projected to result in up to $30 million in savings to New York City and $9 million in savings to EDC during fiscal year 2009. The Program anticipates collecting approximately $3 million in placement fees during fiscal year 2009, 15% of which will be directed to a Dredged Material Management Fund, designed to assist local businesses with dredged material management issues through a grant and/or low- interest loan program.

A pilot project undertaken pursuant to the new Dredged Material Management Program resulted in savings to City Parks of approximately $900,000. Placement fees of $68,700 were collected, with just over $10,300 being directed to the Dredged Material Management Fund.

The most significant impediment--I can do this-- to the success of the Dredged

Material Management Program will be the fact that in the State of New York dredged material is classified as a solid waste. Defining dredged material as a solid waste generally means that it must be regulated as such. As a result, public perception of dredged material tends to be negative and the use of dredged material is met with a variety of regulatory hurdles. Regulating dredged material as a "waste" severely limits beneficial reuse projects because the philosophy behind solid waste management is one of containing wastes to prevent their escape into the environment. Though recycling or reuse of wastes has become commonplace in municipal, and to some extent, industrial waste management, the same concept has not yet pervaded the area of dredged material management. As a result, regulating dredged material as a solid waste, even under a series of exemptions, known as Beneficial Use Determinations or BUDs, is not optimal.

Technically, once granted a BUD, the exempted dredged material is no longer a waste. However, it is still perceived as such even though its use as grading fill requires it

to meet the same site-specific chemical specifications as all other fill being accepted. Needless to say contractors are reluctant to use dredged material and communities reluctant to embrace it because of the stigma attached to solid waste. Thank you.

Beyond a doubt there is dredged material that is highly contaminated and unsuitable for beneficial reuse at upland sites. However, the same can be said of most any type of fill proposed as grading material. Declassifying dredged material and managing it as a regulatory material will provide the testing and oversight necessary to ensure the health and welfare of the public and the environment while allowing for a myriad of beneficial reuses.

The EDC Dredged Material Management Program will be a significant asset to finding upland beneficial reuses for the cleaner dredged material coming from the New York/New Jersey Harbor. It does not, nor was it meant to, address the fate of the dredged materials too dirty to be used as grading fill at City redevelopment sites and yet not dirty enough to be

classified as hazardous waste. The management of these dirtier materials, after stabilization with cement, has to date included use as below-the-liner landfill closure material and mine reclamation material. It is management of these not clean, yet less than hazardous, sediments that is the true challenge, management that is environmentally and economically sound. This will require a multi-multi agency, regional approach to research, create and implement beneficial reuse opportunities.

To recap, the economic vitality and continued growth of the Port of New York and New Jersey, the third largest Port complex in the United States, is dependent upon keeping the Federal Navigation Channels and Port berths dredged. Regulating dredged material as a waste severely limits beneficial reuse projects. Dredging is expensive and the cost of dredging has become onerous for small and moderately sized businesses. The cost of dredging will continue to escalate unless local and regional beneficial reuse opportunities are identified and brought online. Dredge Material Management is a federal,

state and city multi-agency responsibility requiring immediate action and solutions that are environmentally and economically sound.

I thank you for you time. Please note that, for your convenience, our presentation has been attached to the back of the testimony. I'll now turn it over to Venetia and for any questions you may have.

CHAIRPERSON NELSON: I know that Professor Wakeman has to get back to teach class soon. So, I don't know if you need to speak next?

KATHRYN McGUCKIN: Oh, his students won't mind if he's not there, will they? I never minded when the Professor didn't show.

CHAIRPERSON NELSON: Get the - - right?

TOM WAKEMAN: Miss McGuckin really provides you a broad description of the issues that face the City, as well as the region. What I'm planning to do based on the [off-mic] was to simply give you 101, very basic. It turns out that Mr. Shea's office is going to do something similar.

Most ports, whether they be coastal

ports or river ports need to be dredged because they get sediment in from the drainage basins or they get sediment from moving along the coast. When we try and bring a ship up to the land, we've got to make the berth there for them. Modern ships, because of economies of scale and because trade policies we put in place over about the last 25 years has caused all trade to be part of a global marketplace. That said, containerization, which also evolved around here starting in 1956, has caused larger and larger ships to be built. And, we're at about the eighth generation of container ships at this point.

Ports are significant economic engines. But, more importantly, ports are now the commercial gateways that we have to the world in order to get goods. About 50% of the goods that we use in this nation, excuse me, in our region, that's shows how provincial I am, come from our local port. About 30% come from LALB, which is hitting its capacity very quickly because they're not able to build new projects. They don't need dredging. However, they need expansion, a plan. And, about 20% come from along the other East

Coast ports. In other words, if we lose parts of other ports, which we could from the West Coast, we will not be able to take care of the consumer demands that we have in this region.

The other thing that becomes a thought to consider is the economic engine of this region has the potential to grow with the opening of the expanded Panama Canal, which will occur in 2014 or 2015. Ships that earlier were only going to the East, excuse me, the West Coast, will be able to come to the East Coast and serve us directly.

There's two types of dredging. There's the excavation of the material. And, there's the disposal of material with a link in the middle of transport. For a very long time, this region, unlike many other regions in the country, didn't have to worry about disposal of dredge material because it all went to the ocean. And, under the Federal rules, if you have an ocean site, or if you have any other option besides the ocean site, you have to use it. So, when things started to change here, about 12 years ago, the region galvanized, got together, led by the Corps

of Engineers. I was working for the Port Authority at that time responsible for their waterways development, and came up with a program called the Dredge Material Management Plan for disposal of this.

Most of the material we have here, about 50%, is clean and can be used beneficially either by covering the Mud Dump or in reef. Contaminated material has to be treated in some fashion, as Miss McGuckinton mentioned. Either initially, it was put in pits and then, after that, in this region, we developed a very expensive processing method that turned it into a resource. The first utilization of that was for a parking lot at Jersey Gardens over in Elizabeth. The reason that the contractor wanted to use it was because it doesn't have differential settling. It's all nice graded fill.

We have maintenance issues in this Harbor and we have new construction. In order to be part of the 21st century global port complexes, we have to be at about 15.2 meters, or 50 feet. That project's underway. The City is a participant. And, there's about 20 million cubic

yards left to be done on that project out of a total of 50 million. So, it's very well on the way.

The other things, there's an ongoing maintenance problem. The area is challenged by three principal superfund sites. One, PCBs in the Upper Hudson; two, dioxins on the Passaic River and three, mercury on the Hackensack. Those three chemicals come in and have been part of the reason the material's not ocean acceptable any longer. Those legacy sediments will be us for another several decades.

The principal places that we've been focusing on for dredging and will have to continue are the connecting channels to where those berths are and the container terminals. And, this port really is a combination of container activities, auto activities and break bulk. Most of the break bulk is salt coming in; going out, it is scrap metal and waste paper.

The dredging challenge essentially comes down to making sure that the federal government's able to maintain their schedule, which is-- had the Corps receiving on the order of

100 million a year to keep this project moving and completing it before the Panama Canal opens because the Panama Canal will be able to take these larger vessels, carrying about 8,000 to 9,000 20-foot equivalents. And, without 50 feet, we will see that cargo go to Norfolk or South. And, it's going to come here then by truck, which is not a real good way to move cargo these days, particularly on I-95.

The other projects that we have in this area are influenced by regulatory requirements of both New Jersey and New York. And, as Katie mentioned already, DEC classifies dredge material as waste, therefore, it falls under federal regulations for RCRA and that changes, not only the public perception, but the rules for placement. New Jersey doesn't handle it that way. So, there's been more flexibility there. Pennsylvania the same thing. In general, the federal government, I believe, does not treat it under RCRA, nor do most other states.

Finally, the expanding financial concerns, the amounts of money were already mentioned in dredging, and it's only going to go

up if fuel goes back up. And, in this day and age, we have to be cognizant that all project costs limit the ability to actually do a project. And, the question's whether or not it's the best place for the city, the state, the federal government to put their money.

The challenges are we don't have any disposal sites here. The ocean site was closed in one year. They had one last shot in '97 to put what remaining material that could go there that could be capped. Thereafter, we had a pit in Newark Bay for a short period of time. It's still there, but it can't be used. It's not permitted. So, everything else has been going on land. There are some long term opportunities. But, there're also large cost associated with that, such as taking the material to Pennsylvania and using it for acid mine drainage pit cover; reclaiming mines, in other words.

There is a 1.2 million yard requirement every year for disposal on land because it's not acceptable for ocean or inland waterway disposal. These are issues that we'll have to grapple with because, to me, dredging is,

as you said, an unseen infrastructure requirement, if, indeed, you want to be a port. If you want to be a port this day and age and not a feeder port or a barge port, which means it's rehandled somewhere else and brought to you, which adds to the cost of delivery. Then, you have to maintain the channels, just like you have to maintain the roads and driveways and parking lots.

It's the choice that the region faces, not recognizing, I don't think, that the rules of the international trade are changing and changing rapidly. Thank you.

CHAIRPERSON NELSON: Thank you. [Pause] appreciate it. You said the whole panel.

MALE VOICE: Yeah, Mr. Shea's next.

CHAIRPERSON NELSON: Okay. Sorry, I was requested to have Mr. Shea go next. That okay?

TOM SHEA: Yeah, we're going to--

CHAIRPERSON NELSON: Thank you. Army Corps of Engineers who were so pivotal to our economic situation right now.

