

Committee Meeting

of

ASSEMBLY ENVIRONMENT AND SOLID WASTE COMMITTEE

*“The Committee will hear testimony from invited stakeholders
regarding the State’s aging drinking water and wastewater infrastructure”*

LOCATION: Committee Room 9
State House Annex
Trenton, New Jersey

DATE: June 12, 2014
2:00 p.m.

MEMBERS OF COMMITTEE PRESENT:

Assemblywoman L. Grace Spencer, Chair
Assemblyman John F. McKeon, Vice Chair
Assemblyman Daniel R. Benson
Assemblyman John S. Wisniewski
Assemblyman Scott T. Rumana
Assemblyman David W. Wolfe



ALSO PRESENT:

Carrie Anne Calvo-Hahn
*Office of Legislative Services
Committee Aide*

Christopher Pierre
*Assembly Majority
Committee Aide*

Thea M. Sheridan
*Assembly Republican
Committee Aide*

***Meeting Recorded and Transcribed by
The Office of Legislative Services, Public Information Office,
Hearing Unit, State House Annex, PO 068, Trenton, New Jersey***



L. GRACE SPENCER
Chairwoman

JOHN F. McKEON
Vice-Chairman

DANIEL R. BENSON
JOHN S. WISNIEWSKI
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COMMITTEE NOTICE

TO: MEMBERS OF THE ASSEMBLY ENVIRONMENT AND SOLID WASTE COMMITTEE

FROM: ASSEMBLYWOMAN L. GRACE SPENCER, CHAIRWOMAN

SUBJECT: COMMITTEE MEETING - JUNE 12, 2014

The public may address comments and questions to Carrie Anne Calvo-Hahn, Committee Aide, or make bill status and scheduling inquiries to Sherri Hanlon, Secretary, at (609)847-3855, fax (609)292-0561, or e-mail: OLSAideAEN@njleg.org. Written and electronic comments, questions and testimony submitted to the committee by the public, as well as recordings and transcripts, if any, of oral testimony, are government records and will be available to the public upon request.

The Assembly Environment and Solid Waste Committee will meet on Thursday, June 12, 2014 at 2:00 PM in Committee Room 9, 3rd Floor, State House Annex, Trenton, New Jersey.

The committee will hear testimony from invited stakeholders regarding the State's aging drinking water and wastewater infrastructure.

Issued 6/6/14

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ASSEMBLYWOMAN L. GRACE SPENCER (Chair): All right; good afternoon, all. Good afternoon, yes, all right; and welcome to the Assembly Environment and Solid Waste Committee.

Today's Committee is a hearing; and today we're focusing on water infrastructure and those supportive systems that move the water here in New Jersey from town to town; from High Point to Cape May, from Newark to Paterson, Paterson to Bayonne, and every place in between.

Several people here are part of a coalition that supports fracking and protecting our water from those substances. But the one thing I think we all can agree on -- everyone in here -- is that water is the most valuable asset the State of New Jersey has. It not only keeps us green, but it also keeps us healthy. And we must do more in order to protect it -- whether it's shoring up our water systems, to making sure that it is not polluted.

So on the agenda--

UNIDENTIFIED MEMBER OF AUDIENCE (off mike):
Madam Speaker, just a point or order, please.

We are not *supporting* fracking; we're a coalition *against* fracking.
(laughter) We hate fracking. Thank you. Just for the record, okay? Thank you.

ASSEMBLYWOMAN SPENCER: Mea culpa, mea culpa.
Those individuals--

ASSEMBLYMAN JOHN F. McKEON (Vice Chair): English is all of our second language, sorry. (laughter)

ASSEMBLYWOMAN SPENCER: I hear against fracking, but, again, in support of protecting our water systems. So, thank you.

UNIDENTIFIED MEMBER OF AUDIENCE (Off mike):
Thank you.

ASSEMBLYWOMAN SPENCER: All right, so today we'll start with -- we have several individuals here to testify. And what I'm going to ask is for some courtesy; those who are not originally -- or were not originally scheduled to testify -- and that would be some of the individuals here who are against fracking -- if you just give us an opportunity to get through the agenda that is set forth, or the speakers that we have lined for today. As I indicated earlier to some of you, I will take some testimony from some of you at the end of this hearing, so just keep that in mind. It can't be all of you, because if so we'd be here until 9:00, 10:00 at night and I need my afternoon nap. (laughter)

So all right, with that, we're going to begin with individuals who are part of the Administration: NJ DEP and NJEIT -- Dave Glass, Dan Kennedy, and David Zimmer. Come up, sirs.

Gentlemen, please.

And I'm going to ask, if you don't mind, if you would turn your cell phones off; put them on vibrate so that the testimony will not be disrupted. The testimony today is being recorded so that later it may be transcribed, and anyone who may be interested in a transcription later on, there's a process in which you can obtain it.

Thank you.

D A V I D G L A S S: Chairwoman, members of the Committee, my name is David Glass, Deputy Chief of Staff, Department of Environmental Protection.

First, thank you very much for the kind invitation to attend this hearing. And as you framed out, obviously this is an issue of vital importance.

With me today is our Assistant Commissioner of Water Resources, Dan Kennedy; his programs oversee our drinking water and wastewater programs within DEP. Also joining us today is the Environmental Infrastructure Trust Executive Director, David Zimmer. As you know, EIT is *in*, but not *of* -- within DEP. And many of you have either sponsored or voted in support of the Environmental Infrastructure Trust or State Revolving Fund -- drinking water, wastewater loans over the years -- so thank you for that support.

First, overall, just to frame out the issues. As we know, repairing and modernizing aging infrastructure is not an issue unique to New Jersey. Our nation's infrastructure and lack of historic adequate reinvestment in it has the potential to negatively affect public health, our environment, and our economy. In fact, going back to a 2008 survey by EPA -- Clean Watershed Need survey -- estimates that about \$40 billion is required to address New Jersey's water supply, and wastewater and stormwater infrastructure needs over the next 20 years. It roughly breaks down to about \$17 billion for wastewater, \$8 billion for water supply, \$16 billion for stormwater.

And like I said, it is a national issue. Another report, quickly, the American Society of Civil Engineers cites, out of a 2011 report, that 30-year capital needs for maintaining and expanding the United States' water, wastewater, and sanitary and stormwater sewer systems ranges from approximately \$91 billion in 2010 up to \$195 billion by 2040.

So why do I say those points? I mean, they are scary numbers when you look at them up front. It's to make the point that, clearly, this is a long-term issue with the need for long-term investment. And, again, as I mentioned, it's not only good for the environment, but also good for the economy. It is estimated that every \$1 billion of public infrastructure investment generates, by the most conservative estimates, approximately 23,000 well-paying jobs. In addition, the Congressional Budget Office estimates that every dollar of infrastructure spending generates, on average, \$1.6 dollars increase in GDP. So again, those are just stats to frame how it's not only good for the environment, but also good for the economy.

Specific to New Jersey but, again, not unique -- especially in historic urban centers -- infrastructure that we deal with may be over 100 years old in some situations. Chairwoman, I know we talked about the recent water main break in Newark; a situation a few years back when they were replacing system and they ended up replacing what was a brick pipe system. So it just gives you a perspective.

And, again, while short-term projections have been met, the reality is that this is a long-term issue that will need incremental changes over several decades. Obviously, the challenge is trying to balance the cost to the ratepayers, as well adding in what is always a challenge at the local, county, or State government level as far as dealing with the budgetary issues.

Under this Administration, the planning to address this historic issue has started -- which we'll go into more detail -- whether it be combined sewer overflow draft permits, asset management, resiliency planning, our annual Environmental Infrastructure Trust legislation, or the first-in-the-

nation Statewide Assistance Infrastructure Loan -- or SAIL Program -- that passed the Legislature and was signed by the Governor with bipartisan support.

Overall, based on our experience and lessons learned in a post-Sandy world, earlier this year DEP made available technical and regulatory guidance that aims to ensure that the rebuild and newly constructed drinking water, wastewater, and storm runoff facilities are situated, constructed, operated, and maintained in a manner that better protects critical system elements, and promotes a quicker recovery and resiliency planning.

And again, promoting resiliency must, at the same time, be coordinated with ensuring that our existing facilities are maintained and operating with long-term viability and the lowest life-cycle cost in mind.

Obviously, while we're here from DEP and Environmental Infrastructure Trust, this issue goes across State government as well; I mean, there are many other agencies involved. And also provided to you -- and we're going to discuss in more detail, but it's a takeaway for you -- is our Asset Management Guidance, which, as you read through when you have a chance, it provides -- it gives you a good insight of what we're providing to municipalities and counties as we're doing our long-term planning.

With that, I'd like to turn it over to our Assistant Commissioner, Dan Kennedy. Dan will talk about -- just sort of recap of where we were in a post-Sandy world as far as wastewater infrastructure and water infrastructure; and especially better combined sewer overflow status and draft permits; and where we're going.

ASSEMBLYWOMAN SPENCER: Great, thank you.

Welcome, Mr. Kennedy.

DANIEL KENNEDY: Thank you, Assemblywoman.

Good afternoon. It's really impossible to disconnect the age of our infrastructure to the risk our infrastructure faces from natural disasters and the lack of asset management. So I'm going to revisit the immediate concerns after Sandy to provide some greater context.

More than 90 wastewater treatment plants in 21 counties reported impacts due to Sandy. I mention that to remind everyone that this is certainly not just a city issue, but a statewide issue that we face in all 21 counties -- rural, suburban, first-ring suburbs, and our urban centers all have certain levels of these issues to face.

Impacts included complete loss or reduced power; reduced or no treatment, resulting in a discharge of raw or partially treated wastewater; the need for fuel or generators due to extended power outages; broken sewer mains -- just to name a few of the impacts. In many instances, multiple impacts occurred on single systems, extending beyond the treatment facility to the pump stations and collection systems. So when we look at wastewater systems and water systems, we look at not just the points of the facilities, but all the lines that connect those points and get to our important natural waterways and where the impacts of the effluent are felt.

So it's really hard to identify, at times, the systems. You may be surprised, but our data statewide isn't as strong as it could be. And when we talk about asset management, one of the first steps is identifying those points, and those lines, those outfalls very clearly in CSO communities and in the rest of the systems, statewide.

Our barrier island treatment facility's pump station and storm sewer mains sustained catastrophic surge and flood damage. This extended inundation of pump stations in saltwater, which impacted all the electrical systems including pumps, motors, and electronic controls-- During the first week of November, the Department was closely assessing 66 wastewater treatment facilities and pumping stations. Certainly, by mid-November, that number ceased, but clearly billions of gallons of untreated effluent were discharged, as a result of Sandy, into our important waterways of the state. And though dissolution does solve some of that, in the areas of where this outfall occurred -- all of them were tidal -- it is certainly a concern, moving forward.

Today all systems are operating within the permit conditions. However, communities are in the expensive process of rebuilding, with resiliency mounted into their system to properly prepare to withstand future weather events such as Sandy.

In these areas where combined sewer overflow is an historic issue, DEP has taken a step to issue draft permits for new requirements, which include asset management, and operations, and maintenance for the first time, in terms of -- in a real way in the permits.

This is an issue that's a nationwide issue, though New Jersey has made -- certainly made some progress. In the early 1990s there were 281 outfalls; today we have 217 -- an elimination of 64 CSO points. So that's certainly progress. We have solids and floatables controls operating at 183 of these points, with the remainder progressing towards completion. This keeps out 700 tons of material per year from New Jersey waterways. That's good solid progress. We're going to do more -- we're planning on it.

More than \$1.4 billion has been invested in CSO abatement projects -- a reminder that this is not just a New Jersey requirement, but this is a national requirement. EPA has, in other cities, taken strong stances on the lack of implementation on long-term strategies that deal with the CSO issue. Our cities face potential litigation, which is quite costly to the ratepayers and to the municipal governments, potentially. And so we know that the partnership with the local governments and the MUAs is critically important -- and the community groups -- to see that you not only have the environmental issue solved, have a good place for private economic investment to land, but also avoid costly litigation tangling with the EPA on this issue.

Even greater progress is expected under the recently drafted individual CSO permits, which include rather immediate implementation of appropriate signage on outfalls visible from water and shore; within several months, enhanced ops and maintenance procedures; and the permit requires incremental progress towards asset management, with specific models set forth in the permit.

We will have to partner with local governments, community groups, MUAs, and a wide array. We have a great example going on in the City of Camden right now, with the Camden SMART Initiative. where we have the Rutgers Extension academia and community groups such as Cooper's Ferry Partnership involved. So this is not going to be-- The solution to this is not a typical in-the-pipe permitting solution. There are certainly partnerships that DEP is going to be a part of, and using the backstop of the CSO permit over the next decade or so.

ASSEMBLYWOMAN SPENCER: Before you go any further, the Camden SMART Program -- can you elaborate on it?

MR. KENNEDY: Sure. The Camden SMART Program is an initiative to deal with historic stormwater -- which is basically rain water. The real issues with reinvestment in the City of Camden-- Dave mentioned the condition of the pipes in Newark, but I think it's actually wood in Camden -- in certain parts. So to see reinvestment in Camden and have private investment blended with public investment, you need to have infrastructure that actually facilitates that.

ASSEMBLYWOMAN SPENCER: When it comes down to funding that -- funds going into the Smart program -- where are those additional funds generated, and how are they-- Is it coming from EIT?

MR. KENNEDY: Yes, so maybe you could ask Dave.

ASSEMBLYWOMAN SPENCER: Okay, all right. And he can elaborate when we get there, okay. That's fine, because one of the things that has been discussed time and time again, is how do we capture monies in other ways that can be directed towards infrastructure. Will municipalities always be dependent on going to the EIT, or is there something that can be done later on where those funds can be captured -- other than raising rates and having things-- I mean, what else is out there?

MR. KENNEDY: Yes, Camden County MUA has a great story to tell, and Dave can touch on some of the highlights of that story.

I was there on Earth Day, speaking to the group there and the partnerships with community groups -- the Mayor's Office, Rutgers Extension -- it is just an amazing partnership. And that's the kind of work that will have to take place to see this issue fully through on CSOs.

In the interest of time, if you have any questions on the conditions of the permit, they are all on line, frankly, and we expect that by -- once we cap public comment, and receive and process that information -- that by January 2015 we'll have those permits issued with implementation, with enhanced signage, and system characterization to begin within the first several months of the permit. And we've been doing so in partnership with EPA and we do expect to receive comment from them. But we expect them to be positive and constructive; therefore, positioning New Jersey and our cities in a good place towards implementation -- developing these long-term control plans.

ASSEMBLYWOMAN SPENCER: Thank you.

MR. KENNEDY: Thank you.

MR. GLASS: Well, now we can have our Executive Director, David Zimmer, touch on, specifically, asset management. He'll be glad to go into that in further detail

D A V I D E. Z I M M E R: Good afternoon, Madam Chairwoman, Committee members. Always a pleasure to be here.

So as David said, I'm going to touch a little bit on some of the solutions -- or proposed solutions, and successes.

