
Public Hearing

before

SENATE COMMUNITY AND URBAN AFFAIRS COMMITTEE

“The Committee will continue to take testimony from invited guests concerning the administration of the ‘Water Quality Accountability Act’”

LOCATION: Committee Room 4
State House Annex
Trenton, New Jersey

DATE: September 25, 2019
10:00 a.m.

MEMBERS OF COMMITTEE PRESENT:

Senator Troy Singleton, Chair
Senator Linda R. Greenstein, Vice Chair
Senator Brian P. Stack
Senator Christopher J. Connors



ALSO PRESENT:

Jamie L. Jennings
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Senate Majority
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Senate Republican
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Hearing Recorded and Transcribed by
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PUBLIC HEARING NOTICE

The Senate Community and Urban Affairs Committee will hold a public hearing on Wednesday, September 25, 2019 at 10:00 AM in Committee Room 4, 1st Floor, State House Annex, Trenton, New Jersey.

The public may address comments and questions to Jason S. Postelnik, Jamie L. Jennings, Committee Aides, or make bill status and scheduling inquiries to Jennifer Trott, Secretary, at (609)847-3875, fax (609)633-1228, or e-mail: OLSAideSCU@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 committee will continue to take testimony from invited guests concerning the administration of the "Water Quality Accountability Act."

Those individuals presenting written testimony are asked to provide 10 copies to the committee aides on or prior to the date of the meeting.

Issued 9/18/19

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SENATOR TROY SINGLETON (Chair): Good morning, ladies and gentlemen.

We'd like to welcome you to the Senate Community and Urban Affairs Committee, our third hearing on the Water Quality Accountability Act.

As we do in all of our hearings, we start with the Pledge of Allegiance.

We'll ask Senator Connors to lead us in the Pledge. (all recite the Pledge of Allegiance)

Jason, if you can begin by giving us a roll call, please.

MR. POSTELNIK (Committee Aide): Sure thing.

Senator O'Scanlon is absent.

Senator Connors.

SENATOR CONNORS: Here.

MR. POSTELNIK: Senator Stack.

SENATOR STACK: Here.

MR. POSTELNIK: Vice Chair Greenstein is around, but not at the moment.

And Chair Singleton.

SENATOR SINGLETON: Here.

Senator Greenstein will be subbing in for Senator Rice. Senate President Sweeney has submitted correspondence to the Secretary of the Senate to that effect. So she'll be joining us when she gets here.

First up, we'll begin -- we'll have Mr. -- and forgive me if I pronounce this wrong -- Emad Sidhom from SUEZ Water, Director of Engineering.

Please come up.

E M A D S I D H O M: Good morning.

Mr. Chairman, members of the Committee, first let me start by thanking you for the opportunity to testify today.

My name is Emad Sidhom; I am the Director of Engineering at SUEZ Water New Jersey.

I've been with SUEZ for 22 years, and I'm a licensed professional engineer in New Jersey for the past 25 years.

With me today is Mr. Craig O'Connell, who is also a licensed professional engineer. And he's the Director of Customer Service, Meter Department, and New Business.

I submitted my written testimony in writing, and it is a lengthy one. So I was told that I will have four to five minutes max, so I'm going to skip a few items in the testimony, if it's okay with you.

First, we apologize that the SUEZ team had to leave early during the last meeting due to an emergency.

The men and women of SUEZ serve over 800,000 residents and businesses in northern New Jersey. SUEZ, and myself, commend the New Jersey Legislature for enacting this important law in 2017.

The Water Quality Accountability Act is an example of good stewardship that other states should follow in leveling the playing field between the public and private water purveyors. This will ensure the water systems are appropriately maintained and provide customers with water of the highest standards.

Fortunately for SUEZ, we had numerous robust maintenance processes in place for many years, prior to this Act, in alignment with the American Water Works Association standards and procedures.

We believe that companies with financial capability to support such robust maintenance and operating requirements are better for the public good, and the health of vast numbers of aging and under-maintained water structures in New Jersey.

To give you a little bit of back background about SUEZ and our assets under the Water Quality Accountability Act, the SUEZ New Jersey Division has 2,200 miles of mains, ranging from 4 inches to 96 inches in diameter. We have close to 17,000 hydrants that are tested annually; we have close to 30,000 small valves -- less than 12 inches in diameter -- and they are tested every four years.

We also have over 4,000 valves -- large valves, which are defined as 12 inches or greater in diameter, and they are tested every other year.

SUEZ believes that the Act should continue to accept an engineering analysis in lieu of a 150-year replacement plan as a supplement to the work being performed in each system.

In order for SUEZ to comply with the 150 year replacement cycle of our water mains, we need to replace about 15 miles of mains each year. The cost to replace a mile of 8-inch main, in northern New Jersey, is approximately \$2.65 million per mile. So the cost to replace 15 miles of 8-inch mains would be about \$40 million just for our New Jersey Division, and that's not including SUEZ Toms River.

Depending on the town, location, diameter and depths of the water main, the cost can be drastically higher than \$2.6 million per mile.

For instance, if we are replacing a 42-inch diameter, or larger, deep concrete main, the cost per mile can be nearly eight times the cost to replace an 8-inch main.

Based on the above, we respectfully recommend to you, and the New Jersey DEP, that you should consider the complexity of the water system when determining the replacement frequency per year, given that different water systems can have a range of water main diameters and the investment required will vary significantly.

Just to give you a quick idea about our water capital budgets, in the past five years our capital spending, per year, averaged \$90 million. This year, we should be at \$100 million. The next five years we have a \$750 million budget, which averages \$150 million per year. That money includes reserve money, \$40 million, to address the Water Quality Accountability Act requirements.

We also have to be very sensitive to our ratepayers, who have to pay for the network improvements in addition to the expected massive cost to address the lead issues, the PFAS, and the emergent contaminant issues that face our state and the whole nation.

Again, thank you for the opportunity to testify here today, and we look forward to seeing the work of the Committee in the future.

Thank you.

SENATOR SINGLETON: Thank you very much.

I'm going to start, because I know SUEZ is not the water company that's in my neck of the woods. I know Senator Stack -- it's in his neck of the woods.

So I'm going to let Senator Stack start, and then we'll continue from there.

Senator.

SENATOR STACK: Thank you, Chair; thank you very much. Gentlemen, thank you for being here today.

I'm just a little curious. Mr. McCoy was here at the last hearing, but had to leave within 40 minutes. I'm just wondering why isn't he here today?

MR. SIDHOM: He left last time for an emergency; and today he has other commitments he could not change.

SENATOR STACK: Okay.

And just if I could -- and I respect both of your positions -- but what level are you at in the company? You're a Director, right? You're both Directors? So who's above you in the water company at SUEZ?

MR. SIDHOM: Who's what? Sorry?

SENATOR STACK: I'm sorry?

CRAIG O'CONNELL: We both report directly to Mark McCoy.

SENATOR STACK: To Mark McCoy.

MR. O'CONNELL: Yes, sir.

SENATOR STACK: So you're at a Director level, and then Mark McCoy is above you as a Vice President -- I think General Manager, right?

MR. SIDHOM: Yes, sir.

MR. O'CONNELL: Yes.

SENATOR STACK: Okay.

I'm just curious about a few things here.

I'm looking to know what the investment schedule is. Would you be able to get the Committee, through the Chair, the investment schedule by SUEZ, over the last 20 years, in your system? I'd like to see what the investment schedule is, broken down, by the municipalities that SUEZ serves; what the investment schedule is on a yearly basis over the 20 years, through the Chair. Whether it was a capital improvement that was made, or whether it was done as a result of a major main break. I would like to see that.

MR. SIDHOM: And you say you are requesting 20 years?

SENATOR STACK: Yes; I'd like to see if it was capital improvement, whether it was for a prevention purpose, or whether it was done as a result of a leak. Because my experience that I've had in Union City and the 33rd District has been -- I see SUEZ out there doing repairs, very few times in the 19 years I've been Mayor of Union City; I can only speak from my experience there, and I bring that to the table here -- is when there was a major main break. I might have dealt with Tony Pissent (phonetic spelling) when he did some insertion valves that were done on Palisade Avenue. But I have seen very little done, whether it be in Union City, Weehawken; I'm not sure what your involvement is in Jersey City; I know Hoboken is under a different program.

But I'd like to see that; that's very important to me, because of the water quality.

MR. SIDHOM: No problem, Senator; absolutely.

SENATOR STACK: We also had testimony here last week from American Water New Jersey who was here. And they talked about that they actually go -- and I always thought this made sense -- because they talked about on lead lines, on lead service lines, that they actually replace the service line right into the house. And I always found that to be a commonsense approach; in fact, I've written on this in the past; I've written several letters on it. Because how can you go in, and change up to the curb box, and leave the lead line going into the home? In fact, I think it even may cause more problems once you cut the pipe -- that you're going to, even, increase the lead level going into the home.

You guys are the experts; you tell me if I'm right or wrong, when I'm done with the question.

But why would it be the homeowner's responsibility? No homeowner I know of -- not in my Legislative District; and I'm sure in many across this state -- could afford to go out there and replace that line.

So, like, in Union City, from my experience right now, we're redoing a major road project on Palisade. We're actually going in and replacing every single lead line. We're over \$200,000 right now, in investments, just on lead lines. Tying into the water quality, we're spending \$9 million on this roadway on improvements -- sidewalks, streetscape, decorative lights, lead lines -- yet, we even changed the curb boxes. Union City actually changes the curb box, even though it belongs to you guys. We ask SUEZ to give us the curb box, and we replace the curb box.

And I'm just wondering why there's not more work done to the main lines? I mean, those main lines have to be 70 years old -- 65, 70, 80 years old. Why isn't there more work done in coordination with

municipalities? Not only Union City -- and through the Chair, not only in Union City, but across the region in SUEZ's territory, when you're notified a year in advance that these major improvements are making sense -- why is it that we go out there, do all this work, pave the street; and then a water main breaks, and we're stuck with digging up a brand new street. And the cost to the taxpayer -- in Union City and across the state-- I'm just wondering why there is not better planning?

And then I have a second part to that question.

I won't be too long, Chair.

SENATOR SINGLETON: Understood; go ahead.

MR. SIDHOM: Senator, for main replacements -- we had a budget of \$40 million to replace mains in the Water Quality Accountability Act. We have to go through our asset management and pick up the assets -- the ultrasensitive assets; the assets that need to be replaced immediately. And that's how we plan for replacements.

So we did some work in Union City; not as extensive, definitely, as you mentioned, Senator. We can share with you all the projects we did over 20 years in Union City.

Regarding the lead services -- Craig will answer this question.

MR. O'CONNELL: Yes, for the lead services that we're replacing-- Since we've been under the Action Level Exceedance, we've been working closely with the DEP on the verbiage in communicating with our customers and educating them on where we are.

So we are -- as a part of that Action Level Exceedance -- replacing a targeted percentage of main; and we're trying to beat that percentage.

So we're actively working with the customers. There's certain communications we have to do with the customers, with a 60-day letter, to give them the understanding that we plan on replacing the utility-owned side, and that we want to coordinate with them and work with them.

We currently have a petition in front of the DEP, and their ratepayer advocate, and their rate attorneys -- that we would want to work with them on how can we subsidize that cost for the customers. Can we do a \$1,000 loan, put that onto their bill; and then we would cover the rest -- and we would work to recover that through rates?

So we are actively working on that, while we are in motion replacing lead service lines. And we are also replacing customer-side lead services for those customers who either were a part of our compliance pool that tested above the Action Level Exceedance, or if they requested a customer sample and they were above the Action Level Exceedance of 15 parts per billion. If they're above that, and we're replacing our lead line, and they have lead, we will replace theirs also at our cost.

SENATOR STACK: Okay.

MR. O'CONNELL: So we are working with those ones that we feel are the most sensitive homeowners who actually did test high; and that we're working with those customers and replacing their lead service lines also.

SENATOR STACK: Great, great.

When it comes to water quality, you guys haven't gone out there and tested every home in your territory to see about what their lead level is in their house. So how would you know that? It's just a sample that you're taking.

And American Water said -- and I don't want to recite them, but I have to compare this to somebody -- American Water said they're going in and just replacing the entire line in each house that they do. Why can't SUEZ do the same? I mean, why not? Why buy additional systems when you can't even maintain what you currently have right now? That's the question I have.

What you're telling me right now has not been done. And to my knowledge, it's not being done in my area, it's not being done in my Legislative District. And are you checking the water quality in every single home, to make sure that the water quality is where it's supposed to be, who has a lead service?

MR. O'CONNELL: We do-- If a customer requests a water quality check -- we do water quality checks, if they request it. And then, also, if they request a lead sample-- Because there are two different tests that are completed. There is water quality that we'll do if someone complains -- that their water quality is off or it's discolored -- we will go in and do a water quality test for them.

And then as a part of this, we did a news conference where we reached out to all of the customers and said, "If the utility has a lead service on their side, or a lead gooseneck, or an unknown -- we're not sure what the record is -- we will provide you a free sample."

SENATOR STACK: Okay.

MR. O'CONNELL: So we put that out to all of our customers. We've gotten a good amount who have asked for that, and we've gone out and worked with them and gotten those tests and given those results.

SENATOR STACK: Right. But when you say “all your customers--” So when you have a building with 350 units -- a high-rise -- you’re notifying just the owner of the building. Each person in that building doesn’t receive any notice, and has no clue about the lead in that building.

Because I’ve seen it firsthand; you’re mailing out to who the bill goes to. But all those people drinking that water are not being notified, and that’s a major issue. I mean, I’ve done it in my Legislative District. We’ve distributed 350,000 fliers under every door, telling people, “Call up to get your water quality checked.” That’s why I commend the Chair for holding these hearings.

But there has to be more outreach, whether it be on TV, whether it be by newspaper, whether it be by Internet. You have to reach out; you have senior buildings with 300 apartments in them. Those senior citizens don’t know what they’re drinking.

MR. O’CONNELL: We have done a community outreach; we could always do more. We’ve done two different town halls, where we invited all the public; tried to advertise on our Facebook page, on our Twitter page to get the public to come in and answer questions.

We actually have received a lot of customer calls in educating folks on lead. We trained our whole call center on how to answer lead questions and be able to give our customers the comfort and education; and we found that’s a big piece that’s missing -- is just people’s just not knowing what that means. They think a lead line for their service line means that they definitely have lead in their drinking water. That is not the case. There are things that that customer can do, and we’re trying to

educate those customers, and reach out to let them know there are things that you have control over in your home that can reduce your exposure to lead in your drinking water.

So we have done community events. I'm sure we can do more. We have more planned, coming up in the next quarter. So we will continue to reach out.