TOM SHEA: Briefly change out - - - -

CHAIRPERSON NELSON: Um, hm.

TOM SHEA: -- slide mount.

CHAIRPERSON NELSON: No problem. Please, let me introduce Council Member Melissa Mark-Viverito, who joined us. Remiss I didn't do that earlier.

MALE VOICE: Gale's here, too.

CHAIRPERSON NELSON: Oh, and Council Member Gale Brewer. Nice to see you, Gale.

COUNCIL MEMBER BREWER: - -

CHAIRPERSON NELSON: You're welcome.

TOM SHEA: Okay. Good morning. I'm Tom Shea. I'm a project manager at the United States Army Corps of Engineers. We're the world's oldest and largest engineering construction firm. Now, I'm blind 'cause I-- I'm going to be doing a Dredging 101. That's what I was asked to do. I will not go into as many details of our projects that we have going on and focus more on mechanics, why we do things and some of the issues involved. Again, some of this-- got some stuff on here doesn't make me look good, here. I don't know

what it is. Oh, no, don't. Hopefully, this'll work.

Again, New York Harbor was originally, you know, when Henry Hudson came in, about 17 feet and we were first and naturally deep. So, anything, all big ships come in because we've dredged. And, we've dredged a lot. The Corps of Engineers maintains over 240 miles of channels in New York City. Those range from 45 feet deep along the Kill Van Kull. And, in some areas, they're 4, 6, 10 feet. Some of the smaller ones that we get for recreation or some barge movement in some of the small rivers, like the Bronx River, say. And, we're deepening approximately 45 miles right now.

These numbers, you've all seen, we're the largest port on the East Coast. Lots of money, 35% of the U.S. population served. That goes up to almost 60 or 70% that's almost a day or day and a half travel time away from us. A huge amount of goods come in because there's a huge population and we, as Americans, like to buy stuff. And, that stuff, a lot of it all comes in and that's generating the big stuff.

Why do we dredge? Provide access to land facilities; provide economic loading of the ships; maintain anchorages or channels for recreation; remove contaminate materials and provide source material for beaches. We have a program where when we're dredging sand, we can place that on a beach at a really good deal for the local sponsor.

Graphically, here's how things have gotten started. When containerization started in the 1960s, there were maybe a thousand, less than a thousand TEUs or 20-foot equivalent units. So, that's essentially one container each. And, they range from 20 to 53 feet long. They didn't require a lot. They were converted oil ships. And then, the shipping lines start building specific ships to handle these. And, currently, we're in the-- around 6,000 TEU, getting up to 8,000 and there's even rumors or there were some rumors going on, maybe a 15,000 TEU ship; huge things. And, as they get bigger, they actually, you know, they get longer, wider and they get deeper. And, as they get deeper, we do the economics to see if we should deepen the channels.

All of our channels must be economically justified, which I'll touch upon in a second.

I classify dredging for three reasons; one, new work. And, that's to deepen the existing channel so that we can bring in the newer vessels. An example of that is the New York Harbor, deepening that I'm the project manager for. And then, we also maintain channels. Channels, because of the flow of sediment down, they'll shoal up and then, the draft decreases. For federal channels, Congress authorizes a specific depth. And, we have a program where we can go in and remove channels. They're typically on a certain basis. And then, an example of that would be like the Intrepid earth required maintenance dredging. There's Jamaica Bay, even the New York Harbor. And then, finally, environmental. This is outside of dredging for economic purposes. This is to remove material, either because of superfund concerns or non-superfund, environmental restoration or superfund.

New work, when the Corps does it, we do a feasibility study for the New York Harbor. That actually only took two years. And, hence the

loss of all my hair, or most of it. It was fast-paced. And, fortunately, we were able to get the funding to do that. The depths are based on an economic analysis. And, the bottom line is the benefits have to outweigh the costs for the Corps to recommend the project, unless certain things happen. And, I wasn't going to get into those type complications at this. And, we do the calculations based on transportation cost savings.

When we know, like a 6,000 TEU ship can come in, it comes in lightly loaded. It may have 4,000 TEUs. The cost to operate that ship is going to be the same whether it's fully loaded or lightly loaded. So, if we can bring that in loaded, fully loaded, the unit cost per container decreases and that's essentially your benefits.

Maintenance dredging, we have a certain depth. It shoals. Every so often we'll do surveys. We do-- I'm lacking the name of it-- controlling depth reports that we publish on the internet that tell you what the controlling depth of the channel is. And then, if it goes below the authorized depth, we have programs. We get money from Congress to go and dredge it. That usually

happens maybe every two years. Some projects every ten or 30. Some channels, like the Anchorage Channel has enough flow and energy that it doesn't require any maintenance.

And then, environmental, this is for restoration or CERCLA. It's based on human environmental risk assessments, not really tied in with economics. When the Corps recommends an environmental dredging that's not CERCLA, we look at the cost of the first unit cost to dredge, say, 10 feet, as a base, automatically justified. And then, we try to go down and look at what the optimal amount is or when that last increment just costs way too much to justify it.

How we dredge really depends on what we're dredging. Here's some of the types of stuff we have; sand, soft mud, Glacial Till, clay, bedrock. And, we go down from the stuff that's really easy to the stuff that's really hard.

I have two graphics that show what we're doing, if you want to use this one. We have essentially two types of dredges. We have the clamshell here. And, the dredge basically stays in one place and drops its bucket. And, the

bucket just scoops up material and then lifts it up. And, the bucket looks like that. And then, we have an excavator. This is basically a back hoe. But, it's a really, really big back hoe. Both of these have been on Marne and Marvels and all the History Channel things. There's a couple of shows on that have them. And then, when we get into bedrock, we throw in a third barge, which is our drill barge, where we're required to drill holes into the bedrock on a certain pattern. And then, we put in charges and then, that fractures the rock.

And then, we'll go back with the excavator and clean that up. All the mud is then put on a scow, or the dredge material's put on a scow. Depending upon what material that is, the scow may be a bottom dumping scow like this, where, like, for sand, it goes out to the HARS; goes out, the bucket opens up, the material drops from the bottom and then it comes back in and re-cycles. The other type is more like a bowl. And, the material to remove it, they typically have a smaller clamshell that removes the material.

Here's another example of one.

This would demonstrate how the rock would have been broken up. You have a excavator, just scoops it all up, puts it in the barge. A little bit further behind it, the dredging barge would be removing it. And then, in most areas, we have material, even though we're going to like a project depth, which would be this dotted line, there's softer material usually on top of it, perhaps clay, Glacial Till, sand, whatever. So, we have to remove that so that the progress is remove it with the clamshell. Whatever we can't remove with that, they may try to remove with the excavator. And, if they can't, go back, drill it and then, remove it. Essential thing.

Now, we're getting in the fun part, where we have some pictures. This is an example of a hopper dredge. It's a huge boat with pipes that go down to the bottom. This is what's on the bottom. Essentially, it's a vacuum machine. Using hydraulic pumps, it just pumps water, sucks the sand with it. It then goes into hoppers that's on the dredge. Once the hoppers are filled, usually to an economic fill, which means it's pumping water out 'cause there's a large

amount of water that gets pumped in also. That's allowed to flow overboard so you're getting just the sand in the hopper. It takes off. It'll go to the HARS or it'll go to someplace when we're doing, like, environmental restoration building an island. It'll go there to pump the material out to stockpile it or move it on to the beach. And then, it comes back and it just continues to do that.

This is the New York. This is an example of the excavator. To give you a size, that's the size of the bucket. It's huge. This is one of our former district engineers standing inside of it. Huge teeth. And, you can see why that thing's great for digging up rock. The problem we have with this is it does generate a lot of maintenance requirements, a lot of hydraulics. But, it just, you know, might say gobble it up and it just really nice. When you're out there watching, this does not look so big until you actually get to go on it.

These are the clamshells. This is just a normal-- actually it's what we term a "environmental bucket." Same with this. They

function the same way. They're both designed to scoop it out. A normal clamshell mud or water can flow out. It's kind of messy. The environmental bucket is designed to help contain it, reduce the amount of water. And so, you reduce suspension in the water. It's a bit more, when you're dealing with contaminated materials, that's the bucket we're required to use. And, we have one that's about 26 cubic yards. And, it's great for production.

There's a drill boat, three of them. You can see, basically, just like any drill that you might see drilling for water or drilling onshore. They drill. When they're getting ready to blast, there's a whole line of yellow charges that come out. We will only do two blasts during the day; one typically an hour after sunrise and then, no later than an hour before sunset. So, any of our gurat [phonetic] blasting only occurs during daylight hours, Monday through Friday. And, we don't allow our contractors to blast on Sundays or federal holidays.

CHAIRPERSON NELSON: That's good.

TOM SHEA: Excuse me?

CHAIRPERSON NELSON: You don't want to scare the hell of everybody.

TOM SHEA: Well, we have a lot of issues, especially in the Kill Van Kull where we do most of that. A lot of residents, you know, they feel the vibrations. They feel we're going to tear their house down. And, that's not the case. And, we have a large program to go and every time we're in the area, we will survey the house, take pictures, make drawings, take video of it. And, if they have a complaint, they file a claim. We'll investigate it. And, you know, if it is, you know, we bring in the experts to figure out if this was caused by vibration. A lot of the vibrations are garbage trucks or buses. I mean, that's generating much more damage to any structure than us.

