Public Hearing

before

ASSEMBLY HOMELAND SECURITY AND STATE PREPAREDNESS COMMITTEE

"Testimony concerning the security of the State's water supply and wastewater infrastructure"

LOCATION: Committee Room 11
State House Annex
Trenton, New Jersey

DATE: July 11, 2002
10:00 a.m.

MEMBERS OF COMMITTEE PRESENT:

Assemblywoman Joan M. Quigley, Chair
Assemblyman Gary L. Guear, Vice-Chairman
Assemblyman John J. Burzichelli
Assemblyman Gordon M. Johnson
Assemblyman Francis L. Bodine
Assemblyman Christopher J. Connors

ALSO PRESENT:

David J. Lorette
Office of Legislative Services
Committee Aide

John Milsop
Assembly Majority
Committee Aide

Eileen M. Mannion
Assembly Republican
Committee Aide

Hearing Recorded and Transcribed by
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ASSEMBLYWOMAN JOAN M. QUIGLEY (Chair): Good morning, everyone. We'd like to get started.

Because we are so interested in homeland security, we always start our meetings with a pledge to the flag. So I hope you will all rise and join us as the pledge is led by Assemblyman Fran Bodine. (participants recite Pledge of Allegiance)

Thank you.

Good morning. I am happy to welcome all of you to today's hearing. This meeting results from a request by Assembly Speaker Albio Sires, who asked that the Committee make a preliminary assessment of the safety of New Jersey's water supply system. Committee staff contacted suppliers, members of the academic community, and representatives of federal and State agencies. Today's testimony will be recorded and published. All printed testimony submitted will be reviewed, and the Committee will advise the Speaker if there is need for further action.

Now, for those of you who aren't familiar with the workings of this Committee, we'd like you to know that we review and develop legislation with respect to securing New Jersey from terrorist attack. We conduct investigations through hearings such as this one or by going out to see potential targets or assets, which can be employed to defend those targets. Recent legislation released by this Committee includes measures to improve fire service emergency response and to amend the criminal code to deal adequately with terrorist activity.

Now, today's ground rules are simple. We have asked each witness to provide us with his or her perspective on the security of New

Jersey's water supply. Witnesses may also indicate protective measures taken, so long as they do not compromise secure information. We should remind all witnesses that this is a public hearing. Witnesses should, of course, tell us areas that need improvement, particularly ways in which the Legislature can be helpful.

The ongoing drought reminds us of the critical role water plays in sustaining the quality of our lives, our farms, and our economy. And while the drought results from a mix of natural and manmade causes, the possibility of a terrorist attack upon our water supply is both unnatural and inhumane. Happily, private companies and public agencies have been working for the past few months to improve the safety of our water supplies and systems. And when we were all scared to see on the news during the Independence Day weekend that there was a possibility that several planes had flown over one of north Jersey's reservoirs and possibly dropped something, the results were immediate and heartwarming. There was no adverse action at the time, but if there had been, we feel sure that people were properly alerted and the incident was properly handled.

We look forward to hearing testimony from all of you today. I'm going to ask David to call the roll. We'll see if the Committee has any particular questions, and then we will begin calling the first witness.

David.

MR. LORETTE (Committee Aide): Committee roll call.

Assemblyman Connors.

ASSEMBLYMAN CONNORS: Here.

MR. LORETTE: Assemblyman Bodine.

ASSEMBLYMAN BODINE: Here.

MR. LORETTE: Assemblyman Johnson is not present, but is expected.

Assemblyman Burzichelli.

ASSEMBLYMAN BURZICHELLI: Here.

MR. LORETTE: Assemblyman Guear.

ASSEMBLYMAN GUEAR: Here.

MR. LORETTE: Assemblywoman Quigley.

ASSEMBLYWOMAN QUIGLEY: Here.

MR. LORETTE: Madam Chair, you have five of six members present for today's public hearing.

ASSEMBLYWOMAN QUIGLEY: Thank you, David.

If you would then call the first witness.

MR. LORETTE: The first witness would be Andrew Chapman from Elizabethtown Water Company.

ASSEMBLYWOMAN QUIGLEY: Any place you'd like. Just make sure that you push the button that lights up the red light. We do things differently in the Legislature, red light means go. (laughter)

A N D R E W M. C H A P M A N: Just like in a power plant.

Thank you. Thank you, Madam Chairman. Thank you, Committee members. My name is Andrew Chapman. I am President of the Elizabethtown Water Company and Elizabethtown's parent corporation, E'town Corporation. Elizabethtown is the primary supplier of potable water and fire protection service in central New Jersey. We also own and operate the Mt. Holly Water Company, which serves northern Burlington County.

The purpose of my testimony is to provide an overview of the water industry's attention to and progress on raising security standards and preparation across the state. I will not be specific about particular risks or mitigation measures undertaken by the industry or my particular company.

In late October 2001, under the leadership of the Board of Public Utilities, a group of water industry professionals was formed to address security issues related to the water industry. Similar groups were formed for the energy area, the telecommunications area, and so forth. I chair the water group, and as chair of the water group, I represent the water industry on the Attorney General's Infrastructure Advisory Committee, which advises the State's Domestic Security Task Force.

The purpose of the water industry security task force are four. First, we have developed or were to develop a secure, reliable and regular communications arrangement between the water industry, our regulators, and the intelligence organizations who would be aware of particular threats or actions focused on our industry.

Second, we were to outline event management guidelines addressing planning and forethought to aid restoration of service and instill public confidence across the state in the provision of water service and to manage any event to the best possible outcome.

Third, we were to share risks and threats currently identified in order for individual purveyors, like Elizabethtown or the other members of the industry, to benefit from this wider view, to develop a methodology to assess systems' vulnerabilities, to identify conditions or events effecting risk levels, and last, we were supposed to build on that effort to develop common risk

mitigation measures and commit those to practice through the issuance of guidelines and so forth by the relevant regulatory agencies.

We have had excellent participation across the industry and through various agencies of State government. The industry participants in this water industry task force include, obviously, my company, Elizabethtown Water Company; along with United Water Resources, which serves in the Burlington County area; New Jersey American Water Company, which serves in the Monmouth and Ocean areas, down south in Atlantic County and the Camden County area, and also up north in western Essex, southern Morris counties; Consumers Water Company, which serves in the Hamilton area; the North Jersey District Water Supply Commission, which is a major supplier in the northern part of the state; in the city of Newark, the Passaic Valley Water Commission; Middlesex Water Company. We also had three municipalities participate -- the town of Clinton, Ridgewood Water Department, and the Trenton Water Works.

Importantly, we have had extensive and continual involvement from State agencies throughout this effort. They come to all of our meetings. Those agencies include the Department of Environmental Protection, and within the Department of Environmental Protection, the Bureau of Safe Drinking Water, the New Jersey State Police, the Board of Public Utilities, the New Jersey Water Supply Authority, and at the federal level, the Federal Bureau of Investigation. This extensive and continual involvement by these public agencies in this, what is essentially an industry task force, proves to me the excellent cooperation and continual communication that is going on between the private sector and the major water purveyors and the agencies that

both regulate us and the agencies that have available to them the kind of intelligence information which is valuable to our operation.

Over the last several months -- and I don't want you to think that this effort is abating -- we had a meeting yesterday that started at about 11:00 and went until 5:00 in the evening, attended by all of these organizations. But over the last several months, this group has achieved its objectives, I believe. We've established a secure and regular communications network between the industry and the intelligence community. We've also established a technical advisory committee by the industry to be able to feed information to the intelligence community to be able to assess the viability of specific threats. We have developed guidelines for risk mitigation measures and event management practices to the extent necessary beyond those already established by the individual companies or established through the State's emergency management mechanism.

