
Public Hearing

before

SENATE ENVIRONMENT COMMITTEE

"Testimony on statewide water supply issues including planning, management, infrastructure, conservation, drought prevention and response, and contamination. In addition, the Committee will hear testimony regarding well contamination in Dover Township, Ocean County"

LOCATION: Committee Room 10
State House Annex
Trenton, New Jersey

DATE: April 20, 2006
10:00 a.m.

MEMBERS OF COMMITTEE PRESENT:

Senator Bob Smith, Chair
Senator Andrew R. Ciesla



ALSO PRESENT:

Judith L. Horowitz
Algis P. Matioska
*Office of Legislative Services
Committee Aides*

Kevil Duhon
*Senate Majority
Committee Aide*

John Hutchison
*Senate Republican
Committee Aide*

***Hearing Recorded and Transcribed by
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SENATOR BOB SMITH (Chair): Would everyone take a seat, please?

First, let me thank everyone for coming today. And I understand there's even more on the way, but there's an accident on the Turnpike.

I think the attendance, today, is some symbol of just how important people in New Jersey view the water supply issue. And I think we're beginning to realize that we really do have a water supply crisis in this state.

I was just talking to one of our witnesses who said that-- I remarked that we've had five major droughts in the last 13 years. He said, "Well, if you go the last 25, it's at least seven or eight." And that kind of tells you just how serious this problem is.

The purpose of today's hearing is to review that water supply problem and to try to come up with some solutions to it, get some idea of where we're going if we don't responsibly address it.

And then our second purpose-- We had some recent incidents and developments in Dover Township, in Ocean County. And there are a number of individuals who would like to put before the Legislature their view of that situation, and what solutions there might be to that problem.

So those are the two purposes. We're going to start with the water supply issue first. And let me start with our State Climatologist, Professor David Robinson.

If you would, come forward, Mr. Robinson.

DAVID A. ROBINSON, Ph.D.: Good morning, Senator, and good morning everyone on the Committee and the audience.

As you mentioned, my name is Dave Robinson. I am the New Jersey State Climatologist. I'm also Chairman of the Department of Geography at Rutgers University, up in New Brunswick.

Let me explain, just briefly, what the State Climatologist Office is. It is an appointed position by the Dean of Cook College and the Agricultural Experiment Station at Rutgers, via decree, going back to the late '70s -- with Governor Byrne -- that this Dean shall appoint a State Climatologist. I serve at the favor of the Dean and, I suppose, the Governor. And the purpose of the State Climate Office is to conduct research, gather data, and have a major outreach component with anything associated with the weather and the climate of the Garden State.

So it's a pleasure to be here this morning. My apologies -- I have to run out and give a lecture in central Pennsylvania this afternoon. So I'm going to have to run shortly after my testimony.

What I want to talk about today is -- I guess put things in context, in terms of precipitation -- keeping an eye on the precipitation within the Garden State. And I'll let others far more knowledgeable than I speak of the hydrologic consequences beyond the precipitation.

I'll speak a little bit about the current situation, although we're not here expressly for that today; go on and put it -- the precipitation situation in historic perspective; maybe get out the crystal ball and take a little look at the future; and then talk about a monitoring effort for precipitation that is going on through the Office of the State Climatologist.

The current situation-- We've just experienced a record dry March. We have records, statewide, based on dozens of stations going back to 1895. In March 2006, we had less than an inch of precipitation -- was

the driest on record, surpassing the 1.16 inches in 1915, in March. This is part of a two-month dry period that really was ushered in by the surprise heavy snowstorm in the middle of February. Since that time, we've been quite dry, with precipitation in the State well under 50 percent. My goodness, in March it was under 20 percent.

You have handouts, and perhaps there are some around the room. If you look back at the last year, we've had a real roller coaster ride in terms of precipitation, highlighting the variability that I'll speak to in the longer term in just a minute or two.

We've had a dry March. But you just have to go back to October, where we had a record wet October. It was the wettest month of any month on record, back to 1895. And good for us in that the prior two months -- August and September combined -- were the driest August/September of the last 100-plus years. So things have really gone up and down.

We're seeing a significant amount of variability in the precipitation regime in the Garden State, just in the past year. And associated with that -- and I don't want to spend much time on this today -- is temperature. We've been warm. We've had anything from the sixth warmest January to the warmest Summer, back in the Summer of 2005. And 10 of the last 12 months have been above normal, keeping up with the trend that's quite evident in the long-term records of the State.

Let's take a step back, just into the past, with precipitation. And there have been a number of notable instances of precipitation extremes over the past decade or so, going back to the mid-'90s. We've had 19 months with precipitation deficits of two inches or more. But we've had

11 with surpluses of two inches or more. We've had the wettest calendar year -- 1996. We've had the second driest growing season, in 1999. We had the flooding rains of Floyd in September of 1999 that helped us temporarily escape that very dry Summer of '99. We had the driest consecutive six months on record in the Fall and Winter of 2001-2002; the fourth driest calendar year on record in 2001; and two years later, in 2003, the fourth wettest calendar year. So we've had a substantial amount of variability in precipitation just in the last decade. You mentioned that we've had a number of droughts during that time.

But the next figure in my presentation might raise a little bit of concern, when we've talked about drought over the last 20 or 30 years. For the last 30 years, or since 1971, the Garden State has had roughly three inches more precipitation per year than at the average for the first 75 years of record, from 1895 to 1970. So, again, the first 75 years of our historic record -- approximately 44 inches of rain a year over the Garden State. Since 1971, we've average 47 inches of rain. So, despite all the droughts we've had in the last 30 years, it has been, by far, the wettest period in over a century.

With that -- and perhaps associated with that, when it comes to drought -- are the temperatures. The Garden State is getting warmer. Temperatures in the last 35 years or so are averaging one degree Fahrenheit, on an annual basis, over the temperatures seen in the first, roughly, three-quarters of the 20th century. So we are warming. At the same time, we are getting wetter. There may be a balance there with things such as evapotranspiration. You need-- It's not all about the precipitation that

falls, it's also about how much is evaporated versus how much might be available for stream flow and reservoir levels.

What does the future hold? In the short-term, I wish I could tell you. But long-range forecasting on a seasonal basis is very, very difficult in the Garden State. We are pretty close to the poles, not too far from the subtropics. We've got a continent to our west, and an ocean to our east. And we are in this squeeze play, if you will. And it's very difficult to forecast months and seasons ahead.

There are other areas-- If I was the state climatologist of Florida, I could look at El Niño in the tropical pacific and give you a pretty good precipitation forecast. That does not hold for the Garden State. So I wish I could tell you what the Summer was going to bring, but I can't.

Further into the future, we can look more generally. And the picture is one of warmth -- continuing warming. I do believe that. And I believe that humans have played -- are playing a role in that. But that's not the important issue. As I said to you earlier, the issue is just what will happen with our precipitation regime. And for that, the global climate models really don't have one firm answer for the Middle Atlantic region, except that they seem to all indicate that precipitation may become more variable. Now, I'm not saying the last decade is an example of that, but it might give you an idea of what lies ahead. The means in precipitation may not change greatly, but the variability on a season-to-season, year-to-year basis very well may change. It's something we're going to need to take into account.

So what are we doing to keep an eye on things for the present and future years? The State Climate Office has developed a weather

monitoring system, known as the New Jersey Weather and Climate Network. If you will, this is a network of networks. It's the densest network that's been established in any state in the country. It includes about 40 stations that are operated through the Office of the State Climatologist. But it also links with about 50 -- right now -- other stations with 50, perhaps, others available to come online from other sources, including the National Weather Service, the U.S. Geological Survey, and other entities.

The idea there is, we're the most densely populated state. I dare say, sometimes a raindrop doesn't fall but lands close to someone's head in our state. And we need to keep a careful eye on monitoring for all sorts of applied purposes.

And when we're talking water, it could be anywhere -- anything from providing detailed subcounty level information on precipitation that could be used in any submission of a request for Federal aid -- for drought for farmers, for instance. But it could also be used -- and we've begun talking with some water purveyors. And there's already one example in place -- that I'm not directly involved with -- to help the homeowners regulate their lawn watering, by looking at how much rain has fallen locally of late, putting it into what we call an *evapotranspiration* model, and then giving very simple information to the homeowners. "You don't need to water today," or, "If you water, you need to water for 15 or 20 minutes, and that's it." This is something that, with adequate resources, we hope to establish. Right now, we don't have resources sufficient to operate the network, let alone some of the applied projects. But this is the goal of the

State Climate Office -- is to help to keep a watchful eye on the weather and climate of the state, in particular its precipitation.

And with that, I thank you very much for inviting me here today.

SENATOR SMITH: Thank you, Professor Robinson. We appreciate your testimony.

Next we'll have, from the Department of Environmental Protection, Mark Mauriello, our DEP Assistant Commissioner for Land Use. And with him -- it's a tag team -- we'll also have Henry Patterson, the Executive Director of the New Jersey Water Supply Authority.

A S S T. C O M M I S S I O N E R M A R K M A U R I E L L O:
Good morning, Senator, Senator Ciesla, and Committee reps.

I'd like to thank you for having us here today to give a little perspective on this issue from the point of the DEP.

New Jersey's 1996 update to the New Jersey Statewide Water Supply Plan was appropriately entitled "Water for the 21st Century, The Vital Resource." Despite statewide average precipitation of about 45 inches per year, New Jersey's population density, changing demographics, and changes in water use patterns all present unique challenges to water management goals of assuring safe, adequate water supply to the State's residents, businesses, and visitors.