CHAIRPERSON NELSON: This is a - - you distribute, like, information to the locals.

TOM SHEA: Right. We distribute pamphlets to every house, every property in the area, well, within a 15 foot radius of where we're going to dredge or band, more appropriate. And then, we'll advertise in the newspaper for public

meeting that's held at least two weeks prior to the start of blasting. And then, our schedules are posted to Staten Island Borough President office and then, our website.

What do we do with the dredged material? This has been discussed in detail. But, again, it depends on the material. Sand, we can send it to the HARS or we can use it for island creation or put it on a beach. Unfortunately, a lot of material we're dredging now is so fine that, if it was to go on a beach, it would wash off over the first year. So, it's not beneficial to do that.

Soft mud requires testing. And then, it can either go upland if it doesn’t meet the HARS suitability. Or, it goes out to the HARS. Glacial Till, we tend to send that out to the HARS. It makes good capping material. Clay, we send out there, too. And then, bedrock, the two states usually fight over this material so that they can create artificial reefs.

Here's what one of the landfills, this is in Bayonne. This is the former Marine Ocean Terminal Bayonne. This is the Port Jersey.

Manhattan and Brooklyn are over here. This was a landfill. It required closing. And so, we were bringing the dredge material to a processing site that was right onsite. A scow would come in. It would be off-loaded, processed and then, distributed around the landfill based on the engineering and ultimately the designer's requirements. And, this project is finished and it's a rather nice looking golf course. It looks rather challenging, too.

And then, Tom mentioned mine closure. This is one picture of one. This is before and an after shot. Again, mines, basically open rock and then, they get acid rain or they generate a bad runoff, similar requirements to landfill closure, where you can cap the material, cap whatever it is and then, landscape it so that it's nice looking.

Sediment stabilization is the heart of reusing the dredge material. Again, it's brought in by scows. Each process is slightly different. Some of them are even patented now. When it's brought to the cycling material, it's typically dewatered or pumped out. And then,

dewatered, mixed with fly ash or cement or some stabilizing product. And then, the end result is similar right here. It basically looks like dirt that, you know, if you went to, you know, you called a company for landfill dirt, it would be very similar. And, it's a great resource.

Island restoration, this is Elder's Island, that's out in Jamaica Bay. We have two authorities that do this. One was the Dredging Authority and then, an environmental restoration authority. This is where we brought sand from the Anchorage One and Ambrose Channels to Elder's. It was basically the island almost went away. And now, we've rebuilt it. I don't have the specifics on the number of acres we've rebuilt. We planted grass, landscaped it and now, we're monitoring it with the Anchorage 1B Channel. And, we're going out with a second contract to continue building the island. That's been postponed due to bidding concerns. But, this is a great opportunity to restore Jamaica Bay and the natural resources and great habitat that we have out there while doing something with the dredge material.

Funding, for me, in the new work,

the projects are funded partially by the federal government and then, the local sponsor. That share depends on the depth it is. It goes 25, actually 15, 25 or 50% share. And, most of the work in New York Harbor is cost shared with the Port Authority. And then, they have supporting agreements with the State of New York or the State of New Jersey for some specific channels in the deepening project.

Federal maintenance, the federal projects are deepen at 100% federally funded, unless the project is post-1986. So, for instance, the 50-foot project-- actually, it's when depths go beyond 45 feet, then they get cost shared for the incremental costs of maintaining. And, beyond 50 feet, there's only one project that we do that. And then, the 50-foot we'll have that.

And then, there's the local maintenance. When you have a marina or the berthing areas to a huge channel, that's all local owner responsibility. And, that's, again, where you get, as very well described by Katie, the problems associated with the cost of dredging,

cost of testing the material and it gets-- however, we have done in the past, for instance, Merrimac, I know for one, we had a maintenance, federal channel maintenance project. And then, the Anchorage channel was non-federal. We were able to combine the total area, dredge it under one contract and then, we basically divvied it up on who pays for what. That helps the local because it reduces a lot of the-- you increase your unit quantities, which drives down the unit cost of dredging. And, it also drives down the-- or, you save money on the mobilization and demo, which can typically be about 10% of the total cost.

Various issues, again, dredge material testing. It's expensive. It gets expensive 'cause someone ends up counting the number of shrimp that have died after a certain number of days. The shrimp are not the type you eat. They're really small. You got get them under a microscope and do all that. And, that takes time and that drives up the costs.

Upland placement, again, they can range from 50 to $100. Back in, it was '97, Tom,

we sent material out to Utah at about $115 a cubic yard. That barge got sent on a rail car. It used just about every transportation means, except for a bicycle to do it. At that point, we said no, there's got to be a better way. And, that's when we all started working together to do that.

And then, there's environmental issues. There's loss of habitat at times. There's an impact to specific species of concern, for instance, winter flounder is a species we look after as an indicator of the overall health of other species. Air pollution, the New York Harbor is funding because we were not in compliance with the Clean Air Act for the construction of the project. We're going to spent up to $28 million in repowering all the Staten Island ferries so that they reduce their emissions, especially Knox [phonetic], so that they're all going to be cleaner. We've also had a program through the Port Authority that's going to get cost-shared to repower a lot of the tug boats that spend about 90% of their time in New York Harbor.

Noise is an issue for the residents out in Staten Island, in Bayonne. Even though we

tend to be in compliance with the City Noise Regulations, it's this constant drone. It's constantly there. It's something that's new and it's an issue.

And then, finally, we have suspension of solids. This is more of a concern when you're dealing with contaminated materials. And, that's where we tend to-- and we have ways to manage that, reduce it and so we're not causing impacts.

And, I think that's it. There's my contact information. Again, Corps of Engineers is a extremely large organization. We have experts in just about anything so that if I can't answer it, I've got about 30,000 people who can.

CHAIRPERSON NELSON: Well, that 101 was really, I think fascinating. I think many people in this audience probably know a lot about that already. But, it was so interesting. I have to tell you. It really was. I think Council Member Brewer has a question.

COUNCIL MEMBER BREWER: You want to lead questions?

CHAIRPERSON NELSON: No, we'll go

right to you. It's okay.

COUNCIL MEMBER BREWER: Thank you very much. The couple questions I have, I know Jerry Nadler [phonetic] may not be your favorite. I just e-mailed him. What should I ask? But, anyway. When you have the challenge of trying to be a very competitive port, what kind of-- obviously, that would be post-Panama Canal, that you have to be ready for-- what's your goal in all of this? In other words, what would Jerry Nadler say that you had to do between now and the opening of the Panama Canal? What's kind of-- where do we need to be at that point in terms of dredging?

TOM SHEA: Well, from the Corps' perspective, we have the 50-foot project that's being deepened. We're on a schedule. As long as Congress funds us, we're going to meet that schedule. The goal is to have a channel to 50 feet that gets into the South Elizabeth Channel. And, that's the Port Authority's goal.

COUNCIL MEMBER BREWER: And, that will make us competitive with other ports, strongly, 'cause that's what I think what our goal is is that New Yorkers and New Jersey?

TOM SHEA: Yes.

COUNCIL MEMBER BREWER: Okay.

TOM SHEA: Although from the Corps' perspective, we don’t look at being competitive.

COUNCIL MEMBER BREWER: I know, but we do.

TOM SHEA: I know. And so, we're helping you do that.

COUNCIL MEMBER BREWER: Thank you.

VENETIA LANNON: Yeah, I think, and we, at EDC, we engage in these conversations with the Army Corps and the Port Authority and with Congressman Nadler's office on a frequent basis. It's foremost in our minds that our Port, which provides so much, as many of the panelists said, so much economic--

COUNCIL MEMBER BREWER: Yeah.

VENETIA LANNON: -- activity, jobs, tax benefits to this region that it remain competitive. Our main concern, when the Panama Canal widens, one of our big competitors is Norfolk, Virginia. And, they have naturally deep water at their port. They don't have a lot of these dredging-- they have some dredging concerns,

but not on the scale that we do.

And, I think one of the other really important things that isn't a topic of this conversation is just to have enough land. I mean, you can't expand Port Newark or Port Elizabeth, you know. We're looking right now to expand the New York Container Terminal at Hallan Hook. But, there's a delicate balance between, you know, when you're on the water, there are going to be wetlands. And, it's a conversation with DEC. And, I'm sure we'll be coming back to have it with you, sort of the need to get more land and to also what's called densify throughput, meaning that you can move lots of containers on a small amount of land. So, you know, these kinds of things, densification, better efficiency, better labor practices, you know, more competitive labor force is something that comes up. These are all things as well as dredging that we can do to keep our Port competitive.

And then, you know, on top of that, we have to be competitive environmentally. The Port of LA and Long Beach are taking many initiatives to really put an additional charge on

some of these goods that are coming through that benefit these big box stores, but have lots of local impact, especially on the environmental justice front with people suffering from asthma around the Port, especially in New Jersey. So, you have to also be competitive on the environmental front. But, as Congressman Nadler said, that's something perhaps the federal government should be addressing so that we're not competing with each other on that front. And, that's just something that everybody base-line has to take care of.