These various steps have been promulgated through various guidelines that have been issued by the relevant regulatory authorities, like the BPU, which regulates the investor-owned drinking water suppliers and the DEP, which regulates the municipal suppliers.

That concludes my testimony this morning. I would be happy to answer any specific questions, given the constraint that this is a public forum.

ASSEMBLYWOMAN QUIGLEY: Thank you very much.

Does anyone have any questions or comments for Mr. Chapman? (no response) No.

Thank you very much. We appreciate your testimony.

MR. CHAPMAN: Thank you.

MR. LORETTE: The next witness for today will be Robert Gallo from the New Jersey-American Water Company.

R O B E R T J. G A L L O: Good morning, Chairwoman Quigley and members of the Assembly Homeland Security Committee (*sic*). My name is Robert J. Gallo, and I am President of New Jersey-American Water Company. New Jersey-American Water is the largest and most geographically diverse, privately-owned water company in the State of New Jersey. We serve more than one out of every eight New Jersey residents. Our parent company is American Water Works, the largest investor-owned water company in the country.

First, I'd like to commend each of you for putting together this program today. Protecting our many sources of water supply is not only important to the economic vitality of the state and its citizens, but it has also been made even more urgent by the terroristic events of September 11. Immediately after that event, we began assessing and reassessing our security measures and making changes. Our parent company, which owns subsidiary water companies in 23 states, create a systemwide security task force that meets telephonically every week to discuss security issues and best practices. Those meetings began immediately after September 11 and continue as we speak.

In addition, New Jersey-American Water Company is an active participant in the Board of Public Utilities and Water Security Task Force, which you've heard Mr. Chapman speak about previously. As a result of our involvement, not only in our task force, but also with the BPU, I can guarantee

you that if you were to visit any one of our water treatment plants here in New Jersey today, it looks very very different than it did before September 11.

For obvious reasons, I'm not going to go into any details about the security measures that we've taken. However, I want to assure you that we are committed to continuing our review and implementation of security with the goal of protecting the water supply and treatment capability of our company.

Our parent, American Water Works, is a leader in recognizing the importance of protecting our water supply and maintaining public confidence. I would like to, again, reassure the legislative body and the more than 1 million New Jerseyans who use our water, that at New Jersey-American, we're working diligently to accomplish this goal.

Thank you, and if you have any questions, I'd be glad to respond.

ASSEMBLYWOMAN QUIGLEY: I have just one question, Mr. Gallo.

Thank you very much for coming, by the way.

MR. GALLO: Thank you.

ASSEMBLYWOMAN QUIGLEY: The security improvements that you and the other companies have made, have they been very expensive? Are they going to result in an increase in rates for most of us?

MR. GALLO: I certainly can't speak for the other companies represented here, but from our own viewpoint, the measures that we have taken will, I think, eventually result in some increment of rate increase to our customers. They include both capital expenditures to harden assets, as well as operating costs to physically protect our facilities. So eventually there will be some increment of rate increase.

ASSEMBLYWOMAN QUIGLEY: It probably will be money well spent, but I just wanted to know what was coming.

MR. GALLO: I hope the BPU agrees with you. I think they would.

ASSEMBLYWOMAN QUIGLEY: Does anyone else have any questions?

ASSEMBLYMAN CONNORS: Madam Chairman, through you, and just to follow up on a question, with respect to infrastructure improvements and operational improvements that are necessary to offer a rate of protection of our water supply needs, is there currently any federal funding that you -- the companies are availing themselves to to make these modifications?

MR. GALLO: As I understand it, the EPA is directing water companies to do vulnerability assessments. Those assessments for companies that serve more than 100,000 people, such as ourselves, are due next March. The EPA has also made available, I believe, up to $115,000 grant for us to perform those assessments. Whether or not we take advantage of them, I'm not sure. We do have quite a bit of in-house technical expertise and capability so that we can do these assessments ourselves.

ASSEMBLYMAN CONNORS: Okay. Thank you.

ASSEMBLYWOMAN QUIGLEY: Assemblyman Guear.

ASSEMBLYMAN GUEAR: Thank you, Madam Chair.

The security improvements to yours and the other companies throughout the state, are they uniform improvements? Is everybody on the same page? Are we all doing the same thing?

MR. GALLO: The task force that Mr. Chapman talked about is sharing best practices. First of all, not all water companies are alike, in that some of us have water treatment plants which are very visible. Some have only well stations, which are not at all visible. So, I think, to the extent that we have water treatment plants, you can see a different level of activity that surrounds the security of those plants.

Again, we are looking at best practices. The idea of the whole BPU task force is to share those best practices with the idea that the water companies will then implement them in their local operations. But implementation will vary from one company to the other, depending on what types of assets, what sorts of source of supply, whether they have a river intake or they have just wells, all those sorts of issues.

ASSEMBLYMAN GUEAR: Thank you.

ASSEMBLYWOMAN QUIGLEY: Thank you very much, Mr. Gallo.

MR. GALLO: Thank you.

MR. LORETTE: The next witness for today will be Laura Cummings, from the Passaic Valley Water Commission.

ASSEMBLYWOMAN QUIGLEY: Welcome.

L A U R A C U M M I N G S: Thank you. Good morning.

My name is Laura Cummings. I'm a Principal Engineer with the Passaic Valley Water Commission. I serve as a representative for the Commission on the industry's security task group for water. Passaic Valley Water Commission provides finished water to three owner cities, including Paterson, Passaic, and Clifton. We also serve an additional 23 communities

bulk water purchasers in Passaic, Bergen, Essex, and Morris Counties. This results in a population served of over 750,000 consumers.

I'm just going to address, in general very brief, some of the immediate, interim, and long-term improvements that we're seeking. The immediate measures after September 11 included establishing additional security, additional surveillance, surveillance where we work closely with our local police departments and counties. We also looked at reducing storage of a specific chemical to reduce the potential of any off-site consequences to the public. We're also contracting with various consultants for immediate, interim, and long-term improvements, including security consultants, various design consultants to address specific issues at the plant. And I didn't mention the Little Falls Water Treatment Plant is located in Totowa, New Jersey.

We've also implemented strict policies regarding chemical supplies and other cyber-threat protection measures. Specifically, the long-term plan is to seek funding from the EPA, which we applied for funding in April to conduct a vulnerability assessment for the plant at our remote facilities. We're in the process of reviewing proposals from consultants to conduct that analysis for us. The vulnerability assessment is required by EPA, and it will address the long-range issues specific to our facilities.

After completion of the VA, we will also be required under EPA to expand and improve our instant response plans. And along with that, a lot of the other issues that we're looking into is more advanced training for our staff in order to protect them, as well as the public, in the event of any other further attacks. We are also intending to participate in a field skill test to test early

warning monitoring instrumentation. Dr. Adam is going to talk about that later.

One of the most important things that I'd like to address for the Committee is the protection of the vulnerability system information. Right now, we'll be required to submit a hard copy report to EPA, and we have great reservations in doing that. We would like to keep that information in-house, do some type of a self-certification on that, and have an inspection to review what we've done, but we're very concerned about that information getting into the hands of people who shouldn't have that.

ASSEMBLYWOMAN QUIGLEY: Would that be covered by some of the exceptions the governor made yesterday to the Open Public Records Act? I mean, would that address your concern, or is your concern more that somebody from EPA would leak it?

MS. CUMMINGS: I'm not sure exactly what they would address under the governor's instructions, but right now we will be required to submit a hard copy to EPA only, not to the State, but we would prefer not to even go to that point.

ASSEMBLYMAN CONNORS: Madam Chair, through you, it was my understanding that although a hard copy is sent to EPA, the State government itself could request a copy of that vulnerability assessment. Is that correct?

MS. CUMMINGS: Yes.