New Jersey's population grew by 680,000 between 1990 and 2000, and is expected to grow by another 650,000 people by the year 2010. This population growth, coupled with concentration of growth in areas that have not previously experienced high water demand, have placed a strain on the State's water resources and water supply infrastructure. And with

approximately 2.5 to 3 billion gallons of water used per day, on average, in New Jersey, the management of water supplies and infrastructure will represent a continuing challenge in the future.

In addition, recent experience with periodic drought events underscores the need to continually plan and carefully manage water resources in order to prevent shortages and to avoid adverse ecological impacts associated with overuse.

As we manage our water supplies, the Department must also ensure that drinking water consumed by more than 8 million New Jersey residents meets Federal and State Safe Drinking Water Act standards -- which, in many instances in New Jersey, are considerably more stringent than the Federal standards. This requires a significant effort on the part of DEP and water suppliers, in terms of monitoring and treatment of drinking water to address contaminants that are both naturally occurring and of human origin.

Over the years, New Jersey has made substantial investments to bolster its water supply planning, science, and infrastructure sectors in order to meet water demands and protect the health of New Jersey residents.

We heard the State Climatologist talk a little bit about droughts. And we recognize that climatic variations that cause droughts are normal, and we can expect these to occur periodically in the future. Over the last 10 years, New Jersey governors have been forced to declare statewide or regional drought emergencies in 1995, 1999, and 2002. Record low stream flows and groundwater levels during New Jersey's recent droughts increasingly emphasize the need to refine our approach to management of regional water supply and demand. And to this end, the

Department now implements a range of water supply management strategies, based on regional variations and drought conditions, to ensure that sufficient water supply reserves are available to sustain users during times of drought. But improvements need to be made in the State's water supply infrastructure to facilitate movement of available supplies during drought events from areas of surplus to areas of need.

At the same time, increased emphasis needs to be placed on public education, water conservation, and beneficial reuse efforts to mitigate the adverse effects of droughts that are exacerbated by excessive outdoor water use.

It is also worth noting that the Department is preparing to issue a drought watch in the next few days, based on an evaluation of several indicators, including below average precipitation, lower base flows in streams, and depleted groundwater levels in some areas.

Now, in terms of water supply planning and capital projects, the Department is currently focusing efforts on updating the statewide Water Supply Master Plan, which provides a framework to guide the management of potable, industrial, recreational, and ecological uses; to initiate water conservation strategies; and to develop the State's water supply resources and infrastructure to ensure that a safe and adequate water supply will be available into the future. This includes times of drought, which, we just heard, are certainly possibilities.

As we look back in time, New Jersey's experience with the multiyear droughts of the '60s and the '80s prompted significant State investment into a variety of capital water supply projects. These projects

substantially improved New Jersey's water supply storage and distribution capabilities.

As a result of the 1982 Water Supply Master Plan and earlier planning efforts, almost \$787 million in public and private funds have been expended on, or committed to, major capital projects. These include construction of the Wanaque South Pump Station project, in Passaic County; construction of the New Jersey Water Supply Authority's Manasquan Reservoir, in Monmouth County; and construction or enhancement of interconnections between principal water supply systems, including the Virginia Street interconnection.

This project -- Virginia Street -- for which the Legislature appropriated \$30 million from the Water Supply Bond Fund last year, represents an important emergency water supply interconnection between the city of Newark and the New Jersey American Water/Elizabethtown Water Company, commonly referred to as the Virginia Street Interconnection.

This interconnection allows a transfer of water supply -- finished water -- originating from the Raritan Basin to the Passaic River Basin. Still, though, we need to continue to move water to meet regional demands throughout the state. Investment in similar infrastructure throughout the state needs to be part of our strategy as we continue to meet our water management needs in the future.

And the water tax legislation, put forth by you, Mr. Chairman -- and contained in Governor Corzine's budget -- would provide needed revenue to help meet these needs.

Subsequent to our recent drought, the Department issued a Water Supply Action Plan for 2003-2004, which identified interim actions that were to be undertaken while the more comprehensive update of the 1996 statewide plan was underway, including improving the emergency interconnection of New Jersey's drought-vulnerable northeast.

Northeastern New Jersey accounts for approximately 40 percent of the State's population, who reside in the five northeastern counties of Bergen, Essex, Hudson, Passaic, and Union. The region's water demand is largely reliant on surface water supplies for potable water, making the area more susceptible to drought than elsewhere in the state. With increased development and water supply demands, the impact of severe drought on the reliability of the existing water supply systems in the northeast will continue to be a concern.

The second project listed in the Action Plan is the confluence pump station project. In 2002, the Department formally authorized the New Jersey Water Supply Authority as the agency responsible for the design, construction, and securing of necessary funds for the confluence pumping station and the confluence of the north and south branches of the Raritan River. This project will deliver water for storage in the Round Valley Reservoir and supplement the safe yield of the Raritan River Basin, which is almost entirely allocated.

The project constitutes water supply infrastructure that not only will ensure that sufficient water is available in the Raritan Basin, but will also mitigate drought conditions through the transfer of water from the central drought region to both the northeast and coastal north drought regions. Additional supply can also be used in the future to support

appropriate development and redevelopment in the northeast and coastal north regions of the state.

The current capital cost estimate for the confluence project is \$150 million for engineering and construction of a 200-million gallon intake and pumping station in the confluence north and south branches of the Raritan, and a 12-mile-long force main to Round Valley Reservoir which would allow for pumping into and releasing from the reservoir.

This type of water management is critical to our ability to meet current and future demands. The water tax discussed here today -- especially if the money collected is leveraged up to \$120 million through the Environmental Infrastructure Trust -- would provide financial support for this and other important projects throughout the state.

In addition, the Department initiated a major evaluation of the physical and financial aspects of the existing primary water transmission infrastructure throughout New Jersey, as part of its statewide interconnection study. The study will define recommendations to optimize current diversions and transfers to avert and mitigate drought-related water emergencies and impacts from catastrophic loss. The results of the study are expected in 2007. And revenues generated through this tax could support infrastructure improvements necessary to address interconnection deficiencies, including construction of additional interconnections, pump stations, and water transmission lines.

The Department has also been developing tools for improved estimates of available, sustainable water supplies and natural resource protection. The draft update of the 1996 Statewide Plan, scheduled for completion by the end of this year, will take advantage of advanced

modeling tools, that have been developed since the last update, to provide more precise estimates of water availability by smaller water supply regions throughout the state. The plan will identify areas of anticipated deficit based on future demands, water conservation initiatives, reuse projects, source water protection goals, and water supply management options and recommendations. The plan will also update information regarding regional water supply evaluations conducted by the United States Geological Survey, on behalf of the Department, including Salem/Gloucester confined aquifers, Ocean County; sustainability of ecological and potable supplies of Cape May County; critical area assessments; and studies in the New Jersey coastal planning.

A number of communities have already experienced -- as they have already experienced, water supply in certain regions of the state is becoming more and more limited. As we approach the extent of our existing supply, we must look for mechanisms to more effectively utilize finite supplies and develop new additional supply through a range of infrastructure projects. Water conservation, and the support of beneficial reuse projects, is also part of this plan to help protect available potable supplies for current and future potable uses.

Continued data gathering, assessment, and study will also refine our planning and regulatory actions related to water supply management. DEP Commissioner Jackson has directed staff to focus work efforts to more closely integrate its own rules and regulations on water-related issues. And we encourage our partners in local planning and approval agencies to do the same, by ensuring development plans protect natural resources and have adequate supporting water and waste water capacity.

While providing adequate water is important, ensuring that the delivered supply meets safe drinking water standards is also imperative. Water systems have a paramount obligation to ensure that their supplies satisfy all the safe drinking water standards in place in New Jersey, with often complex requirements. The Department and purveyors must continue to be diligent to ensure that standards are met and to ensure that when the standards are exceeded, the public is notified and the situation remedied in compliance with applicable regulations.

Another possible use of water tax revenue is to support improvements in the protection of the quality of our drinking water. This could include removing or covering uncovered finished water reservoirs, in compliance with the new Safe Drinking Water Act requirements; supporting advanced treatment for construction of desal projects to serve existing development or expand capacity; or infrastructure improvements to reduce unaccounted for water system losses.

Another component of the water supply plan is targeted acquisition to protect watershed lands and provide clean potable source water. Actions to preserve and protect these waters before they become degraded will mitigate future water quality impacts and avoid higher costs over the long-term that would otherwise be required to treat impaired water sources. The Department has the staff and experience implementing acquisition programs throughout the state, and the water tax could provide additional financial resources to acquire targeted lands and further protect water supplies from future degradation.

So, in conclusion, while we've made great progress in managing our water resources in the past, we face continuing challenges in meeting

the needs of state residents for safe and plentiful water for years to come. There is no one solution, but rather a combination of solutions, including conservation efforts; improved coordination of planning activities between agencies, including the DEP; land acquisition to protect sensitive watershed areas; and new and enhanced infrastructure to convey and transport water, and to respond responsibly to drought conditions.

The legislation provides a renewed opportunity to implement necessary enhancements to meet our future water supply management needs and to further Governor Corzine's goal of growing New Jersey for the benefit of all residents.

I appreciate the opportunity to provide that perspective, Senator. And I will let Henry take it from there.

HENRY S. PATTERSON: Thank you, Mark.

Senators, I thought what I would do is talk a little bit about the Authority, fill in a little bit more about the confluence pump station project that Mark talked about, and then talk about what the Authority is doing in source water protection in the last three years.

The Authority was created in 1981. It's an independent State authority in, but not of, DEP. By statute, the Commissioner of DEP serves as the Chair and sets the agenda. The Governor has veto power over our minutes. We have independent bonding authority.