COUNCIL MEMBER BREWER: Thank you for that comprehensive answer. The other question I have is I know that you talked about the 50% that is clean; that some of it is contaminated. I guess my question is are there ways that are new due to new technology that can address some of this fill? In other words, obviously, you talked about what you can do with the brownfields, etcetera and the coal mines and so on. But, is that taking care of the problem? In other words, I'm trying to say is there something new that can be done 'cause you can't dump where you have in

the past in many cases? So, between the--

KATHRYN McGUCKIN: Not that there aren't new technologies, there are new technologies.

COUNCIL MEMBER BREWER: Okay.

KATHRYN McGUCKIN: However, they're very expensive--

COUNCIL MEMBER BREWER: Okay.

KATHRYN McGUCKIN: -- as both Toms could attest to. There has been a lot of research on how to actually decontaminate these materials and make them garden soil that you would purchase at Home Depot.

COUNCIL MEMBER BREWER: Yeah.

KATHRYN McGUCKIN: And, that can be done. But, it's very expensive. So, how do you do that and still remain economically viable? The sediments that are the easiest to beneficial reuse, as I was mentioning, are those that are contaminated, because it's, I mean lead occurs everywhere.

COUNCIL MEMBER BREWER: It's going to be contaminated.

KATHRYN McGUCKIN: It's going to be

in your backyard. It's going to be everywhere. It's something that occurs in nature. But, they're not anywhere near hazardous. They're not any type of hazardous type of material. Okay, great. We can beneficial reuse those. We mix them with cement because they're very fine silt and they have no structural stability. So, we mix them with cement, which bulks them up. It makes them look like regular soil, just as Tom mentioned.

But, there's an ancillary benefit to that. When you add the cement, not only does it bulk it up, but it locks in those contaminants so that when we run an acid leach test that's required by the State of New York, the water that comes out the other end is clean. That lead that was in there, that mercury that was in there, those things that were in there, they're all locked up in that little cement matrix. And, the water that comes out is clean. So, it's not that they're gone. They're still there.

COUNCIL MEMBER BREWER: Um, hm.

KATHRYN McGUCKIN: But, they're locked in that matrix. But, that makes a good use

for putting below a parking lot, like the Jersey Garden Malls, using it as road embankment fill, using it to close landfills, using it to close brownfields. Those are perfect uses for those type of material because there's not going to be a human exposure pathway there. And, there's not going to be a ground water exposure pathway, 'cause we locked up all those contaminants with that cement. So, it's perfectly reusable.

It's that stuff that's not hazardous material, but not really clean enough to do that, that's going to present the challenges for us. Those are the types of material that we have used in closing landfills and stuff. But, the landfill opportunities are going away.

COUNCIL MEMBER BREWER: Correct.

KATHRYN McGUCKIN: You know, they're all closed or really close to being closed, you know. The below the liner material that is the only stuff that can be accepted, the dirtier stuff. Those opportunities are going away. So, our challenge for the future is where is the next opportunity to use material that is not hazardous, but not really clean enough to use

in most of our redevelopment projects and, to do that and still be economically viable. There are things out there, but they're very expensive.

COUNCIL MEMBER BREWER: I got it. Now, is there dredging going on in European cities? And, are they doing anything with that material that you just discussed?

TOM WAKEMAN: This has been going on worldwide, probably 30 years.

COUNCIL MEMBER BREWER: Right.

TOM WAKEMAN: The last 15--

COUNCIL MEMBER BREWER: I've been on dredges, actually.

TOM WAKEMAN: -- we started looking at ways to decontaminate and beneficially use sediments that were contaminated. The construction of making bricks, Homburg--

COUNCIL MEMBER BREWER: Right, yeah.

TOM WAKEMAN: -- they still have the pile of bricks. Nobody wants them.

COUNCIL MEMBER BREWER: Got it.

TOM WAKEMAN: If it's contaminated, I don't want that in my house.

COUNCIL MEMBER BREWER: It's like the cell phone towers. I got it.

TOM WAKEMAN: Well, the perception stops people. In terms of looking at aggregate, engineered fill, variety of other potential beneficial uses including the creation of tiles by vitrification of this material was done by Brookhaven National Laboratories--

COUNCIL MEMBER BREWER: Um, hm.

TOM WAKEMAN: -- with the EPA and the Corps of Engineers, the Port Authority and others, the two states, spending about 25 million and the bottom line was we put most of our effort into turning this material into a structural fill, which is probably the best use for it. It's where we have the greatest demand. It keeps the price down. And, the public is protected. There are loss of those opportunities as we quickly use up the available space. The Governors made a decision, both of them, in '96, when we sent the material from Hallan Hook to East Carbon, Utah by a combination of the scow and railroad at $118 a yard, that we're not going to send our money to Utah anymore.

COUNCIL MEMBER BREWER: Um, hm.

TOM WAKEMAN: We're going to keep it here and we're going to make it beneficial uses for us here. The problem that we're going to face is two things; your first question, how do we stay competitive. To me, not an issue. It's how do we get the goods. Estimates are that we'll go double the number of goods that we need in this region between 2007 and 2027.

COUNCIL MEMBER BREWER: Wow.

TOM WAKEMAN: Now, how to get double that amount of cargo in here to meet the region's needs, demands, because the population increased, because of affluence--

COUNCIL MEMBER BREWER: Um, hm.

TOM WAKEMAN: -- because of all the other good things that are happening. You do that by having a logistics chain that is served end to end to make sure you can bring the goods in and put it on the shelf on the far end of Long Island. How do you do that? By having the transportation connections to do that.

COUNCIL MEMBER BREWER: Absolutely.

TOM WAKEMAN: The most economical,

energy efficient and least carbon emitting is to bring it in here by sea--

COUNCIL MEMBER BREWER: Yeah.

TOM WAKEMAN: -- and then, put it on land with inner mobile connections. I think Mr. Nadler would be the first to say I want to make sure that the residents of New York are able to get the goods they want in the most efficient fashion possible.

In talking with Mr. Godheim about this, he wants to continue discussions and look at what are the options that we can get into the T bill, to further that function, that objective of not only having a commercially viable Port, but making sure we meet the demands.

COUNCIL MEMBER BREWER: Thank you very much. I won't take more time. But, for EDC, my 79th Street Boat Basin, is anybody thinking about my 79th Street Boat Basin? What do you--you say yes. What does that mean, translated? It's high dry.

VENETIA LANNON: Right.

COUNCIL MEMBER BREWER: High and dry.

VENETIA LANNON: We were just using it as a case study the other day for when dredging becomes so cost prohibitive that really boats are just perched on, when at low tide, just perched right on the ground.

COUNCIL MEMBER BREWER: So, how do we get it dredged?

VENETIA LANNON: Well, as Katie started to mention, EDC has just-- we've gotten, just started this program called the Dredge Material Management Program. And, it's sort of a mini business within EDC, if you will. So, for some of these cleaner materials that are coming out of the federal projects, we will be sort of getting the beneficial use determination from EDC and managing the placement. So, rather than paying to dump, the dredger pays us to place. We will, therefore, generate a source of revenue to be able to either-- we didn't get too much into our testimony, but we--

KATHRYN McGUCKIN: But, she has--

VENETIA LANNON: Yeah.

KATHRYN McGUCKIN: -- our handout.

VENETIA LANNON: Yeah, either it's

a revolving loan fund or it's a grant--

COUNCIL MEMBER BREWER: Okay.

VENETIA LANNON: -- that we will go to be able to aid places like low basins, like small maritime businesses on the Gowanus Canal.

COUNCIL MEMBER BREWER: Okay. So, 79th Street could be the first test case? Thank you very much.

KATHRYN McGUCKIN: We did do a test and it worked out really well. And, the idea is that we want to be able to beneficial reuse and we want that-- we want to be able to put aside money for small and intermediate-sized businesses--

COUNCIL MEMBER BREWER: Right.

KATHRYN McGUCKIN: -- to help them with Dredge Material Management.

COUNCIL MEMBER BREWER: Okay.

KATHRYN McGUCKIN: That's the real benefit to having EDC do this. We're not-for-profit. We're not doing this to make money. So, the idea is we're setting aside money specifically to help these smaller businesses.

COUNCIL MEMBER BREWER: Perfect. Unfortunately, this business is the Parks

Department. But, let's work on it.

KATHRYN McGUCKIN: We're working with Parks, too.

COUNCIL MEMBER BREWER: Good. All right. Thank you very much, Mr. Chair. I could go on and on, but thank you.

CHAIRPERSON NELSON: Thank you [pause]

COUNCIL MEMBER MARK-VIVERITO: Thank you, Mr. Chair. And, somehow it feels like, you know, we're cramming for a test, like so much information that's being given. And, it's, at least for me, it's a relatively new topic. So, it's fascinating. But, just quick questions, 'cause you kept bringing up the issue of the classification of the material, that in New York State it's classified as solid waste. So, and in other cities, I'm sorry, in other states, it's not, correct? Now, is it to infer that in maybe changing the classification of the material that it would be more cost effective? Or, it would be, you know, in terms of the--

KATHRYN McGUCKIN: [Crosstalk] cost effective because you have more opportunities for

beneficial reuse. And, the best example I can give is the State of New Jersey.

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: They, too, had this classified as a solid waste. But, in 2002, they declassified it and it is a regulated material, just like any other material that would be fill material at a redevelopment site. And, that's all we're looking for.

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: We're not looking to have no regulation.

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: It's the stigma attached to, this is a solid waste.

COUNCIL MEMBER MARK-VIVERITO: Correct.