ASSEMBLYMAN CONNORS: And so, there is a means for distribution unless it is protected by executive order or by legislative action. So that's an area of concern, and I think that perhaps this Committee may

want to look at, additionally, the concerns that you raise with respect to the report to EPA. Although the legislation, I understand, contains enhanced penalties for dissemination of that information, those that are going to disseminate it are not those that are going to be concerned about the penalties. Perhaps this issue ought to be raised before our congressional representatives from New Jersey to perhaps bring it back to Washington, since it is federal law. I think that it would be a very prudent suggestion that you have made that an inspection satisfies the aspect of the report. And that way, you don't have the information being divulged.

MS. CUMMINGS: Yes. The American Water Works Association has encouraged everybody to contact their members of Congress to address this specific issue.

ASSEMBLYWOMAN QUIGLEY: If the other members of the Committee agree, we can also weigh in on that. It seems like a very important point. We don't want to tell people the best ways to hurt us.

Thank you very much.

MS. CUMMINGS: Thank you.

MR. LORETTE: The next witness for today will be Michael Barnes from the North Jersey District of the State Water Supply Commission.

M I C H A E L J. B A R N E S: Good morning, and thank you for allowing us to be here.

ASSEMBLYWOMAN QUIGLEY: Thank you for coming.

MR. BARNES: I do have 15 copies of a prepared statement that I will not read, but I will just pick out some of the highlights.

The North Jersey Water District is responsible for the delivery of drinking water to portions of 2.5 million people in the northern portion of our state. This includes portions of the City of Newark, Paterson, Clifton, Passaic, Kearny, Bloomfield, Bayonne, and also the towns of Montclair, Nutley, Cedar Grove, Glen Ridge, and Wayne, and many residents in Bergen County through our raw water connections with United Water.

We operate two reservoirs. We have numerous high-hazard dams. We have a large watershed area that we maintain and are responsible for. In general, some of the efforts that we have made to enhance the security of our system is -- immediately, on September 11, we've closed off our Internet site completely. It is still under repair if anybody tries to access that today. We have limited all of our publicity information with any details or even photographs of our facility. We have reviewed all of our emergency plans and updated those. We have begun our vulnerability assessments.

And again, we concur with the prior speaker, Laura Cummings, that we do not want these vulnerability assessments published or disseminated outside of our facility. They will list our most sensitive vulnerable areas, and those then will become subject to modifications and improvements.

Chemical deliveries -- every truckload of chemicals delivered to our plant are tagged at the manufacturer. The tags are checked at our site. We check the bill of ladings just to make sure that everything is proper. There is no access to our plant site without prior approval. Again, we even had DEP inspectors attempt to come in. Certain people were not available. Again, we got in trouble for this, but we did that much to the chagrin of some people. We had a news crew attempt to come in on a Sunday claiming international

rights of freedom of information and the whole thing. We stopped them at our gate. Four local police came and escorted them off the property. So there are still people trying to get in.

ASSEMBLYWOMAN QUIGLEY: You must be popular.

MR. BARNES: No, we are not popular. (laughter) And I guess the rumor around, if you want to be on our site, you stay near one of us or you could be shot. (laughter) So that's really the rumor. We have increased our water quality monitoring, sticking in automatic samplers in our reservoirs and streams. Basically, we've done all this with our own internal moneys. It was a question of, how are we going to pay for this? Since September, we've spend over a million dollars on security improvements, mostly labor, overtime, local police departments, things like that. There is no reimbursement through the federal or the State governments, even though we were told there would be.

So again, you've asked how you can help. We've applied to FEMA, three different applications, and we've been rejected. That's one.

ASSEMBLYWOMAN QUIGLEY: Did they give you a reason why you were-- The funds not available or--

MR. BARNES: Just that it didn't meet the criteria. Again, we're seeking, keeping these vulnerability assessments confidential. We continue to react to these FBI threats. We continue to attend these task force meetings. We are a member that Elizabethtown talked about. We have about $2.5 million worth of physical improvements that will be installed by the end of the year to kind of reinforce the temporary measures that we made. So we feel on the water quality side we have taken just about every step that we can. There

is still some vulnerable areas, and we're trying to address them with daily improvements.

ASSEMBLYWOMAN QUIGLEY: Is the new improvements that you need to make, are they dependent on outside funding sources, or would you just go ahead with them anyway?

MR. BARNES: Well, we're going to go ahead with them anyway. They're being designed right now. But again, we will attempt to get federal or State funding.

ASSEMBLYWOMAN QUIGLEY: The vision of a plane flying over a reservoir and dropping something makes a great movie. Is it real? Is anything like that likely to cause a problem, or is it as we have frequently been told, it would take an enormous amount of something to pollute a water supply?

MR. BARNES: We actually had a report of that on one of our reservoirs within two, three weeks of September 11. And again, panic set in. What do you do? What are we looking for? Luckily, it was in an uplands reservoir where the detention time and the dilution were on our side, so we didn't have to go through the whole shutdown of the plant to go and do an investigation, but that is a real scenario. We did get the FBI and the State Police, and we had to do the investigation, which turned out to be false.

ASSEMBLYWOMAN QUIGLEY: Good. Glad they were false, but those drills do work, don't they.

MR. BARNES: Yes, they do.

ASSEMBLYWOMAN QUIGLEY: Does anyone else have any questions?

ASSEMBLYMAN CONNORS: Madam Chair, through you, employees at water treatment facilities, whether they be public or private, is there any current requirement that requires them to have background checks prior to their employment?

MR. BARNES: Again, that's something that the task force is looking at. Again, we're coming in with recommendations for new hires.

ASSEMBLYMAN CONNORS: Can I assume from that then there is no current regulation which requires it since they're now looking into it?

MR. BARNES: No, just common sense.

ASSEMBLYMAN CONNORS: How about policies of the various water companies. Do they institute their own policies regarding background checks?

MR. BARNES: At this time, yes.

ASSEMBLYMAN CONNORS: So your particular enterprise would require a background check of any new employee?

MR. BARNES: New employees, correct.

ASSEMBLYMAN CONNORS: Now, you had indicated about trucks coming into the facility and that they're checked. Are the contents of the trucks then themselves tested and checked--

MR. BARNES: Yes.

ASSEMBLYMAN CONNORS: --or is it just a manifest that's examined?

MR. BARNES: Well, again, from the manufacturer, they put one of those seals on it with an actual ID number.

ASSEMBLYMAN CONNORS: Right.

MR. BARNES: They fax us the sheet with the ID number. When the truck comes in, we cut that tag. We check the ID numbers. That's number one. And two is, yes, we do test pH, different things like that of the delivery to match it against the specifications.

ASSEMBLYMAN CONNORS: With respect to the testing of water, and I don't know a great deal about it, except for perhaps municipal water systems where I've had my greatest amount of familiarity, what are the variables for which you test now? I mean, anything that we might consider in a realm of terrorism, are those compounds or biological agents or chemical agents currently tested or would that be determined through current testing?

MR. BARNES: No, but surrogates could be tested.

ASSEMBLYMAN CONNORS: Excuse me?

MR. BARNES: Surrogates to something that is applied. A change in pH is an indication--

ASSEMBLYMAN GUEAR: Excuse me.

Madam Chair. I'm sorry to interrupt, but are we going down a path where we may be allowing some technical information to get out that we don't want to get out that may be of a secure nature that we shouldn't be discussing here today?

ASSEMBLYMAN CONNORS: Well, I can appreciate the concern for that.

MR. BARNES: I wasn't going to give you any--

ASSEMBLYMAN CONNORS: I mean, obviously, if I'm raising those questions, someone else could raise those questions. We test for a great

deal of parameters. I think it would be, if he is going to announce, "No, we don't have the ability to test for that," I would think the sophistication of the terrorists that we've seen so far is going to know that also.

ASSEMBLYWOMAN QUIGLEY: Well, you can tell us, "Yes, you test," but don't get too specific about it.