Asset management -- just so that we're on the same page -- asset management is really optimizing the operational and the financial aspects of the assets in any system. And, of course, if you're going to optimize that you're going to minimize the costs -- minimize the costs to the ratepayers in terms of running that system. And when you do that, the benefits of that -- you're going to end up, certainly, with lower user rates; you're going to end up with better quality environmental results in optimizing the use of your

assets; quality of life in the communities will go up; and, of course, your ratables should get more attractive. And for any local community we can all appreciate what higher quality ratables means and why asset management, therefore, becomes attractive when you start to look beyond just, “Is there really an increase in my operating budget because I’m going to be taking on new debt service?”

You have a copy from David Glass of the guidelines that the DEP has put out. When we talk about the aspects of utilizing asset management and doing some strategic across-the-state implementation it is, literally, the key to any suggestions regarding financing options including for anyone who would like to suggest new sources. The first thing you should do is look at what’s the low hanging fruit, you know? Do we actually need to raise rates, or can we cut our expenses enough to proper strategic asset management that we don’t necessarily have to raise rates; or certainly if we do, the rate increase will be minimal.

A strategic asset management plan, again, in optimizing a system’s cash flow, it produces more for less, right? Nice cliché. But really it is the appropriate cliché. You get a reduction in your energy use because you continue to replace old, inefficient machinery -- pumps, etc. -- that require quite a bit of energy. With more efficient -- more energy efficient equipment you get a reduction in all of your additives -- chemicals, right? -- again from the process when you do your cost-benefit analysis part of whether or not you’re going to spend that money looks at what do I have to put in in order to get out?

Reduction in emergency brake costs. This is a huge, huge expense every year. So really, what you have to talk about is it’s the cost of

avoidance. That's a decision. When you decide not to update your system, you're actually making a decision. And what's the cost of that? look at your line item in your budget, every single year, for what you pay for emergency costs; emergency costs-- And this is a standard number that any utility manager will tell you -- 300 percent times (indiscernible) as a percentage -- versus if you were to just do that under normal procurements. And you start to pull that out and you can begin to see if you don't have those expenses and you are, instead, using that cash flow to invest in newer, better equipment that you don't necessarily have to raise rates.

And we'll go to Camden, right? Camden County MUA; great partnership with the City of Camden with Mayor Redd and her Administration; the Freeholders down there; Andy Kricun, who many of you know; what a gem, right? For the last 20 years they've come through our program, they've borrowed in excess of \$400 million in interest savings alone -- so forget about all the administrative assistance that our program -- the DEP -- provides to borrowers like Andy and the CCMUA. Over \$200 million in estimated interest cost savings by coming through the trust, as opposed to if they had borrowed that money on their own. And understand, we're AAA; Andy's AA+. So on his own he gets to borrow fairly close to where we borrow, and yet because the State provides funds at zero percent that subsidy has allowed Andy -- since 1997 -- to operate the CCMUA without raising rates because, again, the cost of financing through the Trust has been low enough, and the amount of savings in operating and maintenance has been so great that it literally offset the increase that he had on the debt service.

Put that in perspective: You're going to spend \$450 million in one county -- we have 21, do the math -- over 20 years. How much investment is that? And, again, Andy hasn't raised rates since 1997, and when you look at that on an inflation adjusted basis, it's actually a 52 percent reduction. It's an incredible success story, and it really comes out of the vision of the community down there to utilize asset management best practices and come through a program a program like the Trust to keep their costs, their financing costs as low as possible.

The DEP, as we said, the guidelines -- they're up under the Division of Water Quality. Certainly if any of you have questions about it, I would touch base with either myself or Dan Kennedy. If we can't answer the question, our staff can certainly direct you -- we can direct you to the appropriate staff that would.

And I would say that this year we are requiring anybody who comes through the Trust to certify that if they don't have an asset management plan, that they will work with the DEP and the Trust to establish one. So it is a criteria for being funded.

So these are just guidelines in the State; but again, if you're come through the program, it's a requirement. And I will tell you that staff at the DEP and the staff at the EIT stand ready to assist all of our borrowers in that process.

ASSEMBLYWOMAN SPENCER: So you're saying that anyone who comes to the program now, they have to have a asset management program? Those who have come through the program before, they were not required. Now, will the EIT go back and -- I don't want to say retroactively -- but going forward -- well, going forward, you'll impose it

upon them. I'm sure that the EIT has extended that service to those municipalities that have loans, correct?

MR. ZIMMER: If somebody comes in and asks us for assistance who who've not required it to date, we actually have spent the last two years with a lot of stakeholder meetings on just how to set this up. So it's not been required to date; if anybody comes to us and asks us for assistance, again, there are a number of individuals who are well versed, particularly on the drinking water side.

ASSEMBLYWOMAN SPENCER: Right.

MR. ZIMMER: There's a number of templates available at places like the USEPA -- again, a very close partner of both ours and the DEP -- and assisting folks with such a core element of how to run an efficient system. So it's available.

ASSEMBLYWOMAN SPENCER: How many entities and/or municipalities have, if you can tell me, have come to the EIT for funding, to date?

MR. ZIMMER: I can absolutely tell you that. We have funded just north of 1,100 loans.

ASSEMBLYWOMAN SPENCER: Okay.

MR. ZIMMER: Now, a loan, what we'll do is we will combine a number of projects to keep the cost of a loan down. So every time somebody comes in -- let's say, they have three projects; we don't make them three loans, we don't make them go through three legal closings where their legal bills are three times as expensive. When we can aggregate drinking water loans into one loan, we do; so that 1,130 loans probably

represent about 4,000 projects. I can tell you that we currently have 390-something borrowers out of that 1,100 loans.

ASSEMBLYWOMAN SPENCER: And on average, what is the life of the loan?

MR. ZIMMER: Well, the life of the loan is 20 years, unless the average useful life of the asset is less than 20 years.

ASSEMBLYWOMAN SPENCER: Okay.

MR. ZIMMER: Then we only extend the loan for the average useful life of the asset. Now, you can imagine treatment facilities -- they are north of 20 years. We have a statutory requirement that you can't go beyond 20 years. But there are-- A landfill -- a landfill might have a useful life of 12 years; the remaining solids are going to some (indiscernible) work on it. We'll make a loan for 12 years on 20 years.

ASSEMBLYWOMAN SPENCER: Okay. Now, Mr. Kennedy indicated there were 90 water treatment plants in 20 counties that were affected by Sandy?

MR. KENNEDY: Twenty-one -- every county.

ASSEMBLYWOMAN SPENCER: Twenty-one counties. Of those treatment plants, how many have come to the EIT for funding in order to shore up their systems, going forward, or did they all go through Sandy -- or make applications for loans through -- or from Sandy relief funds?

MR. KENNEDY: I'm going to defer to David on that. He was here during the storm; I'm a newer member of staff. He lived through all of it, day-to-day.

ASSEMBLYWOMAN SPENCER: Thank you.

MR. ZIMMER: I had the pleasure, if you want to call it that, of being at The Rock during that -- yes.

So I can tell you-- And I'm going to actually digress a bit and talk about the SAIL loan program. If you remember, SAIL, you all voted on this out of Committee last year. It was known in the legislation as a Disaster Relief Emergency Loan Financing Program, okay? We have dubbed it SAIL -- Statewide Assistance Infrastructure Loan Program, okay? So SAIL is an emergency bridge loan program that you all appropriated. We had a number of discussions with the Chairwoman and her staff and your counterparts over in the Senate. We had countless hours with Commissioner Martin and his senior staff on input, and the Administration as well. This is really, truly, a bipartisan loan program that-- Well, it was signed into law in August. We actually have got it up and running. And I just want you to appreciate the process that is involved in dealing with FEMA, in dealing with the compliance issues with CDBG money from HUD. We had to rewrite quite a bit of our loan program in order to literally act as both the lender and an auditor. And we do that; we're literally a consultant for all our borrowers. Now, Sandy happened at the end of October in 2012 and people immediately came in under Category A and B for emergency repairs. We didn't even have the legislation in front of OLS at that time. So by August quite a bit of the emergency work had already started, if not finished.

What this program has been able to do, now that we're up and running, is we have been able to assist-- We have 10 projects -- and some of them are quite large -- 10 projects that have said, "Yes, I wasn't to come in for that bridge loan." Bayshore, a perfect example. Bayshore RSA. That's

a \$42 million -- it's a set of projects -- but \$42 million; \$42 million that Bayshore would have to borrow from locally or raise their rates before they got paid from FEMA. We're actually out there working with them. We will lend them that \$42 million, up-front. We will take on the responsibility for the repayment for all of the process and documentation submission through OEM to FEMA to get repaid that \$42 million.

So it's a great program; I absolutely want to congratulate you guys and definitely thank you for your input. That and the Nano program -- very successful. So we have 10 -- to answer your question -- we have 10 borrowers and, again, we've made two loans so far on this. So, again, you have to go through the design process, which takes a couple of months. We have two projects that are actually up and running; both of them happen to be with the South Monmouth Regional Sewage Authority; one of them is for Lake Como, which we're actually relocating a pump station to higher elevation -- the entire pump station. The other one is for Pitney Lake (*sic*), and what we're doing there is we're helping them build-- It's actually a very cool designed; it's a mobile design. So the submersible stays submersible, but when the floodwater start to raise and you get a surge everything that's above ground is actually portable; it's mobile. You track it to higher ground and you run it with a generator. And there is actually a system at Sea Girt that did just that, and Sea Girt was one of the few towns on the shore -- 24 hours after the storm they brought the mobile unit back and they were up and running, and they had sewer capacity again, literally, November 1 or October 31 -- so those 10 projects.

On the base program side -- the non-SAIL side. As you know, we have \$355 million set this year for Sandy resiliency projects. This is

additional SRF funds that came in from the EPA. They were appropriated by the U.S. government this year when President Obama signed the Disaster Relief Act back in January 2013. So the State got \$229 million, we're matching 20 percent of it, the EIT will leverage another third of that -- there is going to be \$355 million. I do not have the exact number; I can tell you that the DEP is still going through and ranking the projects to figure out which projects will get those. At the end of the day, what we're trying to do is figure out what is the most optimal financing for every single project to minimize the cost of each project -- so whether you're a 90/10 FEMA borrower, grant recipient, or you're going to be a 19 percent grant recipient through the Sandy Relief money, or you're going to come into the regular program. And not to put too fine a point on it, but when you come into the regular program we act as, essentially, a 35 percent grant. By borrowing so much of the funds at zero percent like Andy, when you look at \$200 million versus \$450 million that was borrowed -- Andy essentially got a 38 percent grant on his source of funds.

And that's the way we need to get these local communities to think about the EIT program. There's so much-- Everybody wants a grant because it's a free money. But, wait a second -- your interest rate savings are a grant -- 35 to 40 percent come into the program. And that's for the high-rated; for folks who are rated BBB, it's north of 50 percent.

So again, between SAIL, between Sandy, between the base program -- there's \$1.3 billion worth of demand in water infrastructure coming through this program this year that you folks will be voting on shortly. Again, that all goes into updating and retrofitting the water infrastructure that we're sitting here talking about.

ASSEMBLYMAN BENSON: Madam Chairwoman?

ASSEMBLYWOMAN SPENCER: Yes.

ASSEMBLYMAN BENSON: When you're ready, I just have a question.

ASSEMBLYWOMAN SPENCER: Certainly; before I get to Assemblyman Benson -- how many utility authorities are there in the State of New Jersey?

MR. ZIMMER: All the small regional ones? We have over 500.

ASSEMBLYWOMAN SPENCER: Does DEP conduct any type of review or inspection of the facilities to verify that certain things are in place to ensure that the processes are working the way they're supposed to?

MR. KENNEDY: Yes, we not only have compliance and enforcement staff to identify things that come in through our hotline or things that are observed by residents and locals. We also have a freshwater and a nautical water monitoring program that identifies for us when water quality objectives aren't being met, and then we work through our compliance and enforcement staff to ensure that's the case. Do we visit all of them, every year? No.

ASSEMBLYWOMAN SPENCER: I raised that question-- In the City of Newark there was an issue regarding turbidity in the water and it went unmonitored for close to almost two years. And in situations like that, the relationship between the Watershed and DEP -- what is the communication between the utility authorities and DEP, and how do we avoid situations like that from occurring in the future?

MR. KENNEDY: Communication is active. I think our professional staff and their professional staffs over the last-- We have staff at DEP that have been in the water program for over 30 years and they've developed these relationships.

I think we do-- When there is a serious, critical public health and safety issue, DEP acts on advisories and does the hard thing, working with the locals -- or actually, the locals, through their health department, will often take the actions. But we do try to not only tell them where they're bad, but try to identify assets that are available to them to invest in their infrastructure, and then support them through that process of permitting and construction to ensure that the real solutions are on the table as soon as possible. So there's not just one answer. And certainly, about the specific situation, I know our staff works great with the Newark staff. You don't want it to go that far, but when it has to go that far, that's our responsibility. And Newark, I could say for sure, has been very responsive and adaptive to the solutions we put on the table.

ASSEMBLYWOMAN SPENCER: Great, thank you.

Assemblyman Benson.

ASSEMBLYMAN BENSON: My question is in a very similar vein. First, of those 500 authorities, how many of them -- what percentage have adopted best practice/asset management, would you say? And do we keep track of that?

MR. KENNEDY: I would say that I really, personally couldn't fashion a guess. We don't-- I don't believe that we do track it at this point.

I'll remind you, this is an asset management guidance and best practices document that we just put online recently. It's not into our

regulations. So we have room to improve as well, and these are some of the things that we're thinking about -- is trying to get a good baseline. Not just where the lines are, but a baseline of the planning that's going on so we can then target our investments and our staff expertise to go to the right places to assist them. But I don't believe we keep a database on the status there.

ASSEMBLYMAN BENSON: Okay. Especially now that it's a requirement for the Infrastructure Trust--

MR. ZIMMER: Right.

ASSEMBLYMAN BENSON: That might be something that would be key, especially whenever you have a contact with the system is a good time to ask that question, and to say, "By the way, if you're come into compliance, and you're going to seek this funding source here, you need to get into line with these best practices now." And I think that part of the communications is key.

MR. KENNEDY: We're going through an extended stakeholder process to discuss what our existing authority is at DEP and what new authority we may need in terms of getting some of these components into the regulations.

We also are requiring standards and best practices contained in our infrastructure flood protection guidance and best practice guide -- which is also online -- to go through the EIT program. In addition, we have an auxiliary power guidance and best practices guide that is in a similar position with EIT's.

So we took a guidance document approach because it takes time to do rules. And we feel like if we're going to do this we just can't throw it on the desks of all these folks in a rule. We know we have to go

through a more formal stakeholder process. We have to bring folks in, communities, the operators of these systems, talk to them, and understand the implications before we move ahead through the rule-making process.

ASSEMBLYMAN BENSON: My second is--

ASSEMBLYWOMAN SPENCER: Sure, certainly.