We operate the Spruce Run and Round Valley Reservoir complex, along with the D&R Canal -- D&R Raritan Canal, which we call our Raritan system. We also operate the Manasquan Reservoir system and the Manasquan Treatment Plant for the Monmouth County Improvement Authority, down in Monmouth County.

The confluence pumping station and pipeline was a project that was first identified as a reservoir project in the early '20s. It will not be a reservoir project. It would basically flood out the north branch. But the confluence project pump station has been in the Water Supply Master Plan since the early -- at least 1980s, as the next project in the Raritan Basin. It is the most cost-effective and available project in the central part of the state -- and really, frankly, in the entire northern section of the state -- to produce or supply more water.

Presently, the Department has allocated permits from the Raritan system totaling approximately 90 percent of the safe yield of the system. We have contracts for those permits at approximately 75 percent of the safe yield of the system. It is anticipated that within the next 10 to 15 years, the percentage of Raritan system water that is contracted will bump up against the safe yield. And by then we need to have a new project on time -- online. And we need to start today, and we have been starting. We have been working on this for the last couple of years. The State has worked on this project in the '70s into the '80s, and then kind of stopped working on it. And we have picked that up. We have been working on rights-of-way issues and an RFP. We have put an RFP out on the street to select an engineering firm or firms to help us with the permitting, design -- issues like that. And we hope to award that relatively soon.

As Mark said, the confluence pumping station and pipeline water supply development project begins with the north branch and south branch of the Raritan River -- meet to form the main stem of the Raritan River at the boundaries of Branchburg, Bridgewater, and Hillsboro townships.

A 200-million gallon a day intake and a pumping station would be located at a site in Branchburg that would convey water to the Round Valley Reservoir through a new, 12-mile long, 96-inch to 108-inch diameter force main. The new force main would also allow water to be pumped -- to be released further down than it presently is. We will also be looking at generating power out of that, which is something that could help the State also. This additional safe yield developed by this project would be used to satisfy the water demands in both the Raritan Basin and through interbasin transfers to adjacent areas of New Jersey.

Using a water tax to indicate State support would indicate to all the importance of this project, and would mitigate the rate impact on the Authority's Raritan Basin customers who would otherwise bear the entire cost of supporting debt at project completion for water that remains unsold at the retail level.

Moving on to our land acquisition program, the Authority began, in 2002, buying targeted critical watershed properties. The Authority ranks properties by four categories: groundwater recharge; vegetation, including forested areas; repairing areas; and wellhead protection. To date, we have partnered on more than 2,000 acres of land, either by ourselves or with many partners, including Green Acres, nonprofits, counties, municipalities in the Raritan Basin.

Water Supply Authority customers presently pay \$8 per million gallons of their rate -- dedicated rate -- to buying land. That raises about \$525,000 per year. What we do with that is, we finance our purchases through the New Jersey Environmental Infrastructure Financing Program. And I see my banker, Dennis Hart (phonetic spelling), over here. And he

loans us money at 1.02 percent. And we have been pushing forward with that. And it's been a great program, and we feel that any State support in addition to that will only augment the program and lessen future rate increases for the Authority customers.

Lastly, I just wanted to mention conservation. In 2004, the Authority instituted -- initiated a second rate for water that they sell to their customers. And this rate, to insent conservation, is basically a peaking factor. So water utilities that take more than 10 percent of their contract amount in the Summer months -- typically it would be the Summer months -- pay a second rate, which is 20 percent above the published rate. So it encourages them to manage their customer base better, which is good for all of us.

So I just wanted to point out those three things that the Authority is working on.

SENATOR SMITH: And we appreciate that, Mr. Patterson.

Any questions from members of the Committee about the State's view of the water supply situation in the state? (no response)

We want to thank you. And, hopefully, you'll stick around when we talk about some of the -- the second half of the hearing, as well.

ASSISTANT COMMISSIONER MAURIELLO: Certainly.

SENATOR SMITH: Our next witness will be Colleen DeStefano, from the New (*sic*) Jersey District Water Supply Commission.

C O L L E E N D e S T E F A N O: Thank you, Senator.

Senator, I'd like to introduce Nicholas DeNichilo. He is President of Hatch Mott MacDonald.

Mr. DeNichilo's firm has done work on all of the systems that will be involved with the Virginia Street project, which you'll hear about in detail shortly.

So we've asked Nick to accompany me here today to give you a real nice overview of the project and the need for it.

NICHOLAS M. DeNICHILLO: Thank you, Senator.

My name is Nick DeNichilo.

It's a pleasure to be here to talk about the recurring drought, especially during times when, in fact, our water resources are in pretty good shape.

The photograph before you is basically a photograph of the reservoir system of the North Jersey District Water Supply Commission as we see it today. In fact, the actual volume, at present, is around 89 percent. Back in 2002, our last real drought, this (indicating) was the condition of that reservoir. I guess pictures speak a thousand words here. But this is the actual photograph of the Wanaque Reservoir system in 2002. What it really represents, quite frankly, is the state of the reservoir systems throughout the northeast during that drought.

As you had said previously, over the past 10 years or so we've had five droughts. I've been involved with this drought response situation going back into the late '70s. And I can tell you that if you go back into the early '80s and mid-'80s, it's the same story with the same situation.

I'd just, for a moment, like to share with you about the North Jersey District Water Supply Commission, and what role the Commission is taking in order to support a much more significant transfer of water to this area.

First of all, the Commission is one of the largest public water supplies in New Jersey. The Commission, historically, has taken a lead in significant water supply projects, since its establishment in 1916, to achieve regional efficiencies in developing and operating drinking water supplies for municipalities. Its statutory district runs from Monmouth to Sussex counties. It represents the joint interests of municipal participants sharing in regional water supply contracts. In fact, the Commission's actual service area, indirectly -- directly and indirectly -- embodies about 107 municipalities and encompasses probably close to 4 million people. It's almost half the state. So it's a very serious issue that we are confronted with and affects quite a few people.

Some highlights of the Commission's leadership throughout the years: In 1916, the Commission did develop the original 30-billion gallon Wanaque Reservoir. In 1953, to supplement the safe yield, it constructed the 100 MGD Ramapo raw water pump station to increase the safe yield. Back in 1987, after the more serious droughts that we had in the early '80s, the Commission, along with the State, embarked on the Wanaque South project -- which thank God we had that project constructed in the late '80s. If we didn't, that map that I showed you before -- in 2002 -- we would have had a far worse situation than we, in fact, had. And in 2001 -- just to continue with this leadership -- the Commission, in concert with private enterprise -- the Elizabethtown Water Company at the time -- and the State of New Jersey, finally tried to tackle this problem of transferring water from the Raritan Basin to the northeast part of the state.

It's not just a matter of pipes and pump lines -- pump stations. But we need to overcome a lot of the institutional issues that deal with delivering water from points of plenty supply to points of need.

And they did enter into a contract in order to enable water to transfer from the Elizabethtown system to the North Jersey system. In fact, in 2002, even though we had that serious drought, through the efforts of the Commission and the Elizabethtown Water Company -- now New Jersey American -- and the State of New Jersey, we were able to deliver 2.1 billion gallons of needed water to the northeast.

But that's not enough, Senator. At present -- and you heard it from Mr. Patterson, and you heard it from the Department of Environmental Protection -- the number one action plan project on behalf of the State is to bolster this transfer. At present, funding has been put forth to meet that need, and the State, along with the Commission, is initiating the program to move this along.

That map that you have before you is basically -- and I have -- I think you all have a copy of our presentation. But, basically, it's a representation of the northeast, the reservoirs within the northeast. It includes the United Water Hackensack Oradell Reservoir, the North Jersey Reservoir, Jersey City, Newark System, all the major water reservoirs in the northeast.

Now, if you look at the northeast from that perspective, it is well interconnected. As far as immediate disruptions, there's not a problem transferring water from North Jersey to Jersey City, or from Jersey City to Newark. However, when we have the drought situations -- which are just too often and recurs too often -- that entire area gets depleted, so much so

that all this transfer in between systems is of no avail. That's the reason why at the very bottom of that map you see what we call the Virginia Street Hub. The point here is to bolster that connection. That's probably the most important connection that we have in the state, which enables us to transfer water from the Raritan Basin, basically, into the north basin.

So even though you might hear that we're well connected up north-- We are, during these types of situations. But when we get into these droughts, the bucket's just not full. And the water needs to come from someplace else.

On this map here-- Again, what you see there, in pink, is the watershed area of the Passaic Basin. And those are those reservoirs I had shown you before. In the orange area there, that's basically the Raritan Basin, where you'll see the Water Supply Authority's assets, basically Spruce Run and Round Valley. That little red dot over there happens to represent the confluence pump station and pipeline. I just put that on there so, as you go through this process, at least you'll know where all these facilities are.

Basically, the point there is-- How is reliability and public confidence in the State's water supply system really enhanced? Well, we have to reduce the number and duration of drought emergencies. You said that well, Senator. And that speaks for itself.

We also have to enable a faster response to service disruptions. You know, this project, for the most part, addresses drought. We also have situations where emergencies do arise. And we're talking about half the population of the state. And we have to be able to transfer water overnight, without dealing with who pays for this, which valves do we turn. So we

need to have a very effective ability to transfer water, particularly in these days and times.

On this map here, I just wanted to reflect on the last two droughts.

If you can follow--

And, Joe, if you could help, and just go along.