SENATOR STACK: Right; but SUEZ has to make the investment to do postal patron to everybody in their region, to make sure it's reaching every single household.

Listen, you have a lot of multiple dwellings that -- I mean, the Chair can attest to this, and we take up in this Committee, and Senator Ruiz takes up in her Committees -- that you have landlords who are absentee landlords. I mean, Newark is actually going in right now to get court orders to go in and replace lead lines on property owners who are absentee. I deal with those same property owners in the 33rd. The people who live in those building are no less than the people who are receiving it in their bill. That notice has to go out to everybody, whether it be by postal patron-- The Internet is not enough; not enough people are connected into the Internet to know about these things.

But there has to be major advertisement and major ways to reach out to the community to say, "Listen, if you want your water tested, call us." And done in different languages -- English, Spanish; it has to be done.

I mean, we're in 2019; we're still talking about lead lines. SUEZ knew about these lead lines 30, 40 years ago. Why are we waiting

until today to go out there and change those lines? That's what frustrates me.

We already changed-- In Union City, we had to change 100 lead lines already. SUEZ didn't pick up the cost on any of those lead lines. We're paying \$5,000 to \$8,000; you're talking about \$1,000 credit? We're talking \$5,000 to \$8,000 to replace those lines. And we already have the sidewalks dug up.

So I just don't know where these-- It all sounds good when we're talking about it; but putting it into practice is a different ballgame.

MR. O'CONNELL: I understand.

And I will-- What I can do is -- we have done a lot of communication outreach; what I can do is document that for the Committee and send that in. I don't know, offhand, right here in front of me, all of the things we've done. But we have done Spanish radio ads, we have done Spanish newspaper ads. I would like to document those for all of you guys and let you know what -- everything that we have done to reach out to the community.

SENATOR STACK: Through the Chair, I would like to see that; I would like the Committee members to get that.

Also, just correct me if I'm wrong. You can't give a municipality -- not even a Department of Health, not the Department of Public Safety -- a list of everyone in that municipality with a lead line. Isn't that correct -- you're not allowed to give us a list?

MR. O'CONNELL: That is correct. My understanding is, we can give you the quantity of lead lines that we have in our records; but

because that is their personal information -- that we cannot give that to a third party.

SENATOR STACK: Okay. Is that because it's under regulation, under law? What does that fall under, where does that come from?

MR. O'CONNELL: I'll have to follow up on that; I don't know.

He might know (indicates).

MR. SIDHOM: Yes, it is regulations, Senator; BPU.

SENATOR STACK: I know you talked a little bit about it before -- you mentioned about the BPU and that -- I think you mentioned the Board of Public Utilities -- about the credit for the homeowner. Why is that tied up for so long? Because we've been talking about this-- And I'm not saying -- I'm not blaming SUEZ on this -- but I know it has been talked about, because I met with representatives of SUEZ two-and-a-half, three years ago. And I know there's been something pending before; and I don't know quite exactly what it is, but I know that the BPU is considering some type of a credit.

What's happening with that? Where does that stand?

MR. O'CONNELL: We are in current communication with them; we have a petition in front of them. I believe the issue becomes that the customers' asset is not the utilities'. So if we're paying money -- the utility is paying money to replace someone else's asset, how do you account for that? So I think that's -- I think the-- Actually, I don't want to guess what the BPU's feeling is on it, versus the customer advocate, or the other Rate Counsel, but I think there is some differing of opinions on how we

should do that; and the issues that that brings up -- of replacing someone else's asset.

SENATOR SINGLETON: Senator Stack, may I ask a question, if you don't mind?

SENATOR STACK: Sure; of course.

SENATOR SINGLETON: I heard this last week; and respectfully it frustrates me when I hear you say that you're replacing someone else's asset. Because a large percentage of the means for you to replace that asset is the customer's money and the ratepayer.

Now, there's probably a piece that comes with that when you use your shareholder investment that's associated with that. But a significant chunk, I would imagine, of your ability to replace someone else's asset comes from that same someone else. And we heard from one of your competitors -- or maybe *competitor* is not the right word; that's probably not the right word -- a fellow private water company -- that they are undertaking this initiative, that Senator Stack talked about earlier, without having to go through this back-and-forth. Because I think, as the engineer would attest to, partially replacing the line, as Senator Stack talked about, is actually truly a waste of money, quite frankly. It's a waste of money, because when you replace it, you move the sediment in one pipe and you just contaminate the water anyway.

And I am a little disappointed, as well, that the individuals who could, perhaps, answer the more deeper questions with respect to this -- and this is not a knock on either of you two gentlemen -- is that you're not in a position to actually give this answer.

But I would encourage you to take back that some of your colleagues in this industry are not waiting for the BPU to make a decision, with respect to this. They are just doing it.

And I think members of this Committee -- who not just are served by SUEZ, but all of us -- would encourage our investor-owned utilities to undertake that effort. Because if you look at just the financial statement -- the statements-- Like SUEZ talks about -- and I saw this, in 2017 -- there's over \$19.6 billion in revenue that SUEZ made. That's not my number, that's the number that's on your website. So if revenue of \$19.6 billion -- to sit and tell us that, "We're waiting for the BPU to tell us if we can use a portion of that money to help a situation that we know is a problem," that, frankly, just falls short, it falls flat, at least to me.

So I would encourage you to not wait on the BPU to make that decision. I don't think it's a resource issue. SUEZ North America does pretty well, as we just enumerated. So I think that can happen without waiting on the BPU to make that step, and I encourage you to take that information back as something to do. Because I'd hate for the Legislature to force investor-owned utilities to have to make that charge and be able to do that to replace the existing line. I think, sort of, a corporate initiative to do that actually bodes well for everyone who is involved.

Senator, I apologize.

I'm sorry, sir; go ahead.

SENATOR STACK: No, thank you, thank you.

The issue that I have-- So when it comes to -- and thank you, Chair -- when it comes to your capital improvement plan for the water quality, how far out do we go? Is it a 5-year plan, a 10-year plan?

MR. SIDHOM: Do you mean following the Water Quality Accountability Act? For lead services now, Senator, or general capital budget?

SENATOR STACK: The general capital improvement plan to improve the water quality -- how far do we go out -- five years? Like, do you know today where you're going to be four years from now, five years from now; what lines you're going to be replacing, where you're going to be in your system?

MR. SIDHOM: Yes; yes, Senator.

SENATOR STACK: You do.

MR. SIDHOM: We do have-- When we submit our plan to the BPU -- and it's a public document -- we have very specific locations, town by town, and the reason for replacing this main or that main. That's a very elaborate document, and we have that.

SENATOR STACK: So--

MR. SIDHOM: Yes, sir?

SENATOR STACK: If you could -- through the Chair, again -- if you could get it to the Committee.

And do you coordinate with municipalities? So if a municipal notifies you in advance -- eight months to a year in advance, nine months -- and says, "Listen, we're going to be doing road work in these areas," do you coordinate?

MR. SIDHOM: Yes; most municipalities do. And when this happens, and we have a plan already sent to the BPU-- But if we need to change that plan, and we just amend the plan and say-- If the main street

was being paved in six months, we change our plan to include that main street in our projects, and we have to add it to the five-year plan.

SENATOR STACK: Okay; and you are aware -- right? -- being that we're doing all this water quality that we're talking about, and it is so important -- we're hearing so much about it now, not only in the SUEZ territory, but across the country--

MR. SIDHOM: Yes, sir.

SENATOR STACK: You're aware, now, at this point, that many municipalities are very frustrated to have each utility -- whether in my area, or at SUEZ, or PSE&G, or Verizon; whoever it may be -- sewerage authorities -- coming in and tearing up the streets, when you just done paving them. I've adopted, in Union City, a 10-year policy; that if the street gets dug up, you must mill it and pave it, curb to curb. I'm trying to build an incentive -- not to cost the company money, or the ratepayers any money -- because we're ratepayers besides being taxpayers.

MR. SIDHOM: Yes, sir.

SENATOR STACK: But to build an incentive in there to get the water company to talk to the gas company, and the electric company; to get the electric company to talk to the municipal sewer authority -- whoever it may be -- to coordinate. I don't see, from my end -- and I bring a perspective as a local mayor -- I don't see the coordination happening. Public Service doesn't know what the water company-- I don't think there's any type of interaction, statewide, unless maybe in South Jersey or Central Jersey -- I don't know that area, and I can't speak to it. But I don't see it in the North. I try very hard to bring everybody together every so

often, but it's hard to coordinate that. And I think you have a lot of local mayors who are very frustrated with that.

MR. SIDHOM: Yes, I fully agree with you, Senator. We don't do enough coordination; PSE&G, SUEZ -- all the utilities. We did try, and I would say we still have to do a lot more coordination than we are doing now. This does not apply to SUEZ only; it applies to all utilities.

But yes, it's poor coordination; I agree.

SENATOR STACK: Okay. Does SUEZ comply with OPRA, the Open Public Records Act, in New Jersey? Do you comply with that? If I write a letter asking for information about the company itself, would you comply with that -- your investments and everything?

MR. SIDHOM: I'm not really sure the answer to this question, Senator; but we'll get you the answer.

SENATOR STACK: What is the average age of the mains in the SUEZ territory; the average overall?

MR. SIDHOM: Seventy-eight years.

SENATOR STACK: Seventy-eight?

MR. SIDHOM: Yes, sir.

SENATOR STACK: And you go by the 150-year plan, or the 100-year plan?

MR. SIDHOM: We are at the 150-year plan. So the \$40 million I mentioned in my testimony -- this is enough to replace 15 miles of 8-inch mains. However, if I'm replacing a 42-inch main, which would cost eight times an 8-inch main, I would not be in the 150 year cycle. But we would submit an engineer's report to submit the variation from 150 years.

SENATOR STACK: And what percentage of your water do you lose to leaks in the system?

MR. SIDHOM: As of last month, the numbers of the annual percentage, I believe, was 21 percent.

SENATOR STACK: How much?

MR. SIDHOM: Twenty-one percent.

SENATOR STACK: Twenty-one percent.

MR. SIDHOM: Yes.

SENATOR STACK: That's all I have right now, Mr. Chair.

Thank you very much for the leeway; thank you.

Thank you very much, gentlemen.

MR. SIDHOM: Thanks, Senator.

SENATOR SINGLETON: Gentlemen, a quick question.

And to Senator Stack's point, the 21 percent on those leaks -- are those required -- are you all required to submit those? When you do the water loss audits, are you required to do those by the BPU?

MR. SIDHOM: We're required, and we do so, sir; yes.

SENATOR SINGLETON: Okay.

MR. SIDHOM: We do submit a report every three months; and we submit an annual report too.

SENATOR SINGLETON: So the most recent report was at 21 percent.

MR. SIDHOM: Actually, I was-- It's 21 or 21.5; so I need to confirm this number, exactly.

SENATOR SINGLETON: Well, I won't hedge on a half-of-a percent.

MR. SIDHOM: Yes.

SENATOR SINGLETON: So we're okay. But the question I was asking you, is that number -- is that moving in a better direction, worse direction? Like, in the last three months-- Well, let me ask it better.

MR. SIDHOM: Yes.

SENATOR SINGLETON: Over the course of the last calendar year, have you seen that number remain flat at 21 percent, has it gone up, has it gone down? Where would it be at?

MR. SIDHOM: Okay. Two years ago, we were at about 20 percent.

SENATOR SINGLETON: Did you say 20?

MR. SIDHOM: Twenty percent, yes; or actually, a hair less than 20 percent. So we were going in a great direction -- down direction.

Then we had a major main break, a major leakage. We were unable to find it. If you have water leakage in a rocky area, the water can seep into the rocks for months, and you cannot find it.

So anyway, that set us back to 22-point-something percent, or 23 even. So we have been declining, very nicely, for up to two years ago. So we came from 27 percent to 20 percent or less. Then we came up again the last three years.

But we are doing our best to install leak detection equipment everywhere, and we think we have good control on the issue. And the last three months we are declining -- the (indiscernible) water -- but not at the rate we would like to see.

So our goal in, probably, three years -- we go back again to 19 percent, which is a very reasonable number for an aging system like ours.

SENATOR SINGLETON: You said the 19 percent water loss is a reasonable number--

MR. SIDHOM: Absolutely.

SENATOR SINGLETON: --because of your aging system.

MR. SIDHOM: Yes, Senator; yes.

SENATOR SINGLETON: So as you think that through -- because obviously that all equates to actual dollars -- the loss of water equates to dollars. How, then, does your capital program -- that the Senator talked to you about -- how is it being implemented to further reduce that 19 percent? Because that is ratepayer money that's literally falling out of the pipe. So how does that correlate to that?

MR. SIDHOM: That's correct, Senator.

The other mention of 19 percent -- or 18, 17 percent -- is a very acceptable number to the regulators, based on our aging system. So yes, it's money lost; but every system has a water loss. So the New Jersey DEP -- I believe they are represented here; if I say something wrong, they can correct me -- they accept up to 15, 16 percent for an aging system. Again, maybe I'm repeating myself; I apologize -- but it's a very reasonable number to be at 18 percent. It's water lost, but there is no control-- No matter how much money is spent, you may be getting-- It's not the worst-- The reward is not that much help no matter how much you spend after that.

So we will never be at 10 percent, no matter what we do.

SENATOR SINGLETON: No matter how much investment you make, we're always going to have water loss, is your point.

MR. SIDHOM: Absolutely, sir. For such an old system, we will never be below--

SENATOR SINGLETON: But when and if you keep making infrastructure improvements, wouldn't it cease being an old system? Wouldn't it start not being as much of an aging system as you continue to make these improvements?

MR. SIDHOM: We have a fully detailed asset management plan, and we have an asset management team, and we look at every single asset we have. And we selectively choose old assets to replace. An *old* asset does not mean it's a *bad* asset. In Union City, we have some mains that are over 100 years old and the pipe thickness is over an inch. So it is still functioning and is in good shape, so there is no reason to replace it. But we replace the very critical mains too; anything close to tunnels or bridges. That's -- we give high priority to those mains.

SENATOR SINGLETON: Yes, it would make sense to prioritize--

MR. SIDHOM: Absolutely, sir.

SENATOR SINGLETON: --when you do the changes; 100 percent.

MR. SIDHOM: Yes.

SENATOR SINGLETON: The question that the Senator asked you about the lead service lines in the inventory-- Do you all submit that information, currently, of the number of lead service lines in your inventory?

MR. O'CONNELL: Yes, we do. As a part of the Action Level Exceedance, we submitted what our inventory was at that time. And we continue to update them as we clean up our records, as we do digging determines, as we do main replacements -- we replace them. It's always

being reduced. Our unknowns are going down as we find out more information. So we do continue to work with the DEP and report that also.