KATHRYN McGUCKIN: Even though I could demonstrate to everybody in a room that this material is just as clean, if not cleaner, than this stuff that's coming from over here. That

stuff doesn't have the title solid waste, though.

COUNCIL MEMBER MARK-VIVERITO: Where does the classification come from? Is that at a state level?

KATHRYN McGUCKIN: Regulatory classification.

COUNCIL MEMBER MARK-VIVERITO: Right, but, who--

VENETIA LANNON: DEC.

KATHRYN McGUCKIN: From DEC [crosstalk]

COUNCIL MEMBER MARK-VIVERITO: And, it's the state, the state. Now, has there been any efforts to change the classification to get support…

KATHRYN McGUCKIN: I do understand that years ago, and maybe Tom would remember this, I want to say it was probably about 12 years ago or so, there was an effort. And, I'm not quite sure why it fell apart. All I know is that it did. And, they do have-- they recently rewrote their Park 360 [phonetic], which are their solid waste regulations. And, in that rewrite, they did not declassify it. But, they did give it some

more automatic beneficial reuses than it has right now. But, they did not declassify it. But, those were never actually passed and put into…

COUNCIL MEMBER MARK-VIVERITO: Now, but in the plan or the thinking that you're taking on, you know, has there been any thought given to doing some sort of an analysis as to what the savings would be if the classification would change. What would be the, you know, what would be beneficial in changing the classification and how that would maybe get you to a better place in terms of the work that needs to get done? I don't know that level of--

KATHRYN McGUCKIN: [Interposing] I don't have anything written down. But--

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: -- - - if I sat down, Sandy Grizzlick [phonetic] can hand me a whole bunch of stuff.

VENETIA LANNON: It is something that we're thinking about--

COUNCIL MEMBER MARK-VIVERITO: Okay.

VENETIA LANNON: -- in terms of not, you know, not our legislative agenda this year, but in, you know, I think that's a very good point to put it in the context of, you know, cost benefit. But, generally, the DEC is less sensitive to cost benefit. And, they are very conservative when it comes to reevaluating regulations because of, you know, potential precedents that they're unaware of. And, generally, especially with regards to their solid waste regulations, it's a very lengthy process to get anything changed. But, I think, you know, I do think that with a concerted, you know, evaluation that demonstrates the benefits and with the coalition of people, you know, putting, you know, making that request, I think it is something we could overcome collectively.

COUNCIL MEMBER MARK-VIVERITO: Right. Okay. And then, the other question was I just saw one slide here and it was presented up here before. But, with the beneficial reuse of dredge material when it comes to brownfield remediation. Now, how exactly, 'cause I kind of picked up on your presentation something about

just like maybe slapping material on top of a brownfield and then, it's, you know-- I mean, how does that contribute to brownfield remediation, dredge material? I guess I want to just understand that for myself.

TOM SHEA: Usually in a brownfield or landfill, whatever, there's [pause] to redevelop it, they want to bring it up to a certain grade.

COUNCIL MEMBER MARK-VIVERITO: Right.

TOM SHEA: So, first off, the material that's going to go from the dredge will never been dirtier, as it [crosstalk]--

COUNCIL MEMBER MARK-VIVERITO: Right, than what the brownfield is.

TOM SHEA: -- more contaminated that what's going there. And, dredge material is almost always a lot cleaner than half the material you have in your backyard. We call it contaminated because it usually doesn't meet the standard for the ocean disposal, where it's at the very root of the food chain and then, when you get into the bioaccumulation and the effects there.

So, that's why the standards are so tight. All right.

What happens is to get it there, if it meets all the requirements, the mechanics of it, is the scow will bring the material to some processing site. The material is mixed with some binding agent and whatever, dewatered, and then, it's treated just like dirt. All right.

COUNCIL MEMBER MARK-VIVERITO: Right. I guess my question, and it's not questioning the hazardous aspect of the dredge material. I guess my question is if it's just grabbing that material and throwing it on top of a brownfield and not actually remediating the brownfield itself. That's my question.

KATHRYN McGUCKIN: [Crosstalk] Well, it depends on what your remediation plan is. Every site's going to have its own plan, either dictated by federal or state government, depending on what--

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: -- type of a brownfield it is. The idea is, in many cases,

they do require, and I'm going to give an example of the Old Gatech [phonetic] site in Staten Island because that's one I'm familiar with. When DEC go to a remediation plan for that, they were required to bio-remediate the material that was contaminated with petroleum. And, they had to remove it and bio-remediate it. And, that got it clean to a certain level that was acceptable. But, it still wasn't great.

COUNCIL MEMBER MARK-VIVERITO: Right.

KATHRYN McGUCKIN: So, they want it capped.

COUNCIL MEMBER MARK-VIVERITO: [Interposing] And, that's what the material--

KATHRYN McGUCKIN: [Crosstalk] capped with cleaner material.

COUNCIL MEMBER MARK-VIVERITO: Okay.

KATHRYN McGUCKIN: Now, the whole benefit to the Dredge Material Management Program by EDC is that for a City redevelopment project, whether that site's a brownfield like a Gatech site or just a standard redevelopment site, it's

going to cost you in today's dollars about $60 a cubic yard/ton for every ton of material that you have to bring to that site to bring it to the FEMA flood plain or to cap, you know, your remediation site. And, that ends up being a lot of money. Fifteen thousand cubic yards, which is a very small project, $900,000 just to get the fill to make that project happen. Instead of paying $900,000, we were paid $68,000 to accept dredge material as that fill. That dredge material had to meet the same chemical specifications of the material that we would have had to purchase. But, we didn’t have to purchase it. So, we saved $900,000. We made 68,000, which we had to pay-- we had to pay out money to get it sampled and tested and all that. But, still, there still was $10,300 to put into the environmental, you know, fund, to the Dredge Material Management Fund, when we were all done.

So, it's fill that these brownfields will have to have. But, one of the reasons brownfields go undone, unremediated, is the expense. And, using dredge material as that fill helps to cut down on that expense. And,

that's the advantage to using it as a brownfield closer, as to using regular fill.

The other is the environmental benefit of not taking pristine materials from upstate New York or Canada or Virginia, wherever it's coming from, and ruining some other environment so that we can have the fill that we need for our sites here.

COUNCIL MEMBER MARK-VIVERITO: Okay. Well, those were my two questions for now, Mr. Chair. Thanks.

CHAIRPERSON NELSON: Thank you, Council Member. Thank you panel. My apologies to Professor Tony DeLernia. I guess he had to go back to Kingsborough Community College. He's has that program out there as well. And, I feel terrible about that. If you're watching on Crosswalks, Tony, about one o'clock in the morning, I apologize. I'm sorry.

I'm going to get, for a second, also, a little parochial. Sheapshead Bay, which is a tremendous area for great resource the City has. I know there's something like a cost return ratio, of course, to the Army Corps. But, it's

also the economics of Sheapshead Bay, money plays a role in there as well, besides the recreational and educational, because the students at Kingsborough Community College utilize this facility. So, hopefully, we'll be discussing this a little bit more as the days or weeks go on. I know you're very stretched. What is it, approximately a $60 billion budget the Army Corps has nationally?

TOM SHEA: About, yeah, I don't think - - the numbers that they use. It's large.

CHAIRPERSON NELSON: It was very large and yet, of course, if we have 578 miles, you know, of oceanfront property, if you will, or beach or river and all that kind of stuff, waterfront, I can't imagine what the Army Corps has to deal with and you have to take it, of course, and a lot of times it's political clout, where it may go. But, of course, it has to be based upon, you know, factual information as well. So, I'm hoping we can get to New York City areas really quickly.

I know, even like Seagate and Coney Island was renourished, for instance, about 13, 14

years ago. Money has been put in I believe by the aforementioned Congressman Jerry Nadler to renourish again. But, that's another issue, as a matter of fact, soon playing at a theater near you. We are going to have a hearing on that as well. But, we are based now, of course, on the dredging issue situation. And, please, I'd like to follow up with the Sheapshead Bay item as well. And, again, the Chair of Community Board 15 is here, Theresa Scavo, as well. And, that's why Tony DeLernia was here.

Would you describe the process for obtaining a permit for a dredging operation, as far as government, non-governmental entities as well?

TOM SHEA: Sure. Basically, say it's a, you know, a marina wants to dredge. They will typically hire a copy and engineering firm to help do the design work and cost estimates, things like that and do the material testing. They will gather a bunch of information. They will come to the Corps of Engineers in a pre-application meeting, where we meet with the local, state and probably, in New York City, DEP also. So, all the

regulatory agencies are at the table at the single time to meet with the applicant and go over the concerns they may have. Then, the applicant typically goes back, does some additional work and then, submits their permit. Corps of Engineers will then typically issue a public notice saying that there's a permit application; provide all the information.

And then, after a certain amount of time, they'll close. They'll consider anything that they heard and decide whether the permit should be issued or additional environmental analysis done, for instance an environmental impact statement or environmental assessment. At the same time, the Corps will also wait for all the other permits to come in. And then, once everything's in, it typically issues a permit for the work.

CHAIRPERSON NELSON: Are there any funds or grants available from either the feds or state or-- I won't even say city. I see, you know, the shaking of the head to the negative-- to offset the cost of dredging?

TOM SHEA: Not from the Corps of

Engineers. There may be some from Department of Transportation or, you know, because it's a ferry terminal, there may be money that way or something. I honestly don't know.