That dark blue line that you see right over there-- That line represents 34 years of data. It represents -- and if you would look at it a little more carefully in your packets -- on a monthly basis, what the average percent volume of our reservoirs are, in the northeast, during any one of those given months. So you can see that, typically, we're virtually full to about 70 percent. If you'd look at, right now, April, and you were to look at this chart -- the blue chart on top -- you'll see that, generally, the reservoirs over the last 34 years are around 93 percent full. In fact, they're about 89 percent right now because of what we heard before about the dry month that we had in March.

But look at the red line for a second. That red line was the emergency that was declared in 1998. Our reservoirs in the northeast actually reduced down to slightly over 40 percent. You might say, "Well, it's 40 percent. We still have 40 percent more to go." But you've got to understand, as we start to deplete these reservoirs other issues arise. Water quality issues arise. Just think about these lakes. As we draw more and more water out of them, we start to stress our treatment plants, because the quality isn't the same as it would be when the reservoir is full. It opens up a lot of other issues.

We got through that problem. Fortunately, we did have rain. That occurred in December, when we had that problem. The most recent drought, the drought of 2002-- That one really scared me, because that one-- We were down to 38 percent supply and declining rapidly. I can tell you that, unless we do quite a bit more in terms of transfer, there's no doubt in my mind that you're going to see this occurring time and time again. The only difference being, I think you'll find that the reservoir levels will deplete even more and more.

On the far right there, on that graph, what we're trying to represent there is-- The upper lines, the dark blue lines, represent-- The top line is the total volume of storage we have in the northeast. It's close to 77 billion gallons. In the central basin -- where we have Round Valley, Spruce Run, the D&R Canal -- that's 66 billion gallons. It's less than what we have up in the north. But when we have these droughts -- and take the drought of 2002 as an example -- our reservoir is at 38 percent. The Round Valley and Spruce Run reservoirs, at the same time, were at 82 percent. Think about it, 82 percent versus 38 percent. What a great opportunity to transfer water during times of need. We did transfer some water, as I said earlier -- about 2.1 billion gallons. But we could have transferred quite a bit more if all these institutional issues were addressed and the physical plant was in place.

So a real quick briefing on the particular project that we're talking about here, and how I think this will alleviate drought. What you see to the left there is, obviously, a map of the state -- part of the state. And you can go right from the Hudson River to the city of Trenton on the northwest there. But we have -- from Trenton there, all the way to,

basically, Fort Lee -- we have interconnections throughout those systems. But the hub -- the most key hub is at Virginia Street. And part of the process is to make that connection a two-way connection.

We're talking about drought here. And I think, just on the merits of drought alone, upgrading those interconnections are fine. But what's going to happen is, it will be a two-way connection. In the event of problems in the central basin, we want to be able to effectively transfer that water. It may not necessarily be as a result of a drought, but it may be as a result of an emergent need.

As an example, back in 1999, Hurricane Floyd-- What you see to the left is Elizabethtown Water Company plant underwater. We all remember that. In September 1999, we had Tropical Storm Floyd. It disabled the water plant. That water plant has the capacity of 155 million gallons a day.

To the far right-- And this is not uncommon. We're talking about fairly old systems. Even though I think most of the systems are well maintained, we do have problems. That was a big break that affected a million people. If we had the ability to transfer water in either direction not only to meet drought response, but also emergent needs, we'd be better off. And this project will, in fact, address those particular issues.

MS. DeSTEFANO: Nick, before you move on--

Joe, could you go back one?

Nick, could you just cover the improvement that would be achieved?

MR. DeNICHILO: Oh, okay.

Part of the improvement of this Virginia Street upgrade, that we're working in concert with New Jersey American and the State of New Jersey, is basically to transfer, on a daily basis, around 10 million gallons a day of water. But with the ability -- because of the physical plant that will be in place -- to transfer as much as 30 million gallons a day. There's no sense in spending the money and buying 30 million gallons a day. But unless you have water flowing all the time, it doesn't happen. This is not a matter of us going in our backyards and turning our faucets on. You're talking about major systems with pressure zones, tanks, pumping facilities. You can't just turn this on like a switch. So the idea is to have water flow in all the time. And that, in fact, mitigates drought.

Statistically -- on the chart there on the right -- what that represents is over the last, I guess, 13 years, from 1990 to 2003, statistically we had 221 days. We talk about five droughts. But if you want to do it numerically, we had 221 days where the reservoir levels were such that a drought warning had to be instituted. If this connection was in play -- 10 million gallons a day -- we would have had an 87 percent improvement. In fact, at 10 MGD a day, there would have only been 29 days. No one project is going to solve all the issues here. But this project alone would have had an 87 percent improvement. And I think that's very important.

So even though, Senator, we're here to talk mainly about drought, I think it's very important, when we talk about interconnections-- I'd like to just stress, a moment, this issue of homeland security, if I may.

The reality of the times is that water supply systems are a target for those who wish to cause widespread disruption. And water utilities have done a great job undertaking detailed risk assessments to deal with this

threat. But interbasin transfers, such as the Virginia Street Hub, will provide an effective tool in mitigating the vulnerability of the state's water supply system. So if there is any disruption -- whether it's an act of God, as a flood, or an act of terror, or whatever the case may be -- I think it's incumbent upon all of us to bolster our resources, particularly in New Jersey, being the most densely populated state. So I think that's another added value of the program.

We talk about Smart Growth and supporting State planning. The whole idea here is to try to transfer water -- not transfer water, but to grow our urban environment, revitalize it. I see in the papers every day what's happening in Hudson County, Bergen County, Union County. It's just significant. But I'll tell you, if we don't have an infrastructure to support that, I don't know where that plan is going. So being able to transfer water, not on an everyday basis -- the 10 million gallons a day that is necessary. But during those emergencies, I think that this project, in fact, does support the whole concept of Smart Growth.

Clearly, what is the project? It's really nothing new. If you recall, back in the early '80s -- 1980-81 to be in fact -- we had a real serious drought in New Jersey. At that time -- and I think many of us would recall that we had such a problem that what did we do? We built pipelines to drain Lake Hopatcong, we ran pipelines across the George Washington Bridge -- right? Projects that I don't know where they are at right now.

One of the good things that did come out of that program -- and it was funded by the State -- was the construction of the Virginia Street Pump Station. It was built back then with the intent to at least begin the

process of transferring significant supplies from the central basin to the Passaic Basin.

So, basically, what does the project entail as we see it right now? It's that big pump station known as the Virginia Street Pump Station. There will be another pump station built in Belleville to support greater transfers. And there's-- The pipeline is already in place. When you look at a project, and you deal from an environmental standpoint, it's environmentally sound. We're not looking to build additional reservoirs, we're not looking to grab any land. Basically, it's finished water -- transferring finished water from Point A to Point B.

The institutional issue behind this, however, is to take these facilities and these assets and put them under the control of, really, one entity. It's very difficult, during these issues, to ask Newark, "How about turning this pump station on," or asking Elizabethtown, "Well, let's go along and modify our systems to enable transfer of water." So what we're talking about here is, finally, overcoming those institutional obstacles to enable that free flow of water as the needs arise.

And just to conclude, we talk about the Virginia Street-- It is, indeed, a strategic and critical point of the state's water systems. This project -- clearly a drought mitigation project. There's no doubt in my mind that it will reduce the number and duration of drought emergencies. It certainly supports State planning and Smart Growth objectives. It will enable a faster response to service disruptions. And I do believe, by undertaking the project and supporting the project as you have all along, it will reduce the amount of occurrences that we have, as far as drought.

Thank you very much.

SENATOR SMITH: Thank you. Thank you for your testimony today.

MS. DeSTEFANO: Senator, if I could--

SENATOR SMITH: Sure.

MS. DeSTEFANO: I have one other issue, and I promise that I will be brief.

You've heard a lot about the crucial drought mitigation projects, which really do need to take place to maintain reliability and drinking water to our New Jersey citizens.

But another problem affecting the reliability and quality of our drinking water, especially in the Passaic Basin and Wanaque Reservoir, is an issue that's-- The correction needs to happen, and it's long overdue.

I will say to you, the Passaic River Basin produces the largest amount of drinking water in New Jersey. The Wanaque Reservoir is the most important impounding water in the Passaic Basin. It's the drinking water source, as you've heard, for 4.7 million people. The water from the Wanaque system reaches 107 communities. The Wanaque water system is irreplaceable. We expect an accelerated demand for our water because of the Smart Growth and Highlands initiatives. And there are only three sources of water for the Wanaque Reservoir system, as we exist.

One, is the natural runoff for what we call the *headwaters*. Two, is a river diversion from the confluence of the Pompton and Passaic rivers. We can transfer 250 million gallons a day to replenish the reservoir, as needed. The third is a diversion from the Ramapo River, which also helps us to replenish the reservoir, as needed.

The Wanaque Reservoir source water is generally dominated by pristine natural watershed runoff. On a long-term average, the reservoir receives 56 billion gallons per day -- excuse me, per year. The headwaters, or the natural runoff, accounts for 71 percent of that water, which is good. The Wanaque South Diversion, from the Pompton and Passaic confluence, 22 percent; and the Ramapo Diversion, 7 percent.

But since 1980, droughts occurred on an average of every three years in northern New Jersey. And the Wanaque Reservoir source water showed the effect of these drought conditions. And using the 2002 drought for example, the headwaters runoff was reduced to only 39 percent from 71 percent. And we had a very heavy dependence on our river sources.

We took an equal amount to the headwaters from the Wanaque South Diversion, the Pompton/Passaic confluence. And the Ramapo Diversion accounted -- and made up for the other 22 percent. I can tell you that during that Summer -- or, excuse me, during the 2002 drought -- we actually transferred -- or we refilled our reservoir and pumped 38 billion gallons to a reservoir whose holding capacity is only 29 billion gallons. And that was from the rivers. So you can see that if we hadn't had those river sources, northern New Jersey -- the customers serviced by North Jersey Water, 4.7 million people, would have been pretty much out of drinking water.