SENATOR SINGLETON: What is the total number of lead service lines in SUEZ's territory?

MR. O'CONNELL: Currently, for the Hackensack system -- because we do operate in Toms River and the Highlands -- but for the Hackensack system, which I believe we're discussing--

SENATOR SINGLETON: I didn't ask about one particular system; I just asked in general.

MR. O'CONNELL: Okay.

SENATOR SINGLETON: Do you know the total number?

MR. O'CONNELL: I do for the Hackensack system; I'm not sure if I can answer for all of New Jersey of SUEZ, so I'll have to get back to you guys with that number.

SENATOR SINGLETON: Well, why would you just have the Hackensack system, if you don't mind me asking?

MR. O'CONNELL: Because this is highly tracked right now, as we're in an Action Level Exceedance in this area.

SENATOR SINGLETON: Okay.

MR. O'CONNELL: So it's getting a lot of focus. And we are held to this number; we have to replace 7 percent of that number, or a combined number of the lead. So it's being highly tracked right now, down to weekly where we're updating that number.

SENATOR SINGLETON: All right. What is the number in that system then?

MR. O'CONNELL: It is 7,385.

SENATOR SINGLETON: And what constitutes the *Hackensack system*, so we can put it in perspective?

MR. O'CONNELL: On your map, I think--

MR. SIDHOM: Actually, if I may answer this one.

It's Bergen County, and Hudson County, and Franklin Lakes.

SENATOR SINGLETON: Say it one more time, sir.

MR. SIDHOM: Bergen County, Hudson County-- And on the map you have, Senator--

SENATOR SINGLETON: This map (indicates)?

MR. SIDHOM: Yes, Senator; the blue area--

SENATOR SINGLETON: This piece here?

MR. O'CONNELL: The large blue.

MR. SIDHOM: The large blue.

SENATOR SINGLETON: The blue section on this one here?

MR. SIDHOM: Yes; yes, sir -- in addition to Franklin Lakes. That's what represents the Hackensack-Franklin Lakes system, yes; which is over 95 percent of our system. That's why there is emphasis on that system.

SENATOR SINGLETON: So, now, all right.

So 95 percent of your system-- Now, tell me, once again the number of lead service lines that are there?

MR. O'CONNELL: Currently -- and it changes weekly -- 7,385.

SENATOR SINGLETON: And would you be able to be specific as to where those 7,000 lines are and what communities they're in?

MR. O'CONNELL: We can, and I think we actually have either have supplied that, or we can supply that.

But by municipality-- Or not by municipality--

SENATOR SINGLETON: Yes, because the map that I'm looking at here is not that. The map that is here talks about the State of New Jersey SUEZ regulated companies as of a certain date.

MR. SIDHOM: Yes.

SENATOR SINGLETON: And it's the population served in certain territories. And it's the entirety of, I think, your whole thing.

MR. SIDHOM: Yes.

SENATOR SINGLETON: So--

MR. SIDHOM: I'm sorry, sir.

SENATOR SINGLETON: Yes; so where is this 7,000 at?

MR. O'CONNELL: It's in -- they're in this large--

SENATOR SINGLETON: No, I know; it's in the blue thing.

MR. O'CONNELL: Oh, I can give you by--

SENATOR SINGLETON: I get it.

MR. O'CONNELL: I can give you by town how many--

SENATOR SINGLETON: That was the question I asked you.

MR. O'CONNELL: I have that. I don't have it here, but we can get that to you.

SENATOR SINGLETON: All right.

MR. SIDHOM: And that is public information; we submit it to DEP, too.

SENATOR SINGLETON: Okay; if you would, as expeditiously as possible, please -- I would like to see that.

And the rate that you are replacing those lines is at what clip?
How fast are you replacing those lines?

MR. O'CONNELL: So as a part of the Action Level Exceedance, what we have been held to by the DEP is that a minimum of 7 percent of our inventory, when it first happened, has to be replaced per year. We're working to beat that number; but that is -- as long as we're in the Action Level Exceedance we will have to continue, at a minimum, to replace 7 percent.

SENATOR SINGLETON: Understood.

MR. O'CONNELL: And we are currently working, as a company, to increase that amount to do as many replacements as we can, year over year, and be higher than that 7 percent.

SENATOR SINGLETON: And the DEP is only requiring you to replace your service lines; again, the DEP has not required you, or authorized you, or encouraged you to replace the rest of the line that is probably also a lead line, that's into the home, correct?

MR. O'CONNELL: Correct.

SENATOR SINGLETON: Okay; got you.

MR. SIDHOM: Senator--

SENATOR SINGLETON: Yes.

MR. SIDHOM: --if you would allow me to supplement what Craig said.

SENATOR SINGLETON: Please; yes, please.

MR. SIDHOM: The number Craig gave is for the solid lead lines. However, we have other services, which have a small piece --

something like 18 inches long -- which is called *goosenecks*, which is lead -- partial; a small part of the line.

So when you add the full lead lines -- which are the 7,000-plus -- when you add the goosenecks, and when you add the customers' side lead services -- that totals about 35,000.

MR. O'CONNELL: Yes, the inventory that we submitted to the DEP -- and I was just talking lead service lines, not the goosenecks, which is typically a brass service line with a lead connector. So that is also part of our inventory that we submit to the DEP. So that is 7,385 lead service lines, and then 22,551 goosenecks.

We also have some amount of unknowns, which we worked with the DEP. They said, based on your records, you have, probably, a percentage of unknowns that are also lead or gooseneck. We created a percentage for that. So the total inventory of lead that we submitted at the beginning of the a Action Level Exceedance was approximately 35,000, if that makes sense.

SENATOR SINGLETON: Thank you.

And the other component that you have -- that Toms River component that's listed there in Ocean County -- even though you don't have the same exceedance issue, do you know -- will you be able to get to us the number of lead service lines you have serviced in that general area there?

MR. O'CONNELL: Yes. I do not have it with me, as you've stated; but yes, sir, we can get that number for you and give it to you.

SENATOR SINGLETON: And is that just-- If I'm reading that correctly, is that just the Colts Neck water and sewer? Is that what that is -- just there?

MR. SIDHOM: No, also the Toms River main system, which is 50,000 customers.

SENATOR SINGLETON: Okay.

MR. O'CONNELL: It's also blue.

MR. SIDHOM: It's a blue color, too, in the central part of the state.

SENATOR SINGLETON: Got you, got you.

MR. SIDHOM: That's the water part, and the Colts Neck is sewer.

SENATOR SINGLETON: Got it.

And those you're not replacing at this point, because you don't have to replace those, right?

MR. SIDHOM: Yes. Toms River, to my knowledge, has a small number of lead services; but we will get you exact numbers.

SENATOR SINGLETON: No, no; my question is, you're not replacing those--

MR. SIDHOM: We're not.

SENATOR SINGLETON: --because the only ones you're replacing are the ones that have the exceedance.

MR. SIDHOM: In North Jersey.

SENATOR SINGLETON: But we're not replacing the other places where we know we have lead service lines.

MR. SIDHOM: That's correct, Senator.

SENATOR SINGLETON: Got you; okay.

Anybody else? (no response)

Great.

First of all, I appreciate-- Let me say this publicly. I appreciate you both for being here. It's never easy to sit in here and have these kind of questions thrown at you and have this conversation. But I appreciate both of you answering them honestly and candidly; and if you didn't have the answers, committing to getting those answers back to us.

I don't take lightly the work that it takes to make sure our water systems are run efficiently to provide clean drinking water to those who you serve.

So thank you for your time here today. We are hopeful that once we get that information and can digest it some more -- there may be some follow-ups that we'll end up sending back, through our Committee, to the company.

So thank you both.

MR. O'CONNELL: Thank you.

MR. SIDHOM: Thank you, Senator; thank you.

SENATOR SINGLETON: Next up, we will have Mr. John Hildabrant, Aqua Water.

J O H N H I L D A B R A N T: Good morning, Mr. Chairman and Committee members.

On behalf of Aqua New Jersey and our parent company, Aqua America, I would like to thank the Committee for the opportunity to appear today and provide you with my thoughts on the Water Quality Accountability Act.

The Act is an important initiative in New Jersey, and I appreciate the opportunity to discuss it with you.

Before I move on to the Act, it might be helpful to tell you a little about Aqua New Jersey.

Aqua New Jersey has been providing service in portions of New Jersey for over 100 years. The company was created through the merger of several smaller water companies and the acquisition of several small, privately owned municipal systems.

In 1999, our then-parent company, Consumers Water, merged with Philadelphia Suburban Corporation; with the new company eventually operating under the name Aqua America. As a result of the merger, Aqua New Jersey is now part of the Aqua America corporate family--

SENATOR SINGLETON: Excuse me, Mr. Hildabrant?

MR. HILDABRANT: Sure; yes.

SENATOR SINGLETON: If you don't mind, we can all read this (indicates).

MR. HILDABRANT: Okay.

SENATOR SINGLETON: So can you summarize this, and then we can get into a conversation -- if that's okay?

MR. HILDABRANT: Sure, absolutely.

SENATOR SINGLETON: Thank you.

MR. HILDABRANT: At Aqua New Jersey, we think that the Water Quality Accountability Act is an important first step in making certain the public and privately owned water suppliers are held to a consistent, enforceable set of standards and best practices. It may seem obvious, but customers of both private and public water systems are entitled

to comparable quality service; yet as others have testified, that is not always the case.

To my mind, the solution lies in enforcement of the Act, as well as other water quality standards. Without adequate, consistent enforcement, there will continue to be problems with poorly run and undercapitalized water systems. That said, I don't think appropriate enforcement is simply a matter of large fines. In fact, I think this is frequently counterproductive.

Instead, when a system is struggling it typically needs more resources, both technical and financial. Given this, I would encourage the Committee to consider how it can help these struggling systems.

There are a few special elements of the Act that I think are particularly important. The first is the asset management plan. At Aqua New Jersey, we have been doing asset management plans for many years as a way to identify and prioritize our capital investments. Just like everyone else, we have a limited budget, but we want to be sure we are investing in a way that gets the most value for our dollars. A comprehensive plan helps us to do just that.

In addition, we are required to prepare a foundational filing in connection with implementing the Distribution System Improvement Charge, or DSIC. The foundational filing is another tool for the company to use in its capital planning. I know President Fiordaliso and Commissioner Holden of the Board of Public Utilities previously testified about the DSIC; but I think the DSIC is an example of how thoughtful and fair regulatory policy can help achieve significant public policy goals.

At Aqua New Jersey we have invested \$72 million in DSIC-eligible investments -- that's pipe, valves, fire hydrants and service lines -- since 2012. Over the term of the DSIC, the average customer charge was an additional \$2.52 per month.

As a result of these investments, we are experiencing fewer water main breaks, and lower lost and non-revenue water. These results improve service to our customers, save money, and save our valuable resources. Moreover, our system replacement cycle went from 400 years in 2011, to 150 years in 2018.

Improvements in non-revenue water and the system replacement cycle are a focus of the Act. And the investor-owned utilities are already seeing some of those improvements as a result of smart regulatory policies, like the DSIC and the legislative initiatives included in this Act.

Similarly, the investor-owned utilities have been working on hardening their control and other systems against cybersecurity threats for many years. Here, too, the BPU has provided significant leadership, and Aqua New Jersey has complied with the Board's directive.

Given the very real threat that cybersecurity vulnerabilities represent, it is important that all water suppliers, subject to the Act, comply with this requirement.

I would also like to comment on the certification requirements. As others have testified, I think the certification requirement will help to focus the attention of individuals responsible for operating systems on identifying and planning for system needs. As the executive responsible for

making Aqua New Jersey's certification, I'm definitely aware of the Act requirements and make certain that our company is in full compliance.

I want to keep my remarks brief today. But again, I would like to thank the Committee for the opportunity to be here, and I would be happy to answer any questions.

SENATOR SINGLETON: Thank you, President Hildabrant.

Anyone with a question of the President? (no response)

Mr. President, if you don't mind, I'd like to ask you a couple, if that's okay.

MR. HILDABRANT: Sure.

SENATOR SINGLETON: First, I'll ask you a question that was just asked of your colleagues who came before you.

What, currently, is the water loss rate for the piping system in Aqua's network?

MR. HILDABRANT: Thirteen percent.

SENATOR SINGLETON: Thirteen percent. And that number-- Is your system a newer system, is it an older system? Why such a stark difference, would you think?

MR. HILDABRANT: As I testified, we started over a hundred years ago; we go back to 1886.

SENATOR SINGLETON: Yes; no, I'm familiar with the date you said you started. But a water loss of 13 percent -- which is, what I've heard, is less than what the DEP deems acceptable. So you're ahead of the industry in that regard.

Is that because of a certain number of investments that were made, or is that because you acquired systems that were not as old as some

other areas; is it because the system in certain areas-- I'm just trying to drill down a little bit into that.

MR. HILDABRANT: Yes, I think the investment -- the continual investment in infrastructure, especially since the DSIC has come into play -- it was passed in 2011 -- we have invested, as I said, \$72 million in just pipe and service lines since that time. And our inventory of older pipe -- there's some years of pipe that are particularly bad, and we focus on them as we try and eliminate them.

SENATOR SINGLETON: Do you also conduct lead service line inventories? Does the company conduct lead service line inventories of their particular infrastructure?

MR. HILDABRANT: We do.

SENATOR SINGLETON: And what is, right now, the number of lead service lines you have in your territory?

MR. HILDABRANT: We are not -- we have zero, to the best of our knowledge.

SENATOR SINGLETON: Okay.

In respect to the Water Quality Accountability Act -- with respect to that, and the conversation about asset management -- as a level of specificity, do you think lead service line inventory should be a part of the asset management report that is sent back as part of the Water Quality Accountability Act ?

MR. HILDABRANT: Yes, I do.

SENATOR SINGLETON: And do you also believe that water loss audits should be a part of that asset management report that is sent back?

MR. HILDABRANT: Water loss audits are a tool that is valuable to us to maintain control over how much water loss we have. Not all systems are required to do them. They're a little complex, so I'm not sure if all the smaller ones would be even capable of conducting them.

SENATOR SINGLETON: Well, I guess, regardless of the size and nature, right? And I'm starting to learn -- as we've done these hearings, and talking to different experts in and around this Committee -- of the complexity of water loss audits. But they also are meaningful, I would think, as a component of it.