MR. BARNES: Yes. No, we do test. There are tests that we can perform in the normal laboratory that will give us indications that something different has happened in the system.

ASSEMBLYMAN CONNORS: Now, in the discussion of testing, the term used real time, could you explain to me exactly what that means?

MR. BARNES: It's just a continuous monitor that reporting back through a telephone or a radio signal.

ASSEMBLYMAN CONNORS: So, in other words, it's the ability to report a particular aspect of the testing immediately?

MR. BARNES: Right.

ASSEMBLYMAN CONNORS: An immediate determination.

MR. BARNES: Versus going out picking up a sample and bringing it back to the lab.

ASSEMBLYMAN CONNORS: I see.

I don't have any further questions.

Thank you, Madam Chair.

ASSEMBLYWOMAN QUIGLEY: Thank you, Assemblyman.

Anyone else?

Assemblyman Johnson.

ASSEMBLYMAN JOHNSON: Thank you, Madam Chair.

I have one generic basic question. Are you satisfied with the coordination between your security and the local and county law enforcement?

MR. BARNES: Yes. We work with the county sheriff's department and the local police departments. Again, I gave you that incident of the news group coming in. Within less than a minute of us calling, we had four police officers there.

ASSEMBLYMAN JOHNSON: So physically you feel secure?

MR. BARNES: Yes. And we had worked with them over the years on our emergency plans anyway. We do have constant meetings with both the fire department and the police departments in the local towns.

ASSEMBLYMAN JOHNSON: Okay. Thank you.

Oh, so there is a plan?

MR. BARNES: Yes, there is a plan. It's already been in existence.

ASSEMBLYMAN JOHNSON: Pre-9/11, and then it was modified after 9/11.

MR. BARNES: Right. It may not specifically be for terrorism, but there is a plan for almost every aspect at the plant.

ASSEMBLYMAN JOHNSON: Thank you, sir.

ASSEMBLYWOMAN QUIGLEY: Thank you very much.

I promise I won't visit without calling you first. (laughter)

MR. LORETTE: Mr. Barnes, if you have written testimony available, could you please leave those copies for the Committee members. Thanks.

The next witness will be Ulises Diaz of United Water.

ASSEMBLYWOMAN QUIGLEY: Welcome, Ulises, it's nice to see you again.

U L I S E S D I A Z: It's great to see you, Madame Chair.

ASSEMBLYWOMAN QUIGLEY: We used to meet in Hudson County.

MR. DIAZ: Well, we'll bring the north a little south today.

Madam Chair and Committee members, thank you very much. As we all know after September 11, the way we do business and the way our facilities look from barbed wire fences to barricades has changed drastically. We've done many things to ensure that our water quality is safe, not only the rural water, but the potable water obviously. I'm going to get into some of those things, and I'll be brief. Many of the people who testified before me, the water company officials, have touched on many of those things.

The first thing we did, and we continue to do, is we went back to basics. We basically canceled all our recreation programs and looked at how we can implement a security system, day one, to ensure that there weren't going to be a threat of terrorism. We've done various things such as install barricades around our facilities, install barbed wire fences with automatic gates with specific ID cards. We've placed barricades on dams, surveillance systems. We monitor the water, both rural and external increasingly ever more. We've worked closely with our police and fire departments to ensure that they knew our facilities were in their municipalities. Obviously, we serve about a million people in Hudson, Bergen County, so we needed to create a relationship, a close tie with them, so that they would be vigilant of our facilities. Obviously, we test those facilities, and we test as we do all our reservoirs.

Part of our main focus is we hired a consultant to evaluate what our weaknesses and strengths were. Obviously, prior to 9/11, security was probably lax. Today, I would say, it's pretty tight. We've identified some of those issues, which I won't get into in detail, but some of the things that we are doing that are important are our water treatment does not receive any deliveries unless it's preapproved. That would be chemicals. Those chemicals are escorted by police escort on a daily basis.

Also, we have a large watershed in northern Bergen County. Around 9/11, we had issues with campers. So we've created a relationship with the local police to -- we purchased a couple ATVs, and the local police are also not only monitoring our plants and facilities, but they're also driving around our watershed to ensure that we don't have terrorists in those locations.

Those are some of the things that we've done. Obviously, again, not in great detail, which I won't, and we continue to look at things in the future. We installed remote monitoring. We continue to install remote monitoring. Surveillance in all our dams, obviously, and in all our facilities have increased. The real issue here is when you drive by any of these facilities, and I assume when you look at them, you realize that it's not business as usual. You recognize that the water company, at least United Water and all of the water companies, are taking all the steps necessary to ensure that the water will be safe for the public.

Thank you.

ASSEMBLYWOMAN QUIGLEY: Ulises, one of your statements raised a question in my mind. In many areas of the state, the reservoirs are almost recreation areas for the public. Have there been any problems? I don't

mean specific incidents, but in general, are people supportive of not being able to get as close to the reservoirs as they were before, or do they feel they're being deprived of their recreational opportunities?

MR. DIAZ: I think, day one, that there was no problem. I think today there's a little bit more of an antsy feeling from the public. They'd like to get back into the reservoirs. I think part of our goal is to monitor. We want to get the public back into the reservoir so that they can fish, or they can enjoy the area. One of the things we're trying to do is find out what's the best way to make sure we maintain control so that nothing happens.

ASSEMBLYWOMAN QUIGLEY: If there's some way we can be helpful with public education, you let us know.

MR. DIAZ: Thank you. Sure.

ASSEMBLYWOMAN QUIGLEY: Anyone have any questions?

Assemblyman Johnson.

ASSEMBLYMAN JOHNSON: Thank you, Madam Chair.

You mentioned before that you had purchased some equipment for a local police department to patrol your area, ATVs?

MR. DIAZ: Specifically.

ASSEMBLYMAN JOHNSON: All right. Was that funded--

MR. DIAZ: That was United Water. I mean, there is a benefit, obviously, to United Water to help us. There's also a benefit for the local police. Not only does it stop potential terrorists, but it also helps them stop vagrancies and things of that nature. So there was a joining of forces, and I might add that all of the local police forces in the Bergen and Hudson area

have really gone out of their way to ensure and help us maintain the integrity of our facilities. So kudos to them.

ASSEMBLYMAN JOHNSON: I'll bring that back to them when I see them. How about additional equipment such as, maybe, video surveillance or night vision goggles or--

MR. DIAZ: We've installed video surveillance in most of our facilities. The ones that haven't been installed is because they're in the process of being installed.

ASSEMBLYMAN JOHNSON: Right.

MR. DIAZ: That's all on our dime.

ASSEMBLYMAN JOHNSON: And that would go to the local police to assist you in securing the area?

MR. DIAZ: Yes. The local police have had input in all of our implementations. They've, in some ways, have been consulting with us--

ASSEMBLYMAN JOHNSON: Okay.

MR. DIAZ: --and with our consultants to find what is the best scenario for each location.

ASSEMBLYMAN JOHNSON: Yes, I understand. Okay.

Thank you.

ASSEMBLYWOMAN QUIGLEY: Thank you.

Assemblyman Connors.

ASSEMBLYMAN CONNORS: Mr. Diaz, how reservoirs are actually within your jurisdiction of United Water?

MR. DIAZ: We have three reservoirs.

ASSEMBLYMAN CONNORS: Three reservoirs. How many gallons approximately?

MR. DIAZ: Oh, billions.

ASSEMBLYMAN CONNORS: Billions.

MR. DIAZ: Exactly, I wouldn't be able to tell you.

ASSEMBLYMAN CONNORS: I understand. And on a daily basis, how many millions of gallons would you estimate?

MR. DIAZ: Our treatment plant pumps somewhere around, in the summertime peak, somewhere around 150 million gallons a day.

