STATE OF NEW JERSEY

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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NEW JERSEY CLEAN WATER COUNCIL :

A RESILIENT NEW JERSEY - ADAPTING :

WATER INFRASTRUCTURE TO THE :

"NEW NORMAL" :

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Location: Department of Environmental Protection

401 East State Street

Trenton, New Jersey

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THOSE IN ATTENDANCE:

PAMELA GOODWIN, ESQ. - NJCWC CHAIRWOMAN

BOB MARTIN - NJDEP Commissioner

MICHELE SIEKERKA - NJDEP Assistant Commissioner

CHAIRWOMAN GOODWIN: Good morning ladies and gentlemen and welcome. My name is Pamela Goodwin and I am a partner at the law firm of Saul Ewing. I am also a citizen member of the New Jersey Clean Water Council and I serve as Chair of the Council.

The Clean Water Council of New Jersey was established by Statute in 1967 which means that the Council has been in existence now for 46 years.

The Council's charge is to serve as an uncompensated advisory board to the New Jersey Department of Environmental Protection.

Our mission is to improve the State's Program for controlling water pollution. We are made up of 17 members representing a broad spectrum of state interests.

I will introduce you to each of our members after we have had the opportunity to hear from the Commissioner, and Assistant Commissioner Siekerka. We are required to hold annual public hearings on topics of our choosing which

facilitate our ability to advise the Commissioner.

Normally these hearings are held in late fall, but in today's circumstances you can see we have chosen a beautiful day in spring. Normally, this is when we would be reporting back to the Commissioner. Why then are we here today? Because in 2012, at the request of Commissioner Martin and his staff, who were then very much engaged in responding to the aftermath of Hurricane Sandy, the Council determined that it would defer its public hearing until now.

The purpose of the deferral was to allow the Department to fully focus on the task at hand, as well as to provide a forum for the Department and the public to later sort through the environmental and economic implications of this storm, including the availability of Federal funds for controlling water pollution and protecting water quality in the future.

We have entitled today's hearing a Resilient New Jersey Adapting Water Infrastructure to the New Normal. By this we are

hoping to gather testimony that builds upon the records developed by this Council in public hearings over the past four years relating to climate change, water infrastructure deterioration, and financing options for water



infrastructure improvement.

There are many of us who do not believe that the impact that Hurricane Sandy had on our water supply systems was an aberation, but rather a harbinger of what the future may hold if we do not use this opportunity to assess, adapt and rebuild for the future, not the past.

Commissioner Martin and many of the members of his staff have been working around the clock in the months immediately following Hurricane Sandy restoring the State to normalcy. And even now, six months later, in the midst of determining what "normalcy" means, this remains the number one agenda item for the Department and its leadership. With that as an introduction, it is my great privilege and pleasure to introduce you to the Commissioner of the State of New Jersey, Department of Environmental Protection, Bob Martin, who will set the stage for where the

Department is headed on these very important issues. Thank you commissioner Martin.

COMMISSIONER MARTIN: Good morning. How is everybody? Thank you Pam. Pam summarized it extremely well. Our focus has been very much on post Sandy, both recovery and rebuilding, and



again, on behalf of the Governor, I welcome all of you today and I welcome the work that's done with the Council, focusing on water quality issues overall in the state and to focus on those is a priority as we move forward here.

I want to thank both the New Jersey Clean Water Council and the Water Supply Advisory Council for your service to the state.

I appreciate you guys rescheduling this event from Sandy from post Sandy, we were buried. We still continue to be buried, our focus of this organization has shifted almost entirely on issues around Sandy. The rebuilding of this state, the recovery of this state is just a massive effort. You have heard the Governor out there talking about a constant basis, and there's reason for that, we still have a lot of work to

to be done and I am going to summarize the damage and our focus going forward.

You know one of the things that we have seen, you know, in all of this is that our aging infrastructure in the state, our water infrastructure both has lacked, both historic -- over historically adequate investments in that infrastructure. That infrastructure during the



storm. And after the storm, has indicated the vulnerabilities we have in this state, both the water supply and the wastewater treatment aspects of infrastructure in the state. It also demonstrated our storm water system vulnerabilities in our communities. So we have a lot of focus -- we have a lot of work to do, we have a lot of focus of this organization around those key topics. And that's where the work of Michele Siekerka and her team are going to be over the next two years, very heavily how we shape around both vulnerabilities and how we focus.

So when we start talking about how do we tackle this problem, we are clearly going to be talking about vulnerabilities. We are

going to be talking about long term. How do we create resiliency for the infrastructure of this state? It is an important part of our planning and our efforts overall making this happen.

Our approach also has to be on a holistic approach. We can't just focus on one piece of the problem. We have to look at all the pieces. You've heard me talk about that since day one; both a holistic approach, asset management,



long term capital investments and the infrastructure. You are always going to hear me talk about that. That's again, prior experience and prior acknowledge that I have about infrastructure. I believe that those things require both the investment and the focus as public policy, long term.

Let me first turn to super storm Sandy and the impact it had to the state. Obviously, massive devastation to the state overall. Again, we continue to focus on fixing those problems and resiliency of all infrastructure across the state. While today we are talking about resiliency of infrastructure

around water, I mean everything from roads to homes to businesses, to buildings, to public safety organizations and infrastructure across the state is extremely important.

More than 346 thousand homes were damaged from this storm. You know, things like even 58 homes washed from, you know, Mantoloking into Barnegat Bay, just staggering, that thought of those kinds of things happening. Thousands of families have been displaced. Over 1400 boats were either abandoned or were sunken in a lot of



places across the entire state.

All of you saw the pictures; boats sitting in the middle of roads, sitting on railroad tracks, sitting in people's yards, sitting on people's decks. All the rest of it. The entire coastline of beaches experienced significant erosion.

So again, major problems along the coast. Nearly 100 wastewater treatment facilities around the state were damaged and more than 400 water supply systems had challenges; community water systems had challenges in the state. While the vast majority of those were power related it

still created havoc for us trying to manage through those problems at the time of the storm and shortly after.

The damage for all water infrastructure exceeds 2.6 billion dollars. A staggering number of just one portion of the problem of the state has challenges on rebuilding the state going forward.

Before I go a little bit further on some of the issues around it, I want to talk about some of the steps we took kind of before, during and after the storm.



Before the storm we focused on a whole host of things; updating emergency contact lists for internal and external communications, testing remote access and communication systems to ensure they are on good working order. Placing operating emergency response personnel on call and review emergency procedures; both on the state and the water providers and wastewater treatment plants. Ensuring that all supplies including water treatment chemicals fuel were stocked and secured to maximum extent as possible

for all these facilities.

We also asked all these facilities to test our auxiliary power sources and generators to ensure that they were working properly. You know, even with all that we still had power issues that were unprecedented.

Again, one of the things we realized, at the time was that while a lot of these facilities had generators, we also expected that most facilities would come back on the grid within a few days. What we found out was a lot of them supply of fuel in lot of cases was three days, five days or seven days. Guess what? A lot of those facilities weren't back up in, with



external power from the grid so we had to get into a panic mode of having to move diesel fuels and other fuels around the state to help the facilities keep them up and running

We reached out right after the storm to 369 of the state wastewater treatment facilities to determine their impact that they had had and offer of assistance. We also sent out teams out to multiple facilities either because we didn't get a response back from them, which we

realized they had washed out completely or that they would try to fight fires within their own organization, trying to keep the facilities up and running. So we sent teams out there to help support them and help back them up during or shortly after the storm.

What we realize that there were 94 wastewater treatment plants in 21 counties that had impacts because of the storm. Impacts included inadequate treatment, the need for fuel or generators due to power shortages and broken sewer mains or other operational issues. In many instances, impacts extended beyond the treatment facility to pump stations and wastewater collection systems.



Our most significant impacts were Passaic Valley Treatment Sewer Commission Authority and Middlesex County Utility Authorities, Sayreville Pump Station.

I visited both those facilities in the short hours after that, after the storm realizing that both facilities had been completely flooded out. PVSC's operations pretty

much had been wiped out including most of their buildings had been flooded, more importantly or more damagingly was the facilities themselves had been completely flooded out which basically stopped all operation.

PVSC serves over 1.4 million people and manages sludge for more than 100 in state and out of state wastewater treatment facilities

The impact resulted in release of over hundreds of millions of gallons a day of raw sewerage, both Passaic River and the Raritan River and some of the other rivers all around that area. So again, the devastation was significant at that point in time.

Our challenges were to try to make sure that if that sewerage, besides the damage it was causing to the rivers and ecosystem. That



those were not backing up into homes and systems in so many communities. So our challenges were staggering at the time trying to work with those facilities to make that happen. What you saw was a very collaborative effort overall; between those facilities, the State, EPA, Army Corp of Engineers, everyone jumped in, FEMA. We all

jumped in together to try to keep the facilities up and running after the storm.

There still remains issues in 11 municipalities on specific problems with their systems. We continue to work with remediation efforts on those facilities right now.

On the storm water front, we also saw significant challenges as well. Of the 82 hardest hit towns, about 30 needed repairs. Still 20 are still doing assessments on those 20, those 20 towns. The impact on those storm water systems in those towns is some of the problems we are having and some of the flooding, some of the towns along Barnegat Bay and other areas we are seeing right now. Again, some of it was simply sand stuffed in there and other debris, some cases the water and other impact of the storm has significantly damaged those systems.



So it's million dollars worth of work on those as well that have to be focused on. As New Jersey moves forward to rebuilding these systems and infrastructure, it is essential to rebuild with a vision of resiliency and

reliability for future catastrophes. You are going to hear me say that a lot. Resiliency for the future. That is the vision I have. That is the vision that the Governor has.

Right after the storm the Governor said to me we've got to make sure that we could find a way to build in, build in mitigation standards that we can build in resiliency for the long haul for these facilities. It's bad that it happened once. We have to look to the future to make sure it doesn't happen again or at least minimize the damage the next time around if it does happen for these kind of storms.

Rebuilding is the priority. The Governor has made that clear. We are going to rebuild this straight and a big piece of rebuilding the State has to be rebuilding the infrastructure within the State.

Michelle's team of Division of Water Quality will provide oversight for wastewater



treatment facilities. It's been conducting outreach, investigating funding options for those facilities, developing new guidance that will aid in rebuilding New Jersey's water infrastructure.

We have been working to expedite permits and treatment works approvals. So again focusing with all these facilities to make sure we get them back up and running, and also trying to find ways for money, from both the Federal Government, and leveraging EIT and other infrastructure in the state, financial infrastructure in the state to make that work.

Let me briefly talk about some of the other things we have been doing that focus on water quality overall, and this deals with water quality in our rivers, our streams, the bay areas overall. This focuses on debris removal. After the super storm Sandy we focused on debris, terrestrial debris was we called it, right after the storm. That meant getting debris off the streets. I was driving my team crazy every single day and said get the debris off the streets. I was screaming at night and day. The debris was a critical element of making sure, from a health and safety issue in the state we



got that debris off the streets.