So if a particular utility, whether it's municipally owned or investor-owned, could not perform that function -- which seems to be a pretty important function-- If there were to be some standards that were listed, do you still believe that one of those standards -- and irrespective of the complexity -- that one of those standards should be the ability to perform water loss audits? And if an entity is not in a position to do that, then the DEP would, perhaps -- I'm spit-balling this -- interject itself in a way -- or the BPU, with respect to who the regulatory body is -- to sort of move a particular utility to either be able to come up with the ability to do that -- you know, deal with the complexity -- or move them in a different direction, as per regionalization or as per looking at a public-private partnership to be able to do that.

MR. HILDABRANT: Yes, I do -- I see the value of them, and I would be supportive of them being included in the Act.

SENATOR SINGLETON: Okay.

Again, anyone else?

Yes, Chris, please. Senator Connors; I'm sorry.

SENATOR CONNORS: Thank you, Mr. Chairman.

Thank you for your testimony this morning.

In the testimony that was previously given by SUEZ -- in their testimony, they estimated the cost of replacement of one mile of the 8-inch water main to be approximately \$2.56 million. Is that comparable to an estimated cost of replacement for your company as well?

MR. HILDABRANT: I would say it's about \$1.3 million for us.

SENATOR CONNORS: I was wondering why it would -- and I regret not having asked the question of SUEZ -- but I was wondering why it would be as high as they estimated. Water main is pressurized, or force main, so it's not gravity fed. It's simply trenching and putting in--

MR. HILDABRANT: Right.

SENATOR CONNORS: -- the piping.

MR. HILDABRANT: So many components go into the cost of water main installation, okay? There's the pipe itself and installation of the pipe. Geographically, within the state, construction costs are higher--

SENATOR CONNORS: Understood.

MR. HILDABRANT: The complexity of installation. You know, if we're going down a rural country road, it's much easier -- no obstacles. If you're in a busy city situation, it gets much more difficult competing with other utilities in the trench, etc. So the cost can vary significantly.

SENATOR CONNORS: Could vary significantly.

Thank you; that's all.

SENATOR SINGLETON: Anyone else? (no response)

Thank you, Mr. Hildabrant; thank you very much.

MR. HILDABRANT: Thank you.

SENATOR SINGLETON: Next up, we'll have Mr. Ed DiFiglia, Jersey Water Works.

ED DIFIGLIA: Good morning.

Thank you Senator Singleton, and the rest of the Committee, for this opportunity to share with you some thoughts and comments from the Jersey Water Works Collaborative.

Jersey Water Works is a collaborative of over 530 members here in New Jersey, representing public utilities, investor-owned utilities, State regulators, environmental groups, engineers, consultants, and other nonprofits.

SENATOR SINGLETON: Mr. DiFiglia, I'm going to ask you, and I'm going to ask everybody -- and I apologize I didn't do this in the beginning -- thank you all for your written information; every one of us has it. But if you could synthesize it so we can have a dialogue, that would be great.

MR. DiFIGLIA: Sure.

SENATOR SINGLETON: Thank you.

MR. DiFIGLIA: So the point of sharing that was mostly to say that this is a collaborative effort; and I'm here on behalf of the Asset Management and Finance Committee to share some of the findings that they have come up with regarding the Water Quality Accountability Act; and metrics that, through that collaborative process, they feel would be useful in sharing and moving forward.

So specifically, in terms of the Water Quality Accountability Act, the metrics that they feel would help -- going back to the water loss

audits that you were just discussing -- is using the American Water Works Association M36 process. I'm not actually an expert on this process, but I know that they're testifying after me, so they can help shed some light on it. But it is a process they feel has worked with industry to come up with the most beneficial way of measuring those audits.

Going for the number of leaks and breaks per mile is another metric that the WQAA looks at. One of the things that the Committee felt would be important is to look at it over the last five years. A lot of the data points -- things happen. Maybe there's an extra cold snap, maybe there's a spate of incidents that spike in a certain year. So to get a better look at how these systems work, having averages that are spread out over five years.

And that goes the same for the capital expenditures metrics under the WQAA. Under the WQAA, three years of capital projects must be reported. A rolling multi-year average, three to five years, may be appropriate here, given that a slight delay may shift a project into the next fiscal year. The State should require reporting on capital budget and capital expenditures -- on planned, unscheduled, or unplanned projects for the past five years.

And last but not least, the spending on emergency versus planned capital projects. Costs and cost trends for implemented emergency repairs relative to implemented planned capital projects, which could initially be reported from work orders as a proxy for costs. This would define and require consistent use of those defined terms, how costs are identified as emergency repairs -- unplanned capital projects -- and planned capital projects. This differs from the capital expenditures in that it allows tracking both types of costs, with the expectation that well-managed

systems will either have or progress toward a low rate of emergency, relative to planned capital project costs.

Jersey Water Works is committed to improving our state's water infrastructure, and we thank the Committee for taking the time to investigate how we can better use the Water Quality Accountability Act to do just that.

SENATOR SINGLETON: Perfect; thank you very much.

Members -- any members with a question? (no response)

So if I can, just a couple of quick points, Ed, that you mentioned.

One, it sounds like you were in agreement with the folks who talked in front of us about the water loss audits being an added component -- a necessary added component to the Water Quality Accountability Act's asset management plan. Is that fair?

MR. DiFIGLIA: Yes; again, I'm speaking on behalf of the Committee's findings, and that is what they felt. I'm not the expert, they are. (laughter)

SENATOR SINGLETON: Right.

And with respect to -- and this gets to something that Senator Stack, I think, was trying to get at early on -- with respect to the difference between spending on emergency versus planned capital projects -- why did you highlight that as an area that you believe is important to be noted in the Water Quality Accountability Act ?

MR. DiFIGLIA: So this goes back to one of the key parts of water infrastructure in New Jersey -- in that we consistently find utilities having to respond to the latest emergency, through water main breaks or a

plant deficiency; something breaks. And they're running around trying to fix the problem, that's right in front of them, to make sure that their customers continue to get water. We all need water every day, and so when a water main breaks, sometimes it's the hassle of, "Okay, well, I have to go a couple of extra blocks around that work to get to work, and maybe I'm a few minutes late;" but sometimes we see that homes and businesses lose water for days. So that's a priority for those.

But what happens a lot of times -- and why this is a priority -- is when we're talking about how we're looking at maintaining these systems, going forward; looking at how much is spent on emergency versus planned is a good indicator of, "Are we investing in these systems and are we maintaining them; or are we only responding to crises?"

SENATOR SINGLETON: And additionally, with respect to that, from the analysis that you all have been able to look at -- especially, I think, the information you've been able to glean -- is it based on looking at just the municipal systems, or the investor-owned systems as well?

MR. DiFIGLIA: So I was actually not part of the full study that did it; but I believe that it was both.

SENATOR SINGLETON: And as you've looked at that, were you able to also discern that very information -- that point that you very succinctly talked about -- the difference between emergent investment and the, sort of, capital investment? Because I understand why you noted it as something that needs to be in it. But have you been able to discern, through the information you're looking at, as to whether or not the broad topic of water infrastructure investment -- how it breaks down in the numbers you've seen?

MR. DiFIGLIA: So that's a really good question.

We are currently looking at a number of those reports. One of the stumbling blocks when trying to ascertain funding for water systems in New Jersey is that the data is not the easiest to get a hold of. And we're working on a project right now that I can use as a perfect example -- where we're trying to get water audits for systems for the last 10 years so we can do this kind of analysis. And there are gaps in some of the reports out there. We've been told by some of the municipalities that, "We can only keep records for seven years under OPRA." It makes it hard to do long-term analysis of some of these documents. And then other systems have all of them.

So in terms of looking at that, it's-- We still need more data, I guess, is the answer. We still need to be clearer on all of those trend lines.

But yes, they're there.

SENATOR SINGLETON: You mentioned OPRA; and I know Senator Stack talked about this earlier as well, and it is a concern of a lot of ours.

Are you OPRAing just the municipal utilities, or are you OPRAing investor-owned utilities, as well, and getting information?

MR. DiFIGLIA: So in that particular project, it was some of the municipal systems.

SENATOR SINGLETON: Okay; I think that's all I have.

Anyone? (no response)

Great; thank you very much.

Next up, we'll have Mr. Jeff Tittel, Sierra Club, please.

J E F F T I T T E L: Thank you, Mr. Chairman.

And I did submit much more detailed comments, so I'll just try to hit my high points.

We want to thank you for holding this hearing; and also for Senate President Sweeney, for the Water Quality Accountability Act.

And I want to just start off with, sort of, a broad point -- is that as we're looking at infrastructure, we also have to look at the threats to the water that's going into that infrastructure. And the problem that we have in New Jersey -- it's water quality issues, water quantity issues, the aging infrastructure; as well as threats from pollution, whether it's stormwater runoff, or point source pollution, or the historic contamination in our state.

So it's a critical issue, because if we want to get at clean water and deal with things like lead, those things are all interrelated.

And I'll use the example that this winter we were spreading a lot of road salt out there. Well, chloride is one of the chemicals that actually leaches lead out of pipes. So when we're dumping tons of salt up on Route 23 around the Pequannock Reservoir, it means that's one of the reasons that the lead levels may be spiking.

The same thing with runoff and pollution from nitrogen and other chemicals that make the water more acidic -- it also will cause leaching.

Dean Noll, who was the head of the North Jersey District Water Supply Commission -- who I learned a lot from many years ago -- always said that the cleaner the water is going into the filtration plant, the cheaper it is to filter and, more importantly, the cleaner it is coming out, because we can't get rid of everything. And he always said, for one thing

you try to fix, you create another problem somewhere else. And that's what we've seen.

And so I think it's critical that when we look at that, we have to look at those issues.

And so I wanted to lay some things out that I don't think people realize in New Jersey. That, in the 1990s, six reservoirs in New Jersey closed because they were too dirty to take water from. We lost water supply sources of over 1,200 wells because of groundwater contamination.

And so we're in a unique position, as a state. We might be the first state east of the Rockies that could actually run out of water because of overdevelopment, and paving over land, overpumping our aquifers, and contamination. There are 3,500 wells in New Jersey that are within the time of travel of contaminated sites. And we've seen that impact, whether it's in Moorestown with the TCPs; or we've seen it with PFOA down in Paulsboro; and so many systems throughout the state.

Most of the systems in New Jersey, especially the groundwater systems, have multiple contaminants coming in from different sites; and we're really not addressing it properly. And I think that's a critical part of all of this, because we need to look at what's happening.

For instance, during a drought year -- and luckily, we haven't had a drought in the last year-and-a-half, but before that we did -- the Passaic River, this time of year, is running 90 to 95 percent either discharge or sewer effluent; yet it's still a major water supply source, where we're taking water out in Little Falls for drinking water for Paterson and Passaic. In fact, many years we have to mix the cleaner water coming out of the Wanaque Reservoir with the dirty water in Passaic just to meet ambient

water quality measurements. For instance, during the drought in 1999, the Passaic River water was so high in nutrients that we came within a day of them not being able to take out that water. And if it wasn't for a sewer plant -- a couple of sewer plants holding back their nitrogen loads, we would have actually lost a major water source in the middle of a drought.

So we have a serious problem. It's not just the leaking pipes and crumbling pipes, but making sure the water going in there -- is critical that it's clean.

For instance, in Trenton in 1992, the EPA said we should be enclosing reservoirs. Well, Newark is just doing theirs now; Trenton still hasn't done theirs; and Paterson still battles over it. And because they're open air reservoirs, you can't add the orthophosphates to knock down the lead issue. So it's all interconnected.

And I just wanted to, kind of, talk about that a little bit, because I think we need to understand that part of-- As we do these assessments on the different water systems, we have to also identify the threats from pollution -- whether it's stormwater runoff, or sewer discharge, or a Superfund site, or groundwater.

And there also needs to be a better understanding, and updating of our rules and laws, when it comes to dealing with climate change; because that's having a big impact on water. For instance, the higher sea level rise that we're seeing along the Delaware Bayshore is causing more salt water intrusion, closing wells in Cape May County. It's also happening along the Barrier Island. So we need to take that into consideration as well.

And so we need to take that into consideration as we're planning our infrastructure and rebuilding our infrastructure, because we need to rebuild that infrastructure, as we're going to replace things at higher levels, especially in those most flood-prone areas. We need to actually start thinking about how we -- as we move forward, dealing with the lead crisis, dealing with the crumbling infrastructure -- we also need to put the climate factors in there; one, because we shouldn't be rebuilding that infrastructure in a place that could get destroyed in the next flood. And so we need to look at it that way.

The other part, too, is we need to have better oversight at the DEP on water. Under the Christie Administration, the number of inspections were cut by about 60 percent; enforcement cases dropped by a similar number. There were thousands of violations that went undealt with; and so we really need to understand that. As well as, we haven't upgraded our rules -- you know, whether it's on TCE or PCE -- we haven't upgraded the standards. We've been slow, even with this Administration, on moving forward with the Drinking Water Quality Institute and adopting stricter health-based standards. And I think that's a critical piece that's sort of missing.

We believe that -- we were making some progress in the 1980s and 1990s with certain rules and laws, like the Highlands Act and upgrading streams to C1 designations. But that all froze -- stopped under Christie, and we started backsliding, seeing bigger increases in water pollution. In fact, New Jersey -- only 5 percent of our streams meet all ambient water quality standards for drinkable, fishable, and swimmable.

Fifteen years ago we were at 15 percent, so we're seeing that impact. And that has an impact, again, on drinking water infrastructure.

And so we need to get this Administration to move forward on water. They have not gotten rid of any of those rollbacks, whether it's on stream buffers or filling in wetlands. And they haven't updated their rules to deal with the current threat.

So I'll just give you one example, because we keep talking about lead.

The action level that we use in New Jersey is defaulted to the Federal standard of 15; but yet, if you're in New Jersey and you're on a well-- So if you have a big fancy house in Middletown, or Rumson, or a big McMansion in Mendham, the standard in your well is 5 parts per billion. There's something wrong in this state when we have a stricter health-based standard in wealthy, exurban areas, and a weaker standard for apartments in Union City, or Newark, or Hoboken, or wherever. And that's something that should change, because we know there is no safe level of lead. And in 1998, we went to 5 -- when we passed the Private Well Testing Act -- for private wells. We have not upgraded those standards for lead. And that 5--

So I just want to give you an example about what happened in Newark. They came back with the latest studies that say that, on average, they're about 10. By the way, the State of New Jersey still hasn't released the data; we can't see the actual test data. And that's something you should be asking for, to make sure what they're doing is -- what they're saying is actually accurate. So at 10, it still has a critical impact on children. It's still way higher than the standard that the CDC recommends in water for children. So 10 may sound-- You know, the Governor and others are

beating a drum -- how well it's working. Well, the fact is, you have filters that take out 90 percent of the lead, and you're still coming in at 10 parts per billion, which is 10 times the standard we should be allowing. And so I think we need to take a closer look at that.