ASSEMBLYMAN BENSON: --also similar to what occurred in Newark. In Trenton we have seen situations where Trenton water Authority has exceeded certain levels detected. Notification would have to go out to -- post-event -- to the water customers. There's really nothing for the water customers to have done, because it's an event that occurred in the past and the levels, although they're higher, they don't believe them to be of any threat to health.

We've seen a couple of these come out to the customers in our district. The information tends to be very boilerplate, pretty much saying, "Hey, something happened; you don't need to do anything about it." And as you can imagine the concern that residents have when they see multiple of these -- is there something that's done to better communicate to residents that on multiple occurrences that something is being done by the authority or by the DEP -- to show that they're doing something proactive to come into compliance so that these events do not occur?

MR. KENNEDY: That's a good idea. I don't know that we frankly do that now. I think that we probably need to bring in from a notification perspective that group of stakeholders and think hard about our approach, moving forward. What we're trying to do is avoid those. So the more proactive we are, the more we manage our assets, the less those letters go out. I've got two small kids; I've received letters like that. I

understand the concern that goes through residents' minds because it goes through my mind when I get those letters too.

ASSEMBLYMAN BENSON: And especially in multiple municipal systems where the authority for managing it is in one municipality, and the notices are going out to others. It creates a level of distrust that there's concern there and that's why having a third party like the DEP, like other entities to come in and give some reassurance that there is somebody looking after, and that it's not just a matter of notice; but that something has been done since that notice, I think, is important to reassure. Because I know both mayors and regular residents have expressed to their legislators their concern over that particular issue.

ASSEMBLYWOMAN SPENCER: Certainly.

MR. GLASS: And to your point, Assemblyman, especially when there are situations like that, our professional staff will work closely with a particular entity to try to ensure that doesn't happen in the future. As our Assistant Commissioner mentioned, if it gets to that point where we need to take compliance or enforcement action, we'll get there. We try to work compliance first before we have to get to enforcement.

ASSEMBLYMAN BENSON: Absolutely. Thank you so much.

ASSEMBLYWOMAN SPENCER: And that's a valid point. I think at the end of the day we want to make sure that the residents receive a certain comfort level that something's being done, as opposed to it being a repeated occurrence. We received one notice; we haven't received anything else since then but in the back of the minds of a lot of people it's a question of what's going on with the water currently, considering the circumstances that our water system is currently and we do not have the watershed. It was

deconstructed, or dismantled. And so we really don't have any type of assurances as to what's really going on -- other than what's communicated to us from the municipality. So certainly it's a great idea.

Anything further, gentlemen?

MR. GLASS: No, that is it.

ASSEMBLYWOMAN SPENCER: All right, thank you. Once again, to Dave Glass, Dan Kennedy, and Dave Zimmer -- thank you very much for coming before us today. Thank you for your comments.

ALL: Thank you, Madam Chairwoman.

Next up -- and I'm going to call them all together -- Andrew Hendry from New Jersey Utility Association; Lou Walters, Atlantic Sewerage Company; John Dyksen, United Water; and Kevin Watsey--

A N D R E W H E N D R Y: I don't think Kevin's made it here.

ASSEMBLYWOMAN SPENCER: Okay.

MR. HENDRY: So we'll go on without him, Madam Chair.

ASSEMBLYWOMAN SPENCER: All right, you guys can start without him.

MR. HENDRY: All right.

ASSEMBLYWOMAN SPENCER: Thank you, gentlemen, for joining us today.

MR. HENDRY: Thank you, Madam Chairwoman, and thank you very much for inviting us. My name is Andrew Hendry; I'm the President of the New Jersey Utilities Association. For those who don't know, we represent the investor-owned utilities in the state that provide electric, natural gas, and water, and wastewater services to your

constituents. So we're the non--governmental utilities providing those services.

I submitted written testimony; I won't read from it. I just wanted to make a couple of points, and then hand things over to my colleagues who are the experts on boots on the ground -- how utilities are making improvements to their distribution systems, particularly in urban areas.

So obviously this is a critical issue. To frame the folks who we serve for you: We serve about 40 to 45 percent of the population -- that's the investor-owned utilities. So we don't have the majority. We have about seven companies that are members of our association, and those are, by and large, the largest of the private water utility company. There are a few more, but they are very, very small and are not members of our association.

But I think it's important to understand how we're regulated. And folks before us -- the DEP -- spoke a bit about how utilities, both the municipal and the investor-owned utilities are regulated from the DEP perspective. And I can tell you from just a couple of examples and I was trying to do a quick survey, but I know two of our largest companies had no violations issued to them last year and there were 700, I believe, issued statewide, roughly speaking.

But we're regulated by the Board of Public Utilities. And our rates are regulated by the Board of Public Utilities; we're not allowed to unilaterally raise our rates. And the Board of Public Utilities goes through a quasi-judicial process in the setting of rates where we go before an ALJ and both sides make arguments, file briefs, sometimes there's a stipulation,

sometimes it's further litigated. So there's very intensive process where a ratepayer advocate is involved that goes into the setting of rates.

And the BPU also regulates us to ensure the provision of safe, adequate, and proper service.

Water is one of the most capially intensive businesses, period -- and that's the distribution and treatment of water. It's the most capially intensive of all the utilities. And so I say that to give you a sense of the expense that goes into the treatment of water and getting it to your constituents. And our companies are presently in the process of making hundreds of millions of dollars of investments; these guys will talk a little more about that. I don't want to steal their thunder. But there remains a tremendous need. I believe one of the folks from DEP talked about the Society of Civil Engineers figures that were released last year. Their estimates -- I think, which might be based on EPA numbers, or a need for about \$8 billion over 20 years for drinking water facilities in the state, and about \$32 billion for wastewater. About 20 percent of New Jersey's water distribution system pipes are over 100 years old. So there's a significant need for the reconstruction of those pipes; we're very conscious of it. We're working very diligently to do that. the Board of Public utilities, a couple of years ago, instituted a new mechanism called the Distribution System Improvement Charge -- or DSUC, as we like to call it -- which allows--

ASSEMBLYWOMAN SPENCER: Who instituted that?

MR. HENDRY: I'm sorry?

ASSEMBLYWOMAN SPENCER: Who instituted that?

MR. HENDRY: That's the Board of Public Utilities, so that was done through a proceeding and order at the Board. And actually, I believe, it's in regulations too.

ASSEMBLYWOMAN SPENCER: Okay.

MR. HENDRY: Which was started in Pennsylvania a number of years ago. A number of other states are doing it now, but we instituted one on New Jersey a couple of years ago. A number of our companies are taking advantage of that, and that allows for a separate rider for expeditious -- more expeditious recovery of specifically improvements to the distribution system. So the companies have to submit a plan about water improvement they're going to make that has to be approved and then they are allowed to collect on that.

So really I just wanted to give that sort of setting the ground, if I could. And also thank you for inviting New Jersey's Future as well; I'm on their Board of trustees. They are doing great work right now with a group of stakeholders in the area of urban water infrastructure, and particularly CSOs and dealing with that problem. And they've had an exceptional process going on. So I think it's great that you invited them as well.

ASSEMBLYWOMAN SPENCER: Definitely.

MR. HENDRY: I think what I'll do next is turn it over to Lou Walters. Lou is President of the Atlantic City Sewerage Company to give you a sense of the investments that he's making in Atlantic City.

LOUIS M. WALTERS: Good afternoon.

ASSEMBLYWOMAN SPENCER: Good afternoon.

MR. WALTERS: Atlantic City Sewerage Company was founded in 1888, so we have been in the city for a very, very long time.

It is a privately owned public utility. Our rates are regulated by the New Jersey Board of Public Utilities, as Andrew said. We have approximately 7,600 customers, and 11 very large casino customers.

The company's wastewater collection system consists of approximately 100 miles of pipe and 7 pump stations in the City of Atlantic City. Our franchise territory is only the City of Atlantic City and we only are a transport company. We purchase our wastewater treatment from the Atlantic County Utilities Authority -- many of you who have visited Atlantic City will see the windmills; that is the treatment authority. We are 40 percent of their flow; we're their largest customer out of a 14-group consortium that puts waste into that system. And we are the only public utility that participates in that system.

Our rates are regulated by the New Jersey Board of Public utilities. And the company's net plant service -- net, after depreciation -- was, at the end of December 31, 2013, was \$57.6 million. For the period 2009 to 2013 the company invested an additional \$18.5 million in its wastewater collection system. Two of the major projects that we did were replacing two 85-year-old force mains that run under the bay between Atlantic City -- right behind Borgata -- to the treatment center. That takes about 85 percent of our total flow out of the city; 85 years old; cast iron pipe; subject to weather, subject to freezing and thawing with the pilings that it sits on.

We did a directional drill; it was a \$7 million project. The estimated life on those pipes now are 125 years. I won't see the replacement in my lifetime, and it's a good thing. It's a very, very environmentally sensitive area, and it was a very, very successful project.

ASSEMBLYWOMAN SPENCER: How did you pay for it?

MR. WALTERS: A combination of retained earnings; our owners' equity -- leaving in; and we used New Jersey Economic Development Authority bonds. In 2008 we borrowed \$6 million, and in 2010 we borrowed another \$8 million. All of our loans are EDA financed, and we placed them usually with private placement through a bank.

Another large project that we undertook during that period of time was the infrastructure development supporting Revel Casino. The southeast inlet is an older section of the city; Atlantic City is a very old city, old infrastructure. We had a \$7 million project there, as well, to support growth and development in that area of the city.

In addition to that, we replaced two of the three pumps in our Baltic Avenue pump station, which upgraded -- and again, as the gentleman from the Environmental Infrastructure Trust pointed out, better electrical usage, lower costs, lower operating costs, better reliability.

I will point out that during Superstorm Sandy we did not go down. We had backup generation, we had diesel generation at all of our facilities, and we did not lose our ability to pump to the treatment center.

The company expects, over the next five year-period, to invest an additional \$9 million. Some of those projects include replacing Raleigh Avenue pump station -- a smaller pump station in our service territory; and we're using a product called a *sewer reline*, which is sort of like a baggie that slides into an existing terra-cotta pipe and adds 50 years of life. We don't have to cut up the street, we can just slide it through. And much like a dentist would show a blue light on your tooth to harden it, this has the same blue light that goes through and the resin hardens within it. Fifty

years added; we don't open cut, we can do a block in a half-a-day. So it's a very effective tool, very cost-effective.

And you asked how we pay for this? We just received approval -- preliminary approval from New Jersey EDA for an additional \$6 million loan for the next 5 years, and we'll use that as well as retained earnings in the business.

ASSEMBLYWOMAN SPENCER: Okay.

MR. WALTERS: Thank you.

ASSEMBLYWOMAN SPENCER: Thank you.

MR. HENDRY: If I might, Madam Chair, I'd like to introduce John Dyksen; he's Vice President of Capital Planning and Research for United Water, one of our larger companies in the state.

J O H N D Y K S E N: Madam Chairwoman and members of the Assembly Environment and Solid Waste Committee, we appreciate the opportunity to address you this afternoon on this critical issue that we have on aging infrastructure.

I'm a professional engineer with over 40 years of experience, currently with United Water. And we're here this afternoon to speak to the issue of aging infrastructure from the viewpoint of a private water utility.

United Water is privately owned. We have been in the business since 1869 up here in New Jersey. We are a wholly owned subsidiary of Suez Environment. We're headquartered in Harrington Park, in Bergen County, and we have operations not only in New Jersey, but in 19 other states around the country, and in Canada.

And we provide traditional water and wastewater services to about 5.3 million people in the United States and in Canada.

Here in New Jersey we provide water and wastewater services to about 1.5 million people through both our regulated companies and through contract operations that we have with a number of municipalities within the state. Through our regulated utilities we serve about 1.1 million people here in the state, and through contract operations we serve about 400,000 people.

Our largest regulated utility is United Water New Jersey, which serves most of Bergen County and Hudson County. We serve about 800,000 people in those counties. Our other largest regulated utility is United Water Toms River, which serves the Toms River area. And we serve about 125,000 people there.

In addition to those regulated utilities, we also have contract agreements with several municipalities throughout the state. And we operate them on a contract basis. The municipality retains ownership of the assets and we provide operations. And some examples of those are Jersey City, Bayonne, Hoboken, Rahway, and Camden. And we do that through public-private partnership.

Aging infrastructure is a very critical issue for United Water. Between United Water New Jersey and United Water Toms River we have over 2,600 miles of water mains; we have 8 water treatment facilities, including our largest facility which is a 200-million gallon per day treatment plant up in Bergen County. We have a number of storage tanks and pumping stations -- all that require investment to maintain service for our customers.

And as Andrew indicated, one of the concerns, in the northwest and certainly with us as well, is aging pipelines. The average age of the

water mains in our system up in northern New Jersey is about 70 years. And we do have mains that are over 100 years old.

And the reason why we're concerned about that -- and we're investing in replacing those mains -- is because of the concern for potential consequences that occur when mains break. We could have loss of service if we have to shut down the main, and that's an inconvenience to your customers. You could have water quality contamination, and many times we have to have boil-water notices, and that's an inconvenience to our customers. There can be damage to buildings, and roads, and even cars if it's a very major water main break. And there is also loss of business for customers. I was at a water main break a number of years ago which was across the street from a restaurant. And we had to close the main down. And I think the restaurant owner was over by us about every 15 minutes wondering when we were going to turn the water back on, because it was right around dinner time and he needed to get that water back on so he could start cooking.

United Water's regulated utilities -- because of our concern for this, we've invested a significant amount of money in infrastructure improvement over the past number of years, and we continue to invest. Our annual program for capital improvements in New Jersey is about \$70 million this year, and it's projected to increase to between \$90 million and \$100 million by the year 2020. And we have both added new facilities and we've upgraded existing facilities. And to give you an example, from 2007 to 2009 we upgraded our Haworth Water Treatment Plant, and spent about \$100 million to do that; not only to meet regulations, but also to replace old infrastructure, old equipment. And by doing that we were able

to save about \$1 million a year in disposal of solids produced at the plant, and also about \$1 million by replacing old, inefficient ozone-generating equipment.

ASSEMBLYWOMAN SPENCER: Before you go on, what type of detection system is there to identify leaks and potential eruptions, or potential breakage in pipes? Is there a system that you guys have in place for that? Because one of the things that's costing us -- as I said when we opened -- water is a valuable commodity here in the State of New Jersey, and many times we've heard discussions about how a lot of our infrastructures have leaked and we're losing gallons -- millions of gallons of water daily because of these leaks. So as we renew our systems -- or as infrastructure is repaired, maintained, replaced -- what type of systems are being put in place to identify when leaks have occurred?