Jane Kaskinski, my Assistant

Commissioner was ready to pull out her hair. I see Jane in the back. Jane I want to give you a hand. Jane worked with all the towns to coordinate that movement of debris overall.

That was a massive task, and in three months the State moved eight million cubic yards of debris off the streets. That is staggering, compared to any other disaster before, New Jersey made that happen overall. I give the Mayors credit, they stepped up. The local towns stepped up, they delivered on that.

The second phase of what we are working on right now is what we call wet debris and that's dealing with the water quality and helping deal with some of the flooding issues and some of the other issues we are seeing overall. Wet debris is all the debris that is washed in from the storm.

As I mentioned earlier Barnegat Bay had 58 houses wash into it, eight of those houses are pretty well intact, guess what happened with other 50? There's pieces all over Barnegat Bay. Besides, there's refrigerator, cars, microwave



ovens, pick whatever you want it is in Barnegat

Bay.

FEMA also estimated there's up to ten million cubic yards of sand that washed into Barnegat Bay as well. Barnegat Bay and some of the lakes, coastal lake, the rivers around there, Shark River. Other places sand has been pushed everywhere besides debris into these, this helps contribute to some of the flooding on the back bay areas of some of these towns; it obviously effects water quality long term. So we need to get that debris out. It also is a major public safety issue. Boating is very big on a lot of these rivers, these bay areas we have to get that debris out overall, so we continue to focus on that as we move forward.

The clean up of the waterways, we have hired three contractors, starting from Bergen County all the way around to the Delaware Bay, all the way up to the Delaware Memorial Bridge. So the entire coastline. We've got companies going and picking up debris and worrying about how we are going to move that sand. Hopefully in the next few weeks you will see the major houses taken out of the water and

we are now working with the Army Corp of Engineers with how we are going to move that sand from Barnegat Bay, hopefully getting a lot of that put back on the beaches as we move forward. We expect the majority of our waterways to be open this summer, and we are asking everyone out there to use common sense and caution when boating. So again, we are very optimistic about the work that is being done, but again we are asking people to please be cautious and focus on what's right, the right things to do out there. Army Corp of Engineers clearing out the intercoastal waterways, Department of Transportation is identifying the state waterways, channels that need to be cleaned out. And DEP we are directing the overall operation to make sure that clean up occurs overall.

Our goal is to have 75 percent of the waterway debris removed by June 1st. Again it is a hefty task, we continue to focus on it and we expect our contractors to keep pushing to make that happen and they are working seven days a week to make that happen.

Let me talk about shore protection as well. As I mentioned earlier we talked about

beaches and all the rest of that. Let me first talk about ocean water quality. Ocean water quality remains very good. One of the challenges that we continue to have is debris that is in the ocean as well washed up from the storm.

We continue to work with all the towns and keep the beaches clean this summer but we do expect some of expect some of that debris to wash up over the summer, but the water quality remains excellent which is good from our point of view. Again. We are going to continue to monitor the beaches and work with them to make sure that's clean. One of the biggest challenges we have is rebuilding the beaches across the State.

The one key thing that this storm showed us was that, you know, an engineered beach with dunes protects towns, protects home, protects businesses, protects infrastructure.

We learned that from this storm. We knew it before this proved that fact. So from our point of view the Governor has made it crystal clear; we are going to build a full coastal protection system from top to bottom. Along the entire coast.

Congress and the President has approved over one billion dollars to rebuild that entire coastline. That is absolutely critical for us long term. When we talk about rebuilding infrastructure, water infrastructure and other infrastructures we have to protect that infrastructure long term. To be able to do that we have to have a coastal protection system that includes injured beaches, that includes dunes in the right places, but needs to then be maintained long term.

The Governor is committed to that. I am committed to that, and working with the Army Corp to get that plan together to use that money that Congress has provided to us to make sure that gets done going forward.

As New Jersey moves forward to rebuilding these systems and infrastructure overall it is essential that we rebuild with increased resiliency for the future catastrophes. I have said it before and I am going to keep saying it "resiliency" is the name of the game that we are going to continue to focus on that.

Rebuilding will remain our priority, we are going to continue to work closely with the



Governor's Office of recovery and rebuilding. Mark Forsan, the Executive Director to that program, Mark is the overall quarterback for the State, for the State on rebuilding the State, Mark works directly for the Governor and is the quarterback for that state. I work directly through the Governor, and we are working together as a team to make sure all the programs work together to get the money for the Federal agencies to get the job done, but also at the same time, is a coordinated effort overall so we are doing all the right things, rebuilding infrastructure and rebuilding the State as we move forward.

Three areas that I am responsible for, for the Governor as we move forward around rebuilding, including environmental infrastructure, work overall which includes primarily the water infrastructure. Michelle Siekerka is my lead in that area.

I also am responsible for natural and cultural resources in the State to make sure

rebuilding everything from habitat to parks to other areas of the State. And I am also responsible for statewide hazard mitigation.



Again looking at how we are going to do multiple programs on that front. Everything to support elevations and a bigger part of that is to support the buy outs in several parts of the State. The Governor has already talked about we are going to spend at least 250 million of buy outs on homes that are in the areas that need to be bought out that have either been substantially damaged or continuously have damage over a long period of time, that should be bought out certain areas. We expect to buy out at least a thousand homes along the coastal area or areas that are tidally flooded.

Again, part of the work that's going on with Michelle's team will be new guidelines for auxiliary power, reconstruction and emergency response planning and implementation.

We are working with the Federal and State agencies to maximize funding for water utilities to address technical issues and

facilities to turn into a more resilient state overall. Environmental infrastructure trusts will be critical to this overall. Dave Zimmer, Executive Director of that program is absolutely critical and part of our team as we move forward.



We are making sure that we are working together very closely to make that happen. EIT over the last 25 years has had over a thousand projects totaling over six billion dollars worth of water quality and public health related environmentally infrastructure projects.

We see numerous projects coming out of this very specifically related to wastewater treatment plant and overall water supply.

Again, we plan on focusing on CSO's as well which play a role in the amount of water going into wastewater treatment facilities and again focusing on clean water to make sure that is happening. Rebuilding New Jersey wastewater infrastructure that's reliable, resilient and cost effective to the future natural disasters is dependent on implementation of sound, asset management practices.

Sound asset management practices, in

addition long term capital investments. Those have to happen long term. I plan on working with the communities, municipalities and all the water supply and wastewater facilities across the State as we look to make sure those things happen long term.



You have heard me say it before and again I emphasize the vulnerabilities we are experiencing now in this last storm. Again we don't want those repeated and I hope we don't see another Sandy any time in the near future but again if we don't plan for those, if we don't prepare ourselves, we expose ourselves to that risk in the future if we don't.

In closing, I want to thank all of you for your focus on it, I want to thank the Council's focus on their work, I look forward to hearing your testimony and getting input today and getting a report back to you on this critical issue. Michelle Siekerka and her team will be working with you as we start out the future and Michelle will talk to you in a lot more detail with the things we are working on right now. We

are working with EPA, we are working with FEMA,, we are working with HUD, and a lot of agencies to do a lot of the planning necessary, to make this happen.

We must rebuild this State. We must rebuild a resiliency. So I need all of you to help us keep that focus for DEP. That is my commitment to you and that is my commitment to



the State and that is the Governor's commitment to the State. Thank you very much.

CHAIRWOMAN GOODWIN: Thank you once again Commissioner Martin. Assistant Commissioner Michelle Siekerka needs little introduction in this room, I am sure. She has served as the State's Assistant Commissioner for Water Resources since February 2012.

She came to the position by way of the Department's growth and Green Energy Division and while water regulations were relatively new to her at the time she has proved a quick study. While some experience trial by fire, I think it is fair to say that Assistant Commissioner Siekerka, herself a lawyer, has been tried by water.

Michelle will provide you with an understanding of how the State's water resources were impacted by the storm and lessons learned for the future.

It is my privilege to introduce to you NJDEP Assistant Commissioner, Michelle Siekerka.

MS. SIEKERKA: Thank you for your time and attention this morning on these really



critical issues that we are facing with the State. Before I start, I want to do a couple of introductions, because I have my team in the room today and without this team we couldn't be doing the awesome things that we are doing. Michelle Putnam is my Director For Water Quality. Fred Sickels is the Director For Water Supply, and Jill Lepody toward the back is the Director For Monitoring. I want to thank them because I made their lives a living hell for the last six months so their support has been tremendous.

We picked this title today because this is really the key issue facing us. Commissioner Martin used the word "resiliency"

numerous, numerous times. We are living that word, breathing that word, swimming in that word and the key to that is good asset management.

What I would like to do is walk you through where we were, where we are going and how we are going to get there.

Where we were on October 28th, we had a lot of heavy initiatives on our plate already at that point in time. We were dealing with the concept of comprehensive water resource management. What would it mean in the future to



take a more holistic comprehensive approach to deal with our water issues throughout the State of New Jersey? Barnegat Bay, the Governor's ten point plan, we were a few years into executing on that plan and we continue to execute on that plan. Some of that execution has changed a bit given the things that we experienced. CSO's, a tremendous stressor for the State of New Jersey. We were ready to roll out our CSO strategy for the State, which right now we're back in action moving forward with the first state draft permit coming out later this week.

The Water Supply Plan, Fred and

his team have worked feverishly on the water supply plan. While it is not public yet, the documentation and the information gathered through the process helps to inform everything we do everyday. Asset management we will talking a lot about. The integrated report in C1 Stream, Jill and her team have worked tirelessly with addressing the stressors to our waters, and the big question; how do we address that, to TMDL or not, are there better ways to do it? And then as we all know, on October 29th we had a nice -- an amazing situation hit us by Sandy. And Sandy



truly exposed the infrastructure's vulnerabilities throughout the State of New Jersey.

Yet, what it did do is reaffirmed that our priorities, all the things that we were working on, up to that day, it reaffirmed that we were absolutely in the right direction for the future of New Jersey, and all we needed to do was shift it into the paradigm of post Sandy and we could still accomplish a lot.

We learned that CSO's and reducing

infiltration and inflow are going to be key to resiliency in the future. OEM under asset management, moving forward, identifying criticality, emergency response planning and storm water issues.

I want to give you a sense. The Commissioner told you about the damages, 2.6 billion dollars overall. We conducted an extensive survey and assessment of our facilities. Numbers are broken down a bit here you can see 1.7 billion dollars is what is predicted for making our systems more resilient for the future. That resiliency, that mitigation could be anything from just some new alternative



entering or a new back up generator to flood walls and very significant flood proofing as part of the recovery.

I want to walk you through some lessons learned and we certainly had a few internally and what we experienced in the wake and in the few weeks following the storm. Resources; we learned right at the beginning that data is key to a recovery. Data is key to a recovery. While we started Thursday before the

storm in gathering information and updating emergency information and checking remote access and things, again you never thought that people would be without their ability to communicate and everybody being on personal cell phones out in our industry as opposed to being able to be more readily able to pick up a phone right at their facility, you know, having private phone numbers and home phone numbers and way to communicate was extremely important.