CHAIRPERSON NELSON: Certainly not to any non-governmental entities then. Okay. And any measures that could be taken that could prevent or retard the sedimentation in critical areas of New York City Harbor? Or, is it just the periodic dredging? Is that the only long term solution?

TOM SHEA: I guess there's a lot of different land-- 'cause all the sediment, you know, starts from the land, then through the rain cycle, washes through. It erodes the rivers and all. So, a lot of it's coming from upstate, not necessarily New York City. Although there is-- or, it's just the movement of the way the tides or the currents run that will move sand around.

CHAIRPERSON NELSON: Um, hm.

TOM SHEA: I don't know of any specific measures we take. However, in New Jersey, one of the driving forces of the Corps' participation in the Lower Passaic River, is to

help dredge that river, which the whole 17 miles is a designated superfund site, because that material makes its way down to Newark Bay and into our channels. So, by cleaning it up there, through superfund and other and then, the Corps has some other authorities, we capture the material at its source, stop it there. So, that as sedimentation will continue, it should be cleaner and ultimately reducing the cost.

CHAIRPERSON NELSON: - - like a screen type of a vehicle, device to stop the sediment?

TOM SHEA: No.

CHAIRPERSON NELSON: How is that done?

TOM SHEA: Well, Lower Passaic, there'll be dredging done.

VENETIA LANNON: I think they're just saying that they are cleaning it up upstream from--

TOM SHEA: Yeah.

VENETIA LANNON: -- from New York City so that the sediment, when it does - - come isn't contaminated when it gets here. So, it'd be

then cheaper for us when we need to - - waters not so--

TOM SHEA: But, then--

VENETIA LANNON: [Crosstalk]

TOM SHEA: Right. And then, there are measures--

VENETIA LANNON: [Crosstalk] sedimentation, I guess - -

CHAIRPERSON NELSON: No, no.

TOM SHEA: Right. But then, as I'm saying, there are measures. For instance, New York City has a large number of combined sewer outflows. All right. Basically, shutting those down so that anything that should go into a sewer and into a waste treatment is sent there to get cleaned before it goes into any of the water. On a huge storm, you know, there's a lot of chemicals that are washed off from the streets or dumped down the drain, 'cause, you know, Drano or whatever--

CHAIRPERSON NELSON: Um, hm.

TOM SHEA: -- there's a huge number of sources all over the City that eventually makes its way into the water system, the sewer system

and then, through combines overflows, U-drain storms gets dumped into Gowanus, for instance. If you shut that off, you'd somehow prevent-- I mean the storm water still needs to make its way in. But, being able to separate the storm water from stuff that needs to be treated would go a long way into reducing the contaminate load and placing new loads there.

CHAIRPERSON NELSON: Um, hm.

TOM WAKEMAN: The textbook answer to your question, separate from the chemical contamination, which Tom has addressed--

CHAIRPERSON NELSON: Can you all hear that?

TOM WAKEMAN: -- is that there's three ways that you basically stop sedimentation from being a dredging problem. One is to do erosion control, as Tom mentioned, from the upper drainage basin. Second is some kind of deposition basin. I mean, you dig a pit or you build a dam. You build a dam, you stop all the sediment coming down streams, except what comes over the wier which causes erosion generally downstream. Or, you can increase the velocity of the water to keep

the material in suspension, so that it goes past the project area. And, there's been some attempts to do that by building wiers or [pause] had one wier in [pause] near the Arthur Kill filled up after about 12 years, 15 years.

So, those three methods are used. Probably the best approach for this region, given the cost of doing business, is to do erosion control upstream in the drainage basin. Make sure the construction sites are carefully monitored. Make sure that the contractor that's responsible for keeping sediments from going down the waste water or the storm drain because it'll end up in the Hudson and then, ultimately, it'll end up in the Passenger Ship Terminal.

One of the things that you face in this region is we are still developing our understanding of the hydrodynamics of sediment transport characteristics of this Harbor. Although it is 300 years old, there hasn't been a lot of studying here. There's been an enormous amount of studying in about the last ten years. But, prior to that, there were no books. So, we're still learning.

One of the things that I find very gratifying is that you're having this hearing. Nobody paid attention for a very long time with what a fabulous resource you have here. The other thing is what EDC's doing; finally, looking strategically at combining the cost and the benefits and looking at this pragmatically and saying what are our best opportunities here. I'm delighted to hear that somebody's actually making money on dredge material, 'cause that was one of our dreams was to actually get rid of the stuff, see it as a resource that has some commercial value instead of seen as a waste that we're going to pay for.

One of the problems with, and the reason that the state didn't continue was they ran out of funding. So, they ran out of the ability to maintain staff on the project. However, if you treat it as a waste to the State of New York, you have difficulty sending it to Pennsylvania or any other place because they're saying, we're taking New York's waste. They will pay for that. Utah said that. Utah got a lot of money.

KATHRYN McGUCKIN: To speak to your

sedimentation issue, though, and I want to bring this to your Sheapshead Bay project, there's a more global sense of dealing with sedimentation, as was already mentioned. But, in an area like Sheapheads Bay or anything like that, where you have several marinas that are all co-located, the key there is to work together. None of them want to do that. But, that's the key. And, the reason is if Joe, Tom and Sally all have marinas and Joe dredges his, but Tom and Sally don't, guess what happens to Joe's. His fills up with the sediments from Tom and Sally's. Okay.

So, if they don't work together, it's a huge battle. And, they also, by working together, they get the economies of scale that are awarded to larger projects, because Joe only has to dredge 20,000 and Sally has to dredge 20,000. But, if you put them all together, now maybe you have 100,000 or a 200,000 cubic area project. And, you're sharing that mobilization and demobilization cost and you're sharing those testing costs. So, you're actually bringing down your per cubic area price if you work together.

CHAIRPERSON NELSON: The synergy is

there. I heard that happened at Kingsborough Community College. That was the problem. So, word to the wise. We've got to move forward with this as a team effort, without a doubt.

KATHRYN McGUCKIN: Correct.

CHAIRPERSON NELSON: I know. We have some other people who want to also to testify. But, just one last question from me. How long does it take for a typical dredging project? And, I know, of course, it would based upon size and so on. But, let's say, from the smallest to the largest, sort of, if we can.

KATHRYN McGUCKIN: - - take the largest.

TOM WAKEMAN: Federal projects, first have to come through a congressional request.

CHAIRPERSON NELSON: I'm sorry.

TOM WAKEMAN: If you're going to do a federal project, a large dredging project, a national dredging project, it has to come through a congressional request.

CHAIRPERSON NELSON: Sure.

TOM WAKEMAN: Then, you do the, the

Corps does a recognizance. If it's found that it's in the national interest, then they go on. That process can take on the order of ten years and then, another 15 years to do the project, the construction. That's a large project, 100 million plus. And, that's been the average time. At least it was until Tom Shea did his feasibility study in two years.

For smaller projects, the hang up will be whether or not you can get both your local and your federal permit. And, that can take anywhere from two to five years. The LA Basin, they're not able to get their permits. They've been waiting the last seven years for permits on 13 different projects. That's why they're not expanding. For a small marina, unless you have a disposal site, the state will not issue you a permit because the Congress gave them the authority for Clean Water Act certifications. And, unless you can-- remember we talked about you dredge it and you transport and you dispose of it? Well, if you can't dispose of it, you're not going to dredge it. And so, until you're able to generate that disposal site, you're not able to

get your dredging permit. And, that's the nexus between these two parts, as has been very clearly stated to you by EDC, if you can't find a disposal site, New York will not dredge because New York EDC will got to DEC and DEC will say no.

CHAIRPERSON NELSON: I believe Council Member Brewer has a question related to that.

COUNCIL MEMBER BREWER: Well, thank you, because I guess that was what I was trying to say earlier is that how much of our dredging is curtailed because we don't have a place to put what you just described, where DEC and Pete Grannis [phonetic] will not allow it. In other words, is that an impediment to, as you suggested, sir, expanding to deal with our population?

KATHRYN McGUCKIN: It is an impediment, yes.

COUNCIL MEMBER BREWER: I mean--

KATHRYN McGUCKIN: The fact that the permitting process, especially in the last couple years, is just being extrapolated to years instead of six months is something that we're all having to deal with. But, you know, a dredging

project can be simple. Small project like South Brooklyn Marine Terminal, we dredged 50,000 cubic yards; 45 days, it was all dredged and put upland. Perfect, no problem. The whole key is getting a program like this beneficial reuse program, that EDC has started out there and advertised so people know that there are ways to reuse it. Okay. So, that somebody who has a project that he needs fill for, he comes to EDC. I need some fill. Do you have some that meet my needs? And so, that we actually develop more sites.

COUNCIL MEMBER BREWER: That makes sense. So, that's what EDC is doing now--

KATHRYN McGUCKIN: That's what--

COUNCIL MEMBER BREWER: -- correct?

KATHRYN McGUCKIN: -- we're working on now.

COUNCIL MEMBER BREWER: Okay.

KATHRYN McGUCKIN: But, it will--

COUNCIL MEMBER BREWER: That's exciting.

KATHRYN McGUCKIN: -- take time to do that. And then, there is, like I said, there's a certain type of material that our project isn't

meant to address. And, mine reclamation is something that is really excellent. But, we don't want to take it to the Pennsylvania mines, (a) because that's Pennsylvania, and (b) it's too far away. It costs a lot of money. But, you know what, we have quarries and mines right here in New York. Shouldn't we be looking at maybe we can reclaim some of our own quarries and mines with our dredge material? So, these are the long term issues that we want to look at that takes, like I said, the coordination of federal, city, state agencies to look at together.