MR. DYKSEN: There really is no technology right now that is, you might say, online, in place, that's constantly giving you information about leaks. But we do have an ongoing leak detection program that involves several elements: one is basically just sounding the water mains. You can tell where there's a leak in the water main just by sounding it. But in addition, we have companies come in where we do acoustic testing, where we send something into the main and that can locate leaks. And we've done that throughout our system. And there are technologies that we have used, and we do this every year. We have crews that are out there every day looking for leaks, because, as you say, it's important that we minimize those leaks that cost customers money in treating that water and then leaking it into the ground. And the other thing is that that also is important from a standpoint of resource conservation. That certainly we

are -- we get a lot of rainfall in New Jersey, but we're still seeing that we need to conserve our resources as much as possible. And so we do that to maintain that as well.

This year we are spending about \$50 million just on replacing old water mains. And we select those mains based on age, based on leakage -- as you mentioned, Madam Chairwoman -- based on main break history. And so we do the ones that are most critical and the ones that we feel could break soon if we don't replace them.

And by 2020 we expect to spend over \$25 million a year, so we're going to be increasing that spending year after year in order to get our replacement frequency to where it should be. Ideally you would want-- As Andrew mentioned, the life of a water main is estimated to be about 100 years; so to replace that on the right frequency, you'd have to replace about 1 percent of your system every year. And for us, that would be a lot, considering we're got 2,600 miles of main and you're talking about, in northern New Jersey, a cost of about \$1.5 million a mile to replace water mains.

ASSEMBLYWOMAN SPENCER: Now, at some point there's a cost, and the costs are ultimately borne by the receivers of the water. On average-- Or when was the last time there was an increase in rates to your customers?

MR. DYKSEN: We had a rate increase, I believe, last year.

ASSEMBLYWOMAN SPENCER: Last year?

MR. DYKSEN: Yes.

ASSEMBLYWOMAN SPENCER: And going forward, how much, or on average -- because you can only-- You have to go to BPU for

authorization for your rate increases. In order to accommodate the things that you want -- that you're trying to do, going forward, you identified that over the next-- Some things are in place that will be in place for 70 years, but you see an increase in spending, going forward. What do you foresee, ultimately, to the consumer, and what type of reports do you send out to the consumer letting them know the projects that are about to happen and what they can anticipate in cost?

MR. DYKSEN: We have a report that we issue every year. We're required to do that by EPA. It's called the *Consumer Confidence Report*, and that not only reports water quality data for the past year, but it also gives us an opportunity to report to our customers what we're doing in terms of upgrading our facilities.

ASSEMBLYWOMAN SPENCER: Okay.

ASSEMBLYMAN BENSON: Madam Chairwoman?

ASSEMBLYWOMAN SPENCER: Yes.

ASSEMBLYMAN BENSON: A few questions.

ASSEMBLYWOMAN SPENCER: Certainly, Assemblyman Benson.

ASSEMBLYMAN BENSON: I'm not sure if this is just for Andrew, or for--

With the DSIC, have you seen, for all the member companies-- I mean, the whole purpose of that was to increase investment by reducing some of the risk in the speed of payment, or return on that investment. Are we seeing an increase after post-DSIC for all the companies that you have as members?

MR. HENDRY: Well, through the Chair, I don't know to what extent-- I mean, the large companies are all, I believe, taking advantage and utilizing DSIC fairly aggressively. And I believe that the availability of DSIC has prompted some of that investment.

I can't speak to what proportion of that is because of DSIC and what isn't, although I can go back and try and do some research and see if I can give you a sense of that, and talk to the Board as well. They might have a sense of that information.

ASSEMBLYMAN BENSON: The second question I had was more for United. You have your own territory, and then those that you're contracting out for some of the municipal authorities that they still own. In those cases, the contracted, are they still eligible for the EIT funds because they are owned by the municipality? And do you regularly seek those fundings?

MR. DYKSEN: Yes, they are eligible, and generally that would go through the municipality to apply for that funding.

ASSEMBLYMAN BENSON: Okay. Do you help them in identifying that infrastructure for those types of requests?

MR. DYKSEN: Yes, we have been involved in their master planning to help identify those, and also we're been assisting in it financially as well. In Bayonne, we are committed to spend about \$110 million over the life of the contract. In the first three years we're committing to \$14 million to upgrade the system. And in Hoboken, where we have a contract operation, we are committed to \$50 million in capital improvements over the life of the contract.

ASSEMBLYWOMAN SPENCER: Do they have asset management plans?

ASSEMBLYMAN BENSON: That's what I was about to ask; thank you.

MR. DYKSEN: Asset management plans, with respect to master plans, where they've evaluated the system, and they have prioritized what improvements have to be made in terms of main replacement.

ASSEMBLYWOMAN SPENCER: Okay.

MR. HENDRY: May I add one point on it, Chair, if you'll indulge me?

ASSEMBLYWOMAN SPENCER: Certainly.

MR. HENDRY: So their invest on utilities can qualify for the Environmental Infrastructure Trust funding as well. And there are a few of our companies that do take advantage of their programs.

ASSEMBLYMAN BENSON: And that's in addition to the EDA bonding that can occur?

MR. DYKSEN: Yes.

ASSEMBLYMAN BENSON: My last question is regarding that whole point of getting to that 1 percent a year. How many years would it take for -- say, for looking at United -- to get to that point? Because clearly-- Are you doing 1 percent a year now? And if we haven't been doing it prior, if you're not exceeding that we never catch up. And one of those things is when you have a certain portion that's all older than a hundred years now, you're playing somewhat a guessing game on which is going to break this year. And using some of the advanced technology, that helps minimize that, I think, a little bit and target. But are we on a process

where we're at some point going to get to that 1 percent a year? Or are we always going to be playing catch up?

MR. DYKSEN: We are on a process. And you had asked whether the DSIC program is encouraging more funding for those improvements -- and it is. And we are ramping up our spending on that. Whether we're going to get to 1 percent, it may take a few years to do that. We're probably, within the next 5-year planning period, we're looking at getting up to close to 0.7 or 0.8 percent.

ASSEMBLYMAN BENSON: That's actually pretty decent.

MR. DYKSEN: And we're actually about ready to start our capital planning program right now, and that's one of the strategies of our program -- is to get that replacement frequency up to where it should be. And also, you make a very good point about, if we haven't been doing 1 percent in the past, we have some catch up to do; it's exactly what we're looking at.

ASSEMBLYMAN BENSON: And now can you contrast that for the municipality-owned that we're contracting? Do you have a sense of how far behind they are, and are they in a process of catching up? Or are they actually still falling behind because of the limited resources that oftentimes municipal-owned utilities have?

MR. DYKSEN: I don't have the exact answer to that; I could get that for you, though.

ASSEMBLYMAN BENSON: Okay. Because that's a concern that I have.

ASSEMBLYWOMAN SPENCER: Certainly if you would provide that information, it would be helpful as we craft legislation, going forward.

And how many municipalities are you contracting with?

MR. DYKSEN: We serve almost 100 municipalities throughout the state. I mentioned the large ones before.

ASSEMBLYWOMAN SPENCER: Okay, all right. Thank you.

ASSEMBLYMAN WOLFE: I have a question.

ASSEMBLYWOMAN SPENCER: Certainly; Assemblyman Wolfe.

ASSEMBLYMAN WOLFE: Yes, you mentioned the upgrades and the loans that you received, and grants. How do you repay them? What's the source of the money to repay those loans and grants?

MR. DYKSEN: All of ours is either through internally generated funding coming off our revenue, or through private debt.

ASSEMBLYMAN WOLFE: All right. I represent Toms River; obviously, we've had several large rate increases in Toms River. Are these rate increases to pay off these loans, or are they for other purposes?

MR. DYKSEN: That's exactly-- Included in there is to pay for the improvements -- help pay for the improvements and for the operations -- the overall daily operations of the facilities.

ASSEMBLYMAN WOLFE: Do you foresee any future increases coming?

MR. DYKSEN: I am not familiar with exactly what the rate case schedule is, but I think that possibly within the next two years there may be a rate increase.

ASSEMBLYMAN WOLFE: Thank you.

ASSEMBLYWOMAN SPENCER: Anything further? (no response)

MR. HENDRY: Thank you, Madam Chairwoman.

ASSEMBLYWOMAN SPENCER: Thank you, gentlemen,

MR. DYKSEN: Thank you very much.

ASSEMBLYWOMAN SPENCER: And again, if you would provide that information to the Chair, that would be great. Thank you.

We're going to do another panel of individuals: Chris Sturm and Dan Van Abs from New Jersey Future.

C H R I S S T U R M: Thank you, Chairman Spencer and Committee members. I'm Chris Sturm; I'm Policy Director at New Jersey Future. And I am here with Dan Van Abs, who has a long career in water resources. Currently he is a Professor at Rutgers University.

We promote smart growth in New Jersey, and we're really glad that you're looking at this issue because we think it is one of the biggest challenges New Jersey will face in the next two decades.

Last month New Jersey Future released a report, *Ripple Effects*, and I have just given you all a copy. The first part of this report looks at the state of water infrastructure in 21 of our oldest and largest cities, and summarizes a comprehensive research paper that Dan wrote -- which is available on our website, and you can find a link to it in the report as well.

We often think that water infrastructure doesn't really matter; we don't see it, we don't see the pipes; but it affects people every day, especially in our older cities. And the second half of the report is like a

magazine-style -- a bunch of stories that point out how water infrastructure impacts people.

On page 2 we show the cities that we covered. And we are really happy to find, when we looked at the demographics, that these places are no longer declining; they are outperforming the rest of the state in terms of growth. In the last four years they accounted for over a quarter of the state's population growth. Employment grew by 2 percent in these cities over the decade starting in 2000, whereas it declined by 1.4 percent statewide.

And these cities also have most of the state's transit infrastructure, which is really a magnet for young workers who want to play with their cell phones when they're commuting. And increasingly, employers are moving to cities because they want to access that talent pool.

So we need to get this right. Unfortunately, in these places the water infrastructure, as in much of New Jersey, is really in disarray; and you've been hearing about that. Some of the impacts of these pipes systems are water main breaks that shut down businesses, sewer pipes that collapse. So in Camden, the Riverline closes quite often because of flooding. We've got sewage backing up into basements, parks, and streets; so when school kids get off the bus in Camden sometimes they have to walk through it. In Paterson the drinking water has lead in it, and there are signs above the drinking fountains in the schools, "Don't drink the water." So it really is affecting people.

These cities are starting to get a handle on their system -- the asset management that you've been hearing about. But a lot of them are still relying on paper maps, and they're just beginning to switch over to

computer systems to know where the pipes are, and just beginning to assess the condition of those pipes. And any of you who have ever run a business know you need to know where your assets are. So that emphasis from DEP is really welcome.

The problem is particularly acute in the 21 cities that have combined sewer systems. As you know, in those cities, when it rains the water goes down the storm drain right into the sewer pipe. And some of it goes to the sewage treatment plant, but a lot of it goes straight out into our rivers and bays. And these were state-of-the-art systems when they were designed 100 years ago, but now they are illegal. They are violating the Clean Water Act.

And so as Dan Kennedy mentioned, these cities have all received draft permits, and will get final permits this calendar year that require them to upgrade these systems.

That is going to be a very expensive project; we don't really know how much it will cost. But as Dan's been telling me, it will be in the low billions. And so the question is, with such a massive public expenditure, how can we make it work for us and not just be a drain on our ratepayers and our local economies?

The good news is, is that when we look across the country -- and there are a number of cities that are way ahead of New Jersey -- we can see that they're finding ways to invest that is really part of economic revitalization. So if you look at Cincinnati; Philadelphia; Lancaster, Pennsylvania; Syracuse -- cities of all different sizes -- you can see that they're marrying the investments in pipes and underground gray infrastructure with new green infrastructure techniques that capture the

rainwater where it falls and allow it to absorb into the ground before it gets into the pipe systems.

So there's a bunch of examples in here. Hoboken has new apartment buildings with green roofs and low-flow shower heads; Camden has an abandoned gas station that has been turned into a park; Hoboken is building a new park on an old parking lot that's going to act like a sponge and absorb rainwater, creating an open space amenity and increasing the value of the properties all around it. So it's those kinds of smart investments that our cities need to look to.

These kinds of projects also create local jobs that can't be exported. And that is another really important benefit.

You heard David Zimmer talk about optimizing our existing systems, and Camden County is the sort of shining star in New Jersey. We need to bring that approach to all of our water and wastewater utilities in New Jersey. There are new technologies that allow wastewater plants to run without using anything but renewable energy. Ridgewood, New Jersey, in Bergen County has one. And that's important.

We also need to figure out how these utilities can work together. If you look at the amount of the discharges and the number of overflows in our 21 cities, it's roughly comparable to Philadelphia, which has one department for water, sewer, and stormwater. But in New Jersey we have 21 cities -- their pipes, their wastewater pipes are managed by 17 entities; we have 12 municipal drinking water departments or entities, a bunch of regional ones; we have 8 regional sewage treatment plants -- it's like the Balkans. So this is a really important challenge for us to figure out how to address and provide incentives for regional collaboration.

We're also going to need new funding streams. We know that's on your mind. One example that we've seen, from elsewhere in the country, are stormwater utilities that allow charges for stormwater that's generated. And if you look at a city like Newark, which is interested in this, or Hoboken, you've got homeowners who pay for every bit of sewage that they generate. But someone who owns a large parking lot that's generating stormwater runoff that's all going into the sewage system doesn't have to pay a penny today.

So there's a fairness issue. If they were charged for that stormwater and given a credit if they captured it on site with green infrastructure, they would then have an incentive to retrofit that property. And if they didn't, they would be generating revenues that could help the city handle it. So that's something that these cities actually, with combined sewer systems, may have statutory authority for -- hasn't been tested. They're going to need support from DCA, and so it's something we would like to work with you on.

ASSEMBLYWOMAN SPENCER: Okay.

MS. STURM: In summary, we think this is a generational challenge. As Andrew mentioned, we are working with bunch of partners who are interested in this, which is really the best news. We had a meeting in Jersey City a couple of weeks ago with a bunch of people including cities -- we had a representative from Newark's Water Department. We had-- Andrew was there from the NJUA; we had a United Water representative; environmental groups, community development groups, somebody from Baykeeper who you'll hear from soon. We had representatives from the EPA and the DEP, who were advising and were there to listen as well.

So next week we will be announcing an action agenda. We sort of all put our heads together and asked ourselves, "What would it take." And we'll be releasing that to the press, and I will be delighted to send all of you a copy.

ASSEMBLYWOMAN SPENCER: Please do.

MS. STURM: And I have to mention, we're funded by the Dodge Foundation, which we really appreciate.

So we also have an e-mail LISTSERV that I'll probably add your names to, and you can just let me know if you don't want me to.

And I want to mention that the real expert is sitting next to me. I'd be happy to take your questions or defer to Dan.

ASSEMBLYWOMAN SPENCER: Well, let's hear from you, Dan.

DANIEL J. VAN ABS, Ph.D.: I'd like to make just three points that build on what you've heard before.