You know we went through some role definition, we are with water quality in people in the state. We are about making sure that supply continues and making sure that we are protecting waters. But what happened during that



time is you know we had to take on many different roles, we became major trouble shooters during that time.

We were a single line of communication, our facilities. We mand the rock 24/7 for two-and-a-half weeks which was tremendous and again thanks to my 400 plus employees and I have to tell you 400 plus

employees we had just shy of 300 who stepped up to that effort to mand the rock for 24/7 for three weeks. Amazing folks.

Communications I touched upon that a little bit but we need to improve the communications we need to make sure that we have more resilient two way communications, not just among ourselves and the industry, but all the other people who came to be important part of that recovery immediately. All of our trade associations who stepped up and they reached out to private industry who stepped up.

It wasn't just about the State being there, it was about manning this huge force of business people who were out there helping each other. Communications in and amongst agencies how we communicate our own OEM, how we



communicate with each other. All of those communications we learned that we have opportunities to make them even better for the next time.

Then we have the primary threats to our facility and what we learned. Power loss was significant. We had facilities who were down two

and three weeks. We couldn't move fuel around the State fast enough. Flooding and inundation of systems. It is amazing when you see pictures of Army Corp and EPA folks literally in dive tanks down in the wells of some of these treatment facilities, you can't imagine unless you saw it firsthand.

One of the biggest concerns that I have in terms of a primary threat on how we address this and move forward is, taking a business as usual mentality. That is something we absolutely cannot do. This is a new paradigm this is not going to go away. This is not a year from now we are going to step back and say we will never get that again. We have to make sure that we are vigilant and keep our vigilant stuff as we do our rebuild. The biggest challenge is physical; where is this money coming from? I



want to thank John who is here from the Federal Homeland Security. He is one of the key liaison from the joint field through the recovery. He and his team are helping us coordinate Federal funding so we can maximize the federal dollars

that are out there.

I'd like to explain how go through this. How are we rebuilding in the State? The federal framework and this is new framework for dealing with the disasters that the Federal Government is using for the National Disaster Recovery framework. Within the framework there are six recovery support function work teams, the RSF's. As Commissioner Martin mentioned, he is responsible for aspects of that. So of the six, one of the six RSF's is infrastructure. In one of the infrastructure are three components; there is transportation which Commissioner Simpson heads. There is energy, which President Hanna heads, and then environmental infrastructure which is the catchall of everything outside of that, that Commissioner Martin leads for the Governor and he's asked me to lead right now. And then we have subgroups within that working on numerous issues. We have biweekly coordination



meetings with our partners at the Federal Government. We have weekly meetings as a team and we have numerous layers of how we are trying to do things, and we have created sub core groups

to work on guidance, and I will give you a little -- actually here, we are working on resiliency standards, we are working on auxiliary power, asset management and emergency response plans. That key data I was talking about before, we are working within our own little world of environmental structure but also across DEP and across the State with the OIM partners, those who are responsible for our technology around the State on how we can have better data graphs for things. We are addressing those power issues and the fuel distribution issues and working on a lot of cross-agency issues and among the recovery support groups, but also all of the state agencies as well.

What we have done so far in our small corner of the world, we have conducted eight round tables, this was predominantly in our water, wastewater arena, and water supply and storm water, but like all water, because we also, within environmental infrastructure we have solid



waste and we have landfills, and the chemical refineries. Our infrastructure is bigger than

water, but today our focus is on water.

In the water world it is discussed on damage assessments, the status of rebuilding, what types of mitigation measures and how we are going to fund it. When PBSC went down, you heard those statistics earlier, it is a major -- not just what they do in terms of water treatment side, but when it comes to sludge management. We had to step up and find other ways of dealing with sludge and be able to send it and process it in other ways. We learned that we have some capacity issues in that regard in the state that we are trying to address.

Going forward, when we address how are we going to address these threats from Sandy. Phase one is recovery. I will spend a few minutes now digging down into power loss and near term actions around that.

We are working on standards. Right now our rules talk about, and they are general and this is why everything that I talk about now is going to be guidance documentation. We are not issuing emergency rules. We are honed



through regulations and are comfortable with the

fact that our authority exists in order for us to send some guidance out that interprets our rules in a way that will make us more resilient. You can anticipate that within a next few weeks to a couple months the guidance documents will be coming out. We have been working long and hard on them and getting feedback as we go along and have the opportunity to further feedback as we continue.

On this piece of it on the power side we realize when we say, you know, enough energy to ensure continuous operations, that is what the permit requires, continuous operation, what does that really mean? And we were always of the impression that we thought, well, 12 to 24 hours would be adequate. And when we go out and do our compliance visits, that would be about what we would be looking for and we realize that that is no longer the case. With that comes tremendous challenge because we can't stock pile fuel. You can't, you are going to create hazardous issues and the issue of moving fuel around the State.

So we are looking at different ways

to address that issue albeit it can be in a regional area where there are certain depots set up more regional collaboration, but also in terms of backup generation and alternative generation. We are trying to be very open minded and very broad in our trigger backup generation. How do we get folks off the grid to make the grid more resilient in of itself? How do you take a huge plant like PBSC make them more resilient, maybe get them off the grid? Sludge facility perfect candidate for combined heat and power. Why don't we think of things like that? Those these are the types of strategies that we are looking for in terms of resiliency for energy in the future.

Flood impacts, we know Sandy what was very interesting that the facilities got inundated with flood waters because of the surge. The surge was unprecedented. I don't know you would have really -- for what occurred, the surge. We know the biggest vulnerability is the flooding regularly we experience in the State of New Jersey. We know in Irene the type of flooding that we experience and how that impacts.

The standards we are looking at interpreting our standards through the

construction standards to ensure that we are addressing proper areas for flood impact, whether it be elevation of motors and pumps and the generators and making sure that anything that is vulnerable or is important to keep the facility in a constant state of operation is elevated so it is not in the base.

It is interesting, everybody goes around and says where are all the motor controls and everything? They are 40 feet down. Well when the 40 feet down got flooded 40 feet up, we had significant challenges.

Different ways of the facilities hardening their assets on the inside. The other way is hardening their assets from the outside. Some situations where maybe you have a facility that has more of a campus setting, something like a flood wall makes the most economic sense. Though you might say oh my God, a flood wall? Think about it, if we have 55 separate buildings running a facility, and if you just look at each one of them individually as its own component everything you miss in the between, like the access, the ability to get in and out, the ability to move things among those buildings.

It's a situation, I guess like that, we have to make sure to be more comprehensive and look at some of these facilities as a campus versus their individuals buildings.

This is an example of some of the things that we are we are working on in that regard. Addressing threats from Sandy and other future events. When we talked about more so how do we become more resilient for the future? We see we have some really tremendous opportunities and this is where I come back and I say I was so happy to see that we were moving in the right direction with all the really big initiatives that we had up on October 28th, they are the ones that we need to make us more resilient as a state.

I think that Sandy offers us the opportunity maybe to bring new attention, some more financing and some more sense of urgency to those things, that on October 28th those people said yeah that is a nice to have but how are we going to get there. And now the sense of urgency says we must get there and how are we going to do

it. We want to take full opportunity of the opportunity that Sandy provides us in that



regard. Asset management, we had one or two prior councils on asset management. I want to thank all of you because what you have provided to us in the past on asset management helped to inform the documents that were the plan that you were getting ready to release the week that Sandy happened

I want to walk you through some of that and remind us all of the importance of asset management and why it what it means even more right now. We have to talk about long term benefit and the thing we find challenging in government. I found it coming from the outside, what I found very challenging in government is the idea to be comprehensive. You know what, comprehensive planning takes years to accomplish. You know, it's all about the plan, great, but you know what, planning means nothing if you can't execute and implement. Our goal is to get executing and implementing.

So most of you know the assets of the State and I apologize because our water

systems number is a little high, it is more like 604. But most of us know the assets that we have in the state, you lived around these assets and



are familiar with the numbers and the distribution between publically held and privately held and some of the challenges that come along with that. You also know, because you live in this world, that there are numerous regulatory authorities of that their hand in asset management or need to have their hands in asset management for us to be successful. We have been working across agencies with our partners at BPU at DCA whether it is how to finance this, regulate it or bringing it together. DOT, great example, DOT is going to be rebuilding a major roadway. How about the infrastructure that is underneath it? How do we look at DOT's long term plan, their capital improvement plan and how do we align our ability to make some of our infrastructure stronger and an even better asset management in tantum with their planning? We know that the grades infrastructure in the State of New Jersey are

poor. You know, I have twins who are juniors in college these grades wouldn't make me happy. And as a state they don't make us happy, and again, it is an action for us. That said, we also know that New Jersey is not at all unique in this



regard. You look at reports for asset management and just remember we are one of the original 13 colonies remember when we rebuilt our pipes, states are a little younger than us in the game, they will be right behind us shortly, but we definitely have a lot of work to do. And the numbers are staggering, 45 billion dollars, you know when we are in an economy like we are with 2013 with all the issues facing us, it is a daunting task to get it together.

We know that our infrastructure is ailing, it is aging, we know that we have these assets and the fact that they are not in front of us. You know, you see a bridge, you see a bridge when it has an issue, you see a roadway when it has a pot hole. You know when we know about the vulnerability about the water pipes? When a major trunk line in Monmouth County goes down and you are in the process of having to repair it,

and our friends of New Jersey Water, some are in the room today did an outstanding job of getting that trunk line back up very, very quickly.

We know Fred, right, Friday afternoon comes that call that there is some water main break and Fred's nightmare comes to



the rouse where he hears where it is, oh my God, I hope we don't have to bypass to the X pipe, you know what that means? It will be okay, Fred, it will be okay. Asset management does provide us the effective mechanism to get the authority to do it, I think it is just the will to push it, and again, I think the urgency of right now will get us there.

The absolute key is getting to the first phases of asset management which is really that condition assessment and criticality analysis. This is where we are going to be pushing, this is where you are going to see the Department pushing on these first phases, and to the extent that we can incorporate that into our permits in a way that can be, you know, fiscally responsible, and to the extent that we can bring

some of these federal dollars to that process, that's what we are working on trying to do.

I mentioned interagency, how do we marry our authority, it goes beyond. I know Dan Kennedy is here from the Office of Planning Advocacy, he has been working with us and you see we have the federal partners too of how we move forward. The initiatives will include policy



decisions and determinations, and planning and regulatory changes, and that is not an easy thing to do, but where there is a will, there is an absolute way.

Our goal is to design effective and and useful management plans and get us where we need to go. The key is making a right investment at the right time and this is the education part that we need to spend time, and this is where we need your help. We need to get the communities to understand.

Right now water is the cheapest commodity we got going out there. We need them to understand that a broken pipe will cost them more than a long term asset management plan, and we need them to understand what resiliency means

in terms of repairing their infrastructure and spending a few more cents on their dollar, and I always think everybody uses the same example; one bottle of water costs a dollar, $1.50, $2.00, that if you are at some event or whatever and we buy them all the time, right? We buy them all the time. What is your monthly water bill? Think about if you didn't buy two bottles of water we could put it to our monthly water bill, we would



be in action.