And that's true with so many other chemicals -- whether it's chromium, or TCE, or PCE -- to make sure that we're doing health-based standards. And part of the plans for the water systems, whether they're public or private, is to identify those -- should be able to identify those threats from pollution to those systems; and we're not doing that as part of this, and it should be done. And DEP has done a fairly bad job at oversight or upgrading our rules.

And the Legislature itself needs to think about ways of getting at these issues. One, there's a whole bunch of good bills about lead, that have been stuck in Committees, that we haven't passed; we should be looking at getting them out. We need to update and modernize our laws when it comes to water supply, because many of them go back to the 1970s and 1980s, and they don't look at the current threats from pollution, and they don't look at the potential climate impacts.

And we also need to have more teeth in enforcement; and we need to really do a better job at oversight, with DEP, on water enforcement.

I'll just give a quick example. Years ago, somebody dumped thallium -- rat poisoning -- by the Wanaque Reservoir. And DEP came up; they cited the guy. They checked the Wanaque Reservoir, and there was no impact. Less than a quarter-mile away from where he dumped it was a town well of Ringwood; and the well people never even checked to make -- the surface water people didn't talk to the groundwater people. And that's

the problem that needs to be corrected, within DEP, that's still there. Just like we need to make sure we have the resources.

So one of the things I wanted to leave to the end -- because I know there are questions, and I don't want to take too much time -- but this is a very serious problem in the state, because of pollution, because of aging infrastructure. And we need to, at some point, really find ways to raise those revenues that are needed -- the \$46 billion. Because we also -- not only water treatment, but sewer treatment facilities. Because in parts of New Jersey, and especially the Passaic River and the Raritan River, there's a direct connection between sewer discharging and water supply intakes. In fact, DEP deliberately would allow new water supply intakes right downstream of sewer plants so they can get more water out, which absolutely makes no sense.

But the example I'll use is that the Wayne sewer plant is within only a couple hundred yards -- their discharge -- of the intake for Two Bridges, which is a major water supply intake. And many of these rivers that were supposed to get cleaned up, have not gotten cleaned up.

But a couple of points I want to make is that we should really start thinking about coming up with funding sources, whether it's a fee on plastic bottles or bottled water -- except for in cases of emergencies. We should think about a way of trying to capture-- Since in many of our cities 25 to 30 percent of the water leaks out, by fixing those pipes -- to be able to now use that water for sale may be a way of, sort of, amortizing the fixing of the leaks; as a way to help fund that fixing. To start to look at it, like, sort of an aggregation system, because that may be one way to help do this.

And the other is that we have to, also, be a lot more careful and stricter in how we spend the Infrastructure Trust money, so we target it at the right places that need it; versus some projects that are there because it's a nice project, but it's not as critical as dealing with public health.

And I would also add that all-- One of the things we tried to do when Lisa Jackson was DEP Commissioner was to have all groundwater systems put in charcoal filters -- public potable systems, not private -- because it's one way to deal with a range of chemicals that the State of New Jersey hasn't even set standards for yet -- to help get them out of the water. It may cost more, but it's a lot safer to do that.

And finally, I just want to end with-- New Jersey's economy drives on water -- whether it's tourism, food processing, pharmaceuticals -- and we need to make sure that we invest, because we're investing in our economy. But more importantly, it's the health and water quality impacts to our children and our families that are critical. And someone asked me -- you always ask, "Is the glass half empty or half full?" Based on what's in that water right now, I'm not sure you might want to drink it.

And again, this summer we saw that impact when Spruce Run Reservoir, Lake Hopatcong, and Greenwood Lake were closed for months because of pollution from bacteria that happens from -- between climate impacts and stormwater runoff creating bacteria.

The reason I mention those three places, is two of them are backup reservoirs, and one of them is a reservoir. That's our drinking water sources, as well, that have been impacted. And that's why we need to really move the state forward.

Thank you.

SENATOR SINGLETON: Jeff, thank you for your informative and detailed testimony. We appreciate that.

Anyone with any questions?

Senator Stack.

SENATOR STACK: Jeff, thank you for your testimony, and the wealth of knowledge you have in this area.

I always enjoy listening to what you have to say. You make tremendous common sense.

Why do you believe that DEP doesn't do stronger enforcement? Is it a lack of manpower in DEP, or can you explain to me why you--

MR. TITTEL: I think part of it is -- there's less-- There's about 40 percent less staff there than there was 15 years ago. I think part of it is -- also there was a culture that was really brought into the DEP in the last Administration to kind of look the other way. And that hasn't really changed. The leadership at DEP, for whatever reason, still hasn't repealed one of Christie's rollback rules, and still keeps a lot of the same people in charge of certain programs.

But I really don't -- I think they just don't put a lot of force in enforcement, especially around water. And to me that's just a critical -- I don't want to call it *oversight*; I think it's malfeasance.

SENATOR STACK: And some of the changes that you talked about when it comes to lead, and what you just mentioned in your testimony. That would have to be done through a regulation -- a rule and regulation change--

MR. TITTEL: Yes.

SENATOR STACK: --or through legislation?

MR. TITTEL: You could do it either way. DEP should do it through regs -- should have done it through regulation years ago; but it could be done through legislation.

SENATOR STACK: Jeff, thank you very much.

And Chair, if you're interested in doing it, I'd be interested in doing that together with you.

SENATOR SINGLETON: Certainly. Yes, I'd love to learn more about it; absolutely.

SENATOR STACK: I would also -- I'm sorry -- I would also like to, through the Chair, get a copy of Jeff's testimony today, to my office, as soon as possible.

MR. TITTEL: Yes, I sent it to OLS.

SENATOR STACK: Thank you.

SENATOR SINGLETON: Yes, I think-- Senator, you should probably have it. I know Jeff also, sort of, went a little extemporaneously through the conversation, so there are some things that are not in here.

MR. TITTEL: Right.

SENATOR STACK: Right, exactly. If I could get that; right. I appreciate that.

SENATOR SINGLETON: If I remember correctly, typically what we get -- and I'm looking at Jamie, so she'll correct me if I get this wrong -- we typically will get a readout of the public hearing. So we'll get that book, sort of, document.

MS. JENNINGS (Committee Aide): There will be a transcript.

SENATOR SINGLETON: Yes, so that transcript for all those notes, Senator -- we'll make sure that-- Obviously, every member of the Committee gets one, and anyone else who needs it or wishes to have that.

SENATOR STACK: Thank you very much, Chair; thank you. Jeff, a couple of quick questions.

MR. TITTEL: Sure.

SENATOR SINGLETON: Respective to the Act specifically, there have been points of that, that have been brought up over the course of the last two or three hearings which we had. And you, sort of, hit it -- about the lack of enforcement. And the Act, in and of itself, does not provide that level of enforcement.

MR. TITTEL: Right.

SENATOR SINGLETON: Is there a particular recommendation that you have, as far as how the departments that oversee the various water systems can have a greater tool to sort of compel compliance and action?

MR. TITTEL: I mean, what's important about this legislation -- it requires the reporting. It doesn't require the fix-up -- that could be second steps in legislation.

I really think that we need to, maybe, amend-- We have a very strong law in the State called the Clean Water Enforcement Act. Unfortunately, it's sort of been -- how it's been regulated or how it's been used, it's been sort of weakened. And so we either need the Legislature to step in and put some more teeth in enforcement, or we need to bring in the DEP and hold them accountable on why they're not enforcing things the way they should be.

But I think, again, I think the Legislature, as part of this process, should look at this law; but also look at what steps, and what amendments or additions that we need to do, moving things forward. And I think that's something that I think we should have further discussion on.

SENATOR SINGLETON: Well, and that is the crux of what our conversation has been with the various folks who come before us. And a lot of people have given us very specific recommendations as it relates to this Act – things that we need to, and can do, and should do potentially.

I'd encourage you, because as I said, your testimony -- the written testimony was not as detailed as the conversation--

MR. TITTEL: Right.

SENATOR SINGLETON: --which is appreciated. But to the extent that there are very specific recommendations--

MR. TITTEL: Sure.

SENATOR SINGLETON: --that you have, through the Chair, we would love to get those to every member.

MR. TITTEL: I will; and especially some of the things I added towards the end.

But again, I think part of it is that, you know, the DEP has a lot of tools now to do enforcement; it's that they're not using them. And maybe the way to do it is to strengthen the law, or to take out any gray areas that they may hide behind. We're having that same problem -- if you talk to Senator Smith -- on dumping of contaminated soil up in Sussex, and other places, where they have authority and they choose not to use it. You know, we even passed bills to give them more authority. So that's just maybe where we need to go here.

But I think the main point from my testimony is that we also, as part of this, have to have the water companies assess the threats from pollution to their systems -- you know, whether public or private. You know, Dean Noll -- again, when the Highlands Act was being -- in his testimony talked about, if we don't protect the water sources in northern New Jersey, the additional treatment cost can cost over -- up to \$50 billion in upgrades and treatment costs.

So there's real money at stake if we don't protect that water coming in as well. And I think part of it is getting DEP to do a better a job at enforcement, whether it's holding the Commissioner accountable, or upgrading the law a little bit in the Clean Water Enforcement Act to force DEP to do a better job; and the same thing on inspections too.

SENATOR SINGLETON: Great; thank you.

Anyone else for Jeff?

MR. TITTEL: Oh, one last point.

The DEP--

SENATOR SINGLETON: You keep saying "one last point," and then you keep coming back and saying something. (laughter)

MR. TITTEL: No, I just meant on enforcement.

The DEP is supposed to do an annual report on enforcement actions, and it hasn't been done since 2012.

SENATOR SINGLETON: Say that point again, because that's important.

MR. TITTEL: So the DEP is supposed to do an annual report on enforcement actions, and there hasn't been one since 2012. And every year, it's supposed to be detailed on how many inspections they make on a

whole range of things: solid waste, water. And that hasn't happened since 2012. And so maybe that's another area where you can get the data.

Where I talked about the drop in inspections -- we had to OPRA all that stuff; it did not come out, because they haven't done an annual report. And that's where we had gotten that information from.

SENATOR SINGLETON: Great, thank you; thank you for that last point as well, Jeff.

Thank you very much.

Next up, Michael Drulis, Drinking Water Coalition of New Jersey.

Michael, I would ask you, like we've asked everyone else, to-- We're all good at reading, so synthesize what you have so we can get into a conversation.

Thank you.

M I C H A E L D R U L I S: Yes, sir; thank you, Chairman and Committee.

And, you know, it's very good to go after Mr. Tittel. His comments about the raw water circumstance in New Jersey fit very well into what we're talking about. So thank you.

Just, real brief -- the Drinking Water Coalition of New Jersey -- we're in that space between the investor-owned water utilities, and the municipally owned water utilities, and authorities. And our message, in most cases, is very similar; but I think it's important that we talk a little bit about the impacts of the Act on that specific population.

You have notes, in terms of who we are; but in this space, in municipally run space, there's a spectrum of utilities. And I think you

would be very happy to know that there is the modern state-of-the-art utility; and then there are those that are in dire need of modernization, and then many in the middle. And the biggest difference that we would assert, is our ability to raise money is limited strictly to the geography in which we service, including the socio-economic impact of that geography which we service -- no ability to raise money through a statewide fund.

So in terms of WQAA compliance within the municipally owned utilities, we think it's the basics. It's how the utilities should be run; we were very glad to see it implemented. And I'm bringing with me today Richard Calbi, the Chair of our organization, because he has, in a short period of time at Ridgewood Water, brought Ridgewood Water from a utility that was mired in EPA and DEP issues; to probably a utility that I hope you'll come up and visit, because it is a model utility for a municipally owned utility.

So Rich, do you want to take it?

RICHARD CALBI: Thank you.

Good morning, Chairman Singleton and Committee members.

I'll try to summarize the points in our document; I know time is precious.

But I do want to note, we are a publicly owned utility; the Village of Ridgewood owns and operates Ridgewood Water. And we do serve four communities up in northwest Bergen County, besides a few other small public utilities, and are pretty much surrounded by SUEZ and the Passaic Valley Water Commission.

The Water Quality Accountability Act came to us as a bit of a surprise in 2017. We were unaware that it was circling around in Trenton;

that it was going to become law. But certainly it was something we felt was necessary and something that we took up immediately, urgently; modified our work flow; did what we had to do in terms of the expense of hiring consultants, buying new equipment, and hiring new employees. Because every bit of what's in the Act is important in what we do every day.

The Drinking Water Coalition views the Act as the basics for utility. Larger public utilities have more options to raise or borrow money in order to become compliant with it quicker. Those who can have already made strides, particularly in the valve exercising and asset management part of the Act.

More has been done in the last year with this Act than may have been done in the previous 15 years, in the State of New Jersey, for water systems.

Smaller utilities, though, may lack the necessary rate base, and will need guidance and assistance from a plethora of government agencies, from all levels, in order to bring themselves up to a standard. The driving factor in all these cases is time and money. The Coalition has been advancing the Water Quality Accountability Act amongst its members; while at the same time tackling the problem of emerging contaminants, such as PFAS, an issue that will make the costs associated with the WQAA compliance very small in comparison.

My testimony is covering the work done with the WQAA; but what can we do, moving forward, and how can we refine the Act?

A couple suggestions: Compliance documents and guidance coming from State authorities are slow to be produced, but the deadlines and law haven't changed. These documents are important for utilities, like

Ridgewood Water, because they are the documents that we need in order to make the plans to become compliant with the ACT. Keep in mind that any major capital project could take up to four years, from inception to operation, in a water system.

Now that the program has been in place, timelines should be reconsidered based on practicality and field operations of the requirements. For example, once Ridgewood Water completes its valve turning program, it now needs to go back and start all over again. We've made suggestions that the timeframes be extended so that utilities have the time and money to expend on these requirements.

I'll turn it back to Michael, with some ideas that we would like to offer to you in terms of how to fund this important work.

MR. DRULIS: So there's been-- We were here when the League spoke about a water trust fund and the value of the New Jersey Infrastructure Bank, which has been proven, time and again, as a valuable asset for New Jersey; and the power of municipal bonds.

One thing that I'd like to touch on is allocation fees. Water utilities and developers in New Jersey pay an allocation fee in order to divert water -- draw water from the aquifer. The fees cost -- it's a cost before all other costs in the production of water, all the way through to its billing. And it regulates the volume of water that can be drawn from the raw source. For example, Ridgewood Water paid allocation fees to Brunswick Aquifer for 449 million gallons per month. They pay about a penny for every 1,000 gallons, which equates to \$50,000 -- a little more than \$50,000 a year. That water is then sold for approximately \$4.83 for

every 1,000 gallons. So you can see, it's a very small cost within the entire structure to the consumer.