First, is the importance of knowledge. Right now, every estimate you've ever heard with regard to the total cost of infrastructure improvements in the state is a very rough estimate. We simply do not know what it will cost because most of our systems do not have comprehensive evaluations, asset management systems, schedules of cost outs for several decades. They're trying, they're working on it. A lot of the systems that I've talked to over the past years are moving in that direction, but they're not there. So some of the things you heard from DEP about -- and EIT about including this into the financial system, by providing an incentive for people to do this, is going to put us a real step forward. But

knowledge is going to be critical, because if you don't know where you're going, all roads will take you there. We've all heard that comment.

Second -- pricing signals. What are the pricing signals that utilities face? All utilities, regardless of their ownership, face the same regulations with regard to drinking water quality that must be delivered, wastewater effluent quality that must be discharged -- they all have the same rules that they go by. Once you get beyond that, the investor-owned systems have a different pricing signal than the publicly owned systems do. Investor-owned systems are out, of course, to make a profit, and the Board of Public Utilities is, in fact, there to constrain that profit -- to make sure they're not over-investing and, therefore, over-earning. So those systems have a very strong incentive to invest.

What's the pricing signal for public systems? To keep the current rates as low as you possibly can. It's a completely different pricing signal. And so part of what we need is to be able to set a better expectation level so that people understand what is expected of them, how it's expected, what sort of parameters they're looking to hit, the number of breaks per mile, per decade -- all of these kinds of issues -- so that people have a better, more comparable pricing signal.

And the third is, anytime we're faced with looking at costs the tendency is to look at today's costs. These systems are multi-generation assets. You must look at life-cycle costs. If you don't, then you miss the whole picture.

So life-cycle costs, pricing signals, and knowledge -- that's really where we have to go. Thank you.

ASSEMBLYWOMAN SPENCER: Christine, you were talking about the CFO (*sic*) and the permits that are going to be issued later on this year. The cost for those municipalities to come into compliance -- what are they looking at?

MS. STURM: You know, we've tried to get a sense of what that is, and it's somewhere between \$2 billion and \$9 billion. I mean, it's really unknown. What they have to do when they get their permit is, they have three years to develop a long-term control plan; and that plan will be different for each municipality, and it will specify how they're going to meet it, and it will include cost estimates.

They then will have many years -- 15 to 25 years -- to implement, so the cost will be spread out. EPA also looks at affordability. So that can allow a city to delay -- or not delay, but to spread implementation into the future.

ASSEMBLYWOMAN SPENCER: Because I know, like, with the City Newark, it's Passaic Valley Sewerage Authority that's going to be responsible for all of this, I believe.

MS. STURM: Yes and no. So Newark and seven other cities send their sewage to PVSC. But PVSC doesn't own the pipes, the delivery pipes. And so we're hoping that PVSC will play a strong role in helping Newark and those other seven cities come up with their plans. But Newark itself is actually the owner of the pipes.

ASSEMBLYWOMAN SPENCER: More to contemplate.

MS. STURM: Sorry. (laughter)

ASSEMBLYWOMAN SPENCER: No worries. You know, they said Newark had some of the cheapest and best water in the state, at

one point, but it's about to become really expensive I suspect, as we move forward in dealing with some of the crises that are coming forth.

Dan, did you have a comment?

DR. VAN ABS: If I may. Philadelphia -- let's take Philadelphia as an example -- their combined sewer overflow long-term control plan, which is a mouthful, is going to cost them about \$2.6 billion over a 20-year-or-so period; net present cost is about \$1.7 billion, all right? So that gives you a sense.

In terms of costs to the system, a lot of it will play out in terms of how smart people are about this, how well they design what they do, how much forethought they put into it, how much they incorporate some of these activities into redevelopment projects so that there are multiple benefits, how much they tie it into neighborhood revitalization. All of these things come into play. And the other thing, of course, as you've heard before is, if you can think of it this way, the expenditures on these infrastructure systems should be considered a way of reducing future emergency repair costs. There are municipalities out there I've talked to where their emergency repair costs are greater per year than their asset infrastructure capital project costs.

ASSEMBLYWOMAN SPENCER: And I believe one of the individuals who testified earlier indicated that it can be up to 300 percent more because of the response.

DR. VAN ABS: That's on a per-project basis, right. And so when you start thinking about that, you can make a lot of return on investment by getting ahead of the curve. The problem is, of course -- and it was mentioned before -- when you start out and you're behind the curve,

you're going to be paying both for asset improvements and for emergency repairs on the parts of the system you haven't hit yet. So for a while you have those things working in tandem; and then, in the long run, you're getting to the point where you're ahead of the curve.

ASSEMBLYWOMAN SPENCER: Okay, all right. Thank you.
Any questions?

ASSEMBLYMAN BENSON: Yes.

ASSEMBLYWOMAN SPENCER: Assemblyman Benson.

ASSEMBLYMAN BENSON: Actually, you were just touching on what my question was going to be. Has there been any attempt to monetize-- Since we don't know how much breakage there will be in the future, but we have a pretty good -- and we don't have much out there because we don't know the state of the infrastructure-- So we get this really wide range of \$2 billion to \$9 billion. But we have some pretty good data on how much breakage there has been in the last 10 years -- or maybe not.

MS. STURM: We tried. (laughter)

DR. VAN ABS: Well, actually, in the research process that's part of what I tried to establish.

ASSEMBLYMAN BENSON: Isn't most of that public record?

DR. VAN ABS: And the number of breaks are often recorded, but not in publicly available databases -- first of all. And second, the costs of those breaks are not necessarily broken out in a very transparent manner within the budgets of the systems. So it was very difficult, in fact, finding good data on that very question.

ASSEMBLYMAN BENSON: And I know they're gone now, but the representatives from the EIT, I would hope as part of their asset

management system, that that would then be required to be a part of that master system -- to show what the-- Because the better we can collect data, you can show the return on investment for forward-looking versus paying for emergency breakages.

ASSEMBLYWOMAN SPENCER: Well, what we can do is request that information from the EIT.

DR. VAN ABS: You're absolutely correct. And the other thing I will say, as a Rutgers professor, is that I had this sudden thought during this research project that I really should get the business administration program involved in this to do some case studies, because that could be extremely valuable information.

ASSEMBLYMAN BENSON: I just feel like the data's there; we just have to create a system to collect it.

ASSEMBLYWOMAN SPENCER: I agree.

Assemblyman Wolfe.

ASSEMBLYMAN WOLFE: Yes, I want to ask a question, but I have to be very delicate about this. Do you deal with water delivery, or sewage treatment, or both?

MS. STURM: Yes, our report looks at both.

ASSEMBLYMAN WOLFE: Okay, here's my issue. Years ago -- several years ago I was approached by a Commissioner of a local utility -- it was a municipal utility -- who complained about their cost for repairs of their equipment because of disposable flushes (*sic*) that were going down. And I was contacted then -- actually, I think I introduced a bill -- and I was contacted by the manufacturers of these and they claim that they had no -- they all disintegrated, that didn't happen. I think last night on CBS they

had a major exposé or something about the cost in New York City and some of the towns of dealing with the clogging up-- Do you have any estimate of what that costs to--

DR. VAN ABS: I have no estimate of what it costs, but I have been following the literature on this. And the answer is the field keeps on evolving.

ASSEMBLYMAN WOLFE: Right.

DR. VAN ABS: And so the companies that are making these disposable wipes come up with new products. Some of the newer products are, in fact, not breaking down properly. So there is, right now, a major effort going on, between the Water Environment Federation and a number of the other utility focus folks, and the whole industry, to figure out how to measure it; what standards to set; and what to do about those companies that are not part of the Association of Manufacturers, because there are those who are not.

ASSEMBLYMAN WOLFE: I appreciate your response. As I said, it's not a very pleasant subject, but it is a cost factor.

DR. VAN ABS: We could always talk about fats, oils, and grease too. (laughter)

ASSEMBLYMAN WOLFE: Okay, thank you. (laughter)

ASSEMBLYWOMAN SPENCER: No, certainly to a homeowner, in particular, or a business person, when you have a system that backs up and, lo and behold, the plumber comes out; and, lo and behold, your system is clogged with these things that are supposed to be disposable-- And you've been providing them to your customer year-after-

year only to find out that you're going to have to now eat that cost for something. I would imagine it is quite costly to have that resolved.

ASSEMBLYMAN WOLFE: These aren't necessarily the home systems, it's the municipal system that's really--

ASSEMBLYWOMAN SPENCER: Right. No, the municipal system-- You multiply the home systems by X number, I'm sure you get a pretty large, million-dollar number on that, certainly.

Any questions?

ASSEMBLYMAN McKEON: One brief point, Chair.

ASSEMBLYWOMAN SPENCER: Certainly.

ASSEMBLYMAN McKEON: Professor, welcome; and both of you, welcome. It's been great to hear your testimony.

I was wondering if you were part of the study that came out of Rutgers, probably about a half-a-dozen years ago, maybe even 10 or so, concerning the Highlands, and projecting what it would cost, vis-à-vis State budget, if they continue to develop at the 5,000-an-acre clip as was going at the time. Were you a part of that?

DR. VAN ABS: I was on the other side. I was actually with the Highlands Council staff from 2007 to 2012. I am aware of the study.

Basically what you're dealing with in any of these situations is that the more development you have within the source water areas for a water supply, the more potential there is for pollutants to be moving down into the water supply. And all of those pollutants require treatment. Some of them are readily treated, some of them are not readily treated. We're getting new pollutants out there all the time, some of which the treatment plants do not address at all. And so these kinds of costs do come out.

The estimates that were there-- I do remember the study; I think that was through -- actually, North Jersey District Water Supply Commission was involved in that as well, if I recall.

ASSEMBLYMAN McKEON: The study I recall had projected that within 30 years, if that continued at the clip it was, it would be a sum close to like \$30 billion -- which is about the size of our entire budget -- just to provide clean water.

DR. VAN ABS: Right. What it could not include, of course, is the evolution of technology -- which has gotten better and better during the same period of time. But there's no doubt that it can be an extremely expensive problem. You take a look at what United Water, for instance, does with regard to its treatment system to deal with the water supply that comes through a very developed section of New York state and New Jersey -- is significantly greater than what a Newark or the North Jersey District Water Supply Commission must do with regard to their much cleaner supplies.

ASSEMBLYMAN McKEON: If I can, through the Chair, just one other question -- more from 30,000 feet.

With world population, I guess -- where are we, at about 8 billion at this point?

DR. VAN ABS: There are 7; 7 billion and change.

ASSEMBLYMAN McKEON: Seven billion? Considering in 1808 it was 1 billion, that's a pretty big number.

In my opinion -- and I want to hear yours to the best -- from an academic perspective -- clean water is going to become, probably, the most valued commodity in this world as we -- maybe it is today. But how does it

project, let's just say, over the next decade or so, regarding the issues faced? We know we see them in this country, in the west and other places that are more temperate.

DR. VAN ABS: At what scale, sir? New Jersey, or internationally? Internationally--

ASSEMBLYMAN McKEON: I'm hoping to keep New Jersey having that as a great asset, versus the rest of the world.

DR. VAN ABS: Yes, I would certainly agree.

MS. STURM: That's fair.

DR. VAN ABS: There's absolutely no doubt that-- You take a look at parts of this country, you take a look at parts of the world and their demands for water, and the population growth that they're experiencing -- and the demands they will impose are going to put them in very severe trouble with regard to water supply, no doubt.

ASSEMBLYMAN McKEON: You'd probably want to relocate a business, or live in a place that had a cheap water supply, is what you're saying?

DR. VAN ABS: All of those folks who went down to Arizona -- maybe they'd like to come back here. (laughter)

ASSEMBLYWOMAN SPENCER: Very good, thank you.

Any other questions?

ASSEMBLYMAN BENSON: Yes, just one final question.

ASSEMBLYWOMAN SPENCER: Certainly, Assemblyman Benson.

ASSEMBLYMAN BENSON: I mean, obviously, the issues of water are also tied in with the issues of energy use. As we have a lot of

sewer pumping stations, moving those to gravity lines when they're upgraded -- is there any sense of, as we look at asset management and some of these other best practices, looking at those issues as well, in order to not only save-- So that there's money saved in energy and staffing that could then be -- and maintenance -- that could then be put back into the system.

MS. STURM: I mean, when you look at the fragmentation of wastewater utilities in particular, they don't have the capacity to avail themselves of state-of-the-art systems. So how can we help them to be in a position to demand the best investments, and give them the purchasing power to buy it at the lowest cost? That's an important challenge.

DR. VAN ABS: California actually did an estimate of the total energy demand for their water supply and wastewater system. It was 9 percent of the total energy demand of the state. That's a very significant number. On the other hand, the pumping technologies that we have now are much, much more efficient than what was put in place even 30 years ago. So on one hand we're driving toward more use of energy because of the types of treatment system we need; on the other hand we're driving toward less use of energy because our technology is much improved.

ASSEMBLYMAN BENSON: More passive.

ASSEMBLYWOMAN SPENCER: Okay, great.

Thank you.

MS. STURM: Thank you.

DR. VAN ABS: Thank you.

ASSEMBLYWOMAN SPENCER: Next up, Peg Gallos from the Association of Environmental Authorities; Dennis Palmer, from Landis Sewage Authority -- Dennis, are you here?

DENNIS W. PALMER (off mike): Right.

ASSEMBLYWOMAN SPENCER: Okay. And Pam Carolan; Pam, are you here?

PAMELA J. CAROLAN (off mike): (Indiscernible)

ASSEMBLYWOMAN SPENCER: If all three would come up, that would be great.

PEGGY NOLTING GALLOS: Yes, thank you.

We're very glad that you've called this hearing, and we thank you for the opportunity to testify today.

We've given you copies of testimony that kind of expands on some of what I'm going to talk about. And there may be some technical questions that Pam and Dennis can help answer as we move forward.

I first want to talk about the AEA itself. We are an association of utilities authorities -- municipal utilities -- as well as private sector businesses that support those utilities -- engineering firms, energy firms, and so forth.

The wastewater utilities -- the utilities authorities -- are regulated by the DEP, much as the private companies. They're also regulated by the Department of Community Affairs that reviews their budgets in detail every year. And they are also regulated by the local finance board. They have to go to the local finance board for bonding and so forth.

They're also regulated by the officials who appoint the -- who appoint their own boards and commissioners -- elected officials, the mayors, and the councils of the local governments -- that created them in the first place.

I wanted to go through the questions that you generated -- that your staff generated -- and kind of approach the testimony that way.

And the first question was: How well are we maintaining infrastructure? And I think that obviously there's been a lot of information already about the difficulties of that. I want to say that our members -- just as the staff of United Water and the other providers -- do the kinds of regular maintenance and tracking of leaks, CCTVing pipes, checking for ongoing problems, replacing equipment, working at night so that they are not inconveniencing ratepayers and the people who are using the streets, using extended hours to provide service, sharing services with the municipalities and counties that they deal with. These are all some of the ways that our members work to provide -- do the best job they can with understandably limited resources. They have a very long to-do list.

But I also wanted to kind of look at it in another way. So if you kind of look at it in terms of the day-to-day running of these systems, across the board, given the challenges that these folks have, I think that they do a yeoman's job.