And in order to maintain a reservoir at a pristine quality to ensure adequate water supply to the state, pollutant levels have to be controlled. Excessive pollutant loadings create conditions favorable to undesirable biological productions such as bacterial and algal bloom, which put public health at risk. If pollutant loading in source waters remain

uncontrolled, reservoir degradation occurs. The symptoms of reservoir degradation -- frequent algal bloom, surface scum, loss of volume, noxious odors, dissolved oxygen depletion, etc. -- these conditions have occurred in the Wanaque.

SENATOR SMITH: Hopefully, it's going to get better with the Highlands legislation in place.

MS. DeSTEFANO: Well, this is what I want to address with you, and my concerns.

Why has this happened, and why is it continuing to happen?

In 1972, through the Clean Water Act, surface water quality standards for pollutants were established. TMDLs were to be developed. A TMDL is the total maximum daily load of a pollutant that a water body can receive and still meet water quality standards.

Well, in 1996, a group of dischargers in the Passaic Basin sued and, in a settlement negotiated in '96 but not signed until 2000, they were able to successfully delay the enforcement of the phosphorus pollutant limits and the implementation of the TMDL study. They were actually--

SENATOR SMITH: Who gave away the shop on that one?

MS. DeSTEFANO: Well, I think there were a combination of people. And it was a settlement negotiated. You can say-- You can blame EPA, you can blame the Department, you can blame a lot of people. You can blame different administrations, etc., but that's not what I'm here for.

The solution was seen as, "Okay. If we're not going to implement the surface water quality standards, then you can develop TMDL to limit the loadings based on scientific studies," because the

dischargers claimed the limits imposed by the EPA Clean Water Act were not based on science.

So from 2002 to 2005, the dischargers and the water purveyors were participants during a scientific TMDL study preparation. We were there every step of the way.

But then, in June 2005, the scientific TMDL study was finally completed. It was peer-reviewed by Rutgers Eco-Complex and published by the American Society of Civil Engineers. We were very happy. We believed we were on the way to addressing this issue.

December 2005, dischargers group -- same group again -- delayed the TMDL for the Pompton/Passaic rivers through a court action in Morris County.

In March 2006, a new five-year permit was issued for the main sewer discharger at the intakes of our reservoirs -- not just ours, but other reservoirs receive their water from the Pompton/Passaic confluence -- allowing continuous phosphorus pollutants in the rivers, five to 10 times higher than the surface water quality standards.

The TMDL is now stalled. It's stuck. And what we want to say is, the study is done. It's time for the dischargers to clean up their act. And if they are not going to accept the TMDL results, then we would hope that we would have support in enforcing the surface water quality standards once and for all.

SENATOR SMITH: Who is the major discharger?

MS. DeSTEFANO: Two Bridges Sewer Authority.

SENATOR SMITH: So the Sewer Authority is the bad guy here?

MS. DeSTEFANO: Yes.

SENATOR SMITH: And the problem is that they're not willing to implement the technology necessary to remove phosphorus?

MS. DeSTEFANO: Right. What is actually happening -- I'm going to speak very plainly here -- is, they've established a lobbying group. And they go from place, to place, to place and put scare of life into the municipalities that it's going to cost them -- which are costs that are absolutely inflated. And some of these municipalities don't even realize that they're the same municipalities that get their water from the Wanaque. And by the dischargers--

SENATOR SMITH: So they're paying for the cost of treatment on the other side.

MS. DeSTEFANO: Right.

SENATOR SMITH: I appreciate you bringing that problem to our attention. It's a little off the water -- not too far off, but I appreciate your--

MS. DeSTEFANO: I understand it's off the subject, but I couldn't waste the opportunity. And I thank you for it.

SENATOR SMITH: We understand.

And thank you guys for coming today.

Our next witness is--

And what we're going to do, because there are people who are here on the United Water issue, as well-- I think we're going to go for 20 more minutes on the water supply issue, and then we're going to do an hour on the Dover Township issue so that we can get that underway as well.

Continuing on with the water supply issue, the Utility and Transportation Contractors-- I'm sorry, New Jersey American Water, Lyndell Jones (phonetic spelling). Are you here?

UNIDENTIFIED SPEAKER FROM AUDIENCE: Sorry, Mr. Chairman. Lyndell couldn't make it.

SENATOR SMITH: Is this Mr. Tambini?

S T E V E N J. T A M B I N I: Yes.

SENATOR SMITH: Steve Tambini.

MR. TAMBINI: Good morning, Chairman Smith and Senate Committee persons.

Thank you for the opportunity to testify before the Senate Environment Committee.

On behalf of New Jersey American Water, the state's largest and most geographically diverse water company, I am Steve Tambini, Director of Engineering.

The purpose of my testimony is to provide New Jersey American Water's perspective on some of the most critical water supply issues that need to be addressed by the collective water stewardship community. These issues include master planning, sources of supply, water conservation, drought mitigation, infrastructure renewal, and water supply funding.

In an average year, as you've heard, the State of New Jersey is typically provided with over 40 inches of precipitation. Generally, that's enough to meet the water supply, recreation, and environmental needs of our residents, businesses, industries, and aquatic life. The critical challenges that continue to face the State and its water providers are related to the

often difficult details of how to best use this abundant supply and get it to where it's needed, when it's needed, and at the level of quality that is needed.

The other major challenge comes every few years, when the amount of rainfall needed for a critical water supply period is much less than average, and water supply shortages and droughts must be effectively managed to ensure public health, public safety, and environmental protection.

One of the keys to meeting these challenges is ensuring that the State has a current and effective water supply plan. Managing the state's water resources is not just about permit programs, loan programs, and enforcement. New Jersey, through its Department of Environmental Protection, has always taken an active role in helping to identify, analyze, and solve the most difficult and critical water supply issues through proactive planning at both the State and regional level.

Based upon American Water's experience in other states, I can assure you that New Jersey is a leader in its efforts to provide solutions through water supply planning. Legislative funding and support for the statewide Water Supply Master Plan and other regional water supply plans should continue to ensure that water supply solutions are based upon the best science and best technical approaches.

SENATOR SMITH: Steve, let me interrupt you for a second.

MR. TAMBINI: Surely.

SENATOR SMITH: First of all, you were kind enough to provide a four-page statement of your testimony.

MR. TAMBINI: Thank you.

SENATOR SMITH: We are-- We will read it.

Let me ask you to summarize.

MR. TAMBINI: Summarize, surely.

SENATOR SMITH: What are the big points?

MR. TAMBINI: The big points--

Let me start with-- Really, there are two sides to the equation, the supply side and the demand side.

On the supply side-- On the demand side, we know that water demands are projected to grow, and ensuring adequate local and regional supplies to meet the growing needs is essential. And many times, the way that's been done is through the supply -- local supply development. I think that needs to be rethought. The State and the water community needs to research, develop, and fund more regional interconnected water supplies to meet those growing needs. Just one more well won't do the trick.

Alternative supplies need to be looked at, like desalinization. Desalinization needs to be looked at in coastal areas and needs to be part of the portfolio of water supply solutions in certain areas of the state. You've heard about beneficial reuse. Beneficial reuse is an important issue and, certainly, also, it can help to meet the water supply needs -- especially nonpotable needs -- in the state.

I think when we look at water supply and the issue of beneficial reuse, we need to do it carefully. Because while we're looking at meeting not only nonpotable needs, we're looking at potentially also recharging aquifers that are used for drinking water supplies. And we don't want to undermine the trust, and security, and safety of our drinking water supplies

by undermining sourcewater protection issues. But beneficial reuse certainly is an important part of the equation.

From a supply perspective, the other issue you've heard more and more about -- and I'm sure you'll hear more about this afternoon -- is contamination issues. We're seeing more losses of supply due to emerging issues such as MTBE and radionuclides. And we need to be sure that there's treatment in place, and that there's funding sources in place, to ensure that when we do lose supplies, supplies can be replaced with new, potential regional supplies.

One of the other issues that I believe needs to be addressed, in terms of water supply, is allowing the DEP flexibility, in statute and in regulation, to address those kinds of emerging needs, such as water quality needs. The DEP has limited authority to be flexible, in terms of water allocation, to be able to transfer allocation in times of water emergency, to be able to grant short-term allocations in times of water supply emergencies.

You've seen a situation with the United Water and Parkway Water, where water quality was an issue. New Jersey American Water provided short-term supply to these water purveyors, but only to a limit. We couldn't go beyond the allocation limit. And we couldn't get relief to be able to provide -- while a long-term solution was being developed -- provide a shorter-term solution. I think there needs to be flexibility, more nimbleness in the DEP, to allow those emerging issues to be addressed on a short-term basis.

Mitigation of drought-- You've heard a very long presentation about mitigation of drought conditions. You've heard about the example of being able to move water from the Raritan Basin and the Passaic Basin.

Certainly, New Jersey American has been an active partner with other stakeholders in that activity. We see those kinds of projects potentially being needed in other drought-prone areas, such as coastal north. You heard some discussion about potentially building infrastructure, on a regional basis, to the coastal north area -- be able to use the Raritan supplies in those areas.

The more and more we can potentially grid the state-- Maybe full gridding of the state is a long-term objective, or one that you may not think is feasible, but certainly as those opportunities arise, they should be funded, they should be supported, and they certainly should be encouraged.

In terms of the demand side of the equation, routine conservation and conservation during drought conditions is an important side of the equation. Day-to-day water use needs to be efficient. And we need to be sure that people are using water efficiently every day.