If we raise that allocation fee a modest amount, it could provide enough capital to cash up the Infrastructure Bank and provide more subsidized loans and grants for utilities. Not every town in New Jersey needs to go to the Bank, because they have a very good ability to borrow money at good rates. But it would draw more people to the Bank in order to find subsidized loans. And these funds could be distributed to bring compliance based on financial need, the condition of the utility, the ability of the rate base to recoup the money, and the impact of the dangerous contaminants -- that Mr. Tittel mentioned, and you will hear Rich speak about often. These contaminants are here; they are going to change the way we treat water for generations to come. And if we ignore these things in this Act, we'll be revisiting them at a later time.

Some other factors that we want to think about -- and if you give the Infrastructure Bank the ability to rate utilities based on their work -- a scorecard, or some type of tier system -- we could do that based on compliance with the Water Quality Accountability Act inventory. Do they have an adequate five-year utility master plan in place showing their operation and capital improvement? Does the utility have a qualified in-house engineer co-signing -- or a consultant -- on these major decisions a utility makes? And smaller, distressed utilities are often only faced with selling; do we have an opportunity to, maybe, help them to regionalize their work and to keep them as publicly run?

And lastly, if there's any case of any type of proof of contamination -- as is often evident in the North Jersey area in our post-industrial economy -- to be able to access this money for remediation.

Lastly, I think we overlook a big solution here by not making some investment in New Jersey's higher education, in the form of grants, to modernize the way we treat and distribute water. Innovation in our workforce -- if you speak to any utility right now, they are short-handed when it comes to operators who are properly licensed and qualified, and they are always looking for them.

And lastly, we should think about how this money could be used for the long-term protection. It'll mean jobs, it'll mean strength in our economy; most importantly, it'll give us long-term stability in our drinking water.

Thank you.

SENATOR SINGLETON: Thank you very much.

Anyone with any questions of this group first? (no response)

So a question. One of the concerns that you've listed here in implementing the Water Quality Accountability Act was compliance -- documents and guidance coming from the authorities that are slow to be produced, but deadlines and the law haven't changed.

When you say the *authorities*, are you talking about the Department of Environmental Protection or the DCA, since it's a municipal one in this regard?

MR. DRULIS: I think it's multiple authorities -- DEP, DCA, Homeland Security. As one example, we had to submit a very detailed document on cybersecurity earlier in the year. We haven't received a

response back on that document and what the next steps are -- evaluation of it. So we're moving forward with what we need to do, and what we feel we need to do to be secure. But it would be good to have some more guidance, in terms of what the State feels is important on that, as well.

SENATOR SINGLETON: I think one of the challenges with you getting a response back is, if you look at the law, it doesn't actually require the cybersecurity to actually tell you what you submitted to them -- does it actually work to prevent the things that you're saying that it's going to prevent. Which is an area -- I haven't had a chance to speak to Homeland Security -- is an area that they would also like to see changed with respect to this law. Because you do submit those, and there's no -- they don't have a requirement to also tell you that what you're submitting is actually going to reduce a threat, is best practices, etc., etc.

And I imagine that the guidance documents that they sent to you -- I haven't seen those guidance documents that they sent out -- they do try and illustrate where, perhaps, could be some best uses. Were those given to you in a timely enough fashion for those to be implemented? Because it's only certain systems that have-- You have to have the Internet control for it to really matter. If you're not Internet-controlled, it doesn't even apply to you anyway.

MR. DRULIS: Yes, it took some time to define what that actually meant.

SENATOR SINGLETON: Right.

MR. DRULIS: Because in our particular system, we're relying on an internal fiber connection. But then there are times when we actually have to download or upgrade software, so that may then kick us into being

Internet connected. So there was a lot of back-and-forth to make that determination.

But you are correct, Senator. The guidance from departments like Homeland Security and New Jersey CCIC were even there before the Water Quality Accountability Act, and when cybersecurity all came up into the forefront. So, you know, that onus is on us; it just would be helpful to us if there was a like a real clear guidance, a roadmap, for -- especially smaller utilities than us, so they have an idea where they need to go.

SENATOR SINGLETON: Right. And when did you get the asset management -- sort of what constitutes the best use of asset management. When did you get that from the Department -- that guidance?

MR. DRULIS: I believe it was in late 2017, after the Act. But prior to that date, they've always had information on their website available, and it's always been a requirement, for any permit, that you demonstrate that you're working towards it. And you always have to provide a map of your system, which we've had for some time. We've provided a GIS map on a CD to the Department, and that's updated on an annual basis.

But now we're taking that a step further -- whereas that map included just pipes, valves, and hydrants; we're including every detail of treatment: pumps, what type of treatment units in the pump station, how old the roof is, when do we need to replace the sidewalk in front of the station? That way we account for every bit of any asset that we are accountable for, and incorporate that into our capital plan; and not just the everyday operations.

SENATOR SINGLETON: And a similar question that we asked of the investor-owned systems, with respect to the water loss audits-- First of all, do you all conduct water loss audits?

MR. DRULIS: We conduct our own internal one; we're moving forward to utilizing AWWA format. But we have been doing it on an annual basis.

SENATOR SINGLETON: And what are the results of the water loss audits that you conduct -- that your water system conducts?

MR. DRULIS: For 2018, I believe we're about 16, 17 percent -- that range.

SENATOR SINGLETON: And your system, would it be an aging system or would it be a newer system -- by comparison -- relatively, comparatively speaking?

MR. DRULIS: The oldest part of our system is approaching its 100th year.

SENATOR SINGLETON: Okay. And with respect -- further, with respect to the lead service line conversation, could you tell us how many lead service lines are in your authority's inventory?

MR. DRULIS: So we serve four municipalities -- about 62,000 people, about 21,000 counts. Out of those 21,000 counts, we know of about a 150. But there are several unknowns; but we're fortunate that we were able to secure a bunch of old paper documents from field installation. We've scanned those all in, and will be incorporating them into our asset management plan and our map. So I'm sure that number of 150 may go up. But currently, that's the number we have on the books.

SENATOR SINGLETON: And then you all are in the process of engaging in replacing those lead service lines, or no?

MR. DRULIS: No, Senator; we've had optimized corrosion control in place since about 2015. And our current lead level is at "non-detect."

SENATOR SINGLETON: So the chemicals that you're using to treat the water are not leaching the lead off of the pipes, essentially.

MR. DRULIS: Correct.

SENATOR SINGLETON: Okay.

And my last question -- you spoke about smaller systems, smaller than yours. And obviously, some of the stuff you enumerated -- the pieces that you're doing-- And Senator Connors had actually talked about this at a previous hearing, because some of these smaller systems -- especially that don't have the mapping, they don't have all this information -- wouldn't know where the mains were because, oftentimes, it's someone who just remembered it and it has sort of been passed down through word of mouth.

But yet, there are ratepayers who are drinking that water and living in that space as well.

Those entities that aren't in a position to do what you called the *basics* in your report -- should there be some mechanisms that either the Legislature should employ, or the Department through its regulations, to either push those entities into a regionalization aspect to be able to do that, or encourage them to form public-private partnerships to make sure their infrastructure is up to snuff, even with just the basics that you talked about in your testimony?

MR. DRULIS: I believe all the above.

SENATOR SINGLETON: Okay.

MR. DRULIS: Regionalization, sharing services -- you know, some towns up in our area don't have the benefit of a township engineer, like the Village of Ridgewood has that benefit. So perhaps we could share that service in overseeing the system -- you know, certainly any means to try to get them to that point of compliance.

SENATOR SINGLETON: Got you.

Again, anyone else around the dais? (no response)

Awesome; thank you both.

MR. DRULIS: Thank you.

MR. CALBI: Thank you.

SENATOR SINGLETON: Next up, we'll have Dr. Daniel Van Abs from Rutgers University.

DANIEL J. VAN ABS, Ph. D.: Mr. Chairman, members of the Committee, thank you for having me here today, and the opportunity to speak to you about this Water Quality Accountability Act.

I should note that I'm speaking not for Rutgers or for any organization, but simply as somebody with about 38 years of expertise in the water quality and water management field.

Several points that I'll make-- I have submitted written testimony, which you have before you, so I'll quickly summarize.

First of all is that the Water Quality Accountability Act is a major step forward to bring our utilities to where they should have been anyway, It was necessary, but it is not sufficient. And so we need to start thinking about where we go from here with regard to the improvement of

our water systems; not just water supply, but also wastewater and stormwater. One of the reasons for this is when you think about New Jersey's development history, we developed over a period of time. Primarily, from about 1890 to 1970s, most of our developed area was created at a time of relative prosperity, at a time when energy prices were fairly low, and at a time where we had no clue about climate change whatsoever.

We are now at a point where we are going to need to, essentially, redevelop the state for a completely new situation. Energy prices are higher, we are no longer top of the walk with regard to prosperity, and climate change is a very real threat to the State of New Jersey.

So one of the points that I make in my testimony -- and I'd like to emphasize today -- is that if we focus only on the Water Quality Accountability Act, if we only focus on the pipes in the treatment systems, and if we only focus on bringing things back up to where they should have been, then we're missing the game. Because the pipes that we're putting in the ground today are going to be in the ground -- most of them -- in 2100. Not just the next generation, not just the generation after that, but the generation three times down. So we need to start thinking in those terms -- which are very difficult terms to think about -- and we need to start thinking about how all of these issues fit in with revitalization of the state.

Which brings us to the State Development and Redevelopment Plan. I'm sure we all remember that we used to have a State Development and Redevelopment Plan. What it was, is inadequate for the challenges that we face going forward. And so I would hope that this Committee and the Legislature can start thinking about how we need

to reform the ways in which we prepare for the future, and make drinking water infrastructure a part of that.

So that's one point.

The second point is, with regard to the Act specifically -- as I said, it's supposed to bring us up to the point where we should have been already. How do we know that we're getting there? If we aren't collecting good information on the value of utilities; the extent of not only budgeted expenditures, but actual expenditures -- and we're finding that those two are not always the same -- and the trend lines for that, not only going forward, but also going back -- what has the situation been for the last 10 years? I've been involved in a project, through New Jersey Future and the Jersey Water Works program. We're finding it incredibly difficult to get that information from the information systems that we have. So that's an issue that we face.

The third issue that I'd like to raise is that we have a lot of tiny water systems, only some of which are covered by this Act. In a couple of years, once we have a little bit more experience with this Act, I would suggest that the Legislature think seriously about how we deal with all the systems that have fewer than 500 service connections; because those are people too, and we need to address that.

Even for the systems that are currently within the Act, we should recognize that there are a lot of small systems. It's about 37 of our water systems provide water to 80 percent of our population; and everybody else is in that last 20 percent. What's going to happen as they hit the costs that are associated with implementation of this Act? The answer is that-- A lot of these are either very small privately owned

systems, not necessarily investor-owned; or they are government-owned systems -- most of them municipal systems, some of them utility authorities. If they hit a point where the costs start ramping up, I'm expecting -- not predicting -- that we will have significant consolidation; that a lot of these small utilities -- the decision will be that it's no longer worth owning a small utility.

Ridgewood, by the way, is not a small utility; that's a medium-sized utility in this state. But we have a lot of small ones; a couple of thousand people; 5,000 people, 10,000 people. Those are small systems.

So what happens? They have three choices. One is they can slog on and pass the cost directly to their customers. Second, is that they consolidate with another publicly owned utility; at which point, the municipality gets zero dollars. And who knows if they get to hand off the political headache that's involved.

And the third is that they can sell, at which point the municipality gets money. Two issues with that: One is, where's that money coming from that's paying for this system? It isn't coming from the purchasing utility; it's coming from the ratepayers of the purchasing utility, with a profit margin. That's how our laws work these days.

Second is, who benefits? All too often -- well, generally, I should say -- it is the taxpayers of the affected municipality, the municipality that owned the water system. And people will say, "Well, that sounds good." Except that many of the people who were the ratepayers in the utility are not taxpayers -- think of schools, think of religious institutions. And for many of these systems in small municipalities -- small systems in municipalities -- many of the people who are taxpayers are not

ratepayers, because the system only serves part of the municipality. And so all of the other property taxpayers in the municipality benefit from the sale, and not the ratepayers.

So my suggestion to you is that the State strongly consider a way of leveling the playing field so that public-to-public mergers are no more, or less, enticing than the sale of utilities to privately held utilities. If it's a level playing field, then everybody can compete on customer service, quality of the service they provide, and price; and not on whether they can come into a municipality with \$10 million, or \$20 million, or \$30 million.

So that's my suggestion to the Legislature.

There are a number of other pieces of testimony that are more technically related; but I will close there, and thank you very much for this opportunity.

SENATOR SINGLETON: Thank you, Doctor.

Anyone with any questions of Dr. Van Abs? (no response)

Doctor, I will ask the question I think that, at least, was on my mind as you were going through it.

As I was reviewing the summary of recommendations last night and looking at them again today, the "how" question immediately comes to mind. Like, you talk about ensuring that ratepayers are fairly treated during any mergers, and making sure the field is balance between public acquisitions and public-private acquisitions. So my question to you is, *a*) on the first part, how do you balance the playing field between public-to-public acquisitions and public-to-private acquisitions; and then I'll have a separate follow-up about the ratepayer piece.

DR. VAN ABS: The fundamental answer that I would provide is, you need to make sure that those who paid for the system are the ones who benefit from the sale. And so, who paid for the system? Well, the ratepayers paid for it. The municipality, in almost all situations, did not. It was the ratepayers.

And so if money is going to be given for the sale of that system, it should come back to the ratepayers in some fashion; either through a payment or, perhaps, by putting that money in escrow to use for the rehabilitation of that system. After all, there was a reason it was sold; it's too expensive to rehabilitate it. So if it's going to be purchased, put that money toward that purpose.

So those are ideas that might be considered.

SENATOR SINGLETON: Thank you.

And I appreciate your response to that, because that was one of the questions that was asked when the Department of Community Affairs was here, regarding our current statutes -- whether or not there is a requirement in law that anytime a publicly owned water system is sold, that funds must be transferred to maintain or upgrade the water system. As you know, there is no requirement -- not in this law or any law -- that requires that.

Additionally, my understanding is, there isn't a requirement that if that were to happen, as well, that there needs to be the creation of an asset or fiscal management plan for the system before it's formally dissolved and sold. Through your research, is that accurate as well -- that there is not statute that requires that as well?

DR. VAN ABS: To my knowledge, there is no statute that requires that.