COUNCIL MEMBER BREWER: So, what you're doing is then, you're working with state agencies, too, to try to come up with some solutions.

KATHRYN McGUCKIN: We try real hard, but they come kicking and screaming. Can I say that?

VENETIA LANNON: Yeah, I think, you know, step one is to change the classification so it's not a solid waste. And, that's going to take time. And then, over that time, I think it's the same thing, and Council Member Brewer, you were

active in the Solid Waste Management Plan, you know, for the notion--

COUNCIL MEMBER BREWER: Not always on the right side, according to you, but, yes.

VENETIA LANNON: We got there in the end. And, I mean, that is the point that I think that when you're looking at exporting New York City's materials to places outside of the City, I mean, first of all, it would help if it wasn't being called a waste, which it's not. But, second of all, you know, we want to look first at places in-state, you know, to places like mines and quarries. But, again, you can just imagine the difficulty when we say to Westchester, oh, we want you to take this mud and don't worry about the PCBs in it, you know, trust us, it's clean, you know. That's going to be--

KATHRYN McGUCKIN: [Interposing] [Crosstalk] even know it's a waste, it's not a problem.

VENETIA LANNON: Right. It's going to be difficult. And, like the Solid Waste Management Plan, I think it's going to take a lot of stakeholders and a lot of, you know, coalition

builders.

COUNCIL MEMBER BREWER: So, is there a coalition of environmental groups and EDC and Port all thinking about this? Or, is everybody thinking about it together?

VENETIA LANNON: Yes. And, I think it's coming to a head as Fresh Kills closes to accept dredge material, you know, as they go through their closure.

COUNCIL MEMBER BREWER: Um, hm.

VENETIA LANNON: You know, then it'll become more acute. But, you know, the representatives are here from the New York Shipping Association today.

COUNCIL MEMBER BREWER: Right, I see them.

VENETIA LANNON: Yeah, there are lots of people from the business perspective, from the environmental perspective. And, it's really, it's just beginning. I mean, your hearing is well timed.

COUNCIL MEMBER BREWER: Okay. Thank you.

CHAIRPERSON NELSON: [Off-mic] I'm

sorry. Instead of solid waste, maybe something like regulated material.

KATHRYN McGUCKIN: Exactly right.

CHAIRPERSON NELSON: It is a challenging name, fearsome name when you hear the other one.

KATHRYN McGUCKIN: Yes.

CHAIRPERSON NELSON: So, yeah, let's get rid of this waste business here. So, Council Member Viverita. Wow, I mean, I have another question. But, we really have to move, 'cause, again, I feel so sorry, again, about Tony having to leave. This has been extremely illuminating.

FEMALE VOICE: - - all of us.

CHAIRPERSON NELSON: Yes. We're going to track you down, especially for our little provincial, little situation as well. And, I'm sure all of my colleagues have a little touch, except the landlocked ones. So, we eliminate that many. But, wow, you know, Professor and Army Corps, EDC, tremendous. And, we really appreciate your testimony. And, it was so incredibly interesting. I think everybody in the room would

just about agree. So, thank you so much.

VENETIA LANNON: Thank you.

CHAIRPERSON NELSON: We'll be speaking to you soon. Thanks. Melissa, thanks. And, again, two experts in the field, the university of probably bedrocks, they're professors. And, we have with us, right now, we have Roland Lewis and Ed Kelly, two people who probably knew all of this already, plus more. And, they can add with their expertise to more information, no doubt about it. Thank you, Melissa. Thank you.

ROLAND LEWIS: Which one works? Okay. All right. Well, good afternoon, Chair Nelson and the Committee. I'll echo the sentiments of everybody that spoke before. I think this is well-timed and incredibly important hearing that you're holding. And, I think it's a start of something very, very-- a dialogue that needs to go on and hopefully action will follow that. I'll just summarize, 'cause most of what was said before is dead on it.

I often have the opportunity and the obligation to try and present the dredge issue

to lay public. And, the best example I always comes to my mind is something that was, in all our minds, that just a couple weeks ago when the mighty Intrepid returned to its berth up on Pier 86, 'cause I remind folks that when it left a couple years ago for necessary repairs, it didn't leave. The press was there. The politicians were there. The brass bands were there. And, it was stuck in the mud. And, you know, fortunately for the museum and for all of us, Congressman Nadler and a bunch of other folks who had a lot of clout with the Army Corps and others, got on the horn and got some-- the dredging material and got the mud removed and the ship was able to get out and get repaired and come back again.

This isn't as true for many other folks. And, we've touched on them a little bit. But, I bring to mind, actually, a small business. It's Schildwachter Oil, up in the Bronx. They're a oil company up on Westchester Creek, a navigable water. They are now, and as you were talking about the large Army Corps budget, which is just not adequate to dredge all navigable waters in our City. They're still waiting for Westchester Creek

to be dredged. And, as they wait, half-filled barges are now going up and down the Creek 'cause they can't fill a barge up all the way 'cause it will scrape bottom. And so, in thinking about, you know, play that out in terms of wasted effort, energy loss, money, exactly, it's insane.

And, it goes for education, recreation. We've talked about Sheapshead Bay. We've talked about the 79th Street Boat Basin. Thinking about the Science Barge. And, you know, think about Caddell Dry Dock. I brought a few of these for the audience. We're having a waterfront conference in about two and a half weeks. And, we're having a session on-- some of the same folks you're hearing today will be presenting. One guy's going to be presenting on a session on mud or on the silt is Steve Kalil of Caddell Dry Dock, who has a, you know, one of the largest repair facilities. He had to pay $300,000 to just test the mud in front of his facility. And then, you know, millions more to dredge it. And, he dredged it before that and as he will say much more articulately and powerfully than I can, he was told by DEC that he did it once, you don't have to

do it again.

But, it turns out, of course, that we came up with the dioxins from the upper Passaic and the PCBs from the upper Hudson are what's polluting him. He's picking up someone else's garbage on - - Basin, a tremendous cost in a very competitive business. He's a small businessman making a go of it in New York. And, you know, he's being harmed by this mud issue. And, it's our, you know, our collective responsibility to help the Schildwachter Oils and the Caddell Dry Dock, 'cause it's as much as we pave the roads and fill the potholes, dredging is our responsibility.

I'd just like to, again, reiterate the cost factor is what is driving this as much as anything else. It's a matter of money. And, you know, in these times, it's hard to talk about it. But, it's an, you know, just as many of the presidential candidates are talking about investment in infrastructure. This is an infrastructure. It's not seen by the common eye. It's not like a big bridge. But, it's an infrastructure investment that must be made to maintain our economy and our quality of life.

I'll talk just very briefly about a couple of other things. And, I'll mention something that was mentioned by the Army Corps a minute ago. The upriver contamination, which, you know, you know, by Diamond Shamrock and GE, costs $25 million a year in extra-- by a new report that Regional Sediment Management Work Group has put out. And, that's Army Corps, Port Authority, all those guys together, $25 million a year in extra money to clean up. So, those folks, who polluted in the first place and are sending that poison downstream to us, have a economic responsibility to us to clean up.

There are solutions that need to be explored. Everything we should put on the table to do things. I'm so happy about what EDC is doing to try and help small business and use the dredge material in various creative ways. But, again, building islands in Jamaica Bay, all sorts of ideas should happen. You asked about Europe, in Rotterdam, they actually expand the port outward. They're building with dredge material to increase the land size of their city.

And, lastly, I was, again, the

point made by Tom, from the Army Corps, about combined sewer overflow, you know. This goes to show you the holisticness and comprehensive nature of what our waterfront is. That's a dredge issue. I actually didn't think about that, but, absolutely. That's now going to be a standard talking point. My eyebrows went up the same time as yours did, Mike. It was exactly right, the solving the CSO issue is so important for things in the waterfront, but it's important for dredge because that garbage is being put in every time it rains, as well, and poisoning our environment.

So, I'll leave you with that. I'll leave you with my testimony and leave you with the invitation to please join us over at the Customs House, the Museum of American Indian - - . I think it'll be a great conference, including a session just on mud.

EDWARD KELLY: I'm going to be there.

CHAIRPERSON NELSON: Thank you, Roland. Please, and Mr. Kelly.

EDWARD KELLY: My name is Edward Kelly. I'm the Executive Director of the Maritime

Association, Port of New York, New Jersey. And, I'm here today testifying on behalf of the over 500 paid members of our organization, which relate to maritime commerce. We are a firm believer in the responsible mixed-use over this waterfront. And, dredging is a paramount issue.

As you can imagine, the waterfront, the interface between water and land is where maritime commerce really commences and begins. Ships leave from docks. They arrive at docks. Recently, the New York Economic Development Corporation had done a survey on maritime support services. And, it had revealed the high number of jobs, the activity of all of these relatively small businesses that are clustered here in our City, along our waterways that support the larger economic flow of international shipping, tanks, cargos, communities, trash, etcetera, that the maritime community handles every day.

Dredging is particularly onerous and important to these smaller operations. Roland, I'm glad you did mention Steve Kalil. You know, I've been working with Steve for several years now. We've gotten him to become a member of

our Board of Directors. He has an issue that could actually prove embarrassing to the City of New York. The new Molinari class of the Staten Island ferries will probably not fit in his dry docks anymore because of dredging issues.