I do want to say, though, that when you want to look at the people who are managing the resources, that come from ratepayers, to actually do this work, day in, and day out, then I have to say maybe we're not doing such a good job. Every year millions of dollars -- million of dollars -- that are collected across the state for the water and wastewater systems are being siphoned off for other purposes. Now, the reasons are probably obvious to everybody in this room -- money is very tight. But as somebody said earlier, water is the most important resource. And unfortunately, and perhaps with good intentions, the Legislature has

passed, on a number of occasions, legislation that allows municipalities and counties, on a regular basis, to request funds from the water and sewer providers. These funds may be used for infrastructure, but not necessarily. They may go to build a senior center. And what happens is that that's also a back door into raising property taxes, of course. So there's that issue as well. It also is kind of unfairly giving people the wrong idea of what these services really cost, and it's muddying the waters even further.

In terms of a way that people can, though, understand their utilities authorities budget, I did want to point out -- because there were a number of points earlier where I was thinking about this -- that utilities authorities are required by law, as are municipalities, to post their budgets and their audits. So members of the public can go on to utilities authority budget's web pages, and they can see these budgets and they can review them; they can review what goes into rate structures; they can review whether they're doing asset management planning -- most of them are; and they can attend these meetings. These are local entities where the citizens can be directly involved and have a say in what's going on.

So I did want to point out that-- And you can go through the AEA website -- aeanj.org -- and link to our members' sites so you can see those. And we do represent most of the utilities authorities.

The other thing I wanted to just point out was what we think are sort of the critical issues, or some of the critical recommendations that we would have. I think that it is important to continue to fund the New Jersey Environment Infrastructure Trust fund robustly. As David mentioned earlier, they have done a wonderful job, especially post-Sandy, as has the DEP, in helping the providers respond to the damage from the

storm; but also to kind of do the long-term planning that they need to do to mitigate and prevent some of the problems, at least, that we did have.

So the NJEIT is an absolutely essential part of the picture here. And the kind of expertise that the NJEIT provides, and the DEP, is absolutely essential and has been invaluable, again, especially since Sandy.

I think it's been mentioned here again, earlier, that the ratepayers need to understand the true costs of the systems that they're paying for. And we need -- all of us -- to help them understand that as well as we can. And that is one of the advantages of the kind of local discussions that can go on at a county utilities authority meeting or a municipal utilities authority meeting. The mayor can come to the meeting, the people who are involved can go there and actually see the people who are really running that organization. And they can have a very direct customer experience with them.

Another issue is that, again, we are completely for the idea of requiring asset management, and encouraging systems, from small to large, to use their best resources to try to get a handle on these long-term issues. Life-cycle costing, as Dan mentioned; long-term planning; green infrastructure -- all of these are the kinds of things that go into good asset management plans. Pam and Dennis can each talk to you about either their own plans or what they know about other plans that some of their colleagues have. So that's another absolutely essential--

We've been involved in those discussions that David and some others have mentioned, post-Sandy -- the stakeholder discussions. And we were very, very pleased to see that the DEP has raised asset management to the priority level that they have, especially now. We would

like to see the DCA also raise it as a high priority when they're doing their annual reviews of the municipal and utilities authorities' budgets.

We would also like to see the process of dissolving utilities authorities to be maybe slowed down a little. Because a lot of times, what happens is, the capital funds of these utilities authorities are sitting there and they look as if they're just -- it's just money that's not doing anything. Well, that's very far from the truth. These capital funds are actually available so that the utilities authority or the municipality does not have to bond for that money. They don't have to pay interest on that money. That's money that is available just like a savings accounts. And so it can be used very quickly, as well, to deal with projects that need to be done quickly. So that's one thing.

The other issue is that the size of those capital funds has an impact on the kinds of rates that utilities authorities get if they do borrow in the private market. I don't know if it's true for the NJEIT borrowing, but those reserve funds are not extra money; they are absolutely essential money. And those are the funds that look so attractive to some of the elected officials when they're trying to balance other budgets.

So I think that I would ask this Committee to help us, if you can in any way, to educate the local officials and the public about the importance of those kinds of issues. And when a community is considering dissolving its authority -- which it has every right to do; it's right to determine its own fate -- but we think that when they are doing these kinds of discussions that they should not be done in a matter of a few months, that they should be done with a proper public hearing, and that the entity that is considering it should be asked to provide an asset management plan

that will demonstrate how the municipality will continue to take care of the infrastructure. The unfortunate thing that has happened, in some cases, has been that the money has been taken. I can think of one place where the money was taken and it was used in the municipal budget--

ASSEMBLYWOMAN SPENCER: Peg, before you go on.

MS. GALLOS: Yes.

ASSEMBLYWOMAN SPENCER: I understand that, clearly, you are advocating for the continued existence of utility authorities.

MS. GALLOS: Yes.

ASSEMBLYWOMAN SPENCER: But today what we're trying to do is focus on infrastructure. And I gather that in your presentation you're emphasizing that the utility authority is essential in helping to make sure that happens. And before a municipality determines that their utility authority should be dissolved -- that they should show where they have proven to be beneficial and an asset to preserving the infrastructure, correct?

MS. GALLOS: You've got it; thank you. (laughter)

ASSEMBLYWOMAN SPENCER: Okay, all right. If there's nothing else-- I want to be clear that I do understand that you are an advocate for maintaining the utility authorities and putting in some safeguards before they're dissolved.

MS. GALLOS: Absolutely.

ASSEMBLYWOMAN SPENCER: Okay.

MS. GALLOS: Public ownership and operation is a value that should be considered in the mix. But I do want to just say that the connection of all of this is very directly to infrastructure, because it's about

the funding. It is not rational, in my mind, that we talk about \$9 billion or \$40 billion, or whatever these numbers are that we talk about, that we need to get our infrastructure in shape. It is not rational to cast about for new ways to fund water and sewer and to, at the same time, allow the barrel to be tapped at the bottom and have the money that is being collected, and that is legitimately being set aside, to be taken and used elsewhere. It just doesn't make sense. So that's it.

ASSEMBLYWOMAN SPENCER: And I don't think that--

ASSEMBLYMAN BENSON: You'll find agreement here on that.

ASSEMBLYWOMAN SPENCER: Yes, I was about to say you'll find agreement here.

So let us hear from the utility authorities that are here. And provide us some information on what it is that you're doing to ensure that the infrastructure systems that you are partly responsible for maintaining -- how do you go about doing it with the municipalities that you are the authorities for?

MR. PALMER: Ladies first.

MS. CAROLAN: My name is Pam Carolan; I'm with the Mount Laurel MUA. We are in Burlington County, are 22 square miles, and we have 44,000 residents who we serve; a number of commercial customers -- most notably, for our system, hotels. We have the third-largest amount of hotels in the State of New Jersey, following Atlantic City and the Newark-Elizabeth area. So we have over 25 hotels in Mount Laurel.

I just wanted to state that I am a proponent of the asset management model on developing asset management systems. I wanted to

make sure that the Committee understands that this is not a quick fix. I've been with Mount Laurel MUA for over 20 years. Approximately 20 years ago we started developing our asset management plan; 13 to 14 years ago, aggressively moving into asset management by computerizing all of our system maps.

I would say we have a full asset management plan to this point. We are performing asset management -- we are running our system under the principals of asset management, but it is a large endeavor and certainly not a quick fix. So when you're looking at the funding strategies through the EIT, there's concern that there will be asset management requirements in order to obtain the funding, and for systems that have not begun the asset management process, that could be a hurdle that they can't overcome.

So I would suggest that the DEP and EIT look at the progression of systems to see where they were before they applied for the funding and make sure that they move towards developing an asset management program.

ASSEMBLYWOMAN SPENCER: And I think Dave Zimmer indicated that there are resources in the EIT to assist those applicants with developing the asset management. And I don't see where they would be unreasonable in working with those entities -- that are in the developmental process and maybe encountering some type of difficulty in putting it together -- and would take into consideration where they have been and where they are now. Because certainly that all plays into asset management.

MS. CAROLAN: Yes, that's something that we're hoping to continue our dialogue with them on, just to assure that it's not just a one-

size-fits-all type strategy -- that there is some sort of room for progression there. And they seem to be receptive to that idea.

ASSEMBLYWOMAN SPENCER: Great.

MS. CAROLAN: The other thing: I just wanted to echo Peggy's comments; because, Chairwoman, you had asked early on in the testimony today, how do we capture money in other ways, other than the EIT, so that rates don't get affected?

And this echoes Peggy's comments -- that is to keep the money where it was generated. So for utilities or municipalities, when they have their own dedicated utilities systems, that the money that they've collected--

ASSEMBLYWOMAN SPENCER: Collected off the backs of the ratepayers, goes back to the system.

MS. CAROLAN: --off the rates, that they put it back into the system.

ASSEMBLYWOMAN SPENCER: Certainly.

MS. CAROLAN: The other thing I just wanted to address was Assemblyman Wolfe's comment about the flushable wipes. They're not really flushable, in our opinion.

ASSEMBLYMAN WOLFE: Thank you; I agree.

MS. CAROLAN: I have to be delicate about this subject, but they really need to be fished; they don't biodegrade in the treatment process and, frankly, our employees have to fish them out of the pumping facilities with a rake on a daily basis. If they make it to the treatment plant, they can damage pumps, cause flooding. And in Mount Laurel we had some extensive problems approximately eight years ago, that caused over

\$500,000 worth of damage, due to some flooding from the wipes that had clogged an area. And they clogged it up in a high elevation on a treatment unit, and it flooded out all the equipment that was in the basement.

ASSEMBLYMAN WOLFE: Can I ask a question?

ASSEMBLYWOMAN SPENCER: Certainly, Assemblyman.

ASSEMBLYMAN WOLFE: I don't want to be the expert on this; (laughter) however, can you claim damages from that, from the companies? Or are you just--

MS. CAROLAN: We did not. You know, we reported it to our insurance company.

ASSEMBLYMAN WOLFE: Right, okay.

ASSEMBLYWOMAN SPENCER: Certainly.

MS. GALLOS: I think it's been mentioned earlier that NJWEA has been very heavily involved in working with the manufacturers and at the national level to study the different, actually, brands of wipes and actually testing them. One of the municipal utilities authorities has been very involved in actually running its own tests of these and working with the manufacturers. There is, I believe, one brand -- and I won't say, because I'm not sure which one -- but one of them is actually okay and does break down. But there is a national dialogue going on, on this whole issue because it's a problem everywhere.

ASSEMBLYWOMAN SPENCER: Okay, all right.

MR. PALMER: Thank you, Chairwoman. Dennis Palmer, Executive Director, Landis Sewage Authority, in Vineland, New Jersey. And like Pam, I am also a professional engineer.

We started, I guess, asset management before asset management really was around, in that 25 years ago we started logging all the assets, the value, the cost, locating them. We took over-- The City of Vineland had some older facilities; some of my facilities go back to 1905 -- the old Borough, the old downtown section. We inherited that in 1989. Part of asset management, we went out and cleaned every inch of those old lines to get those up to shape, as well as the large trunk lines that we had to eliminate some capacity. So that's some of the focus on that.

Near-term or very immediate term is, we hired engineering firms to evaluate both the treatment plant and the collection system to lay out a plan. We're kind of running our program of 2040. Our wastewater management plan identified growth out to 2040; we're in a position where we're trying to look at the infrastructure now to parallel that growth going out to 2040 -- what do we need for capacity in a treatment plant, what do we need in the pipelines to get it to the treatment plant to make it function and get the flow to us? So that's kind of where we're looking at as far as capacity.

I'll just echo my cohorts here with respect to authorities -- and that's authorities and its asset management. Authorities can be a laser focus -- a laser focus on meeting DEP rules, regulations, and permits; where sometimes larger cities and municipalities, for lack of a better term, get distracted by police, and fire, and trash, and snow, and those parts, and all those other things that they have to be involved in. So I guess we all are -- one more cheer for authorities. But the fact is, they do provide -- I think, that service to their ratepayers is that absolute laser focus on compliance and, in this case, also the asset management.

ASSEMBLYWOMAN SPENCER: Thank you.

MR. PALMER: Thank you.

ASSEMBLYWOMAN SPENCER: Assemblyman Benson.

ASSEMBLYMAN BENSON: There were some comments about going to the meetings and other things. There's no requirement for associations (*sic*) to meet in all the municipalities that they serve, or is there?

MS. GALLOS: I'm sorry -- for associations? You mean, for--

ASSEMBLYMAN BENSON: I mean, for the utilities -- for the authorities, I'm sorry, not associations -- for the authorities.

MS. GALLOS: No, the utilities authorities boards meet on a monthly, twice-a-month-- Very much -- they operate very much like a town council does.

ASSEMBLYMAN BENSON: Right. But they meet usually in the host municipality, correct?

MS. GALLOS: I suppose it depends on where they're administration is -- usually in the administration--

ASSEMBLYMAN BENSON: Because the incidents I've had in Trenton is they only meet in Trenton. And the concern, obviously, there also is it's only the residents of Trenton that have a say on some of those issues, like devolution and -- dissolution of the system.

MS. GALLOS: Right.

ASSEMBLYMAN BENSON: It's not all the customers are being served -- that have a say in those issues.

MR. PALMER: In Trenton's case, that's a utility within the (indiscernible).

ASSEMBLYMAN BENSON: Right.

MR. PALMER: Whereas we're predominantly talking, in our case, a municipal utilities authority or a sewage authority, which are -- somewhat will be different: autonomous body created by either a municipality -- joint municipalities -- or a county.

ASSEMBLYMAN BENSON: But you still have the same situation where they can take money out of the system.

MR. PALMER: Yes.

ASSEMBLYMAN BENSON: Okay. Because, I mean, that's a concern that I think-- There's a requirement that as long as the rates are the same for outside the host municipality and the other municipalities -- as long as the rates are increased the same amount to each, there's no oversight. There is no similar requirement that investment in infrastructure also be made on an equal basis or on a basis based on any type of need. It's based on whatever the system likes, from my understanding.

MS. GALLO: The utilities authorities will be subject to the same asset management rules that the DEP will be enforcing on everyone. And to the extent that there are multiple municipalities involved in a system, those municipalities have representatives on their individual boards and, in some cases, the municipality itself is the customer, in that the bill goes to the municipality. In some cases the bills will go directly to the ratepayer. It depends -- it varies.

ASSEMBLYMAN BENSON: Okay.

ASSEMBLYWOMAN SPENCER: Because Newark doesn't have a utility authority, per se, but we get billed through -- we get a PVSC

charge, and then we have the Newark charge. So there are two, maybe three different charges on the bill--

ASSEMBLYMAN BENSON: Yes, maybe Trenton is just a unique case because they don't have that authority. They have the municipal water system, and--

MS. CAROLAN: Yes

ASSEMBLYMAN BENSON: But that issue -- having the money stay in the system, I think, is universal across all those. Do you know-- Has there been any consideration of reaching out to NJEIT to, say, make that part of the requirement as well? That if you're going to access the loans and grants, that there be some threshold that the money that's brought in by rates also has gone back out into infrastructure?