SENATOR SINGLETON: And with respect to this recommendation here that says, "Determine and implement methods for ensuring the consolidation is equally feasible," it goes to making sure whatever monies come back, either they're distributed directly to ratepayers or used to create a better water infrastructure -- escrow account, as you talked about -- to make sure those systems are upgraded correctly.

DR. VAN ABS: Yes, sir.

SENATOR SINGLETON: Okay.

DR. VAN ABS: See, basically the situation is, if there's a public merger, if there's a consolidation of public entities, then no money changes hands. The utility assets simply become part of the larger utility. If money is going to change hands, then it should not create a bias toward that; that money should be used for a purpose that benefits the ratepayers.

SENATOR SINGLETON: Awesome.

Again, anyone else for Dr. Van Abs? (no response)

Thank you, sir; we appreciate it.

DR. VAN ABS: Thank you.

SENATOR SINGLETON: Next up, Mr. Steve Blankenship, American Water Works Association of New Jersey.

S T E P H E N B L A N K E N S H I P: Chairman and Committee, good morning.

And thank you for allowing the New Jersey section of AWWA to speak on the Water Quality Accountability Act.

With me is Chris Andreasen.

I am Steve Blankenship; I am the Executive Director of the Hamilton Township MUA, so I represent, sort of, the municipal side. And Chris is Middlesex Water, here representing the investor side, as part of our testimony.

G. CHRISTIAN ANDREASEN, Jr.:

And in my capacity as AWWA, I serve on the Board of Trustees. And I am also the Director in AWWA -- the International Association.

We are going to abbreviate our testimony; obviously, you have our written testimonial, and we recognize time is short. But we think it's important that you recognize who we are as a section of AWWA; the New Jersey Section of AWWA. We represent 1,200 members in New Jersey; we're the water professionals in utilities, both publicly owned and privately owned.

We're operating these water systems. We've been doing that -- we operate these systems, provide that service, obviously 24 hours a day, 365 days a year. And we see ourselves as the technical experts, as far as how we make and deliver that water service to our customers. We are here, we want to work with the Legislature and the State in order to better move forward the Water Quality Accountability Act. We are supporting the measures that have gone into the Water Quality Accountability Act -- asset management principles, and we are helping our members move through the complexities and the requirements of the Act in asset management, to provide service to our customers.

I think one of the important components of an asset management plan is really addressing the level of service that is expected

from customers. And I think it's appropriate to acknowledge that this level of service is increasing over the years, as it should be. The level of service that was provided by Drinking Water earlier, with regards to water quality - - you know more about our water quality contaminants. Our customers are much more educated and expecting more on their level of service. Even as we go ahead and we do our capital investments and we do our projects, the expectations for doing those capital improvements -- whether it be extensive road restoration to keep the roads paved, or minimize the shutdowns; the notice that goes to customers -- these levels are increasing.

The reason I mention that is that adds to the cost of all these replacements that are going on. The asset management plans -- the Water Quality Accountability Act helps us prioritize doing that reinvestment. But the next step, and the big step, is actually doing all of that reinvestment and all of those improvements.

Previous testimony, I think you heard today, is there certainly is value in going ahead and collaborating with public works projects, with other utilities that are out there; so that when we're out there doing this work, we are doing it and affecting the areas once, or minimizing that disruption to the public.

MR. BLANKENSHIP: So with that being said, the section strongly supports the Water Quality Accountability Act. As was mentioned earlier, we think it's a good step in the right direction. But going forward, it's going to need some tweaks. And again, as you heard, a lot of it really comes down to funding and time, which are really critical challenges that we all face, no matter -- at the utility, whether we're a public agency, a government agency. These are all things that we have to go for.

With that in mind, we'd like to offer the following recommendations.

And if you'd like, I'll start with the sources of funding; you heard a couple earlier. Obviously, the big thing is the utility charges; that's one of the largest sources of funds for a utility. And so, would it make sense for utilities to have full-cost pricing? So what is *full-cost pricing*? Full-cost pricing is, what does it really cost to provide the service that we're providing? In some cases, that cost may not be high enough; they're not collecting enough. On the public side, they may not want to raise rates, so they dip into reserves; but they're not really funding. That may be where, in some cases, water utility funds are utilized for something other than water utilities. But again, it really should be about -- what does it cost to provide that service, and do your rates reflect that.

One of the things I think you could do is talk about having rate studies performed as part of the process, and rate designs as part of the asset management. You're going to be kicking out expenditures that are going to be expected. So that's nice to know how much you need to spend, but I think it's even better to know how you are going to pay for that.

The other thing would be a State Revolving Fund. That's been a great source; but lately that fund, on the potable water side, has dried up. So how do we work to increase the funding available to that? That is going to be key.

One of the other things I think we can do is, on the national level, there's WIFIA; it's the Water Infrastructure and Finance Act, similar to the road trust that they have. So basically, if the Federal government has a better credit rating than some of the agencies that are looking for money,

they can go through the WIFIA process to get money for their projects. These are usually geared towards larger projects. But how can we possibly work to aggregate maybe some smaller projects, through smaller utilities, to take advantage of this, if funds are not available under the State Revolving Fund?

Another thing would be, again, to work with the Infrastructure Bank on that, to do that kind of aggregation. Again, Federal funds paid for a lot of the original water utility improvements, so how can we work with our Federal counterparts to make sure that funding of water improvements and treatment is available to us and becomes a priority once again?

And again, to work with the Department of Community Affairs to make sure that the public and municipal utilities are funding their operations and investments as part of their annual budget process.

MR. ANDREASEN: And I think to wrap up, in the interest of time, our section of AWWA -- we're here to work with all of the people involved: the Legislature, the State regulators, and some of our peer associations. We are collaborating, currently, with several of the people who you have heard testimony from; participated in stakeholder meetings with the Department to help ensure that the details, or the working plan, to implement the Water Quality Accountability Act is something that can be done to show gradual and ongoing improvement in water systems. We can't get it all -- I think everybody can agree that we can't get it all done within one year -- the things that are in there. There have been a lot-- Over the years, things have not been happening; it's a step in the right direction. I think there have been a lot of improvements and movement forward since the Water Quality Accountability Act, and there continues to be. And I

think that's one of the most pressing issues that we're trying to do with our members -- is to have continuous improvement; for all of the water utilities to be able to comply with these.

I think -- as you heard Dr. Van Abs also speak -- we're really looking at it -- with asset management, it's not just fixing for today. We really are looking for sustainability of our water systems so that 20 years, 50 years, 100 years from now, this is a sustainable utility.

MR. BLANKENSHIP: I think to follow-up on that-- Basically, as we talked about -- especially Dr. Van Abs -- the time frame, initially, under the Water Quality Accountability Act -- coming up we're going to have three years. So at my utility, I'm on the low end of what would be considered a *medium utility*. I'm going to meet most of the parts of the certification; but when it comes to part of the asset management plan, the part that requires me to look at the risk assessment and start to build out a financial portion -- that's going to take me a little while. And then there are other utilities that are in that same boat. So I'm going to have funds that are going to start to become available, and it's going to be funding that I'm going to need to meet what's kicked out of the asset management plan.

But one of the things is, looking at the three-year window I think is very short term. I think one of the things you have to do is look at that in a little bit longer term. So you might have something initially on a three-year term; but things get aggregated. So with the valve exercising -- you might have valves that you see that you might need to replace or repair; but you may put that in a project together along with, maybe, a water main replacement, so you can get a good price on that. So you may not do that

in that one year; you may wait, put funds aside, and then in year three go out with a larger project.

So I think the three-year window isn't necessarily going to capture that. I think you really need to start to look at more of a five-year window, and then maybe a rolling five-year plan thereafter, and maybe even a little bit longer. Because as you start to look at this, some of these numbers are probably going to scare some people as you start looking out into the future. So that, I think, is a point.

I think the other thing, too, is you talked about water audits. I think it's good that we do that; AWWA has a great program that allows utilities to do that. But I think if you're meeting -- say, you're below 10 percent, I don't know that that's necessarily a good idea to have to do that every year. So maybe that would be something that, "Okay, if you meet a certain percentage, you're below a certain percentage, then you might not have to do it but once every three years, once every five years." And then if you become out of that compliance level, say, then you would have to do it more often.

Again, we have -- as utilities, we face a lot of issues. So treatment, replacement of assets -- and not just in the ground, but on the treatment process, vehicles and equipment that we use, and things along that line.

So I think we need to be smart in how we spend our money to meet these obligations.

MR. ANDREASEN: And I think Steve mentioned a little bit about just prioritizing. Focus on where the biggest gaps are, let's say, in the compliance. We've heard about compliance with this Act. It seems to

make sense that you start with some of the biggest gaps that are in there -- the systems that have not certified at all -- and then, after that, the ones that are certifying, but they're not fully compliant. And not necessarily going out and penalizing, but meeting with and working with these utilities to find out why aren't they doing this. Is it a resource issue? Is it a defiance issue? Which we don't believe is the case. Is it -- what are the issues to try and help move these programs forward to serve the customers?

So that's a little ad lib; I think, wrap it up. We're here to answer questions, but I think we'd like to leave with-- We're the association of water professionals in the State of New Jersey. We have 1,200; we have a lot of technical resources. We're continually doing knowledge transfer, and updating all of our members -- through seminars, and conferences, and collaboration -- on all the best practices. We're a section of the American Water Works Association, the international organization that's referred to in a lot of these standards. So we're trying to help implement, and work through, and give our members the tools that they have (*sic*) so they can provide all of these services.

We're here to help and respond to the State, to the Legislature, to the regulators; and we're reaching out more and more, and collaborating with a lot of those other associations, like Jersey Water Works or other associations.

MR. BLANKENSHIP: The Association of Environmental Authorities--

MR. ANDREASEN: And the Association of Environmental Authorities.

MR. BLANKENSHIP: --the New Jersey Water Environment Association on the wastewater side; and things like that.

I think one of the key points about some of our members is we actually have boots on the ground. We're the ones who are out there at a lot of the municipal utilities and private utilities that are actually doing this work, and are actually having to implement the Water Quality Accountability Act. So I think we can bring an excellent perspective on what the Act is involved with, and ways to strengthen and move forward with the Act.

MR. ANDREASEN: And I can assure you, our members -- we want to be compliant. We want to provide that level of service that our customers want; that's our goal. Funding is certainly an issue; resources-- We talked a little bit -- also, earlier, from the prior testimony -- on the aging workforce and the shortage of operators and professionals that we see in this industry. So those are also aspects that we are working on -- succession planning -- and to be able to continue operating in the future.

So we're here to answer any questions.

SENATOR SINGLETON: Thank you.

Anyone? (no response)

You said something prior to either your first wrap-up -- because I got -- back-and-forth; I got confused.

So you said something, that you thought that most of the -- some of the utility companies were not acting in defiance. And where I struggled with that is, you have a law that really doesn't penalize the utility -- the smaller utility company that has over 500 (*sic*) connections, etc. -- if they don't comply. So you don't get a bad mark for not doing this. It's not

like someone comes in; the law doesn't have a hammer over the top. But yet, folks still didn't do it.

So if it's not defiance, then what would you call it?

MR. ANDREASEN: I would say a shortage of resources, and other priorities.

SENATOR SINGLETON: So if there's a shortage of resources -- and, frankly, this was a pretty significant-- Because everybody who has come and talked about the Water Quality Accountability Act -- and having the pleasure of having one of the sponsors sit to my right -- has talked about it as a potential -- something that could be a national model of its importance. And people talk about how important it is. But yet, we have some water systems that decided that it wasn't as much a priority to comply with it. That's almost seems like a slap in the face to something that is of a significant issue, wouldn't you say?

MR. ANDREASEN: Yes, I would.

SENATOR SINGLETON: Okay.

MR. BLANKENSHIP: Yes, I think--

SENATOR SINGLETON: Can I-- That's fine; he got it.

Let me ask another question.

The cost of water audits-- Because I believe they're important tools; and I think the point you said, about setting a threshold, actually makes a lot of sense.

What is the cost of these water audits, since we've talked a lot about it? What do they cost?

MR. BLANKENSHIP: Off the top of my head, I don't have an exact number. That is something that we could poll our members to try to get costs.

SENATOR SINGLETON: Has your system done a water audit?

MR. BLANKENSHIP: What we've done is, we're transitioning to the AWWA. But DEP has a requirement that is similar to that -- every two years -- that we have to report; and part of that is what is the water loss.

And again, the other critical thing about water loss -- if I can just take a moment -- basically, you can have non-revenue water, and you can have losses due to leaks or meters that aren't reading properly at the customer level. But when we do the hydrant flushing -- that was mentioned as part of the Act, and things like that -- that's water that's not going to be billed anywhere. That's water that can be accounted for, if you say, "Okay, I run this hydrant for a minute; it averages 1,000 gallons a minute," I can start to figure those things out. And then that comes off what my water loss is. So you kind of have to keep that in mind.

SENATOR SINGLETON: Well, I guess what I'm talking about is the water loss from treated water; treated water loss is what I'm talking about. So would you be able to -- the same question we've asked others -- would you be able to tell me, in your system, how much is the treated water loss in your system?

MR. BLANKENSHIP: So from treated to billing, our water loss is a little bit less than 10 percent. And our system -- you were talking about ages. So part of my system, I have--

SENATOR SINGLETON: Well, hold on; I'm going to get to that.

MR. BLANKENSHIP: Okay.

SENATOR SINGLETON: But I want to ask you another question about that.

MR. BLANKENSHIP: Go ahead, I'm sorry.

SENATOR SINGLETON: So that 10 percent -- could you quantify based on how much it cost you to determine that you had lost 10 percent of your water? That's what I'm trying to get at; like, how much is this water audit?

MR. BLANKENSHIP: So basically, we do that in-house. So it would be, probably -- my licensed operator and some of the accounting people spending probably a day or two, to put that information together and crank that out. So it'd probably be a couple of man days at, say, \$50 an hour; something like that.

SENATOR SINGLETON: So would you say -- I'm going to go very high -- would you say it's less than \$10,000 for you to conduct that water loss audit?

MR. BLANKENSHIP: On my system, yes.

SENATOR SINGLETON: Okay; how about yours?

MR. ANDREASEN: Yes, less than \$10,000.

SENATOR SINGLETON: Okay.

The point -- another point that you put in this document that you gave us -- the testimony -- it talks about the utility charges, and being a primary source reflecting the full and true cost of service.

I agree; but I think part of that challenge -- which I suspect both of you know, especially on the municipal side -- is that the determination of what you believe the true cost of the service is and what you actually charge someone, is less of a policy decision and sometimes more of a political decision. Because the folks who have to make it, have to answer to the ratepayers/electorate, correct?