Education is extremely important. And we need to be on the same page and you could be so helpful to us with that. Some of the other actions outside of asset management but that clearly go with asset management; infiltration and inflow we know this is a major stressor on the POTW. We saw it with MCUA, it was inundated with surge, but when they had all the flood waters coming in, and because of the leaks in the pipes, they are having excess capacity coming to their pump station that they just can't handle, it makes them extremely vulnerable.

Any facility that's got pipes coming

into them that is leaky and getting excess water in there, it's making them extremely vulnerable. So what is the answer going to be? Are we going build bigger POTW's and say more capacity? No if we go in and fix the pipes, it's the more economic way to go.

So we need to look at infiltration and inflow and how that plays into our ideas with asset management. Storm water and green infrastructure this is extremely important with in the rebuild, and again resiliency, resiliency



resiliency in these types of remedies. We see it all the time, we are planning a white paper which will be rebuilding with the environment in mind and have a lot of information on green infrastructure; whether it be for rebuilding your home or rebuilding your business, or around our infrastructure, but the opportunity to engage in more green infrastructure and to make sure that in the rebuild we are being acutely aware of the impact on storm water that will help us with the funding on the other side of all this and make us all much more resilient. CSO's, you heard me mention that we have the first draft permit

coming out, the end of this week is our goal but down in the Camden area, and this is our launch over the next, we are committed to getting the draft permits out to all those effected by your CSO's in the State, and we have an extremely comprehensive strategy, and again, CSO's are a stressor on the community and a stressor on the quality of our water. And in Sandy, the more we can eliminate CSO's the more resilient the communities will be, tying it right back into the rebuild, the goal is to use some of the revolving fund money in the special appropriation of EPA in



our CSO communities to relieve the stressor and make those communities much more resilient.

There was one quirky fact here though. You heard the Commissioner reference unfortunately with the discharges that we had going on in the days post Sandy, which was you know, horrible, and it dissipated quickly and Jill and her team were out there monitoring from day two through to today, continuing to make sure that the water quality is A plus, which it is, but what was interesting thing in the CSO

communities, because they were bypassing they weren't flooding people's basements. This is one time where CSO's were almost like a reliever as opposed to a stressor.

Again, you have to think of everything on balance, right? Industrial discharge; we had the issue during Sandy, talking about sludge and the inability to have capacity for it. Though we got it all taken care of, people stepped you up and we got it moved and got it done. There is a challenge when you have numerous industrial discharges POTW -- we use PSCP as an example, you are trying to reduce the flow to the POTW, trying to relieve them so we



can rebuild and get back on the treatment, where they are supposed to be

Then when you have to go and call up the industrial discharges and ask them to reduce their flow, and these are major corporation, you ask them to reduce their flow, that is ching, ching; that is dollars out of their pockets. And the story I always love to tell, we have a list of how many calls did we make, Michelle? Hundreds of calls, hundreds of calls to the

discharges to PVSC, saying to them whatever you can do to reduce your flow and poor Wayne, my Director of Operations called Newark Airport; you don't want to know the answer he got, very interesting.

Managing our water resources, this is for my team, this is what it's all about. Because we were already been doing comprehensive water resource management over the past year and everything we did. And what we mean by comprehensive water resource management is integrating across the programs, across the three programs. When we are talking about supply we are talking about quality and monitoring standard and we have this great, you know, cycle of how we



assess and how we remedy and how e take the next step, and the goal here is improvement of our waters, anything we can do to keep moving the needle. So I step back and say we know what the stressors on the water systems are. We know what the stressors on the rivers, the streams, the the lakes or the water bodies are. We know what they are. We don't have to plan and study it anymore,

we know it. Let's start addressing it.

What's the best way to address it in a comprehensive regional manner? How do you take a region and look at the stressors to that water body in that area and start putting strategies in that on a regional basis, so that you are not doing things in silo, it is all comprehensive, all working together. And this is the direction that we are moving in, and this is the direction we are forging forward with. And we learned with Sandy, if would have been set up in a more regional basis, our recovery would have been easier. Our recovery in the regions that were severely impacted and the relationships in those regions, and our ability to understand what resources are available in a region, who needs help in a region and they know each other in the



region, helps us for better resiliency as well.

A couple of major wins on comprehensive water management. Not only does it make us resilient for the future and get us acting on what the stressors on our water bodies are, and recognizing the uniqueness; and the best examples I can give are Barnegat Bay is not about

industrial dischargers. TMDL, not necessarily the right remedy, Governor's ten point plan a step in the right direction. But now turn and look at Raritan, industrial dischargers. Maybe a TMDL is the answer there. We know who they are, we know what we can do, we are not just going to do it one stressor at a time. We are looking at all the stressors on Raritan and who all is involve and and how do we have that comprehensive plan to address it? A great example, if we took a cookie cutter approach of a statewide strategy of how we are going to clean up the water we get nowhere. If we look at the region and focus on the stressors and put the right team together, we absolutely get improvement, and that is the direction we are going.

This just talks a little bit more about that. Financing, all about money at the



end. Commissioner mentioned EIT, we are trying to maximize the state resolving fund. There is a special appropriation in the Sandy Bill, it was 600 million, but because of the sequestration, it's 570 million. We are anticipating that New

Jersey will get approximately 40 percent of that money and we are writing our plan right now how we are getting that out on the streets for the facility. The beauty of that is we take the dollars that come to us and leverage through the Environmental Infrastructure Trust and be able to make that money two or three times the amount that we get. So our goal is to take, you know, all of the lessons learned, identify the priorities for resiliency and leverage those Federal dollars as best we can in order to move us forward.

Next steps we are vetting approaches with both industry experts like yourself, regulated community like some of you in the room, we continue to have round table discussions anyone who is interested in having us come out and do a deeper dive with your organization, we have been at most of the trade associations.

We continue to do a lot of great



speaking around around the state and we invite your input. We are working very closely with NJDEP, outside the DEP, with the State and the Federal partners with how to move forward. And

there we have it, thank you so much, I am an available for some Q and A.

CHAIRWOMAN GOODWIN: The gentleman who is walking towards the door is available to move the microphone around to facilitate questions. So please, if anybody has questions for the Assistant Commissioner.

MR. VAN ABS: With regard to the financing issue one of the things the Council has looked at in the past is the whole issue of storm water management. Storm water management as it is managed right now is a property tax funded enterprise, handled through municipalities primarily.

We have previously looked at the issue of storm water utilities, storm water utility authorities, but having a mechanism for funding that is based on the actual contribution of properties to the storm water issue, as opposed to the value of their property and whether or not in fact they pay property taxes.



There are 38 states that do this, New Jersey really does not. So has that come up

in the mix of the conversation

MS. SIEKERKA: It's been presented to us numerous times and what I have said to folks is you know, find some good models, show us what they are, show us what the cost benefit analysis is. But you've heard our Governor speak; no new taxes and it is no matter how we slice it, it is attacks; but that said, finding the right model and showing how maybe at trade off on a benefit somewhere else, you know I would never say don't bring me a good model because I always think there's wears to work things to a good conclusion but we know this Governor has said no new taxes, no unfunded mandates, and that is that's what that would be.

MR. VAN ABS: Okay, I guess I would have to raise the point that we are already paying for storm water management, the question is how we pay for it

MS. SIEKERKA: Coming back to my, look at it, do the cost benefit analysis of well, maybe if it is not coming out here but we are doing it this way -- what's the benefit on the



other side. So how is the consumer, how is the

fax pair benefiting by what we are asking them to contribute over here and if we can find a balance and explain that it is not new, it is a transfer to a priority, maybe we get off on it that way.

I am all for best management practices, so bring them on.

MR. STURM: The comprehensive water management scheme sounds great, I am curious how it would interface with the water quality management plan rule, parts of which were deferred by legislature for a couple of years

MS. SIEKERKA: So did everyone hear that?

MS. STURM: Chris Sturm, from New Jersey Future. I am just asking about the comprehensive water resource management approach and how that would interface with the water quality management planning rules, parts of which have been deferred for two years by the Legislature, and that rule itself needs to be authorized

MS. SIEKERKA: So we are, right now, we actually have our rule writing team, parts identified we are getting ready to kick it in

high gear. We are acutely aware of the deadlines and what the deadlines mean so we would be working feverishly on rules to meet any appropriate deadlines.

We are talking about exactly that. How do we incorporate the vision of where we want to go more comprehensively on a watershed or watershed basis. What does that look like and how does that dovetail to existing rules and put it through the sausage maker, what comes out on the other side? The key is, I think, we know that the WQ&P rules have a lot of parts in them that are duplicative of other regulatory authority and sometimes that can conflict and created some angst on both sides, whether it is on the side of the regulator or the side of the regulated industry.

So what we have tried to do is really comb through the rule, identify where the correlation is to other rules so there will be a protection so there is never a backsliding, what falls out that is left within the rule, that isn't covered somewhere else. How do we address those pieces, are they the right thing for a WQ&P or not, and how we move forward.

In fact my management team, about 45 of us this Friday have our management retreat on exactly these issues of how we are moving forward, comprehensive resource management in tantum and dovetail to the WQ&P. Our goal is to call the future WQ&P, comprehensive water resource management that is the direction we are trying to go.

Many of you have given us together great thoughts on that and we have great white papers the team is doing a lot of homework on that.

MR. ASSELTA: Nick Asselta, president of AQUA Water New Jersey, private investor public utility water utility.

I notice in your remarks and I will have testimony for the Council, written testimony to submit. I notice in your remarks you mention 600 private community water systems, 300 municipal water systems; is there any plan at the DEP to help encourage, let's say consolidation of these particular water utilities? Because we all know, you did give a very good pitch for rate hike increases and the education process, we appreciate that. Was there any plan on the DEP

level to encourage that kind of consolidation?

We think it's essential. We think over the long haul, with an amount of infrastructure, billions of dollars, 18 billion in New Jersey that is needed that it is going to take the private sector to get this done not just a public sector. I think it is short sighted just to rely on public funds because of a disaster that happened, this is a long term issue and a long term problem that we need guidance from government to begin the consolidation process to make sure these water companies can fulfill their commitment to their customers and the citizens of each town that they can do these infrastructure improvements at a really low cost level.

So is there any hope at DEP to engage in the private sector to do that?

MS. SIEKERKA: So another thing that Sandy resulted and taught us, was that, I think, a mayor in a coastal town who is running a MUA is sitting there going wow, is this something that I really want to be doing in the future if this

ever happens again antidotally we heard that there are folks who are you know, reconsidering



what their view on the value of their pipes and running systems and being able to collect that fee, but in turn what some responsibility of collecting that fee is and whether to interrupt it or not.

Again, we have only heard it antidotally, but if we see that there is a sense out in the community, municipalities or public entities coming forward and saying DEP would you help to facilitate a discussion around public private partnership for the future? We stand to do that.