ASSEMBLYMAN CONNORS: Out of the 150 million gallons, is it safe to say that most of that gallonage is used for other uses than domestic water such as industrial uses and so forth?

MR. DIAZ: It's safe to say, sure. Industrial, sprinkling.

ASSEMBLYMAN CONNORS: How much of a percentage would you estimate is--

MR. DIAZ: I would not know that offhand.

ASSEMBLYMAN CONNORS: But the larger amount would be industrial as opposed to--

MR. DIAZ: No. I think the United Water of New Jersey franchise, I would say, most of that is probably -- a large percent of that is domestic use.

ASSEMBLYMAN CONNORS: Largely is domestic use.

MR. DIAZ: There's a large portion that's industrial obviously, but I think most of it is domestic.

ASSEMBLYMAN CONNORS: Is that typical of--

MR. DIAZ: We serve residential areas with some--

ASSEMBLYMAN CONNORS: I see. So your gallonage is as a percentage of domestic water use may not be, in fact, the same as another water company that pumps water from a reservoir.

MR. DIAZ: Yes, that might be true.

ASSEMBLYMAN CONNORS: In assessing risks for terrorist activities or those who wish to, perhaps, ill intended use of our facilities, what risk would you really place on individuals that might come in for recreational use. What I'm hearing is in reading--

MR. DIAZ: When we open up our gates, we don't know who is there to enjoy our facilities, our reservoirs, and our watershed recreation programs and who is there with some alternative reasons.

ASSEMBLYMAN CONNORS: Clearly not. Except it would seem to me that an individual who might be there for ill-intended reasons, to the extent that would make any potential significant impact or any impact at all, would be required to, perhaps, come in a vehicle to the size of a tank truck in order to cause degradation of the water supply system. So those individuals would more than likely be readily ascertainable?

MR. DIAZ: Yes, but if I were to make an error in judgment--

ASSEMBLYMAN CONNORS: I mean, it wouldn't be the two people in a canoe with a fish and a rod and a tackle box.

MR. DIAZ: If I were to make an error in judgment, I'd rather err on the side of safety right now.

ASSEMBLYMAN CONNORS: Of course, absolutely. I'm just trying to get a feel, and a lot of this, obviously, the public is listening.

Obviously, New Jersey Network is broadcasting segments, if not all of this, and I think that a lot of my constituents and people all over the country are concerned about things like water supply. Naturally so, we all are. What we've learned from September 11 is that we've got to think about the unimaginable.

However, I think there is some peace of mind that also can be conveyed, and that is that even though these risks are there, they're not likely risks because of the ability to put biological agents or chemical agents and the type of quantity. It would take thousands and hundreds of thousands of gallons to make even a small impact on the drinking water of our state or our country. The likelihood of that occurring without being detected is not very high. So I think that a lot of people are operating under a perception or fear that all somebody has to do is drop a couple of bottles or a couple pills into a reservoir or into a water supply system, and we're going to see weapons of mass destruction. In fact, that's probably not likely.

MR. DIAZ: I agree with that.

ASSEMBLYMAN CONNORS: The more likelihood would be we're probably more vulnerable in our food supply than we are, in fact, in our water supply. But I just wanted to kind of get an idea as to what we're talking about and a magnitude when we're talking about a reservoir, how big these reservoirs are.

MR. DIAZ: Hundreds of acres. I think from the perspective -- and I think you're touching on the point of recreational use of the facilities, and I think we are obviously evaluating how to open it up and how to go back to normal. That's important.

ASSEMBLYMAN CONNORS: There are fish in those reservoirs, are you not?

MR. DIAZ: There are.

ASSEMBLYMAN CONNORS: I'm sure that you keep in touch with those fish to find out how they're doing as well, right? (laughter)

MR. DIAZ: I try.

ASSEMBLYMAN CONNORS: Thank you.

MR. DIAZ: Thank you.

ASSEMBLYWOMAN QUIGLEY: Thank you, Assemblyman.

Assemblyman Bodine.

ASSEMBLYMAN BODINE: Thank you, Madam Chair. I just have one question.

I'm not familiar with what you have in north Jersey with regard to the reservoirs, but in the recreation does this include motorized--

MR. DIAZ: No. Our recreational facilities are pedestrian trails and fishing from the shores.

ASSEMBLYMAN BODINE: Okay. Thank you.

MR. DIAZ: Thank you. Thank you very much.

ASSEMBLYWOMAN QUIGLEY: Thank you very much. Enjoy that fishing.

David.

MR. LORETTE: The next witnesses to be called are Dr. Keith Cooper and Dr. Chris Obrupta from Rutgers, the State University of New Jersey.

ASSEMBLYWOMAN QUIGLEY: Welcome, doctors.

K E I T H R. C O O P E R: Good morning, Madam Chairman. My name is Dr. Keith Cooper, and I am currently the Dean of Research and Graduate Programs at Cook College at Rutgers University. My background is toxicology, and I was the former chair of the Department of Biochemistry and Microbiology at Cook College. Sitting beside me is Dr. Chris Obrupta who has worked on modeling contaminants in groundwater systems and the surface water systems. We are here to offer our opinions and to offer the services of our faculty working in this area of drinking water vulnerability.

The infrastructure of our extension agents in a number of counties throughout the state offer a potential for a valuable source for outreach both for the public and for information communication. This infrastructure is currently in place, and we have recently installed new facilities to be able to connect directly with a number of these agents and our outlying stations which will facilitate communications if there were a problem.

I'd like to state that Rutgers University has been very active on a number of areas related to potential terrorist acts and the responses that might be taken both at the University and throughout the state. In several conferences at Rutgers and other areas throughout and here within Trenton, such as one hosted in June, both up in Newark and one hosted at the Brunswick campus, we have been able to bring experts together to discuss these issues both from a national, international, and state area.

It is our belief that the university can be a valuable resource both for information and for development of innovative technologies to be used for homeland security. Our existing outreach and training programs can be enhanced to include additional training in areas of security and new

technology for plant use. We have recently received funding to enhance some of outreach teaching both in the food and water areas.

We at the university have been involved in expanding our research in related fields and can be applied to prevention, detection, and response to emerging problems. In many instances, the techniques developed for protecting the public health in natural emergencies are directly applicable to direct acts of terrorism. I want to emphasize that, in many ways, the psychological impact of a perceived event can have almost as much an impact as a real event. Therefore, it is important to have a rapid and well thought out response plan of action in place. Appropriate communication based on facts is essential.

Turning our attention to the drinking water system in our state as a target, I'll briefly discuss below. I think that is must be realized that the industry and government agencies have already taken precautions in hardening the facilities. As discussed by the previous speakers, these efforts are continuing and additional measures are being discussed. Some of these procedures have grown out of naturally occurring disasters, which have pointed out previous weaknesses within our systems. Following the September 11 situation, we have also reexamined a number of the plant facilities.

In my discussions with my colleagues and others, it is my opinion that the direct contamination of groundwater systems is an unlikely target, and that contamination of large surface reservoirs is also unlikely. In the case of groundwater contamination, the direct introduction would be difficult because of the way groundwater is formed and its actual movement. In the case of

larger reservoirs, the amount of contaminants needed to be added in order to reach a level of a health concern would need to be quite large.

Dr. Obrupta, after I finish, will give you a calculation, as I asked him to do last night, to give you an estimate of what would actually be required to reinforce some of the previous information that we've heard.

In the case of chemical, biological, and radiological agents, a sufficient concentration would need to be achieved before an effect would have any impact. In other words, in the toxicology jargon, the dose does make the poison. In many of the plants, the methods of disinfection, chlorination, ozonation, and UV, and other treatments, filtration, clarification, etc., will eliminate a number of these threats through actual facilities -- measures for producing potable drinking water. This does not, however, preclude the public from being concerned if an incident did occur and demanding alternative drinking water.