MS. GALLOS: I think that's a wonderful idea.

ASSEMBLYMAN BENSON: It would be something that I would be very supportive of.

MS. GALLOS: But I also think, in a sense, that the asset management process -- that's part of the beauty of it. It kind of takes care of that. A good asset management plan kind of makes the case for the expenditures, and you can see the needs going out 5 or 10 or so many years. So presumably the people who are responsible for these systems and who have to approve the funding will get that.

ASSEMBLYMAN BENSON: Again, if we could, through the Chairwoman, if you could follow up with David Zimmer on whether they look at that, how much is taken out of the system, and whether they have denied, ever, a grant or anything else because they had not put the majority of their money back into infrastructure. That's a concern that I have.

ASSEMBLYWOMAN SPENCER: All right, so we're going to inquire with the EIT whether or not a grant has been denied because the recipient has not invested a certain amount back into the municipality towards infrastructure and construction.

ASSEMBLYMAN BENSON: Thank you very much.

MR. PALMER: I think we would welcome a bill that kind of said that. (laughter)

ASSEMBLYWOMAN SPENCER: I think based on the conversation that perhaps it's already being considered and--

ASSEMBLYMAN BENSON: Oh, believe me, there will be--

ASSEMBLYWOMAN SPENCER: --partly why this hearing was called was to get to the root of some of the issues that are cropping up in our municipalities. Everyone knows where the State is, as far as it is financially -- \$800 million in the hole. And if the State is looking at that large of a deficit, there are many municipalities other than Newark that are facing deficits. And the deficits are arising because of different things that are occurring in their municipality that are structural. And the question is, who's going to bear the cost, going forward, when the systems were already put in place to accommodate those structural deficits? We charge individual-- Municipalities charge-- And I pulled out my bill, and there are three charges. And I have the water, I have the sewer, and I have Passaic Valley. And then they have provisions for three upcoming costs that they're going to tack on; they're just getting us ready by putting it on here. But certainly there is a percentage that I expect -- or I have expected, that will go towards infrastructure in my municipality.

ASSEMBLYMAN BENSON: And we don't know.

ASSEMBLYWOMAN SPENCER: And we don't know. We don't know where those funds are going. Are they going directly into the General Fund? Or, I mean-- Municipalities don't have a "transportation trust fund" or an infrastructure trust fund that they specifically put money in and draw from. And, instead, they go back to EIT or EDA and look for loans. And as those loans are being paid back, who bears the cost?

ASSEMBLYMAN BENSON: Right.

ASSEMBLYWOMAN SPENCER: The repayment cost? The citizens in the community -- the citizens in that municipality. And again, now we're paying back the loans, but at the same time Assemblyman Benson was talking about how long are we going to play catch up. And until funds are dedicated towards these types of things, we will always be playing catch up: borrow here, pay back here, raise the cost on poor Chris (referring to staff member). Chris is probably one of the younger people here; he's going to be paying for it when we're old and gray.

MS. GALLOS: Yes, we agree with you. (laughter)

ASSEMBLYWOMAN SPENCER: And the young people in the back. So that's what we're dealing with.

Okay, let's move on.

MS. GALLOS: Thank you.

MR. PALMER: Thank you.

ASSEMBLYWOMAN SPENCER: We have three more people, and then we'll take some brief testimony from some of the individuals who are here regarding -- opposing fracking. That will be the last thing that we do. It's getting kind of late in the hour, but let's deal with the last three gentlemen who are going to testify with regards to water infrastructure.

And they are -- and gentlemen, you are very familiar with this Committee, so I'm going to ask you to keep your comments brief: Bill Wolfe, Jim Walsh, and Jeff Tittel.

BILL WOLFE: Thank you for the opportunity to speak. I'll be very, very brief. I'll go a little faster than Dan Van Abs. (laughter)

Six quick points: I think there's a misconception created about -- particularly this word *Balkanization* -- that has been used with respect to the institutional and legal authorities that are responsible for doing this work. The DEP has legal responsibilities to take the lead, under the New Jersey Water Supply Management Act, for drinking water infrastructure; and under the New Jersey Water Pollution Control Act and the Federal Clean Water Act for the 208 Water Quality Management Planning -- which is the wastewater. So Dan made the point that DEP sets very clear standards statewide for effluent limits and drinking water standards; they could do the same thing for the methodologies with respect to asset management, with respect to climate and vulnerability assessment, and adaptation planning, and the whole nine yards. They have completely collapsed and are no longer doing that planning work.

ASSEMBLYWOMAN SPENCER: Right.

MR. WOLFE: And to hear them today celebrating their work, and when they got called on it-- The Assemblyman asked the question about how many people have filed asset management plans -- goose eggs. Then they talked about the projects for adaptation. Lake Como was offered up as a success model -- two projects, very miniscule performance. So the Administration likes to talk about results-based management; they don't have a lot of results to show.

Second point is that these risks are not new. There have been multiple reports and warnings issued to the Department. There seems to be an appearance that Sandy, somehow, created a whole regime -- like new normal after Sandy. There were many, many, many warnings about these vulnerabilities, and the asset condition, and the vulnerability of everything from storms to pipeline breaks. And there has been no effort to comply. And I'm glad the question was asked about compliance and enforcement, because you didn't hear the DEP say they had issued any notices of violations or collected any penalties for enforcing the emergency management plan requirements that are in every single permit -- every wastewater facility and every drinking water operation has a permit from the DEP. Those permits require emergency backup plans with things like power generation and fuel to keep continuity of operations. The DEP doesn't inspect those things, and they didn't monitor compliance, and they didn't even -- after the fact, when the facilities failed -- they didn't issue enforcement sanctions. So Dan's pricing structure includes an enforcement compliance component as well that's totally not in the mix.

Sorry to speak like a regulator; I'd like the regulatory requirements. They can encourage municipalities to come forward and apply for environmental infrastructure loans when they have to meet a regulatory requirement. That's been the pattern of what they've done. So you can use action forcing regulatory policy to get you to other planning goals; which again, is not done.

The last point is, everybody's celebrating asset management today. I've read the guidance document; it's a broad framework, it's 10 or 12 pages. It's not a guidance document. And it doesn't have some of the

very interesting points the Assemblyman asked about -- monetizing things, and methodology, and projection, and costs, and everything under the sun. It doesn't exist; it's a like a high school paper.

But the point is, on the top of the letterhead it does say it is a requirement of NJEIT loans. And they've told me verbally and in e-mails that it's also a requirement of Federal funds -- Federal Sandy money -- and what are called the *State Revolving Funds* that come from the Federal government under the Clean Water Act and the State Drinking Water Act.

So if everybody loves it, and the DEP says it's already in there, and the authorities have told us they've been doing it for 14 or 15 years -- some of the authorities telling us -- put it in the environmental infrastructure bills for FY 2015 that are going to be before this Committee that just left the Senate Environment Committee. Put it in the bill, mandate it as a requirement, mandate also that the DEP does adaptation planning. We're the only state in the northeast without a climate change adaptation plan. That's going to deal with some of the issues. Because you have to understand -- some of the entities that are going to be doing this work are people only going through the Environmental Infrastructure Trust. Every facility has a permit. If you make it a regulatory requirement you capture the whole universe, you don't just capture the small piece that's going to the NJEIT for money.

I'm done.

ASSEMBLYWOMAN SPENCER: Thank you.

J E F F T I T T E L: I'll try to be brief. It's a big issue for us because there are so many different points to it.

But I'm going to start out dealing with climate, because I think that's first and foremost. We will lose hundreds of millions of dollars in Federal monies for wastewater and water infrastructure because New Jersey is not doing anything on climate change, and adaptation for climate change, or sea level rise -- not only as part of Sandy rebuilding, but as part of even the hardenings that we're supposedly doing for Sandy. Because the President's Climate Action Plan has required all the agencies to actually have rules -- that are undergoing rulemaking now -- on climate change and adaption. Since New Jersey is not doing it we could jeopardize, in this first round, \$300 million from EPA for wastewater resiliency because we don't even define *resiliency* in New Jersey.

Secondly, when we look at our inland infrastructure, you know, 70 percent of the facilities were impacted by Sandy. We do not have proper backup systems that were required. But more importantly, when you look at some of these systems, we're not meeting the levels that we should be. The treatment levels, when it comes to discharge, directly impacts water supply intakes. For most of the rivers in North Jersey, we have to use them for water supply but, yet, in the low-flow periods during the summer, most of the rivers -- including the Passaic River and the Passaic Valley intakes -- they're too low and too dirty -- same thing on the Raritan in New Brunswick -- to take the water. And we do not have the backup systems. Our reservoirs -- we only have, in comparison to New York, only a quarter of the backup supply in our reservoirs, as compared to -- water usage -- as compared to New York City. So we don't have enough backup supply. So in any given year, New Jersey could run out of water, especially in the northeast section of Bergen County and Passaic County,

And this has gone on for a while and it's getting worse. And the Water Supply Master Plan is 20 years out of date and we don't have one. And the Department doesn't even talk about that anymore. Here we are, we're not even planning for water; we're not looking at safe yields. We have something called *safe yields* that are 15, 20 years old. It's called a *10-year drought*, which is the low-flow -- seven day, low-flow period. There are rivers like the Ramapo, which is a major water supply river, that has a 10-year drought every other year because we're not managing our water, and we're not managing our watersheds, and impervious cover has caused that.

And then on top of it there is no incentive to fix the leaks. You know, a quarter of our water in many of our systems leak out, and yet it's just a pass-along to the ratepayers. So there's no incentive for the water purveyors to actually fix those leaks.

And when it comes to sewage, the same thing: *I* and *I* -- infiltration and inflow. And most of the porous pipes that were built in the 1970s used tremolite which, is asbestos tailings that they mix into the cement. So if they leak, water leaks in, sewage leaks out. And so when it rains, many of our sewer plants cannot function properly; they cannot actually treat all the water. And that's just the suburban ones. In the cities, you have CSO issues, as you well know, where we used to call -- have the *Fountains of Wayne*; well, every time it rains you have the Fountains of Paterson, which is raw sewage coming out into the streets.

And we have a big problem ahead of us, and we have to come up with ways of fixing it. And it's going to take funding. We're going to need-- Pennsylvania instituted a flush tax; we need to, I think-- We've had Administration after Administration steal all the money out of the 1981

Water Supply Bond Act that was supposed to do this. They were using it for everything from open space to meeting staff requirements at DEP. We have monies from the CBT dedicated for watershed planning and protection, and instead it's going for salaries. So we keep stealing the money that should be going into water, and meanwhile our system is about ready to collapse.

And I'll just throw in one other issue on top of it. Just think if we had fracking waste coming to these plants, that can't even meet tertiary treatment, impacting water supply intakes? Or if we had sewage -- fracking waste stored at many of these sewer plants when Sandy hit and they stopped functioning, or when a wave hit Passaic Valley. So you think about all the potential problems that we have.

I used to say, you know, you look at a glass of water in New Jersey. Is it half empty or half full? It doesn't matter, because what's in it you may not want to drink. (applause)

ASSEMBLYWOMAN SPENCER: Thank you.

And Jim Walsh.

J I M W A L S H: Hi, my name is Jim Walsh. I'm the State Director for Food & Water Watch.

I know many of you hear me talk about fracking and genetically engineered foods a lot, but you may not know we actually have active campus campaigns at Rider, Rutgers, Bergen Community College, Ramapo, Rowan, Monmouth, and Essex County College. And all these campaigns are focused on increasing investment in public drinking water infrastructure at the university, and working to reduce bottled water usage on campus -- which I'll come back to.

There's a tremendous need for investment in drinking water infrastructure, and I'm going to take this from a point that I think hasn't been raised. And I want to first just kind of raise a point: that the word *commodity*, as referred to water, was used several times during the course of this hearing. Water is a resource; it is not a commodity. Water is being put-- There are forces that are pushing right now to create commodity trading programs in a global way -- the same way we treat oil and gas -- trading it across seas and things like that. This will jeopardize the human right to water, and so it's very important when we talk about water that we recognize it's not a commodity. But there are people who want to treat it that way.

And I say that it jeopardizes the human right to water by treating it like a commodity, because you cannot allow something to exist in a market and expect to have universal accessibility. Because markets set prices at levels that maximize profits, not that ensure access to those things.

And so this brings to our concern about investment in water infrastructure. We are concerned about investment dollars being driven towards private water institutions that would then be competing with public water institutions. And we want to see water resources utilized by public drinking water infrastructure and institutions. When you give water to a private water company, they talked about, "We will create millions of dollars in savings by certain investments." There is no guarantee that any of those savings are going to go to ratepayers. Those savings will go into the pockets of shareholders and CEOs in many instances.

By putting these resources and making them available to private companies, you push up borrowing costs for public utilities because

then the demand for those resources increases -- which can put upward pressure in bonds and costs for public water utilities, so thereby increasing costs to public consumers of a public resource.

And it also pulls resources out of New Jersey. Because when you invest in a public drinking water institution here in New Jersey, we're strengthening New Jersey's infrastructure. When you invest in a private water infrastructure, many of them that we heard -- United Water -- here, they are a subsidiary of Suez Environment, an international water company whose goal is to buy up and control all the water on the planet. We're investing in their infrastructure, not New Jersey's infrastructure.

We need to make resources available for public water utilities to remunicipalize their systems. After public utilities privatize, it can become costly for them to remunicipalize their system and take them over. And so providing resources to public utilities that have gone private and seen their rates increase, or seen their service deteriorate -- making those resources available to help them remunicipalize their system is very important.

And privatizing water systems has real impacts for residents in the public who have private water systems. By having a public system, you actually increase municipal control of the water system. Decisions about rates and investments are not handled by the Board of Public Utilities, whose meetings are very inaccessible to members of the public -- they're usually held during the day in Newark and Trenton, where people have to travel across the street (*sic*) and miss a day of work; as opposed to going to a local meeting that would be happening at city hall, potentially in the

evening, so there's far more ability for the public to comment and have input on their drinking water system.

We did a report about two years ago analyzing the prices that consumers pay for public versus private water systems and found that consumers pay about a third more for private water than they do for public water; essentially receiving the same product, but paying more for that same product. So making those resources available for municipalization would also save ratepayers money.

There was discussion about the DSIC by the private water utilities -- the Distribution Service Investment Charge. We see this as a way that private water companies are able to raise rates on consumers by going around a BPU approval process, and then getting retroactive approval for improvements after they were done. And it's very hard to go back and verify whether or not those repairs were actually necessary, and to what extent. And particularly when you're dealing with a hearing that's happening at the BPU, the public has very little input to control those inputs and those comments on those sorts of things.