MR. ASSELTA: Perfect, thank you very much.

MR. PETRUSKI: Glen Petruski, Somerset Raritan Valley Sewerage Authority. I agree with you resiliency is absolutely important and one of the words we have to keep with that is sustainability. We need to be resilient and sustainable and that brings me to the issue.

In government agencies, if you are working very hard to protect your capital

investments and raise money for capital investments, we tend to have a problem where local governments come along and either want to



aid us or dissolve the thoughts and take the monies which would be going to capital or other things. Is there going to be a movement from the State to try to prevent that from happening by increasing regs from DCA or something along that line?

MS. SIEKERKA: Thank you very much. When I talk about the partnership with our sister agencies, where we were on October 28th and how we go forward. One of those discussions is how do we work with DCA on how they exercise their regulatory authority over those entities?

We regulate them for quality and they set, you know, they set the local finance structure. So they have a score card and we have talked about how can we, in your score card, how can we ensure that municipalities either get extra points or lose points for having an asset management plan, for having done a cost benefit analysis on public/private partnership, for

ensuring that there are segregated funds for their assets?

So we are looking at doing it -- we can do things easily when we can have carrots and sometimes we can use a stick, about and we are



looking at how do we do that through that process. So the answer is absolutely yes. It is incorporated within our strategy to move forward on asset management. And you know, there will be more actions in that regards to move forward

MR. LEN: Hackensack Riverkeeper and Bay Keeper. If I heard correctly you said say earlier that you were avoiding or trying to avoid cooker cutter approach to resiliency. And one of the examples that you gave were the situation where TMDL might be the best choice or might not be the best choice, depending on what you saw on the ground. And I wonder how you reconcile that with Clean Water Act's requirement, you have a TMDL where you don't meet the clean water quality standards?

MS. SIEKERKA: As I read the Clean Water Act, it's a TMDL or other measurable actions that could lead to meeting the water

quality standards. Do I have that right, Jill? Other enforceable measures, that's how we interpret the Clean Water Act, that's how we operate and in some regards we don't think TMDL is the right answer because the other enforceable measures are stronger.



A SPEAKER: I am with Clean Ocean Action. As a follow-up to that question, I am wondering what are those enforceable measures that you do plan be taking in Barnegat Bay and also the Hudson? Before you had indicated that the Barnegat Bay wasn't going to be pursued for TMDL because there weren't many industrial sources, however previously DEP had indicated that they weren't pursuing the TMDL despite knowing that there weren't many industrial sources. And also, it appears that the DPS follow Hudson TMDL process, it's been ongoing for ten years even though there are industrial -- could you please explain, you know, how you see making up that type of action in both the Hudson and Barnegat Bay?

MS. SIEKERKA: Our first goal, when

we talk about comprehensive resource management, we need to prioritize the water bodies of the state, because we can't do everything at one time again, we will get nowhere. So when we -- what we are doing is trying to establish a matrix that will allow us to chart, if you will, our stressors for by watershed, give maybe, you know, quantitative value to that, qualitative value to



that to identify where the focus in the State needs to be and what are the best remedies towards that.

I think we can pretty much guess that some of the water bodies at issue are the Raritan, the Hudson, Barnegat Bay, you know, we without a heck of a lot of homework I am guessing are going to bubble up to the top and we are talking about a strategy around Raritan, and we have started to tee up discussion around Hudson as well and there's been a lot of work done around Hudson as well relative to TMDL, there is a lot of work going on. In terms of specifics right now, I can't say what the other enforceable measure would be if we haven't created the strategy for that watershed right now.

I think the Governor's ten point plan on Barnegat Bay is an example of certain aspects. What are other enforceable measures? I think passing the fertilizer law statewide had a tremendous impact, one we will not see the results for a few years, but you have to start somewhere. And again as long as we can keep showing that we get better, there is no magic bullet when it comes to water, it is impossible.



Being comprehensive and looking at what those types of other enforceable measures could be, may be a better solution than a TMDL.

CHAIRWOMAN GOODWIN: Excuse me, this will be the last question so that we can keep on target

MR. O'SHEA: This is real easy. I would like to share this presentation with folks from my organization. Are you going to post something like this?

MS. SIEKERKA: This is a public hearing. We are open to the public so my power point can be put up on our website or emailed to whoever. I have shared it here in a public

meeting

MR. O'SHEA: That would be wonderful any of the earlier information on the guidance documents that are going to be coming out

MS. SIEKERKA: Yes, the guidance documents, you know, we are really close to just getting in the full legal review right now. We are very, very anxious to get them out there because folks are starting to rebuild right now, and again we want continuing feedback like we have been getting all along the way. Thank you



very much we will make that available.

CHAIRWOMAN GOODWIN: The Clean Water Council also has a website, so we will be posting the public aspect of the testimony as well as our report on the website.

MS. SIEKERKA: Before you do your brea, I want to let everyone know, again, thank you so much for your attention and your participation, your input is extremely important to our ability to move forward and the partnership is extremely important as well. Unfortunately, I can't stay for the balance I have to attend a funeral at 11:00. My team is

around the room, we get a transcript from today and as we have done in the past. The information that we do today is meant to help us go forward. So thank you you for sharing.

CHAIRWOMAN GOODWIN: Thank you very much. We will now take a brief break. We were hoping for 15, it will be closer to 10, so we can stay on track. Thank you very much.

(Recess)

CHAIRWOMAN GOODWIN: Before commencing the public portion, I would ask that the Clean Water Council members please stand. As



I mentioned earlier we have 17 members of the Council; seven of whom represent state agencies including Anthony Valente from the Department of Labor and Industry, Jim Requa from the Department of Community Affairs, Stan Cach, NJDEP; Ferdows Ali from the Department of Agriculture; Ella Fillapone from the Water Quality Supply Council; and Jessica Sanchez from the the Delaware River Basin Commission. Six of our members are nominated from the following organizations; Russ Fumari from the NJ Association of Commerce;

George Bakun from New Jersey Business and Industry Association, Lou Neely, the New Jersey League of Municipalities; Anthony McCracken, New Jersey Association of Counties; and James Cosgrove, the New Jersey Society of Professional Engineers who also serves as Vice Chair of the Council. Robert Breslin NJ AFL-CIO.

We also have four citizens of the state representing the general public of which I am one. Also in this category are Chris Sturm from the New Jersey Future; Amy Goldsmith, from New Jersey Environmental Federation, and Dan Van Abs from Rutgers University. Dan also serves as a Vice Chair of the Clean Water Council.



I wanted to mention this all to you because it expresses the diversity from a representational perspective on the Council, and I think we serve the State well when we are able to come to consensus considering the diverse interests that in our day lives we represent. Thank you.

With that we will open this up to the first speaker is Nicholas Asselta President of Aqua New Jersey

MR. ASSELTA: Good morning and thank you. First, before I start, I will be very brief just answering some of DEP's questions here.

I have been a BPU Commissioner, Assembly Member and Senate Member and probably dealt with five or six commissioners along the line of DEP, and I can tell you that Bob Martin is probably the most effective, knowledgeable and has the best articulation of any Commissioner I have seen in Government, and I have been in Government I guess 18 to 20 years. So even though he is not here, he knows how I feel. I think it's moved the agency light years further then where it was before. So congratulations on him and his team; and the Water Council, thank



you for being volunteers of what you do. We know how important your job is. We know that it's on a volunteer basis, and we know that that the time and effort that you put in is helping not only the State of New Jersey but every citizen and every man, child and person in this particular state. So thank you again for your volunteer work.

As you know I am the President of Aqua Water, and we appreciate the opportunity to provide testimony here and provided the members of the Council with our testimony

The water utility facilities provide a vital and critical infrastructure that supports residents, businesses and organizations throughout New Jersey.

Water is essential for health, sanitation, fire safety and economic growth. According to the American Water Works Association report, buried no longer, the cost of repairing and expanding U.S. drinking water infrastructure will top $1 trillion dollars in the next 25 years.

According to the EPA estimate, the nation's drinking water utilities need $335



billion dollars in infrastructure investments over the next 20 years for thousands of miles of pipes, as well as thousands of miles of treatment plants, storage facilities and other key assets according to the New Jersey's State Development and Redevelopment Plan.

Including in that is New Jersey's

needs and as we heard and saw before, it's somewhere around 18 billion dollars, so you can understand how important a conference like this is in the wake of Sandy, in the wake of some of the Federal money and State money that is going to be provided, we believe private industry needs to play a real strong partnership.

I wanted to address some of the questions that we were asked to address.

What are the major issues that need to be addressed to improve water infrastructure resiliency? In our opinion, Acqua New Jersey, adequate funding and financing are needed to support sustainable infrastructure management and renewal through customer water rates and structural rate surcharges.

I think the Assistant Commissioner mentioned that that the educational process is so



important. People need to understand that what's underground needs to be replaced and they need to somehow come to grips with helping help offset the revenue costs here.

I would like to thank the BPU for

addressing major infrastructure improvements. For the first time, through the approval of the distribution system improvement charge or DSIC. DSIC is the first major regulatory policy change in 14 years that addresses the infrastructure issue.

The New Jersey Department of Environmental Protection should require greater emphasis on effective utility management practices related to the award of SRF funds for capital improvement projects. Bad behavior and bad practices should not be rewarded with low or no cost funding to provide short term solutions.

Regulators should take a harder line to limit the transfer of utility revenues. I think the gentleman out here mentioned that earlier.

Limits should be placed on the transfer of utility revenues to non utility municipal funds and programs. Super Storm Sandy



has taught us, in the last year that critical need for increased infrastructure investment in all of our utilities, not just water.

Next question. How can DEP, BPU and

DCA best encourage improved resiliency?

Any infrastructure improvements should include a full analysis of its past, present and future potential vulnerabilities. Stop building infrastructure with short term focus and build for long term durability and growth.

Next question, how can DEP facilitate "resource sharing" between utilities and local governments before, during and after significant events?

In the same spirit as legislative initiatives, to encourage municipal consolidation, we too believe in the consolidation of water and wastewater systems for the purpose of achieving greater efficiencies. I mentioned that in my remarks to the Assistant Commissioner, there are 600 plus private water companies, 300 municipal water companies, they need to be consolidated at some point in time, the sooner the better. We also must encourage



the use of WARN, the New Jersey Water Agency Response Network.

Next question; how can DEP best encourage collaborative efforts between local government? Although DEP has made great strides it should continue to improve its own responsiveness and continue to streamline the permanent review and approval process.

DEP takes a broad review whereas municipal government and water infrastructure owners are more on the short term focus. What technical assistance can DEP provide to support long term sustainability, educating the decision makers, political and municipal officials and technical staff on the principles and benefits of effective utility management is required in order to gain full community support for proper rates. The Assistant Commissioner mentioned it; education is so important to the rate payor, the consumer as to what their dollars are going for.

Finally, what requirements should be placed on grants and loans for utility rebuilding efforts?