I think that the other things that have been said, as stated earlier, is that a number of the water utilities have come together to identify ways in which they can share water systems. This is an important realization for the public. It is our opinion that contamination prior to the treatment plan would have a far lower probability of success than a post-treatment plant addition. Therefore, water distribution systems and their access points need to be further protected and further hardened. There needs to be new detection methods that allow for more rapid detection and a broader group of agents then are currently monitored. Because of the lag time in detection methods, human exposures may occur and therefore the health professionals will be the first to identify a pattern of illness. Due to our high concentrations of people, even

a single attack could impact a large number of people. Having multiple water sources and the ability to switch diminishes this threat to any one system and also minimizes or precludes large numbers of fatalities or illnesses.

I'm going to turn it over to Dr. Obrupta here who-- I asked him to actually do a slight calculation last night just to give you a feeling for what we're talking about as far as magnitude is concerned.

ASSEMBLYWOMAN QUIGLEY: Thank you very much.

But before you do that, I would like to point out to everyone that we have been honored by the presence of our Assembly Speaker Albio Sires and Majority Leader Joe Roberts. I invite you to join us up here if you'd like, and have you a few words for our attendees? (Speaker and Majority Leader decline from audience) Well, thank you very much for coming.

Doctor, I think you're going to give us some good news.

C H R I S O B R U P T A: I hope so.

Dr. Cooper asked me to look at a pollutant called potassium cyanide, which is something that's readily available, and if it was introduced into a water supply, how much would really be needed? It was pretty easy to get on-line last night and get some information from some of the Web-sites and realize that one of our systems in New Jersey pumps about 117 million gallons a day of water from the Raritan, Millstone Rivers. If you were to contaminate that with a level of potassium cyanide where you would expect someone to be able to drink a glass of water with that in it and receive a fatal dose, you would really need to dump in about 250,000 pounds of potassium cyanide for that quantity of water.

If you look at that from a volume standpoint, someone mentioned tanker truck before, you're really talking about 10 dump trucks, large dump trucks.

ASSEMBLYWOMAN QUIGLEY: That is good news.

MR. OBRUPTA: I think that is good news, yes. So I don't think you're going to be able to slip that in. If you can't get a reporter into the water treatment plant, I don't think you're going to get 10 dump trucks in.

The one issue though that comes up when you look at that though that Dr. Cooper had mentioned, that would be before the treatment plant. If you're going to introduce this kind of pollutant into, say, a water tower, you would need quite less of a quantity. A 1 million-gallon water tower would only need about a wheelbarrow of this substance into it. So these are the areas I think we need to focus a little bit more on protecting, which it sounds like we're doing.

ASSEMBLYWOMAN QUIGLEY: Doctors, are you working now with the water group that's assigned to the antiterrorism task force.

MR. COOPER: Yes. There are a number of groups which actually have been working with the water group, both as an advisory through Rutgers itself. I was actually designated as the point person for Rutgers for being contacted by people concerning toxicological problems. One of the things that we would like to offer is that we do have a tremendous amount of expertise which the State is funding through our faculty. We would like to offer that as truly a resource. If you have questions that you would like us to look at, we would feel honored to come and help in doing some of these evaluations.

We feel that, at the university, that is part of our goal and basically our mission to serve the State and the people within the state.

ASSEMBLYWOMAN QUIGLEY: Thank you very much.

It's been suggested by several members of the Committee that at some time in the future we will have a closed hearing in which we can ask more specific questions. And at that time certainly, we would like to sit down with you.

But in the meantime, does anyone have any questions now?

ASSEMBLYMAN CONNORS: Madam Chairman, through you.

Doctors, thank you very much for your testimony. I think that was encouraging news that you brought to this hearing today. I think that perhaps it will settle some nervousness that might be out there in the public hearing that it takes such large quantities to effectuate any type of real threat to our public water systems. I think it comes to the inescapable conclusion, after hearing what it is that you have to say, is that the quantities that would be necessary to contaminate a large surface water supply like a reservoir is not going to be found in a tackle box or a canoe. But in the same token that smaller supply systems seem to be at a greater risk than the larger ones -- and perhaps the emphasis of security should be our smaller water supply systems -- in that, an individual who would be likely to carry a wheelbarrow full of contaminant might be somebody that has access to these facilities. So access to small water supply facilities probably should be the greatest of security concerns.

Thank you.

ASSEMBLYWOMAN QUIGLEY: Thank you very much, doctors.

MR. COOPER: Thanks.

MR. OBRUPTA: Thank you.

MR. LORETTE: The next witness for today will be Dr. Nabil Adam, also of Rutgers, the State University of New Jersey.

ASSEMBLYWOMAN QUIGLEY: Welcome, Dr. Adam, and would you introduce your companion?

N A B I L R. A D A M, Ph.D.: Yes, please. He is Kirk Barrett from Rutgers University, Associate Professor.

Madam Chair, members of the Committee, ladies and gentlemen, thank you very much for giving us this opportunity to take a few minutes. Actually we came to specifically talk about some of the initiatives that we have been engaged in recently. Just as a way of background, I'm a Professor at Rutgers in the Newark Campus, and I serve as a Director of a center called the CIMIC Center. One of institutes that we have under that is the Meadowlands Environmental Research Institute which is the scientific arm of the New Jersey Meadowlands Commission. It's a collaborative effort between Rutgers and the Commission. Dr. Kirk Barrett is the Research Director of that institute. We perform and conduct research on water and air quality for the past three years at the Meadowlands.

After September 11, obviously, all of us have been concerned about the state of our drinking water at our state and our region in general. What we try to do is try to think in terms of a way that we can contribute to that issue in a solution that's a more fundamental way solution and more long-term and ongoing way. What we actually thought is maybe we should think in terms of developing a, what we call, a real time environmental

monitoring and modeling pilot that would bring together state-of-the-art technology and the sensor technological and the modeling technology and IT technology and try to put that together in a real world situation and provide decision makers and the public with reliable assistance to help you to do that and also to ensure the safety and security of the drinking water at the source, as well as the distribution networks.

What we thought we'd start with is having a workshop that bring together the various constituencies, the scientists, the water utilities, the government agencies, and the public. We approached the EPA, and the EPA sponsored our workshop that was held on June 27 and 28 in Newark. Again, the workshop is to provide a forum where highly talented scientists, water utility professionals, and leaders in the area of real time sensors and monitoring technologies can get together to share their expertise and ideas on how this evolving technologies may be used to monitor drinking water resources and distribution network in order to better protect the public.

We have also filled up a workshop that's to be held in November this year in Newark. We had 115 attendees at that workshop; 20 industries were represented; 16 water utilities were represented; 15 government agencies were represented; and 14 academic institutions were represented here from the state as well as outside the state. The summary of the workshop and the recommendations actually is preliminary but is available on our Web-site and it can provide that. I have here also written materials that I can leave here for the Committee.

Speaking of vulnerability for our system, I would like also to focus on the potential to that, specifically, and that's part of the findings and

recommendations of the workshop. The distribution system vulnerability is more vulnerable than source waters. I think it was pointed out by some of my colleagues here. It's large, complex and accessible. Commercial and residential service, service connections, fire hydrants, finished water storage, it's impossible to eliminate all accesses, but the key system components can be hardened. It's difficult to contaminate an entire city through the distribution system, but fairly easy to impact small sections or individual buildings. That's not just my opinion, but that's also the summary of the opinion of the attendees at the workshop. Similar recommendations, but I'm focusing only on one or two here, and it's more extensive in our workshop.