You heard a little bit of discussion this morning about outdoor water use. Really, the majority of the water is being used inside the home. Our records indicate that water use has declined over the past several years. And we think that's because, in 1992, the National Energy Policy Act was enacted, requiring such things as low-flow water fixtures. And you're actually seeing a decline in residential water use. We'd like to see those -- acceleration of retrofitting of low-flow water devices.

Potentially, legislative or regulatory efforts could be put in place to require the retrofit of low-flow -- excuse me, retrofit of high-volume toilets with more efficient fixtures, possibly at the time of home sale.

SENATOR SMITH: Well, we keep-- Be vigilant. There's a Green Building package coming.

MR. TAMBINI: Great.

The other issue I think needs to be looked at is potential statewide mandates for water use. Right now, water use is uncontrolled during certain times of the year. Certain communities have odd-even water uses, others don't. Private well users don't have to abide by it. There's a lot of confusion out there. If there was a statewide approach to that, we think that would have a lot of benefit, in terms of efficiency and in terms of actually providing results.

There needs to be better coordination between the statewide departments -- the DCA, the BPU, and the DEP -- on water conservation efforts. I'll just give you one example. One of the basic tenants of water conservation is knowing where your water is going. And one way to do that is making sure that your customer meters are accurate. The BPU -- the New Jersey Board of Public Utilities -- requires investor-owned utilities to replace and test all their meters on industry intervals. The public sector and the public utilities don't have to do that. There should be some baseline coordination on water conservation. And one of the basics in that is making sure that you're accurately metering water use.

Real water use reduction can also come in the face of infrastructure renewal, fixing water leaks, and not having excessive unaccounted for water. Water systems should not be permitted to have excessive real water losses. New regulations, new standards should be developed to be sure that we can measure it, report it, analyze it, and fix it when it happens.

I mentioned infrastructure renewal, in terms of fixing leaks. Infrastructure renewal, in general, is a looming issue for the water industry.

Infrastructure is aging, it's getting older, eventually it needs to be replaced, it needs to be funded. State sources such as the Environmental Infrastructure Trust and the Drinking Water Fund should be used for that. And potentially, in the investor-owned community, the BPU should be looking at a distribution infrastructure charge to allow that to happen.

The investor-owned community and the water purveyors of the state have always had a good partnership between regulators and other stakeholders to solve the water problems of the state. We see that continuing. They've always had a good stake in providing funding, a private source of capital, to meet some of the most challenging water supply needs in the state. We see that continuing. We see challenges ahead, but we see partnerships continuing, on a regional basis, to meet some of these challenging needs.

If additional funding sources do become available, we see several critical needs that I've addressed in my testimony that could use additional funding: desalinization, regional interconnections, new sources of supply, treatment for emerging contaminants, water conservation measures, and infrastructure renewal.

And I thank you for your attention.

SENATOR SMITH: Thank you, Steve.

We're going to do one more witness on water supply, and then all the other witnesses on water supply we'll do a little later on. But after this last witness, we'll switch to the Dover Township, Ocean County situation.

Let me ask Jeff Tittel, Sierra Club, to come forward.

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

I want to also thank you very specifically for your tenacity at this issue, because I know that you have been fighting for years, like the rest of us, to develop a source for protecting our water supply and dealing with the issues that we face every year.

What we see happen in New Jersey is, we've got a flood of problems, and we've had a drought of action when it comes to dealing with protection of our water supplies. We see, year after year, development paving over our countryside. We see, year after year, overpumping of groundwater, causing and creating a tremendous amount of problems. We need to be more vigorously addressing these problems. And the best way to address them is through developing more funding sources. And a critical piece has been this water tax, which has been an idea that's been kicked around since the early '90s.

We can sit here and talk for hours, because there is so much to discuss when it comes to water. But there's three basic areas that we need to increase funding. One is for drought mitigation, but real drought mitigation, where we're not enhancing rate bases for water companies, but we're actually dealing with the problem of water supply and making sure that we have enough water supply during a drought.

Conservation issues: not only irrigation and overwatering, but leaky pipes in our urban areas. In some cases they're a hundred years old. I watched, last Spring, as they pulled out wooden and cast-iron pipes from across from the State House -- to show the kind of problem that we have in many of our cities, where we would like to see redevelopment.

And then, of course, purchase of land to create buffers around reservoirs to protect wellhead areas for water supply and aquifer recharge.

We've also seen the Highlands Act passed, where we have a lot of property owners that are concerned about getting their equity. And the fact that the Green Acres program is starting to run low on money-- I think that the water tax is an important way of getting funding to help deal with not only water supply, but also with water quality and giving some equity to the people who feel that they would like to sell their property, or their development rights, based on the Highlands Act.

We're facing a crisis in this state. And if we don't act now, we may find ourselves in a really serious situation. When they talked about the droughts in '99, and that we were within a few months, in parts of the state, of running out of water -- and this happens all the time. We've been playing Russian roulette with a loaded gun in New Jersey.

As someone who spent a lifetime watching the Wanaque Reservoir and seen it at different times -- where it looks like you're expecting to see Lawrence of Arabia walking across part of the reservoir because it's down so low, and you can find the Revolutionary War-era buildings; and other times, seeing the great floods on the rivers-- We know that we've got a serious problem -- that in any given year, we can have a condition of low flows in our rivers but peak demand, especially in the summertime. And we see ourselves potentially running out of water, with a great -- not only dislocation environmentally, but economically. New Jersey's three major industries are dependent on clean water: food processing; the pharmaceutical petrochemical industry; and, of course, tourism. And if you don't have water, you don't have an economy. It is our economic lifeblood. And that's why it's critical for us to spend some extra money to ensure that we have water supply.

And water quality is critical too. We see, at times, the Passaic River becoming almost 100 percent effluent. It happened back in '99, when the river itself hit 10 milligrams per liter of nitrates higher than the safe drinking water standard. And only because of some actions by the some of the sewage authorities were they able to keep that supply open. We've seen the Wanaque system getting clogged up with algae because of pumping up nutrient-rich waters into that reservoir, causing algae blooms even in the middle of the Winter.

And that's one of the concerns that we have with the confluence project as well -- that pumping back that water. Unless we protect that supply going downstream below those reservoirs, we'll end up causing a problem in those reservoirs themselves when we pump the water back up.

So it's really critical. I mean, I've seen the Ramapo River hit the drought conditions almost every other year. I've seen the Pequannock River, in the summertime, where you can see the trout basically having to walk across the river because there's no water left.

And we need to act now because, quite frankly, the need is great, the time is short, and we've been doing this for too long. We've had too many hearings on this topic already. I know you've held many. I know previous environmental chairs have held many.

The problem is that when the rains come, the political will goes away. You have the political will, we have the political will. We have to make it happen this time. I believe Governor Corzine is also committed to doing it. But we have to do it right, and we need to do it quick.

The old line is, is the glass half empty or half filled? It doesn't really matter, because in New Jersey, the half empty glass may become an empty glass. And in the summertime, you wouldn't want to drink what's in it. So the cost for a couple of these (indicating) that we buy every day, pretty much-- We can do a lot to ensure that we have a safe, clean water supply in the future.

SENATOR SMITH: Thank you, Mr. Tittel.

A number of people have come today for the second portion of our hearing, which is the Ocean County situation. And I'd like to-- We are going to come back to the water supply, but I don't want to not give the people who have come from Ocean County a chance to speak. So we're going to do an hour on the Ocean County situation, and then we'll come back to the water supply issue.

This issue is on our agenda today because Senator Ciesla and Assemblyman Wolfe asked that we have legislative testimony on this issue to see whether additional legislation is needed.

Let me turn it over to Senator Ciesla -- if you have any comments -- to introduce the topic.

And then to Assemblyman Wolfe.

SENATOR CIESLA: Thank you very much, Senator Smith.

And welcome to all of the individuals that have come to testify.

This is a very important issue for Ocean County simply because many of the issues that we heard, statewide, are manifesting themselves in reality in several of the towns that Assemblyman Wolfe and I represent.

Simply put, we're running out of water in Ocean County, and it's impacting our economy, it's impacting everything that we have the ability to do.

Honestly, looking at the problem, I think it goes further than just a simple fix. There seems to be an overall lack of coordination and lack of planning that has occurred. And there seems to be some reporting needs that aren't being mandated by, perhaps, the regulators that should be based upon evolving changes.

So with that, I'm certain that there is additional legislation that is needed, whether it be to provide additional funding, whether it be to provide some sort of better reporting mechanism, or some better monitoring mechanism. Hopefully, as a result of this beginning process, we'll have a better handle on that.

And I thank you for having this meeting, Senator.

SENATOR SMITH: Thank you, Senator.

Assemblyman Wolfe, do you have any comments?

ASSEMBLYMAN DAVID W. WOLFE: Yes.

Senator, I really appreciate the courtesy you've extended not only to Senator Ciesla, but also to me. And I do recall, when we were colleagues in the Assembly, you were very supportive of the environmental issues that face Ocean County. And because we represent you as your Summer legislators--

SENATOR SMITH: That's right.

ASSEMBLYMAN WOLFE: --when you come visit with us, thanks very much.

I just want to say, very briefly, I will let-- There are a lot of people here to speak from Dover Township. And they certainly have a very good case. Hopefully they'll have that opportunity to make a full case. But I just want to say it's very ironic, as I look across the aisle here at Senator Ciesla -- I first met Senator Ciesla in 1981, when I was the council president of Brick Township, and he was chairman of the utilities authority in Brick Township. And we had a problem of -- some leaching problems from a municipal well -- a landfill that was coming into an area that was going to be developed for a high school. And that was my first involvement at all with the quality of drinking water.