Any entity receiving EIT funding must be sustainable and viable, must include



effective utility management, and already have or

should include a rate adjustment to achieve full cost pricing.

With that testimony I thank all of you for coming today and understanding how important this issue is, and I thank the Water Council for their participation. Thank you again

Thank you.

CHAIRWOMAN GOODWIN: I apologize, I forgot one important housekeeping measure. The testimony as noted in our notice of the meeting is five minutes, and to the extent that you begin to run over, Chris Stern who is sitting in the front row will be holding up a sign. When you see the one minute sign take that as a note that you should begin the process you have one minute to wrap up as a courtesy to the others who hope to speak today

The next person who has asked to speak was Ronald Anastasio, Assistant Director Somerset Raritan Valley. Is he here?

A SPEAKER: He could not make it today.

CHAIRWOMAN GOODWIN: Okay. Ann Berman?

(No response)

CHAIRWOMAN GOODWIN: I hope I get this right; Dennis Ciemniecki.

MR. CIEMNIECKI: Ms. Chairwoman and Clean Water Council Members; thank you for this opportunity.

Good morning, my name is Dennis Ciemniecki, and on behalf of the leadership of the New Jersey section of the American Water Works Association; I thank you as it's section chair for the opportunity to contribute to this public hearing sponsored, of course, by the Council.

AWWA of New Jersey has 1,750 members who are united in the mission of providing New Jersey residents with safe drinking water.

Most of New Jersey's major utilities, both public and invest their own, are active section members, along with engineering and environment professionals, as well as allied industry professionals.

AWWA New Jersey is indeed dedicated to the promotion of public health, safety and welfare through the reliable provision of drinking water of unquestionable quality.

AWWA our parent organization is the oldest and the largest education and scientific association for drinking water professionals. Founded in 1881, the Association is now more than 50,000 members. AWWA includes public drinking water departments and authorities, private companies and individuals engaged in providing drinking water to the American people.

Recent storms such as Tropical Storm Irene and Super Storm Sandy have indeed devastating impacts on water and wastewater infrastructure in New Jersey.

These events strain the ability of utilities both large and small to maintain continuous service through its customers during the event and in the recovery phase.

It is imperative that effected utilities must incorporate long term infrastructure resiliency into their planning, design, and construction efforts to mitigate the impacts from future natural disasters. These efforts must start now and must include flood protection and the rebuilding -- in the rebuilding phase. Flood protection in the rebuilding phase.

While it is recognized that the replacement of infrastructures destroyed by the recent storms will receive top priority, it is also recognized that an appropriate levels of redundancy should and must be incorporated in all water and wastewater utility capital asset plans.

The engineering standards used in the industry to define the appropriate levels of redundancy are well known. DEP, DCA and BPU should strongly encourage all utilities within their respective jurisdictions to develop long range capital improvement plans that incorporate sustainable financing and rate setting strategies.

It is essential to ensure that systems rates and revenues support the full cost of both capital improvements and ongoing operations.

In addition, all three regulatory agencies should strongly encourage utilities that do not have current and updated emergency response plans to quickly develop and/or update those plans. DCA should focus also on its review

of municipal water and wastewater budgets relative to the diversion of revenues and reserve



funds intended toward water and sewer improvements moving off to other municipal functions. Rate payor dollars reflected to improve and renew water strain structure should not be reallocated through the budgeting process to activities unrelated to these utility services.

DEP and DCA must also assure that the regulatory approval is streamlined to minimize any delays in the rebuilding process. These regulatory delays can allow damage utility assets to degrade further which may lead to further interruptions in service.

Water and wastewater utility services must remain communicational at all times in order to ensure the protection of public health, safety and the environment.

Unfortunately, the power grids serving the State are often severely damaged by natural disasters like Irene and Sandy. Extended power outages have immediate and severe impacts on water and wastewater utilities. Therefore,

back up power supplies are critical to utility operations. Diesel and natural gas fuel and electric generators are typically utilized by



utilities in the emergency operation mode. However, when the availability and delivery of diesel or natural gas is limited alternate procurement and delivery systems must be considered. DEP is commended for their efforts in assisting in procurement and delivery of fuel of Super Storm Sandy.

DEP and DCA must assist utilities in the investigation and development of alternate fuel sources procurement methods and delivery systems.

On behalf of AWWA I am happy to deliver those comments. Thank you very much.

CHAIRWOMAN GOODWIN: Is Sandra Cohen here from NJDEP?

(No response.)

CHAIRWOMAN GOODWIN: Michael DeFrancisci, from PVSC.

(No response.)

CHAIRWOMAN GOODWIN: Dennis Doll?

(No response.)

CHAIRWOMAN GOODWIN: Jamie Ewalt?

(No response.)

CHAIRWOMAN GOODWIN: Paul Ferriero?

(No response.)



CHAIRWOMAN GOODWIN: Peggy Gallos, Director, AEA.

MS. GALLOS: Good morning everyone. I appreciate the opportunity to speak today. My name is Peggy Gallos. I am the Executive Director of the Association of Environment Authorities of New Jersey.

We are a trade association that represent 90 water and wastewater solid waste recycling systems owned by the public, as well as 75 private sector businesses that support them.

We are grateful for this opportunity to comment today. AEA members learned a lot from Sandy. First we learned about the caliber of the people who work in and with the publically owned water wastewater utilities of New Jersey. They are smart and dedicated problem solvers. We also saw dedication and concern among the people of the DEP who worked very hard to get our members

the resources what they needed.

Sandy also confirmed what we already knew; which was that well managed and up-to-date systems stand a better chance against storms.

I just wanted to skip some information about damage that I had, that I think



has been well spoken today. I wanted to talk about a few of the adaptations and innovations that I think helped get through Sandy.

Plants like Rahway Valley Sewerage Authority and joint meetings of Essex and Union remained in authorization and released no untreated effluent, mainly because of their on-site cogeneration facilities.

It's also important to note that dedicated personnel risk their own safety to stay in at these plants even as flood waters rose and they had to take to roofs and lofts to stay safe and set up generators scavenged fuel and undertook repairs at the earliest moments.

In many instances planning preparation and innovative design done ahead of time meant damage was not as severe as it might

have been.

The Hoboken H1 wet weather pump station which was put into service 2011 is in the hardest hit part of Hoboken, and it remained operating. Its pump and screening chamber of low grade and electrical generator communicated with the treatment plant. Because of that well designed pump station flooding was eased 48 hours



sooner then it might otherwise have been.

The South Monmouth Regional Sewerage Authority, Seagirt Pump Station was one of only three of the pump stations undamaged. The primary electric equipment are housed in an elevated enclosure adjacent to the wet well and dry well. An expendable portable generator and transfer switch kept its pump going and a sacrificial and electrical control system operated the pumps. SMRSA operations staff were able to move the mobile unit, the guts of the pump station, so to speak, out of harm's way before the storm.

Five Rahway Valley Sewerage Authority staff members staved off disaster by performing a "modified blackstart" on its Co-Gen

system.

Initially, Rahway Valley was able to operate its Co-Gen system. After several days, however, a large-proces air blower tripped a circuit and caused the Co-Gen to fail.

RVSA switched to two 2.2 MW diesel generators, but 36 hours later, those generators started to fail too.

The "modified black-start" fooled



the Co-Gen system into kick-starting, something that it was not designed to do. This kept the plant running in island mode for almost two weeks after that.

We offer these examples for context while many things did go wrong, many things also went right.

With regard to the questions asked by the Council, we offer the following specific comments. Lack of data was a significant problem and that has also been mentioned.

I think the State should consider developing a system whereby critical contact and logistical information is confirmed prior to some

threatened event or storm or as soon thereafter as possible. Confirmation of cell phone numbers, personal cell phone numbers, ancillary facilities such as pump station, meter numbers and account numbers associated with power supply should all be confirmed on an event basis.

It was troubling at that time, that the wastewater sector was not considered by the ROIC as a critical sector until DEP leadership intervened. This is immediately after the storm and it is encouraging since Sandy, OHSP has been



become very aware of wastewater and is making efforts to include more wastewater in its planning.

Many treatment plants that did not suffer damage but lost power operating on standby generators on the verge of having to shut down because of lack of fuel and threaten to discharge raw sewerage.

New Jersey DEP should move ahead expeditiously with its asset management pilot, so it can collect data, and we are happy to hear that asset management has become such an important part of the response to Sandy today.

Two AEA member organizations were to have been part of the pilot and they stand ready to move forward and AEA and other groups are willing to partner with DEP to make that pilot happen.

The State needs to continue to facilitate the creation of a better Plan B for sludge disposal. New Jersey did manage to take care of its own sludge despite the fact that PVSC was disabled. This is because they quickly sized up the problem after the storm and wastewater facilities that were not severely damaged such as



Somerset-Raritan Valley Sewerage Authority, Stony Brook, Mount Holley and Two Bridges they all provided backup and took the sludge.

A number of good options that have been suggested so far should be fully examined they include allowing solid waste incinerators to take sludge under certain circumstances permitting landfills with liners at leachate control systems to accept sludge in emergencies. Allowing to temporary open air sludge storage at plants that have room. Creating a standing list

of provider of mobile sludge treatment units that could be drawn on in an emergency.

Related issues include revising diesel storage limits to allow spare fuel storage capacity, exploring new technologies and systems to treatment, such as some of the technology I just talked about. And finding ways to keep existing incinerators in operation despite looming tougher federal emission standards.

There is broad agreement that detailed sludge management backup plans would make sense, but that a one-size-fits-all would not.

We are all aware of the problems



encountered with a county-based approach to solid waste management planning.

One more point, regarding asset management. We urge CWC to continue to press for the removal of disincentives to proper infrastructure management, such as allowing municipalities to plug budget holes by "requesting" funds collected to maintain water and wastewater systems.

Just this caution with regard to

dissolving utility authorities; certainly communities have the right and should determine their own futures, but dissolution of some utilities authorities is not necessarily being done to improve the way the water infrastructure is managed. It allows money to be diverted away from the wastewater infrastructure. So that is an important part of the conversation that several speakers have called upon to have.

I have more but I think I will stop here. Thank you very much for the opportunity to speak today and look forward to working with you.

CHAIRWOMAN GOODWIN: We appreciate it and appreciate your written testimony we certainly will consider it.



Jim Glozzy has indicated he will submit written comments. Is he here?

(No response.)

CHAIRWOMAN GOODWIN: Rich Harding?

(No response.)

CHAIRWOMAN GOODWIN: Dennis Hogan?

(No response.)

CHAIRWOMAN GOODWIN: Trevan Houser?

(No response.)

CHAIRWOMAN GOODWIN: Leigh Jones?

(No response.)

CHAIRWOMAN GOODWIN: William Kibler?

(No response.)

CHAIRWOMAN GOODWIN: Andrew Krincun?

(No response.)

CHAIRWOMAN GOODWIN: Suzanne Chiavari?