He, as has been mentioned, is on the Kill Van Kull, which is unfortunately a tidal flush area for the Passaic River. Now, I am one of the few people on the planet and a few of my classmates and friends who may be alive because of Agent Orange. So, I kind of have a soft spot in my heart for dioxin. But, nonetheless, you know, it's a bad thing. It comes down. Through no fault of his own, he's never produced dioxin, or had any reason to produce dioxin on or near his facility. But, nature flows downstream and he is the receptacle and because he's a dredged area, sediments tend to drop to the lowest levels. He's faced with a horrible issue. There is no place for him to dispose of these dredged materials.

Now, the problem is that yes, it has been mentioned that HARS and several other areas are around. But, not for partially contaminated material such as he has. And, most

certainly, even for some of the upland facilities, Fresh Kills, etcetera, although there are spaces available, they're already committed to the large scale dredging projects, such as the Federal Navigation Channel, the 50-foot channel, etcetera. So, that they really don't have access to get to these locations, therefore, pushing the cost for dredge material disposal to a very high and a prohibitive level.

To suffice, let me say that government is probably at its best when it can enhance the public good by enabling situations that cannot possibly be achieved by individuals or by individual entities. That being the case, we're thoroughly enheartened with what New York Economic Development is doing to develop the Dredge Management Disposal opportunities. No individual business or entity along our waterway is going to have the political clout or the foresight to be able to engineer such deals as can be done by an entity of the government.

Now, we also would support that there be further state opportunities here, most notably with DEC, which has been, let's say, not

the best partner to work with to get things done. They're doing their job. But, some of their parameters, definitions, etcetera, really should be readdressed, such as reclassifying this from solid waste to some less horrible-sounding thing. You know, if you noticed, we used to say in the business that it used to be dredge spoils. And, I hadn't heard that term all day. And, I'm glad because it gives it a negative connotation. And, to call it solid waste makes it even worse than spoils. So, I think we have to reassess some of our terminology.

And, we've got to find productive uses for what can be a constructive material. This will create opportunities for our businesses, particularly near shore and non-deep water federal dredging projects to be able to afford to participate in dredging opportunities. And, we would hope that perhaps EDC can also help to foster perhaps a cooperative operation here in our City, where we can combine dredging jobs and perhaps get a neutral third party dredging entity involved to help to spread costs.

When a small operator, who once

every, anywhere from two to ten years has to dredge a relatively small amount of material, for him to go up against DEC, to go up against trying to develop a landfill project someplace, it's obviously not going to happen. And, as a result, even something as integral to our Harbor, as the Caddell Dry Dock, which services our tugs, our barges, most of the vehicles and vessels mentioned in our Marine Support Services Study, this guy's running out of space. He has to reprofile. He has to dredge. And, he can't do it.

Now, one other thing that hasn't been mentioned today, and there is in particular as a possible source of resource for Caddell and several others in the Kill Van Kull, in particular, and Arthur Kill, there has been created, as a by-product of the 50-foot federal channel, the states have also created a Bi-State Dredging Fund. That fund is a bi-state fund with New York Empire State Development Corp. and it was the equivalent in New Jersey. It's currently being held by the Port Authority. We have been absolutely and totally frustrated with getting any of that money to be used for the purpose it was

specifically designated for. And, we would appreciate any help on that front as well. We have repeatedly gone to Empire State Development and we've been over to the Port Authority. And, we get this. And, we've been told, you know, so, we really are looking for how we can free up that money. There's 20-some odd million dollars in that fund. We have not been able to accurately determine. It's between 20 and $23 million that we've been told is in there. And, we hope that that also can be put to productive use to assist primarily the small business owners that are addressed in our Marine Support Services groups.

So, in closing, we welcome government intervention because these smaller business are incapable of wrestling such huge economic, environmental issues without some type of an intermediary and perhaps, you know, not me to say and I don't give you the budget, but EDC may seem to be the best place for this to happen. And, we're very much encouraged that they're grabbing the bull by the horns and starting to move some of this along. Thank you.

CHAIRPERSON NELSON: Wow, thank

you, Mr. Kelly, for bringing up that resource, too. Now, we can start looking into. As a matter of fact, Kathleen Wah [phonetic], from the EDC would like to say something. I think you have to go up here formally to do so.

FEMALE VOICE: I believe that was what he was talking about.

CHAIRPERSON NELSON: Oh, okay. Oh, this part. Oh, that's right, yeah.

KATHLEEN WAH: First of all, I should tell you all that before I started working for EDC, which I just celebrated my third anniversary, I was the Regional Dredging Coordinator for the DEC Region Two office. So, that's how EDC stole me away. Sometimes, they're kind of sorry they did because now they have no one on the other side.

But, the idea is that there is a Bi-State Dredge Fund. There is in excess of $20 million dollars in the New York portion of that fund. That fund is what paid my salary when I was at DEC. But, the personnel portion of it, the funds expired. The idea is that we, at EDC, have actually had internal discussions about the

possibility of approaching the Port Authority and ESDC about the ability to manage those funds. And, the reason that we have thought of that is that we do have dredging expertise. We how have a Dredge Material Management Program. Neither one of them has dredging expertise. And, neither one of them has a Dredge Material Management Program.

And, therefore, when someone wants to use those funds, nobody knows what to do. Nobody knows how to get them. There's no protocol. There's no nothing. So, the fact that I'm hearing today that Ed would actually support EDC being able to manage those funds is actually a benefit to me to hear that.

ROLAND LEWIS: If I may add, on the panel, there will be a representative from the Port Authority and also Chris Ward, the head of that Port Authority will be there at our conference. So, we can all get together, cut the deal right there on November 13th.

CHAIRPERSON NELSON: That's some great information that came out of this hearing.

ROLAND LEWIS: Um, hm.

CHAIRPERSON NELSON: Okay. Now,

where do we go with it? We'll have to follow through with this from this Committee through input from you waterfront geniuses. That'd be terrific. And, Council Member Brewer has a question.

COUNCIL MEMBER BREWER: Thank you very much. I think Kathleen deserves all the credit for that. So, congratulations. My question is something similar to what I asked before, is there anything technologically going on in other countries that could help us dispose-- what we heard earlier was that the thought of this cost benefit is going on, thanks to EDC. But it's expensive to try to think of some of these technologies that could convert. That's question number one. And then, also for the waterfront conference, Roland, do you have some of the environmental groups also coming so that they can help smooth the way with--

ROLAND LEWIS: Yeah--

COUNCIL MEMBER BREWER: -- Mr. Grannis?

ROLAND LEWIS: The Baykeeper's coming and, as a matter of fact, Jim Tripp, from--

COUNCIL MEMBER BREWER: Okay.

ROLAND LEWIS: -- Environmental Defense is moderating the panel--

COUNCIL MEMBER BREWER: Perfect.

ROLAND LEWIS: -- on our dredge.

COUNCIL MEMBER BREWER: All right. Go ahead, Mr. Kelly.

EDWARD KELLY: I would say that yes, there are active and productive undertakings in such exotic foreign locales as Norfolk, Virginia--

COUNCIL MEMBER BREWER: Um, hm.

EDWARD KELLY: -- who is--

COUNCIL MEMBER BREWER: That is definitely foreign.

EDWARD KELLY: -- who is a direct competitor to this port--

COUNCIL MEMBER BREWER: Correct, that's--

EDWARD KELLY: -- that have huge dredge materials to reconstitute and expand a 543-acre terminal island, Craney Island, that will be in operation very shortly and will compete directly with this Port. Also, they've got the -

- Port-a-Port, courtesy of the U. S. Navy. You know, they maintain those depths because the submarines have to access in and out. So, they have a very low cost of operation for dredging. But, using dredge materials, yes, throughout the world and as nearby as Hampton Roads, Norfolk, Virginia. This has been used to reconstitute islands, to expand port facilities. It's been used to create golf courses, parking lots, etcetera. I think a few of the uses were mentioned here. And, that's happening all over the world.

COUNCIL MEMBER BREWER: Okay. Thank you.

CHAIRPERSON NELSON: Wow, sometimes this Committee feels like a kid in the candy store that it's like, it's there. It's there. How do we get to it? Purchase it? Do we break the window and take out the M and Ms or what? But, this is really-- some things are really evolving here, which is terrific. With no more questions, I suppose and no more statements, really we thank you so much. And, the panel before you, which was very, very interesting information, which will be

utilized. We can go forward with it and have another hearing on this. And, see what we can come up with in the forms of trying to pressure organizations, governmental, to work within the framework and help our economy and our City, as a whole, recreational, as well. So, thank you so much, gentlemen. And, with no further questions--oh--

ROLAND LEWIS: No, no, I'm good.

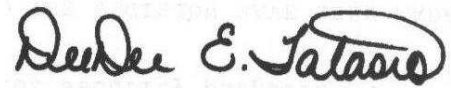
CHAIRPERSON NELSON: Oh.

ROLAND LEWIS: Thank you.

CHAIRPERSON NELSON: Thank you. With that, the Committee on Waterfronts is adjourned. Thank you.

C E R T I F I C A T E

I, DeeDee E. Tataseo certify that the foregoing transcript is a true and accurate record of the proceedings. I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

Signature 

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