There are also issues of public records access that private water companies have. Your public utility has issues or problems? You can go and get an open public records act and see what they're doing and what's happening. You have open meetings for the committees that actually control your utility. Citizens and regulatory folks aren't able to get into a board meeting for United Water that meets in France. Citizens aren't able to go and have input over the decisions that company's making. They have no input; it's based on investor returns. So we think that making resources

available through municipalization should be a priority in drinking water infrastructure.

How do we raise revenue? This is a very important question, and I'm going to come back to the bottled water issue. We see bottled water as a very good place to start raising revenue for drinking water infrastructure. Putting a very tiny penny-an-ounce tax on bottled water can generate literally hundreds of millions of dollars for water infrastructure in the State that would be badly needed. And why we think this is important: Because bottled water actually undermines our public drinking water system. And how it does that, it actually-- We treat our drinking water to the point that it's all potable and drinkable, but we use it for so many different things. So then we're actually buying this bottled water and then using the water in our house, which has been treated to a drinkable point -- that's better than most other countries on the planet, despite our infrastructure issues we have -- and then buying this bottled product.

We're also, when we do that-- When we buy bottled water we're investing in a private water system, and building that private water system and divesting in our public drinking water system. And we're saying we're willing to expect less than what we should have from our taps. You know, the difference between developing countries and developed countries, in many instances, is their ability to get clean drinking water from their taps -- and we should demand that be the case. So we think that the undermining of our public drinking water systems, that is happening now, by bottled water would justify that tax being placed on bottled water institutions. I also would challenge the Chair to ensure that none of the members of the Committee need to come here with bottled water for

drinking, by making sure that pitchers of water are available during hearings. I know other members have done that at hearings. I don't know what logistics it takes, but I think that would be great to have those sorts of options available so that Assemblyman Benson doesn't have to bring bottled water.

ASSEMBLYMAN BENSON: We usually do; I don't know what happened today.

ASSEMBLYWOMAN SPENCER: Yes, we usually do.

MR. TITTEL: Yes, I usually steal some. I know it's usually over there. I've spilled it a few times, too. (laughter)

ASSEMBLYWOMAN SPENCER: If there's no pitcher, I'd rather have them drink water than soda.

MR. TITTEL: Exactly.

ASSEMBLYMAN BENSON: That's true.

MR. WALSH: So we see that as being a very important way that we could generate a tremendous amount of resources for drinking water infrastructure in the State -- by putting a small penny-per-ounce tax on bottled water, which could be then invested in New Jersey and invested in our public drinking water infrastructure.

And Assemblywoman Spencer, on another issue, you asked how does DEP check towns and like that, and you brought up an issue of turbidity in Newark. I live in New Brunswick; we had an instance where it turns out that New Brunswick's licensed operator was fudging numbers on turbidity, and it was covered up for at least five years and potentially longer, that we know of, in those instances. And so this was very concerning to me as a New Brunswick resident, but, you know, in general.

The oversight of DEP of local drinking water systems needs to be improved, and in order to do that we need to restaff our DEP; we need to be restaffing other public institutions to make sure those regulatory agencies are in place. That staff person has hence been dismissed, but it was somebody internally in New Brunswick who actually uncovered the problem with that -- that issue and those fudging of numbers. And those numbers get sent to DEP all the time, but over at least five years, and potentially longer, nobody checked to verify that any of the numbers they were -- getting right in terms of turbidity -- was there.

ASSEMBLYWOMAN SPENCER: And the only reason we found out in Newark was because the watershed was dismantled.

MR. WALSH: Right.

ASSEMBLYWOMAN SPENCER: Had it not been dismantled, we probably wouldn't have found out.

MR. WALSH: So thank you very much for having this hearing. I think this is an important topic. I know I've been asking for a different hearing to happen, and I appreciate that. But this is an important topic and I appreciate that it's being addressed. And I hope to see real action on this issue as well.

ASSEMBLYWOMAN SPENCER: Thank you.

Okay, and as I promised, first-- Gentlemen, you can step back.

MR. TITTEL: Thank you.

ASSEMBLYWOMAN SPENCER: Certainly I want to acknowledge the individuals who are here in opposition to fracking here in the State of New Jersey, and I appreciate the fact that you came down today as a group to make sure that your voices were heard on that issue.

Planning on my part did not account for that bill being on the agenda today. We are going to take efforts to possibly get another Committee day before the June break in order to have that bill come before this Committee.

At this time, though, I will take testimony from two people with regards to that. And the testimony shall be limited to two minutes or less.

I would like to hear from the younger individuals who are here, because certainly the fact that they've been here all day-- Sir, if there's something specific you wanted to say? Come forward; again, let's just try to keep it--

CHRISTOPHER LEN, Esq.: (off mike): Yes, thank you.

I'm Chris Len; I'm from Baykeeper. I believe I was scheduled to talk about the original purpose of the meeting.

ASSEMBLYWOMAN SPENCER: Well, if we don't have-- I don't have your slip -- it's in your hand.

MR. LEN: Well, I thought since I was on the schedule I didn't have to submit a slip. And there were, frankly, so many fracking people that I could not get into the room.

ASSEMBLYWOMAN SPENCER: Okay, if you-- Certainly, have a seat, and let's try and keep the testimony brief. And my apologies; and I have my list here, and I didn't have it.

MR. LEN: Thanks, I appreciate that.

ASSEMBLYWOMAN SPENCER: Because as you see, we're losing people.

MR. LEN: I know; you almost lost me. I'm going to fall over for lack of lunch. (Laughter)

ASSEMBLYWOMAN SPENCER: Okay, all right.

MR. LEN: So I'm Chris Len; I'm the Staff Attorney at Hackensack Riverkeeper and New York/New Jersey Baykeeper. We've been very active in issues like these. And I just want to make a couple of statements in respect to those.

I feel like people have said today that New Jersey is not alone in these issues. New Jersey is kind of alone. According to the -- what was it called -- the State Budget Crisis Task Force for New Jersey-- They analyze New Jersey among all the other states -- New Jersey's stormwater infrastructure needs are \$15.6 billion, which is more than twice -- or more than two-and-a-half times more than the second state, which is Pennsylvania. So not only are we number one in the nation for stormwater needs, we're number one by 2.6 times.

That's really pretty remarkable given that we're 47th in land area. We have greater stormwater infrastructure needs than Texas or California.

Many people have talked about our antiquated water infrastructure. I don't think that probably needs to be repeated, but we were supposed to have a 50-year life span on these infrastructure items, and you know many of them are from the 19th century. I heard many stories about pipes that were literally made of wood and losing a great deal of the water that they carry. And I think the biggest reason that we've been able to proceed along these paths is that we've never really addressed these issues regulatorily. New Jersey still has a general permit for combined sewer

overflows; it does not require anyone in the state to meet water quality standards, which is clearly required by the Clean Water Act. Similarly, we have general permits for MS-4 permits -- for municipal stormwater -- that doesn't require meeting water quality standards. And my groups petitioned, and then sued, the DEP to revoke and reissue that permit. And we're going to have new permits for those soon that, to my eye, look pretty good.

But that should serve to awaken the Committee and the Legislature broadly that this era of being able to ignore the pipes under our ground, because we can't see them, is over. Working for environmental groups, the only real tool I have is to compel regulatory compliance through the courts. And you know that is going to make a very firm requirement on CSO communities to meet water quality standards in a period of 20-or-so years.

But we could do it a lot sooner if we were to do things through legislation. So in the past this -- we've considered legislation on four different things that I think that we should bring up and continue with.

First being the Stormwater Utility Bill. You should do that not just in CSO communities; it's frankly unfair to the CSO communities that they need to be spending billions and billions of dollars on infrastructural improvements, when towns with separate storm systems are also exceeding water quality standards for pathogens, and for nutrients, and for toxics. And that should be done throughout the state because it's not going to work otherwise.

The Green Infrastructure bill that was to encourage new avenues of green infrastructure -- that should be brought back up. Green infrastructure does a lot more than simply address water pollution and

water quality problems. It also addresses heating bills; it makes the towns that are more beautiful -- that they use them. New York City and Philadelphia have spent lots of money on these programs, and in New Jersey we're just starting to think about them. But we're starting to think about them in CSO towns; we're not really thinking about them in other towns. And that should be broadened and resubmitted for a full vote.

Next would be the CSO Notification bill. We have overflows so frequently that we don't even know when they happen. And there's no requirement that CSO permittees tell anyone when there's a wet weather CSO that can contain pathogens that are deadly. They only have to report when there's a dry weather overflow. That is, frankly, crazy that we could be addressing a major human health problem with practically no investment.

And then finally, to revisit the DEP's oyster ban that-- Baykeeper is well known for oyster restoration research in the harbor, and oysters both filter water and increasingly are seen as important in reducing storm surges. There is a \$60 million project in the south shore of Staten Island that was just announced. And we can't do that in New Jersey because the DEP can't control the water quality sufficiently to feel that it's safe enough to grow oysters in these waters.

And so, you know, moving forward with legislation on any of these four things would be very helpful; but just to say, once again, that the time when these things can be put off is really over. And if we're not getting ahead of it, then towns like Newark and Paterson, particularly, are going to be crushed by this rolling ball of regulation. And I think that we should try to get on a good foot on that.

So thank you.

ASSEMBLYWOMAN SPENCER: Thank you.

Thank you, and I'm sorry that we didn't have you on the list. But your testimony has been received, and know that with regards to a couple of the suggested bills, we have actually have them in an envelope and they're being considered.

MR. LEN: Can I give someone my written testimony?

ASSEMBLYWOMAN SPENCER: Certainly, thank you.

Okay, now, with regards to testimony with regards to opposition to fracking, the two people are going to be Margo Pellegrino--

M A R G O P E L L E G R I N O (off mike): Pellegrino (indicating pronunciation)

ASSEMBLYWOMAN SPENCER: Pellegrino, and Jean-Marie Donohue.

Jean-Marie? Come on up. And again, if you could keep your testimony brief, because there will be another day when the bill is heard. So if you keep it under two minutes that would be great, because we have gotten late in the hour.

Press the red button and introduce yourselves.

MS. PELLEGRINO: Hi, Margo Pellegrino.

I wasn't actually going to testify, but since I'm in the hot seat, I will.

Because I am here for a reason -- I am completely against us accepting this fracking waste; it is problematic. And I'm trusting that you got one of these (indicating testimony). I'll just, like, read this off.

ASSEMBLYWOMAN SPENCER: Oh, do not read.

MS. PELLEGRINO: Oh, okay.

ASSEMBLYWOMAN SPENCER: Do not read.

MS. PELLEGRINO: No, no, no. I mean, I'm just like -- the bullet points.

ASSEMBLYWOMAN SPENCER: Okay, all right. Just keep it brief.

MS. PELLEGRINO: Yes, I'm sorry. I'm an activist on many issues, and this happens to be one of them, because it does translate into water quality and that's one of my big, big things.

The Senate, as you know, did pass the Bill S-1041, and we're hoping that the Assembly does the same. The Senate was like, overwhelming -- 32-5 -- so there's a huge-- And the more people hear about it, the more they realize this is a really silly thing -- that we're accepting it at four facilities. And I understand that Deepwater doesn't want to accept it anymore, that's it's something -- anyway--

So anyway, this is a problematic thing. We are already accepting a ton of this -- 478-plus tons of this drill waste -- and none of these facilities, by the way, is really capable of handling this stuff. I believe there is one that was in violation that received a notice by New Jersey DEP -- or from New Jersey DEP that they took fracking waste that was so high in radioactivity--

ASSEMBLYWOMAN SPENCER: Okay, which company was it? Because one of the things--

MS. PELLEGRINO: This is the Kearny facility.

ASSEMBLYWOMAN SPENCER: The Kearny facility. What's the name of the Kearny facility?

UNIDENTIFIED MEMBER OF AUDIENCE (off mike):
Clean Earth.

MS. PELLEGRINO: Clean Earth.

ASSEMBLYWOMAN SPENCER: Clean Earth, okay. And when was this infraction noted?

MS. PELLEGRINO: You know what? I don't know the date of it, but I am sure that someone from Clean Water Action or Sierra Club will have that information. I would say that David Pringle-- I can actually let him know that. And Jim Walsh, actually, also with Food & Water Watch.

ASSEMBLYWOMAN SPENCER: Okay, certainly, go ahead.

MS. PELLEGRINO: We do know that no New Jersey treatment plants are designed to safely process the fracking waste or treat the levels of radioactivity. And so this is problematic for us because we know that it doesn't just stay in these facilities -- it goes out with everything else, and now it's in our waterways, it's in our fish, it's in our water where we're swimming. It is a serious concern and, of course, we also know that there's a certain amount that goes back into our drinking water.

There are no regulations actually for the fracking process itself, so it just follows suit that there's nothing for the waste.

So that's what I have to say, and I think I said it in under two minutes.

Thank you so much.

ASSEMBLYWOMAN SPENCER: You did, thank you.

Turn your red light off (referring to PA microphone)

J E A N - M A R I E D O N O H U E: Hi, my name's Jean-Marie Donohue; I'm with Waterspirit. We are a faith-based organization that educates and advocates on water issues.

So we are in full support of the Ban Fracking Waste ban. I really appreciate being able to sit here and listen all day, because I did get a comprehensive picture that the Committee is concerned about access to clean, safe water and the surrounding issues in New Jersey. Many people do not understand that clean, safe water is under threat from various issues -- but one of the biggest threats we face right now is from fracking waste. There is a huge amount of it in Pennsylvania, and they are looking for other places to take it. They were taking it to Ohio and injecting it in deep water injection wells that were causing earthquakes, so some places there are not accepting it anymore.

As you know, clean, safe water directly affects peoples' property values and it directly affects the economy of New Jersey, and specifically tourism, which is the second-biggest moneymaker for the State of New Jersey. So for the Assembly to post this bill and to pass this bill would be a great asset for the State of New Jersey, and very effective in ensuring the public health.

As a mother -- I have two children -- I drink from the tap, I advocate drinking from the tap. And I don't want to think that my drinking water for my children will be radioactive and toxic because they cannot filter out these chemicals.

So thank for the time.

ASSEMBLYWOMAN SPENCER: Thank you.

MS. DONOHUE: And we hope you can post the bill before June?

ASSEMBLYWOMAN SPENCER: Every effort is being made to get it done. So thank you very much.

Ladies, it was a pleasure having you. I've never seen either of you before this Committee before. I appreciate new people coming before the Committee, bringing their opinions and their ideas, because certainly we try and take testimony from everyone who represents the concerns and issues that arise here in the State of New Jersey.

For the record, there have been several testimony slips submitted with regards to A-2108, which is the Bill that deals with the banning of frack waste here in the State of New Jersey. Again, over 45 individuals have signed up in favor of that Bill, with no need to testify. These items will go-- We will keep them, and at the time when we hear the Bill we'll make sure that these too are made a part of that record.

So thank you, again, for your patience and for being here. I appreciate the things that you're doing.

And for some of you, perhaps, I'll see you on the day that the Bill is posted.

Thank you; have a good afternoon, all. (applause)

MS. DONOHUE: Thank you.

(MEETING CONCLUDED)