MR. BLANKENSHIP: And that's one of the issues that I think some publicly owned utilities face -- that they act as a source, not just for the utility, but to fund other items within a municipality or a governing body.

SENATOR SINGLETON: That 5 percent rule that we've heard about in the past--

MR. BLANKENSHIP: That could be one of them, yes.

SENATOR SINGLETON: Okay.

MR. ANDREASEN: And I think that's the principle behind full cost pricing--

SENATOR SINGLETON: Got you.

MR. ANDREASEN: --it's something -- whether it's investor or public, that's an important aspect.

SENATOR SINGLETON: The rate study conversation you had, it is my understanding -- and correct me if I'm wrong -- that there is no requirement in the law that we're aware of -- not this one, or any other -- that requires rate studies to be conducted. Is that correct?

MR. BLANKENSHIP: Not that I'm aware of.

MR. ANDREASEN: Not that I'm aware of.

SENATOR SINGLETON: And would you think, then, similar to how property reevaluations are done according to the law, every 10 years, that there should be some requirement in the law that rate studies for water purveyors should happen -- I would suspect not every 10 years, but more aligned with maybe 3 to 5 years?

MR. BLANKENSHIP: One of the things at our utility that I've suggested to my Board is basically look at it every five years. That's not to say that you would do a study, in-depth, every five years; but, again, as you look at five-year plans-- So, right now, when we submit a budget to DCA on the municipal side, we show capital improvements for five years. So again, you need to be able to -- how you're going to address that. And I think that's the key thing; I think that five-year period is probably a pretty good period to take a look at. And again, depending on what you come up with, if you're staying on top of this, then you might not need to do that in depth. Again, if there's some -- if you're trying to be a top-of-the-line utility -- I'll kind of use that -- then you're trying to do these things already.

But I think, like, a five-year plan probably makes sense. That five-year time period probably makes sense for a lot of things.

SENATOR SINGLETON: Got you.

Anyone else? (no response)

Perfect; gentlemen, thank you so much for your insight.

MR. ANDREASEN: Thank you.

MR. BLANKENSHIP: Thank you.

SENATOR SINGLETON: Thank you both.

Our last speaker of the day will be Mr. David Pringle, Clean Water Action.

DAVID PRINGLE: Thank you, Mr. Chairman.

Again, my name is David Pringle, and I'm with Clean Water Action. Clean Water Action is a national advocate and community organizer in many states across the country, with over 100,000 members here in New Jersey.

We were founded almost five decades ago, to watchdog the implementation of the 1972 Clean Water Act -- the first modern water pollution law -- by David Zwick, who was arguably the lead citizen activist, and secured passage of that law, and was an original Nader Raider.

Personally I have been working on these issues for three decades, since graduation from Princeton. My very first campaign as a professional was the 1988 Clean Water Enforcement campaign. I've been with Clean Water Action, as an employee, from 1993 to 2017. And after a brief break to run for Congress last year -- and I'm sitting here today, so you know how that went -- I'm now consulting with Clean Water Action on energy and water policy.

I also served, from 2002 to 2010, as Speaker Roberts' and Sires' Health appointee to the Drinking Water Quality Institute; and I also served as a Chair of their Health Subcommittee.

Clean Water Action is very appreciative of the invitation to testify today, even as we're very disappointed that we have to testify today. At its basic core, the basic piece of this law basically just says "to plan ahead." And we shouldn't need a law to tell us to plan ahead, especially for something as fundamental as safe, affordable, plentiful drinking water.

We especially shouldn't need a law to tell us to plan ahead when the U.S. EPA, the New Jersey DEP, the 1972 Clean Water Act, and

the 1974 Safe Drinking Water Act, and all of the many amendments at the Federal and State level since then, have happened -- so many years ago that all of those things are a couple years from qualifying for an AARP membership.

We also shouldn't need to have a hearing like this, because of the great work of this law; and of the Task Force that was happening concurrently, headed up by Senator Greenstein and Assemblyman McKeon on many of these same issues.

But here we are today, and we need to be here today.

The conditions of our state waters create the need for us to hold these hearings, on this kind of an Act. And there are also many other critical water issues that still aren't being addressed.

And so it's in that context that I would like to focus on three things for the balance of my testimony.

First, we need to learn from the Newark lead situation. This isn't a matter of assessing blame, but it does highlight -- that situation highlights the power of asset management: planning ahead done right. It shouldn't have taken the situation in Flint to get folks to focus on what's going on in Newark, in Trenton, and in many other older urban areas where there's lead in pipes. And it shouldn't have taken an inexcusably small sample size of three filters, a couple months ago, to get us to pay even further attention to this problem.

But the good news is, we've gotten to where we are today. As we now know, as of a couple days ago, 97 to 99 percent of the filters that have recently been installed are working as they're supposed to be. The bottled water is being better distributed, and lead service lines are being

replaced in a couple years -- much faster than anybody could have imagined, as recently as two months ago.

But it shouldn't have come to that. As long ago as 20 years ago, my colleague at Clean Water Action, Kim Gaddy, who is a lifelong resident of Newark, was on the School Board; and they knew about lead problems then, and they put in filters then. And filters don't solve the problem, they just deal with the symptom. And after a couple of years, it got forgotten about, and Boards change, and this, that, and the other thing. And here we are, 20 years later -- 20 more years of people being poisoned by lead.

After Flint, it got a little better; but there are still a lot of problems. There is, to this day, no major -- no significant legislation has been passed in this State, or regulations made to deal with the lead problems in places like Newark.

It took a little bit of a delay, but Newark did step up and get some filters going; and came up with, arguably, the strongest plan in the country -- an aggressive plan to replace lead service lines. But that was still not enough; a bad reason, but a good result. When you look at three -- three filters is not a legitimate sample size to show that two of the three filters weren't working. And so there was a lot of understandable cause for alarm. So it's disappointing that they only looked at three filters; but it forced a closer look. And we're in a better place now, and it forced folks to pay attention. And Newark's plan to replace their pipes in several years -- which is already arguably the best in the country -- has now been one-upped, and they're going to get replaced in a few years.

And I tell you that story, because of asset management -- nothing fundamentally changed in the last 20 years. Everything that's occurred in the last two months, and a year or two, could have happened 20 years ago when they put lead filters in the schools in Newark. But it didn't, because people didn't plan ahead.

Second: increased funding enforcement. While 100 percent compliance never occurs -- especially right away -- we can and must do better. And I think the compliance to date is disappointing; and so I'm very pleased that you're holding these hearings on this law to shine the light of day, and all that.

To that end, to get increased enforcement, we need more funding and we need enforcement. New Jersey DEP and BPU direct State services are chronically underfunded; a fraction of what they were 10 to 20 years ago. I last took a close look at the numbers five years ago, during the budget process, and testified in April. And believe it or not, DEP has fewer staff and less funds now than during the Christie years. So there's a lot of lack of funding, and a lot of reason for that, and fingers to be pointed. But regardless, the problem is we don't have enough funds, we don't have enough staff; you're not going to get the oversight, and the enforcement, and the advice, and the oversight you need if you're chronically underfunded.

The Clean Water Revolving Fund and Safe Drinking Water Revolving Fund are also chronically underfunded. We're not a group that suggests, you know, "Give us money," and not tell you how to pay for it.

So we recognize money doesn't grow on trees. The State needs to be much more aggressive in achieving cost savings throughout State

government; and we need to significantly enhance revenue. We've gotten away from polluter pays, in terms of fines and penalties not going to environmental programs; they're going to the General Fund. There's been a lot less enforcement over the years as well.

We now have Natural Resource Damages that are constitutionally dedicated. But, you know, an end-run was done around that earlier this year, and money was siphoned from the Exxon settlement funds to go to the General Fund.

We need to grow the economy, we need to restore the estate and income taxes on the wealthiest, and we need to reform corporate tax credits structure. All those things, done right, will provide appropriate revenue to help fund the things that society deems the State government needs to do.

Finally, we need additional legislation and regulation. A lot of focus, understandably, has been on Combined Sewer Overflows and lead; but there are many other problems, some of which are directly covered under this bill; but some are not, but are very related and could and should be recognized. We recommend, one way or another, we get going on those things, and I'd just like to highlight a few of them.

The development of new drinking water standards -- the fancy term is *MCL*, or *maximum contaminant levels* -- is broken. On a good day, it's ridiculously slow and expensive; on a bad day, people don't get protected and they drink things they shouldn't be drinking.

In my eight years on the Drinking Water Quality Institute, I had a lot of experience in that. There are several contaminants that we've been working on for 10 years that started -- and some of them were

completed in my tenure at the Drinking Water Quality Institute -- that haven't been adopted. Most telling is radon. Most folks think about radon as a gas in your basement; and that's a big problem. But it's regulated; radon in drinking water is not. During the Corzine Administration, the Drinking Water Quality Institute proposed a standard for radon in drinking water -- it's arguably killing more people than any other drinking water contaminant -- and Governor Corzine said, "No, we're not going to do it." The first time in its 30-ish year history that an Institute recommendation was rejected by a Governor of any party. And to this day, radon in drinking water is still not regulated.

We also made proposals on perchlorate, *a*) because we follow the science, so this isn't always about ratcheting -- making standards stronger. We reviewed a lot of the volatile organic chemicals that were first regulated in the 1980s and found, in some cases of new science, the standard could be weaker. Because we had put in -- we didn't know as much in the 1980s, we put in some margin of error; science has since developed and found out that we don't need that margin of safety anymore. Those standards were also not adopted. So whether the science dictated a stronger standard or a weaker standard, the science wasn't followed. Again, the first time that the Institute recommendations were not followed by a Governor of either party. It started under Corzine, and it got much worse under Christie.

It's much better now, but it's still way too slow. It's taken 10 years to start dealing with PFAS, and we're still only at the tip of the iceberg.

And I know, Senator Singleton, you have had your issues and had some good legislation to try and force the Institute and DEP's hands on contaminants of particular concern in your District. And that's just another example of the flaws here; and we need to do something bigger and better. And there's a relatively easy, cost-effective proposal that I want to highlight now.

We are breaking the bank regulating chemical-by-chemical. And the vast -- we're now, because the science is improving, recognizing that there are hundreds, and probably now over a thousand, documented contaminants in the state's water supplies that are not being regulated. Overwhelmingly, the organic chemicals -- human-created and human discharged into the environment -- ranging from petrochemicals to all the kinds of-- Any drug you take, some of it passes through your body and into the way stream. So the vast majority of us are drinking estrogen, and testosterone, and Viagra, whether we know it or not; because it gets discharged into the waterway at minute concentrations, but it can add up and be significant.

We regulate chemicals based on whether we can detect them, whether we can treat them, and whether they have health effects at a significant enough level. On all accounts, we know that these hundreds of chemicals fit that bill. The science has gotten better, so we can detect them. They are designed to be biologically active, and even if we don't have perfect peer-reviewed studies of massive significance, we know enough that these chemicals are designed to be biologically active. They have an intended effect. And if they interact with each other, and if you don't want that intended effect, you shouldn't be consuming it; and we are.

Dating back to the McGreevey Administration, Clean Water Action brought this issue to them, and we started some really great work.

SENATOR SINGLETON: Dave, Dave, excuse me.

I'm going to need you to conclude.

MR. PRINGLE: Yes, I'm wrapping up.

SENATOR SINGLETON: Please; thank you.

MR. PRINGLE: The good news with this problem is that the vast majority of chemicals can all be treated by a carbon filter. We also know where and when they're most likely to occur -- in treated sewage effluent near contaminated sites. So rather than spending millions of dollars each trying to regulate an individual chemical, we can be -- when the circumstances are right, requiring utilities to put on carbon filters. We don't need to know the exact health effects, we don't need to know the exact concentrations. We know they're there, we know they shouldn't be there, and it's a cost-effective way to reduce it. It's called the *treatment technique*; we do treatment techniques for lots of other things. We should do it for that.

I will wrap up my testimony. Most the other stuff I think Jeff mentioned -- several things about better land use reforms and the water connections to climate.

And because I am shameless for my champions, I am going to put a plug in for Senator Singleton's Environmental Justice Bill and Senator Greenstein's Green Amendment. Those would also help get farther down the road that we need to go.

And thank you for this hearing. And we look forward to working with you, to not have to have another hearing to hold folks accountable -- but that's our job.

Thank you.

SENATOR SINGLETON: Thank you, David; thank you for your insights as always. They are appreciated.

Just a quick question on the carbon filters.

MR. PRINGLE: Yes.

SENATOR SINGLETON: Roughly, if you know this -- and if you don't, that's fine. We'll reach out to others -- what are the costs associated with carbon filters? Because you said they are a cost-effective way of trying to address this issue.

MR. PRINGLE: Right.

So I don't have the numbers handy, and there are a lot of details on that matter I neglected to mention.

An initiative in the McGreevey Administration -- I think it-- It kind of petered out under Corzine and Christie; I'm not sure where it ended. But there were some pilot projects and pilot studies done, both on groundwater and in surface waters to start. Among the things we didn't know is, when you're talking about a carbon filter of that magnitude, how often do you need to replace a filter; how much is being removed, how quickly?

So some of those things -- some preliminary studies have been done. The State did put out some bids and did some contracts, and that was great; not enough, fast enough, and the follow-through hasn't happened.

But I mentioned it's cost-effective because we know the stuff is out there, and it's impacting us; and it's certainly a heck of a lot cheaper to remove it than to consume it. And it's a lot cheaper to just do the treatment technique than try and develop a regulatory standard a thousand times over. You know how hard it is to get the one contaminant in your District covered; there are a thousand like that out there.

SENATOR SINGLETON: Got you.

Anyone else with any questions or comments? (no response)

Dave, thank you.

To the extent that -- because many who came before us have left written testimony, to the extent that you could send through, to our great team here at OLS, the written stuff, so that if anyone missed any aspect of it -- I want to make sure everyone gets it.

MR. PRINGLE: I have 90 percent of what I said typed up, so I'll clean it up and submit it.

SENATOR SINGLETON: We would appreciate it; thank you.

MR. PRINGLE: Thank you.

SENATOR SINGLETON: Ladies and gentlemen, that is going to conclude our hearing for the day.

We thank all those who have been with us.

We anticipate a final public hearing -- where there will be opportunities for the public to come speak on this issue; specifically, potential changes to the Water Quality Accountability Act -- to occur on October 7. We're trying to work through that timeline with all of our colleagues; but right now, that is the working timeline we're working under.

The Office of Legislative Services will make that notice, as they've done with all the others.

So with that, we conclude our hearing.

We thank everyone for their attendance.

(HEARING CONCLUDED)