MS. CHIAVARI: Good morning everyone. On Behalf of New Jersey America Water, I am Suzanne Chiavari, Vice President of Engineering. I would like to thank the Council for holding this hearing, soliciting comments from the public, it is A very important issue for the industry and very good to get the feedback.

Our primary goals as water and



wastewater utilities are to protect public health and ensure service continuity. Service reliability has been and will always be one of our key perimeters in the planning and design of all water and wastewater systems.

Water utility customers generally do not lose service during storm events because of

our system designs. They are designed to provide continuous service under a wide range of events. We build water distribution storage tanks to provide buffers. We install standby power capabilities that power critical facilities, should we lose utility power. We build critical assets above 100 year flood elevations and/or we add flood protection for the older facilities that are flood at risk. Nonetheless, what we have learned recently is that weather patterns are combining with the issue of aging infrastructure and that's causing us to reevaluate our traditional planning approach, and our traditional design criteria.

The design standards that we have used look at supplies, look at treatment plants, pump stations and tanks; all taken together to achieve a level of zero service halogens -- the



so-called new norm has led us to look at traditional liability and emergency planning in a world that needs speeded recovery and resiliency from much more widespread events.

This is an action that we are taking

at New Jersey American because of what we endured through Hurricane Sandy, Hurricane Irene. We are reevaluating our design standards and our planning standards. And I encourage every utility to do that; whether they were impacted directly for those hurricanes or not.

I am going to address eight key learning points that I'd like to share with the Council, from our recent storm events and our after-action learning. Those are around resources, asset management, planning and risk assessment, updating planning and design criteria, the need for communications and the need for funding options.

Let me start with the first key learning point for us; New Jersey America Water is a subsidiary of America Water, so we bring a tremendous amount of resources to the table. Over seven thousand employees across the country, 850 in New Jersey alone. During the recent storm



events we were able to leverage all of that knowledge, our key vendor relationships, our ability to get materials here quickly, relationships with contractors. Those were all

key to having this wide network of resources that really helped us respond very quickly to the various storm events. And I would even encourage the State agencies to think about how we can help utilities of all sizes develop this network; whether it is developing a template for an inner utility agreement similar to what the power industry uses, where they are very visible, bringing crews from out-of-state to make repairs.

We also encourage state agencies to work with utilities to establish a priority system with electric utilities for power restoration. The loss of power is very critical to us, and the restoration power is very critical to us. So developing a priority system with electric utilities is really crucial.

We would also encourage State agencies to look at establishing above water distribution network. You can design your systems for zero outages, but occasionally something happens and you need to be able to move



bottled water around, and we have done that ourselves very successfully, but obviously we are

not a supermarket or food and beverage industry, bottled water industry, so any help with that would be greatly appreciated.

I also encourage DEP to continue to maintain and update the asset information that was gathered during Hurricane Sandy. I know that we provided quite a lot of information on generators, power accounts, and we need to keep all that information up-to-date.

Michelle spoke about a regional approach, and we absolutely endorse that working through the county OEMs we found that to be very successful in Monmouth and Ocean County.

We also need to take care of our workers, not just all of the pipes and pumps and electrical gear, but we need to take care of our workers. We found that you know, families of utility workers have a very significant burden. The workers are relied on to respond immediately to events. They are often working long hours, away from home, typically they may have flooding at their own house, they may have trees come down, we had trees come down on employees' cars



and the employee is trying to juggle many, many

different things. So family resource center or a hotline to help deal with all of those issues would be greatly appreciated as well.

The other areas I will just touch very briefly on and then we will provide written comments. We talked earlier about our number of speakers talked about asset management systems and basically the better you are prepared, the better the outcome. Planning and risk assessments are critical. Reassessing our planning criteria are critical. Communication is critical, your customers deserve to know what is going on.

We found that through using social media, Twitter, Facebook, that helps get the customer, the information that we need along with call centers.

Data communication also very critical, very reliant on cell networks and power to move data around. So that is another issue to take a look at.

We will submit the remainder of comments. Two last things on the area of funding; we learned that not only water but

wastewater is a critical asset in any of these emergency events and the resiliency of wastewater systems are equally as important to the water systems, and when we look at the ASC report card, the wastewater systems had a lower grade than the water systems, and we really need to have investments for wastewater facilities.

I would encourage DEP and EPA to make state revolving loan funds available to investment wastewater utilities as well as what the program has for drinking water.

We also encourage DEP to work with BPU to expand the Distribution Improvement Service Charge Program to water infrastructure to the wastewater center as well.

You heard Michelle talk about reducing INI and how that plays into it. With that I will thank you for the opportunity to address the Council this morning.

CHAIRWOMAN GOODWIN: Manuel Lazerov.

(No response.)

CHAIRWOMAN GOODWIN: Chris Len?

MR. LEN: Thank you. I am Chris Len. I am staff attorney for Hackensack Riverkeeper and New York/New Jersey Baykeeper.

Thank you for having the hearing today and I would like to point out, first of all, that a lack of spending in New Jersey, storm water infrastructure in New Jersey during state of emergency on days when there is not a huge super storm, and it's something that causes a great deal of injury to our state everyday -- not everyday, but most days of the year, many days of the year, and it compounds it when we have a big whether event that we have like Irene.

Storm water infrastructure in our state has badly deteriorated. Every year according to the EPA, 23 billion gallons of raw sewerage go into New Jersey waters to combine sewer overflows, that is without a storm.

Our permit in New Jersey has no monitoring requirements, it has no technology effluent limits and no water quality effluent limits, has no notice of public overflows. So all of that goes into the water every year and we don't know when the water is safe to swim in and when it is not.

New Jersey, as United States has the greatest need for storm water management structure. More than two-and-a-half times the

second state in terms of need in actual dollars. Despite being the 47th largest state in the Union we have the number one infrastructure for storm water requirements in the Union by two-and-a-half times.

We have the second greatest need in actual dollars for CSO correction, and that is, I imagine behind New York, which New York City alone is gigantic as compared to our state and yet, we have the second biggest problem in the nation.

We have the third worst need for centralized wastewater treatment. The fourth secondary and advanced wastewater treatment, the fourth non-point pollution control points which again is remarkable given the size of our state, a state like New Jersey has a greater need than a state like Nebraska.

The key is, and I think has always been for New Jersey to start. We are always putting things off. We have a regulatory scheme that makes it cheaper to do nothing then it does start taking steps. We have combined sewer

overflow permit that basically nothing of
combined sewer operators, and has simply been



cheaper in many cases, for municipalities,
regulated entities in the state to simply not
start.

Portland, Oregon where I went to law
school you might know it as a place that rains
quite a bit. I was just there and it rained the
whole time. They have combined sewer overflows
in Portland, and in 1991 they began a plan to get
rid of them and over 20 years they built large
gray infrastructure projects, and last year they
had no overflows, not one, because in 1991 they
started and here, in 2013 we are hoping that the
DEP starts addressing its combined sewer overflow
problem by addressing problems that have real
measure. So far that hasn't happened. By the
end of the week maybe we will have our first.

It is not just an absence of
regulation that causes these things or really
rather putting in a presence of regulation
wouldn't simply fix them. We have to allow the
people of New Jersey to be rationale economic
actors, so they can can address these problems in

the market in an efficient way. You don't fix problems that it doesn't cost you anything to have, but it does cost you something to fix.



We need to incentivize measures to address these problems. One of the great developments that has occurred since Portland began its project and that you can see most clearly in New York, probably Philadelphia, is that green infrastructure offers a lot of promise to do these things more cheaply. New York had a treatment facility that needed it to build, estimated that it would cost over ten million dollars, and by thinking outside normal constraints, and coming up with new ideas, they found that they can get better or equal water treatment and that is something again that they have started to do. In New Jersey, though. You don't even know green infrastructure is so inexpensive as opposed to large infrastructure facilities, you don't do that because why spend a small amount on green infrastructure. If you don't have to spend any money at all.

So what New Jersey should do to

begin the process of developing green infrastructure that will make events like Sandy less severe and make the day-to-day problems of combined sewer overflows diminished, is that they should incentivize green infrastructures by



making it cheaper, but more importantly perhaps, shift the costs that have been externalized from the people who provide storm water, and put it into the rivers and wastewater stream plants back to the people who produce the storm water. And there has been some promising legislation introduced in the New Jersey Statehouse.

One, is that Assemblyman Eustace has introduced a Bill that would give tax credits for developing storm water capture systems, that would be helpful. Another is that Senator Smith has introduced a Bill that would create a storm water utility, and in that instance if a municipality were to create storm water utility under Senator Smith's Bill, they would be able to give a cost signal to people with large parking lots could have relatively small steps to reduce the amount of flow off the parking lots. Green infrastructure, relatively inexpensive. And I

think one of the biggest problems that we have is there is a lack of notification when there is a sewer overflow. Right now you don't know if it is safe to go swimming in my bodies of water because if there is a combined sewer overflow, you don't know whether it happened necessarily



and for how long it lasts. There is a beach in Perth Amboy that has the levels on it that is not safe, particularly on days when there is an overflow and people should be made aware of that.

So we think that the best way to address problems like Sandy and Irene is to begin addressing the problems like what happens when it rains later this week and New Jersey and DEP can start doing that now. Thank you.

CHAIRWOMAN GOODWIN: Bridget McKenna?

(No response.)

CHAIRWOMAN GOODWIN: Tony Macdonald?

(No response.)

CHAIRWOMAN GOODWIN: Audrey Miller?

(No response.)

CHAIRWOMAN GOODWIN: John Miller?

(No response.)

CHAIRWOMAN GOODWIN: Meishka Mitchell?

(No response.)

CHAIRWOMAN GOODWIN: Dennis Palmer?

(No response.)

CHAIRWOMAN GOODWIN: Glen Petrauski?

(No response.)

CHAIRWOMAN GOODWIN: David Pringle?



(No response.)

CHAIRWOMAN GOODWIN: Richard Risoldi?

(No response.)

CHAIRWOMAN GOODWIN: Sari Rothrock?

(No response.)

CHAIRWOMAN GOODWIN: John Rotolo?

(No response.)

CHAIRWOMAN GOODWIN: David Shadle?

(No response.)

CHAIRWOMAN GOODWIN: Captain Bill Sheehan?

(No response.)

CHAIRWOMAN GOODWIN: Deborah Shuff?

(No response.)

CHAIRWOMAN GOODWIN: Emad Sidhum?

(No response.)

CHAIRWOMAN GOODWIN: Carol Storms?

(No response.)

CHAIRWOMAN GOODWIN: Jeff Tittel?

(No response.)

CHAIRWOMAN GOODWIN: Steve Trainor?

(No response.)

CHAIRWOMAN GOODWIN: Heather Saffert?

MS. SAFFERT: Good morning. I am Heather Saffert, I am a staff scientist with



Clean Ocean Action who represents over 135 organizations as well as concerned businesses and citizens. And I want to thank you again for the opportunity to testify on improving the resilience of our water infrastructure.