Vulnerability assessments would help so to identify where and how to monitor and model as needed. We need to develop a baseline on water quality for each source water so a significant variation can be identified. There are a few other recommendations that we also have here. What we had in mind, our group at Rutgers at our institute, is basically to think of a road map that is consisting of several other steps. One is to put together workshops. We have started with one, and we are going to the next one. Out of that, we identify and prioritize and recommend pilot projects, leverage existing systems and vast technologies as element of the pilot system, try to design and develop an operation for the pilot system, evaluate the technologies and the prototype system, and bring that down to an operational system, and then go to the next cycle in which we develop next generation prototype systems and invasional technologies and models and develop a new generation. Our idea is to have this in an ongoing process that will always have an operations system that is consisting of the latest technology in terms of sensors and modeling and IT.

The workshop was sponsored by EPA, as I mentioned, and one of the recommendations was also to develop, what we call, a regional water safety consortium. That will bring stakeholders, active missions, state and local government, and agencies industry to collaborate and become interoperable. We want to capitalize on their expertise and experiences, as well as any experience available globally, establish that consortium to develop a firm way for designing, deploying, and managing a regional prototype system that we can then deploy in the real world environment, learn lessons, and try to improve our system through the lessons that we learn.

We have from that consortium, though we are in the final stage of officially making that known -- the members are the EPA, U.S. EPA, U.S.G.S, NASA, Passaic Valley Water Commission, and American Water Works Company. We are in discussion with NJ DEP, as well as also North Jersey District Water Supply Commission. The idea is to bring those constituencies -- the missions, the water utilities, government agencies -- and put them together in a way that we can address that problem of distribution as well as the source, bring the latest technology and try to actually develop something that actually works, not just a pilot and bring it down to an operation.

We welcome our next step to convene that consortium and start working on such a pilot. The EPA is sponsoring our effort, and we are announcing our next workshop very soon. In terms of some suggestions, though, we thought that maybe some of the suggestions that we thought for the Committee was maybe to consider steps in a multidisciplinary S.W.A.T. teams consisting of water toxicologists, water sensor technologists, chemists,

IT and health experts to quickly identify potential hazards and evaluate those risks.

At Rutgers, we have experts in (indiscernible), and as my colleagues mentioned before would be honored and happy to serve in any capacity that we would be asked to. I'd also -- what would be maybe something considered a bit of information infrastructure that can bring together a wide area alert systems that can characterize the distribution system populations at risk and is able to divert water flows and cut the various contaminant flows, and one can also use our systems as a means for achieving that. Also maybe a code alert system for notifying and issuing public warnings about drinking waters.

This is just some of the suggestions that we thought we'd come up with. Any questions?

ASSEMBLYWOMAN QUIGLEY: Yes, Doctor, I have one. When you were speaking of the environmental modeling that you would like to do, would you be looking, for instance, at crisis response if, God forbid, there was an incident at a water supply? Would you be able to say, "You can do this, if they happens, and that, if that happens?"

DR. ADAM: I think that's the idea of the real time sensoring monitoring and modeling -- is to be able to evaluate alternatives and predict the impact of various actions on a real time basis and be able then to make the final decision based on that.

ASSEMBLYWOMAN QUIGLEY: It certainly sounds like a valuable idea -- that and the academic S.W.A.T. teams. I like that idea, too.

Do we have any other questions? (no response)

Thank you very much.

DR. ADAM: Thank you very much.

ASSEMBLYWOMAN QUIGLEY: We appreciate your suggestions, and we will follow up on them.

DR. ADAM: Thank you very much.

MR. LORETTE: The next witness for today is Richard Kropp from the United States Geological Survey.

ASSEMBLYWOMAN QUIGLEY: Welcome.

R I C H A R D K R O P P: Good morning, Madam Chairman, and Committee members. My name is Richard Kropp, and I'm the District Chief for the New Jersey District of the U.S. Geological Survey. I'm here this morning, and I've provided some literature for you to look at to describe our current role in New Jersey in providing real time water monitoring networks in cooperation with many of the water companies that spoke prior to it and with the Department of Environmental Protection.

In essence, the U.S.G.S. is over 100 years in the field of water monitoring and more than 30 years of experience in real time monitoring here in New Jersey. Real time monitoring allows us to provide real time or near real time dissemination of data to the water companies and the water managers that need that information. We have infrastructure operations, maintenance people that take care of these equipment and, plus, the computer capabilities and lab capabilities to be able to analyze the information and provide that information to the water companies.

Basically, we've got almost 100 scientists here in New Jersey that are working on this, working again with the Department of Environmental

Protection on a number of water issues. What we wanted to stress today was the fact that there is a infrastructure of water monitoring stations throughout New Jersey, both groundwater and surface water systems. Many of them hooked up for real time access to information. This is done over the Internet and also through radio or telephone. So information can be provided as needed and as new technologies are developed.

We've been talking to Dr. Adam about this working on some prototypes where new biosensors could be hooked up to the existing monitoring networks out there to see how they operate and to be able to give that information to the water companies. So my presence here today was more to provide you with the information to let you know that the federal agencies are here in New Jersey working with the Department and the water companies, and if you have any questions, I'd be willing to answer them.

ASSEMBLYWOMAN QUIGLEY: Have you made any significant changes that you can tell us about in public since September 11?

MR. KROPP: No, we have not. Our systems are really designed for monitoring of pollution and water levels, the drought, and things of that nature, but the physical infrastructure is out there in which you could add additional monitors. So, as the development of additional biomonitors and other toxic monitors come along, if they wanted to be put out there, the infrastructure exists to put these monitors out at the gauging stations and the technology and equipment exists with the resources available so that the water companies could access that.

ASSEMBLYWOMAN QUIGLEY: I'm not really sure of your agency's relationship with the independent water companies. How does that quite work? Put it in perspective for us.

MR. KROPP: They rely on us primarily for information on the amount of water, water gauges, stream gauges, on the volume of water, and also we help them out as far as studies as to where the water is coming from, sources of water, and the different availabilities of water.

ASSEMBLYWOMAN QUIGLEY: Okay.

Any questions? (no response)

Thank you very much.

MR. KROPP: I appreciate the opportunity. Thank you.

MR. LORETTE: The final witnesses we have listed for today are Gary Sondermeyer of the Department of Environmental Protection and Lance Miller of the Board of Public Utilities.

ASSEMBLYWOMAN QUIGLEY: Welcome.

G A R Y S O N D E R M E Y E R: Good morning.

ASSEMBLYWOMAN QUIGLEY: You're a tag team?

MR. SONDERMEYER: Yes, we're a tag team, united front of State government.

Good morning, Madam Chair and distinguished members. My name is Gary Sondermeyer. I serve as the Chief of Staff of the Department of Environmental Protection. With me is Lance Miller, who serves as Chief of Staff of the Board of Public Utilities. Both Lance and I have had the opportunity to work with the Governor's Domestic Security Preparedness Task

Force and the related private sector body that's been spoken of through prior testimony, the Infrastructure Advisory Council.

I have some brief remarks I'd like to give in terms of statewide background. At that point, I'd like to turn it over to Chief of Staff Miller to offer his remarks, and then we'll answer questions to the extent that we can. And as you mentioned repeatedly, Madam Chairman, we're certainly not going to disclose anything we feel is inappropriate from a domestic security standpoint. I assure you we're going to be very conservative in that regard.

First, I'd like to offer some background statistics. There are some 600 public community water systems serving the residents of New Jersey. The top 25 largest systems serve approximately 70 percent of the state's population. These systems serve a population greater than 50,000. These larger entities are regulated both by the Board of Public Utilities and the Department of Environmental Protection. Approximately 50 percent of the state's population is served by surface water supply, such as reservoirs. The balance rely upon groundwater, municipal, and other private wells.

In terms of our large surface water supply facilities, contamination, of course, of source water is a concern to us, but a concern that is being addressed primarily through the best management practices that were alluded to earlier in testimony. Aside from the concern of contamination, there is the secondary aspect of physical destruction of dams, which represent component parts of our reservoir systems. In terms of an inventory, New Jersey has some 1600 dams registered and regulated by the State. Some are considered high-hazard. The high-hazard dam classification include those dams, the failure of which may cause a loss of life and extensive property damage.