Today's *Asbury Park Press* has an article about the growth of Ocean County. Ocean County is currently the 23rd fastest growing county in the United States. The *Asbury Park Press* estimates that about 10,000 people move there every year. So, certainly, the previous testimony about the interconnection, as Senator Ciesla says, is very, very important. I'm not here to beat a dead horse, and I'm not really here to point fingers. I think there's a lot of responsibility to go around. And I think there is a commitment on the part of most of these individuals to see that something gets done properly.

And I certainly appreciate your support. And I thank you for this opportunity.

Thank you.

SENATOR SMITH: Thank you, Assemblyman.

Our first witness will be Mayor Paul Brush, from Dover Township.

Mayor.

MAYOR PAUL C. BRUSH: Thank you, Senator.

Good morning.

My Senator Ciesla and my Assemblyman Wolfe, it's very nice to see you.

Senator, before I start, our Council President is also here. If he could join me, I'd appreciate it.

SENATOR SMITH: Absolutely.

MAYOR BRUSH: Gregory McGuckin is the President of the Council in Dover Township.

ASSEMBLYMAN WOLFE: Is he going to say a few words? Does he have--

SENATOR CIESLA: He's prepared.

MAYOR BRUSH: I suspect he will.

Good morning.

My name is Paul Brush, and I am the Mayor of Dover Township, in Ocean County. Just to put it in perspective, we are the seventh largest municipality in the State of New Jersey, with a year-round population of about 100,000, and we are 44 square miles in size.

As many of the members know, Dover Township has long been in the news during the past two decades regarding water quality issues. Recently, we have again been in the news about the issues of both water quality and water supply.

Our township has been left to deal with the effects of unbridled growth and unregulated, or poorly regulated, industrial uses within our borders. As a result, our residents are justifiably concerned with the quality of their water supply. It is an issue which is beyond the ability of our local

government to adequately address, given our limited resources and ever-reducing annual increases to our ratable bases as our town is built out.

Therefore, I am here on behalf of our residents to implore this Committee and, indeed, the entire State government to take the necessary steps to address these critical problems.

I know that many of the members are familiar with the Ciba-Geigy superfund site. After years of operation which contaminated our environment, that foreign-owned country -- company has ceased operations and left a legacy of polluted groundwater and a scarred landscape. We are now fighting Ciba-Geigy in court -- a very expensive proposition -- to force that company to remove the remaining industrial presence.

Now we are faced with another battle with United Water of Toms River, also a foreign-owned company. As a result of United Water's reckless disregard of the requirements of its water allocation permit, the NJDEP has fined that company over \$100,000 and has directed that no further "will serve" letters be issued until United Water receives approval to increase its permitted allocation.

While we support aggressive action against United Water, the effect of the DEP order has been devastating on our local economy.

And there are members of the Chamber of Commerce here, Senator, who would like, also, the opportunity to address you.

While we support the aggressive action, the effect has been devastating on our economy and has resulted in hardship on many of our residents. I cannot tell you how many residents have lost mortgage commitments, been unable to move into their new homes, or have been

placed in legal jeopardy due to their inability to fulfill their contractual obligations as a result of United Water's unconscionable actions.

In September of last year -- just to digress from my statement, my prepared remarks -- in September of last year, the DEP halted any more will serve letters with United Water. So they couldn't issue any more will serve letters, and with very little warning, very little time. And, unfortunately, Dover Township officials were not brought in on a consent order. I would have liked that to have happened a little bit later. And I would have liked to have seen a window of opportunity for people who were already in the pipeline to at least complete what they were doing. And there were many instances where people actually lost mortgage commitments and weren't able to get into their house. I mean, it was a very, very trying time.

To add insult to injury, United Water recently failed to report exceedences of the presence of contaminants in our water supply during the last three quarters of 2005, and has again been sanctioned by the DEP. Due to these shocking actions, we have, with the support of the township council, filed a petition with the BPU seeking to revoke the franchise of United Water. Again, this litigation, coupled with the Ciba-Geigy litigation, will cost taxpayers hundreds of thousands of dollars in legal and expert fees.

The most troubling part of the United Water situation is that neither I nor the township council had any indication of the problems associated with the failings of United Water. If we had, the township could have taken steps many years ago to force United Water to meet its

regulatory obligations, and perhaps we would not find ourselves in the mess we are in today.

Again, to digress, last Summer, a representative of United Water came to my office, met with me -- and I subsequently immediately advised the Council President -- informed us that they had exceeded their water allocation in three of the previous five years. And we're all kind of new in town. We just started this new administration in January of 2004. So we made sure that there were no previous notifications that we had been informed at any time during this period of time. And perhaps we could have done something about it. We were not informed. We were not informed by United Water, we were not informed by DEP. I don't even know if DEP knew that there were these exceedences.

But for this to go on over a five-year period-- To exceed your allocation for three out of five years and, at the same time, take on new customers and put in new lines without notifying DEP is unconscionable.

That is why I support Senator Ciesla's bill, 1722 -- and I assume Assemblywoman Wolfe has accompanying legislation -- that require public utilities to notify the governing bodies in their respective service areas when there is an exceedence of a utility's water allocation permit. This bill would also require the utility to provide public notification to the general public. Accordingly, I urge this Committee to favorably report this bill to the Senate for immediate passage into law.

While this bill is an important step in making public utilities such as United Water more accountable to our local government and their customers, I believe that much more comprehensive actions are required.

First, I believe that it must be the obligation of State government to ensure that all New Jersey residents have access to a safe and adequate supply of potable water. This means that in our growth areas -- which include suburban municipalities such as Dover Township -- every home should be connected to a public water supply. We live in the most crowded state in the Union and, therefore, the stress on our groundwater supply is great.

Reliance on individual wells as a source of drinking water is neither safe nor, in the long run, economically feasible. For instance, in Dover Township we have approximately 2,000 homes which still rely on individual wells. In many areas, we have reports of well contamination, which is now obligating our township to institute a well sampling program, at an estimated cost of \$400,000. If we are to test all the wells in our township, the cost would run into millions. This cost cannot be capitalized under current budget law and is beyond the ability of our township and many others to bear. It is, therefore, my belief that the State must provide the moneys to design and install the infrastructure necessary to provide safe public water to all residents or, at the very least, to pay for the cost of annual monitoring of individual wells.

Second, it is my belief that the time has come for the State to consider the outright purchase of all public utilities operating in this state. Water is our most precious resource and it is, quite frankly, beyond comprehension that we would allow this resource to be controlled by foreign corporations. These corporations are more concerned with their bottom line profit than water quality, providing an (indiscernible) supply of water or security concerns.

Our experience in Dover Township is, unfortunately, an example of such corporate disregard. On the other hand, a State-owned public water utility, run on a local or regional basis, and preserving and managing our water resources, would protect better and serve the public interest. Moreover, the cost of this proposal would be paid for by the usage fees, moneys that would stay in New Jersey and not be sent overseas. And I urge you to consider this proposal.

And if I sound angry, I am angry. Because twice within -- in less than a year, we have been deceived by the water company, first with the exceedences and second with the violations of the radionuclide readings. Again, we were not informed of that. And what I'm so angry about is, we also have tainted wells. So over the past six months or so, in Dover Township, we have had headlines reporting tainted contamination, which the DEP, the small group -- the DEP is going to provide relief. Not to the extent that we would like, but we're working on that.

So people are reading about tainted wells. And then right on top of that, they've been reading about the water company not informing us of these two serious violations: the exceedences over a five-year period, and then the high readings of radionuclides. And what I'm so angry about is that people in our town are afraid to drink their water. It should never, ever, ever come to that. And that's what it's come to in Dover Township. That's why I'm angry.

Until that day comes, public utilities will violate our laws and must be dealt with harshly. Fines must be heavy. Care should be taken to ensure that these fines are not passed on to the ratepayer.

In closing, I want to thank the Committee for the time and opportunity to address these vital issues. We, in Dover Township, are asking for your help in dealing with the problems relating to water contamination and water supply.

Thank you, Senator.

SENATOR SMITH: Thank you, Mayor.

And, Senator Ciesla, hopefully we can get that bill up at the next Committee meeting.

SENATOR CIESLA: Thank you, Senator.

SENATOR SMITH: Mr. Council President.

COUNCIL PRESIDENT GREGORY P. MCGUCKIN:
Thank you, Mr. Chairman.

Again, my name is Gregory McGuckin. I'm Council President in Dover Township. And I would like to thank the Committee, the Chairman, my own hometown Senator, Senator Ciesla, and Assemblyman Wolfe for this opportunity.

I share each and every comment that the Mayor has made. I share his anger at the situation that 95,000 residents of Dover Township currently face. I share his anger and the anger of our Chamber of Commerce, and our businesses in our community. And I share the anger of residents who have come to me and said, "What do I do about my mortgage commitment? What do I do? I'm getting calls from banks saying, 'What do we do about our loans that we've extended?'"

The DEP has imposed, in effect, a death penalty. And I bring that by way of analogy to what the NCAA does with a school or a university that violates the regulations. They can't issue scholarships. To make

United Water finally -- finally -- come to the table and resolve their allocation issues-- They've issued a death penalty in Dover Township, and that is no more connections. No more.

So our building officials sit in the office; our residents who are -- loans that are made by banks and lending institutions sit without being repaid; builders are in a quandary. Do they build or don't they build? We are in a situation that needs to be addressed and addressed quickly.

I can't fault the Department for their steps that they've taken to force United Water to meet the requirements of the regulations, but there needs to be an expedited process to resolve the current situation.