Not only has a New Jersey water infrastructure been subject to extreme storms, and also subject to inadequate planning and financing to protect, maintain and upgrade these systems. As Chris said, you know, we have a CSO problems, we have aging infrastructure leaking where we have infiltrating groundwater into the sewer system and probably leaking drinking water and sewer system as well.

We have high costs for these problems and it resulting in both water quality, wasting water resources and flooding impacts that need to be addressed. Hopefully the recent storms as has been mentioned will be bring attention and support needed to improve the drinking, storm water and wastewater systems and the resiliency.

To best encourage or improve resiliency we need to conduct hazard risk analysis in light of updated science, on the risk posed by flooding, storm surge, and as well as



predicted sea level rise, which is now greater than was previously realized only a year ago.

As part of this risk assessment, New Jersey needs to work together with municipalities, counties, utilities and companies to map out sewer drinking water and storm water lines that have not been previously electronically mapped into DGPIS databases and these need to be ground trooped where necessary. This has been a major problem with trying to find out about what the status has been with these infrastructure problems after the storm and it is also important that we know the age and status of

these lines and this needs to be documented.

The mapping should be shared and be put this place for updating. A plan needs to be put in place for updating. These tools will prove useful for identifying and assessing infrastructure, where these tools are already in place, they help in reducing time communicating issues and concern. We also still need as Len mentioned today, a clear and straightforward communication plan to be put in place so that people know who to be contacting during emergencies, whether power outages exist or not.



And this information all needs to be publically available. Although some of the major problems in sewer release in response to Sandy reported, it has been very challenging to get specific information on more minor, serious infrastructure problems.

This information is vital to warn the public on potential health and flooding risks and ensure that the repairs are made.

We have been hearing from citizens and others, you know, about continued problems

with storm water and sewer line problems in certain communities, and we have been hearing new stories. So it is very helpful today to have this meeting and get some more updated information from DEP, but we need more information to the public and in a more timely fashion, you know, following emergency events.

There's also concerns, you know, we understand that most of the ocean dischargers did stay on line during the storm, however, it looked like some of the facilities were flooded based on the storm surge maps produced, but we still need to get more information about the status of these facilities.



So it's technical standards need to be developed and updated as mentioned previously and we also need the staff resources to evaluate and ensure that these are met going forward. Again we are very concerned about the age of some of these systems, we heard about the Middlesex Utility Authority that they actually had to find retired engineers to come in and help with some of the systems, because some of the technologies were so old that the engineers were not familiar

with how to fix them and so there is a serious problem that really needs to be addressed. It is important that pump stations, lines and discharge pipes are flood proofed, as DEP mentioned today, and that a variety of strategy should be evaluated when -- to protect the facilities as well as to protect the environmental area that they are in.

To facilitate resource sharing we need to investigate and provide financial incentive to encourage sharing and develop MLU's between counties and maintenance for tools and equipment. We have heard that there has been some counties to have resources, but are not able to share because of financial issues.



To provide for the long term stability of long term operations, the State needs to release the protective water supply plan, invest in repairing and upgrading infrastructures mentioned, support long term funding mechanisms to support broader structure investment, including you know, beginning conversations about storm water utilities, so

that we can have environmentally protected storm water planning process in place.

We need to increase water conservation beneficial reuse of water as well as update and strengthen the storm water and coastal storm regulations.

We also need to restore funding in the natural infrastructure; green acres, blue acres, farmland preservations all need more funding.

We need to create tax incentives to encourage volume adoption of rain, like rain barrels and green roofs. We need to develop special area management plans for Barnegat Bay and the cost that have meaningful participation, pilot public -- we have been very disappointed with the process so far and we hope that these



efforts can be revitalized in a way that has meaningful results.

Finally, as mentioned previously, we need to strengthen and enforce NJDEP permits, which are not allowed to degrade water permitting by alot, including the individual permits for CSO's.

So again, improving the status is critical for water conservation, protecting the public health, and improving water quality and reducing flooding; all of which improves the quality of living and our economy.

We need to, you know, invest in green infrastructure, and protect our natural infrastructure. Thank you.

CHAIRWOMAN GOODWIN: Martin McHugh.

MR. McHUGH: Thank you for the opportunity to present this testimony today and more importantly for recognizing the opportunity to increase the resiliency of building infrastructure to a green infrastructure approach.

My name is Martin McHugh, I am the representative for The Conservation Fund in New Jersey, but I am also a resident of Manasquan,



New Jersey. So I saw firsthand with super storm Sandy the need for green infrastructure approach going forward.

The Conservation Fund is a national land trust and sustainability nonprofit based out

of Arlington, Virginia.

In the last 30 years The Conservation Fund has protected over seven million acres of land and water in all 50 states, these range from the park down the street to historic battlefields, wild areas and destinations of all kinds; including the Flight Memorial, and just last month the first monument to the State of Delaware.

The Conservation Fund is chartered under the dual mission of protecting our nation's land and water resources, and promoting sustainable economic development.

In addition to land preservation, The Conservation Fund endorses a balanced approach for smart area in planning and a sustainable development, to design or build assets so they are in concert with our natural assets. We call this strategic conservation process the Green Infrastructure approach.



Our green infrastructure approach is not just windmills, it's not solar panels or rain gardens, it is a process. It is a process that guides the construction of built or gray

infrastructure, if you will, our homes, our businesses, roadways and utilities, which we are talking about today, together with the restoration of the green infrastructure; the waterways, the wetlands, the parks and forests, our beaches and dunes. Green infrastructure is a process that can be undertaken at state, regional community or even watershed levels; and it is a process that educates participants on the links between our built and green infrastructure, and it shows how these connections provide benefits or services to our built assets.

By analyzing these connections, we can identify opportunities for designing well integrated systems by increasing the function value of both the built, and the natural assets. And it's clear that we restoring our natural assets increases their capacity to protect the built infrastructure. Restoration, increases resiliency. It is a necessity for sustainable ecological systems, for vibrant communities, and



for a healthy economy, and there is no better example of the value of importance for the

healthy, high functioning Green Infrastructure network than what happened after the super storm Sandy, and during the storm.

So since super storm Sandy the Conservation Fund has been working in a number of New Jersey communities to provide information to benefits of green infrastructure, and for the rebuilding process, to truly restore the shore and build back more resilient communities.

We do this with strategic partners with Monmouth University and and Dewberry Engineers. We are lining up funding for green infrastructure planning and identifying green infrastructure demonstration projects along the coast.

Our National MOU, Memorandum of Understanding with the Army Corps of Engineers provides for cooperative approach to promote green infrastructure flood protection, storm water mitigation and sustainable development. And through this MOU, days after the storm I led tours of impacted coastal areas for Lieutenant General Bostick, is the Commander of the Army



Corp of Engineers, and other officers and

Assistant Commissioner Kasinski was there as well and we began a dialogue of the green infrastructure for the coastal rebuild on those days.

The Conservation Fund has worked with numerous other partners from environmental and conservation groups to cities, counties, major utilities and leaders, to undertaking green infrastructure planning and implement assessments throughout the country. We're currently completing green infrastructure plans in Chicago, Houston, Los Angeles, and when I talk about hard scape infrastructure area, Los Angeles was a big challenge.

Following the Mississippi River floods of 2010, The Conservation Fund completed a Green Infrastructure for Nashville and Davidson County Tennessee with the primary focus on flood control and flood water retention. I have a copy of that plan up here if you'd like to see it at some point if anybody in room wants to see it afterwards.

In terms of water utilities, the Conservation Fund partnered with the Milwaukee

Metropolitan Sewage District on its Greenseams program. GreenSeams was established through the Green Infrastructure process to address problems associated Milwaukee's combined sewer overflow system.

A key component is identifying lands containing critic hydric soils, then work to preserve and restore those lands for the water management and retention. The Green Infrastructure plan covered 440 square miles, encompassing 4 watersheds, 4 counties, 28 municipalities and 1.1 million customers resulting in over 2200 acres of preserved land, 380 acres of restored, including 14 miles of stream buffer and effectively removed thousands of gallons of water from the sewer, hundreds of thousands of water from the sewer system and reduced future flood risks, increased flood management cost, improved wild habitat, property values and overall quality of life.

There is no doubt that green infrastructure approach can be applied to improve the resilience of the water structure of New Jersey, while improving the water quality at the same time.

As I stated at the outset, The Conservation Fund is working hard with partners in New Jersey to provide the framework and the tools for a coastal rebuild that directly engages partners in the plans for more resilient communities. It is a community based, community driven process that incorporates input across all stakeholder groups, to retain community character, which the Governor is concerned about.

The process also educates partners and builds champions for the green infrastructure plans, so that they do not sit on the shelf.

The Conservation Fund intends to provide written testimony beyond this introductory statement that I am giving today to respond directly on the topics outlined in your request for testimony, but in closing bullet six of the request asks how DEP can encourage the use of green infrastructure to protect water quality and protect water infrastructure resiliency?

The Conservation Fund respectfully suggests that DEP review the projects that we have completed on our website, www.ConservationFund.org.

The Conservation Fund is also

available at the Department's availability to meet with any of the department programs or staff to show them how to do this. And lastly, since the late 90's we have been training partners, state agency, environmental agency partners, Federal agency staff, state county planners, municipality, biologists, developers and NGO's in the green infrastructure approach.

So in addition to holding workshops around the country, we provide green infrastructure courses at the the National Conservation Training Center in Shepardstown, West Virginia. The next course is offered on May 20th, and you can find a link to register for that on our website.

We work with State agencies on registration fees, as we know, as I know especially having worked here for 25 years, the State is strapped for training and funding, so we will work with you to register, anybody who wants to come. Thank you for your time and commitment to this. We really appreciate it.

CHAIRWOMAN GOODWIN: Is there anybody

who else who would like to testify?

(No response.)



CHAIRWOMAN GOODWIN: Thank you, we have heard some really great information today, the process is that we now will go back as a Council digest the information. We will receive a copy of the transcript. We will receive copies of all of the written testimony.

If anybody would like to supplement, they are welcome to do so within the next 30 days and then we will prepare a written report to the Commissioner. Our written report will appear on the Clean Water Council website.

Thank you so much for everything, especially the interesting comments on green infrastructure. I will tell you that had we held our originally planned public hearing in November of 2012, that would have been our topic and perhaps that will be the source of a future topic for the Clean Water Council. I thank you, and we can now consider this hearing officially closed.

(Whereupon the hearing was closed at 12:30 p.m.)

C E R T I F I C A T E

I, LINDA L. PSYLLOS, a Certified Court Reporter, License XI 1184, and Notary Public of the State of New Jersey, do hereby certify that the foregoing is a true and accurate transcript of the testimony as taken stenographically by and before me at the time, place and on the date hereinbefore set forth.

I DO FURTHER CERTIFY that I am neither a relative nor employee nor attorney nor counsel of any of the parties to this action, and that I am neither a relative nor employee of such attorney or counsel, and that I am not financially interested in the action.

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Notary Public of the State of New Jersey

My Commission Expires July 19, 2017

Dated: April 29, 2013