The purpose of the large dams includes water supply, recreational activities, and hydroelectric power generation. There are some 435 sewage treatment plants within the state with a wide variation of size from the Passaic Valley Sewage Commission serving all or portion of numerous counties in New Jersey to a plant that serves a school or a strip mall. Approximately 105 of these plants are classified as major with discharge exceeding 1 million gallons per day.

As you know, the Domestic Security Preparedness Task Force has worked extensively with the Infrastructure Advisory Council to establish sector work groups. A total of 24 of these groups were formed with prestigious leadership from among their respective sectors. Two of these groups related for today and the water supply group, which as you know now, is headed by Andrew Chapman, President of Elizabethtown Water Company and the wastewater group, which is headed up by Ellen Gulbinsky, Executive Director of the Association of New Jersey Environmental Authorities.

Each sector was charged with formulating subcommittee groups of their peers, large and small, and to develop and implement best management practices toward ensuring application of the most appropriate security measures at each water and wastewater facility across the state.

I'm very happy to report that this assignment was undertaken with a great deal of energy and professionalism, and both sectors completed a first set of best management practices some months ago, which President Andrew Chapman did speak to.

Further through the leadership and the legal authority of the Board of Public Utilities, these best management practices were distributed

industrywide and were required to be implemented through an interim order of the BPU for the universe of facilities which they regulate. Appropriately, these sectors continue to meet and sharpen and improve their best management practices and the evolving process of heightened domestic security. We will continue as State government agencies to use the expertise of those involved with the Infrastructure Advisory Council to implement the security measures deemed necessary by the Domestic Security Preparedness Task Force and in cooperation with the Governor's Office of Counter Terrorism.

At this time, I'd like to introduce Chief of Staff of the Board of Public Utilities, Lance Miller, to offer his testimony, and he will expand upon my remarks related to the development and implementation of best management practices.

L A N C E M I L L E R: Thank you very much, Gary.

Good morning, Madam Chairwoman and members of the Committee. Thank you for the opportunity to testify on the Board of Public Utilities' role in the water industry's infrastructure protection and security. My name is Lance Miller. I'm the Chief of Staff of the Board as Gary indicated.

Before September 11, the Board's focus was on ensuring that utilities provide the mandated provision of safe and adequate service. The original reliability paradigm focused on service quality, prevention of disruptions, and consequence management. Additionally, the Board is the primary agency responsible for coordinating utility emergencies to normalize

community functions under the State Emergency Operations Plan, and we work closely with the Office of Emergency Management in executing that role.

The events of September 11 have necessitated a shift in the reliability paradigm to include new elements of infrastructure protection and security, a more focused examination of interdependencies between utility sectors, a new emphasis on communication and cyber capabilities, as well as their vulnerabilities, and the forging of new alliances between utilities and key government sectors.

Board President Jeanne Fox is a member of the Domestic Security Preparedness Task Force and has placed a high priority on the water industry's reliability and security efforts. The Board is part of a statewide strategy to address infrastructure protection in conjunction with the New Jersey Domestic Security Preparedness Task Force, the Office of Counter Terrorism, the State Police, and the DEP.

As part of that strategy, the Board has established on-going industry security work groups for four utility sectors -- energy, water, telecommunications, and cable TV. The groups were asked to conduct asset vulnerability assessment summaries and develop interim best security practices. With regard to the water industry in conjunction with the Department of Environmental Protection, the Board has sought to include all of the state's water purveyors in the overall security effort.

Each of the four working groups, including the water industry, submitted interim security best practices to the Board in the Fall of 2001. After completing its review of those practices on December 11, 2001, the

Board ordered all utilities under its jurisdiction to implement their respective industry interim best practices.

A second review of the best practices is currently being conducted. And as has already been testified, a meeting was held yesterday with the water working group to refine their industry's best practices. These efforts also include discussion of potential scenarios and response strategies in conjunction with the DEP, State Police, and the Department of Health and Senior Services. All of the initiatives related to these efforts are kept strictly confidential in accordance with the provisions of the New Jersey Domestic Security Preparedness Act.

Finally, the Board is working to help utilities achieve the proper balance between prevention and recovery, since recovery capabilities and infrastructure security both form the basis of an effective domestic security and preparedness program for utilities.

In closing, we feel that New Jersey utilities are ahead of the curve in identifying vulnerable assets and establishing the necessary safeguards. The utilities continue to work closely with the Board and other State officials to ensure that the security best practices are appropriate and effective.

This concludes our testimony, and we'd be happy to answer questions, as Gary indicated, within the confines of this being a public session.

ASSEMBLYWOMAN QUIGLEY: Thank you. I do have one for each of you.

Mr. Sondermeyer, we heard last month from the Commissioner of Health. That Department is going to be or has been the recipient of large quantities of federal funds, and they have a detailed plan for spending them.

Is your Department going to get any federal money, and if so, can you tell us what you're going to do with it?

MR. SONDERMEYER: I don't have specifics to offer you. I can tell you that very appropriately that the Department of Health and Senior Services coordinated with us very carefully and gave us opportunity to put our key agenda items for funding on the table, and they were considered. I don't know the final outcome of the distribution of the moneys, but absolutely we were part of that, and we were taken into consideration.

ASSEMBLYWOMAN QUIGLEY: Good. Thank you very much.

And Mr. Miller, you mentioned that the BPU had also conducted vulnerability assessments or worked with people conducting them, and they were kept confidential. Since you've heard the testimony earlier of the risks that might be involved in the other vulnerability assessments being sent to the EPA, have you any advice to offer us or the people who are participating in that as to how we can keep them confidential and yet get them to the agencies that may base their funding on those reports?

MR. MILLER: Well, the statute that New Jersey passed has a provision that includes that these materials will be kept confidential. Therefore, the vulnerability assessments that were sent into us are under lock and key, 24 hours a day. There are only accessed as staff needs them to review them, then they're returned. That's the way it has to be.

ASSEMBLYWOMAN QUIGLEY: You don't have to share them with any federal agencies?

MR. MILLER: Nope. If the vulnerability assessments are sent to EPA, we would certainly hope that EPA would keep them confidential as well. These are not documents that should be in the public hands.

MR. SONDERMEYER: Madam Chairman, may I add? I agree with what Lance said. I think for many years, government agencies have received confidential information and successfully have been able to keep it under lock and key and to keep it for the intent of being confidential. However, some information, when it gets beyond the state realm, there is a concern certainly that we have that information is treated the same way -- not only confidential records, but there was some testimony today about accessed information, which might be on the Internet.

We found immediately post-September 11 -- we took a tremendous amount of information off of our Internet site for domestic security concerns only to find in a pretty short period of time that the exact same information was available through federal Web-sites. So what have we really accomplished. This is an issue that I do believe needs national attention finding what information should be secured and effective ways of coordinating that.

ASSEMBLYWOMAN QUIGLEY: Good. Good point.

Thank you very much.

Does anyone have any questions? (no response)

Okay. Thank you very much. We appreciated your testimony.

MR. SONDERMEYER: Thank you.

MR. MILLER: Thank you.

ASSEMBLYWOMAN QUIGLEY: That concludes our listed speakers for this morning.

Have we anyone else who wanted to say anything? (no response)

Any member of the Committee wish to make a comment? (no response)

I think we have learned a great deal from today. We may have some questions that I said we would bring up later in a closed hearing some months from now, perhaps when your assessments have been completed. But right now, I believe that you have informed us and the public and have reassured us in many ways that although the danger is possible, you are addressing it, and it is perhaps not as large as the public feared.

So thank you very much for coming. We appreciated it.

(HEARING CONCLUDED)