I also share -- and I appreciate very much -- the Senator and Assemblyman's efforts with Senate Bill 1722. It is unconscionable that a town our size is not notified by either the Department or the utility company of these exceedence problems until 30 days before that death penalty is imposed. That is unconscionable and needs to be addressed by legislation.

The other important issues I would like to address, without repeating what's been said, is, as the Mayor indicated, the Department and United Water entered into consent orders. And the town was not a party to that, although we asked to be so. We were not included in that until after the fact.

This is important, because one of the requirements that the Department has imposed upon United Water is to address conservation issues. And it is important, when you regulate the water situation throughout the State of New Jersey, from a public policy perspective, to remember that water is supplied in different ways in different areas. You

have private utility companies, you have local municipal utility authorities, and you have local water departments. They're all regulated in a different manner.

For instance, United Water must address DEP regulations, but they also answer to the BPU. Now the BPU in Trenton -- excuse me, in Newark, and the Department of Environmental Protection in Trenton -- there needs to be a better way for them to communicate on these issues. Because, quite frankly, I believe there is a disconnect when you're dealing with private utility companies.

One of these issues that were addressed in the consent order, which we thought we should have a part and a say in, is the fact that they wish to have these conservation measures imposed. And the first question I asked was, "Well, a private water company has no right to go out and issue summonses to somebody who violates a water restriction." So I turned, and I looked at the statute. I happen to be a lawyer in my other life. And I said, "Well, how does the town enforce a restriction on a private utility company?" And for the life of me, I could not find how a township could impose a fine upon a resident who violates a water restriction of a private utility company.

And I bring this up because in no way is this different than if this town tried to regulate people's use of electricity -- another commodity, another utility that's regulated by the BPU. Can we tell residents how much electricity they can use? How do we legally enforce their right to use water that they're provided by a private utility?

Now, we intend to adopt an ordinance this coming -- introduce an ordinance this coming week to provide mandatory water restrictions,

odd, even, and so forth within our community. It's very well needed. There's no doubt about it. But my question remains, how do we enforce that without legislation? I can't find a statute that says the township has an authority to regulate mandatory odd-even water restrictions.

Now, certainly, under emergency situations and drought situations, there are ways and methods for that to occur. But if we have residents who don't comply, how do we bring them to court and force them to comply? And I don't believe there's legislation that permits that to do -- for towns to do so.

SENATOR SMITH: Right. Let me add to your misery. Your town is required to use the building code standards adopted by the State in the Uniformed Construction Code. So to the extent that you might have greater or better water conservation codes and standards for construction, you can't adopt them. You have to live with it.

As I mentioned a little earlier, be vigilant. We have a Green Building package coming, which will have a major impact on the building codes of the state. So, hopefully, that will help a little bit. But you're absolutely right.

COUNCIL PRESIDENT McGUCKIN: I appreciate that. And that is good news.

The only other item I would mention, as the Mayor indicated, is the anger that we've experienced over the past eight months.

United Water was fined \$100,000 in September for these violations of their allocations. They were then fined \$64,000 in February for their failure to comply with safe drinking water regulations. One

hundred sixty-four thousand dollars is, in my mind, not sufficient. I believe there should be criminal penalties.

If a water purveyor allows, and does not notify the public it serves, contamination in their water, there should be criminal penalties imposed upon the licensed operator of those facilities. And I would ask you to consider that legislation also.

Again, thank you very much for the opportunity.

SENATOR SMITH: Mr. President, I appreciate you coming in. And, Mr. Mayor, thank you.

COUNCIL PRESIDENT McGUCKIN: Thank you.

MAYOR BRUSH: Thank you, Senator.

SENATOR SMITH: Let me ask Mr. Dan (*sic*) Dalesio, Toms River-Ocean County Chamber of Commerce, to come forward.

And, Senator Ciesla, can I ask you to take over the meeting for a few minutes? I have to step outside.

SENATOR CIESLA: Sure.

Good morning, Dan (*sic*).

D O N A L D D A L E S I O: Good morning. How are you?

It's Don.

Senator Ciesla, thank you very much for inviting me, along with Lucy Greene, the President of the Toms River-Ocean County Chamber of Commerce. We appreciate it.

Also, thank you, Assemblyman Wolfe, for working with us on this cause.

Good morning to all of the Committee, and Mr. Chairman.

My name is Don Dalesio. I'm currently the Chairman of the Toms River-Ocean County Chamber of Commerce. In addition, I'm the Executive Vice President and Chief Operating Officer for Nassau Broadcasting Partners, based in Princeton, New Jersey.

Without being redundant, I'll be very brief. You heard a lot of testimony from our Council President and from our Mayor. And we, as a business body, share a lot of the sentiment, as well as a lot of the anger, on this issue.

The Chamber of Commerce membership represents over 800 businesses. We represent also approximately 20,000 people that are deeply concerned for the public welfare and economic prosperity of the Dover Township community. You heard a lot of that this morning.

The recent restriction of water allocations imposed by the New Jersey DEP is severe. As a result, many categories of business including, but not limited to, financial institutions, mortgage companies, engineering and architectural firms, law firms, development companies and builders, landscapers, electricians, carpenters, plumbers, furniture, and other retailers large and small are suffering, currently, dire economic consequences. It is limiting the employment potential for our local citizens. In addition, our senior citizens are being deeply affected now with the loss of these providers.

The county of Ocean, noted for its spaciousness and accessibility to our ocean, the bay, rivers, and streams is in jeopardy. Quite simply, tourism, our leading industry, is about to suffer as tourists will not find Dover Township able to accommodate their needs if these current

water restrictions remain for the Summer, especially as we're hearing also of the potential drought situation.

We have been working diligently with our local and State officials regarding this issue, certainly in partnership with our Mayor, with our Council President. The Chamber and the township are always looking for good, clean commercial development that places no burden on taxpayers and, at the same time, increases tax rates of our town. Such potential commercial developers and retailers may never again consider Dover Township. What a loss for us, what a loss for Dover Township.

We strongly encourage all elected officials-- We're asking you to dedicate your undivided effort to convince the New Jersey DEP to please complete their review of a request from the United Water Company of Toms River for an immediate increase of its monthly and annual water allocation limits so that the following three items may occur: Number one, so that hook-up approvals may be granted to the new residential homes and businesses that have been sitting vacant since this restriction has been imposed. The economic consequences are unconscionable. You heard our Council President describing those in detail. Secondly, so that the township of Dover may resume granting permits for new construction to development companies, builders, and retail establishments. And, finally, so that the water supplies may be adequate to serve the current and projected residential and commercial demand that we anticipate.

We're making this request of you in hopes that there will be action now. Again, not to repeat our elected officials, and to be redundant, but the economic consequences are severe, and they are now.

Thank you very much. I appreciate the opportunity, on behalf of our Chamber of Commerce, to present our position and to make this request.

SENATOR CIESLA: Thank you very much, Don.

This might be an appropriate time for Assistant Commissioner Mauriello to--

I understand that you have some comments that you'd like to make regarding Dover Township.

ASSISTANT COMMISSIONER MAURIELLO: Thank you, Senator.

Just a few brief comments on the DEP perspective on this. And I can relate to this problem. I have, as you probably know, a number of family members, including my mom, who is a resident of Dover. And I've spoken with some of those folks who are left in the lurch, at a point where they thought they were going to be moving into their homes. So we certainly appreciate the severity of the situation.

As we know, United Water of Toms River is a large community water system, serving a year-round population of almost 124,000 people, mostly in Dover Township. It's water supply infrastructure consists of some 25 wells, treated at eight water treatment plants, drawing water primarily from the Cohansey and Potomac-Raritan-Magothy aquifers.

Since this water supply has been impacted by contamination emanating from the Reich Farm Superfund site, it's undergone extreme scrutiny by various levels of government, the DEP, and the public, obviously, over a long period of time. Previous sampling has demonstrated that a number of wells have been impacted, and treatment in various forms

has been provided over the past 20 years. Additional wells have also received some more advanced treatment: activated carbon.

Another outcome of the sampling, which was touched on briefly by the Mayor, is discovery of a previously unknown contribution of radium-224. This phenomenon has since been found to be a natural occurrence. I know, initially, people feared that it was more toxic superfund related. But we're finding this in a number of areas of the state as a naturally occurring concern.

In terms of the allocation issues, the Department -- and we heard this earlier -- recently issued an administrative consent order to the purveyor, including stipulated fines, which in many cases are limited, for exceeding water allocation permit limits and for failure to obtain the required safe drinking water permits for the extension to the water system.

In response, United Water took action to reduce withdrawals from their own sources, via an arrangement for interim purchase from Manchester Township for a period of time. And I believe that may actually be winding down as of this week.

The Department recognized the hardship that this caused the residents. As I said, I personally spoke to several of those folks. And as was recognized earlier, we provided some relief probably to about 300 customers to allow these connections, despite the exceedence of the allocation. And we did that particularly for the folks who were really advanced, had those willing to serve letters, and thought everything was good only to find out later that it wasn't. The agreement allowed the substitution of previously approved connections with new ones so long as water demand on the system was not increased.

As was mentioned, United Water submitted an application for a major modification of water allocation in September of '05, requesting increases in that allocation. We're at a point where the application is being reviewed. It's complete. We expect that in the early Summer we should have a decision on that. And I certainly heard the concerns here about doing what we can to try to keep that review moving, and try to expedite that decision.

We also continue our enforcement oversight and recently issued another penalty letter for exceeding the allocation limits.

I just want to briefly mention the radionuclide problem, because it has been getting a lot of attention in the press. And there's a lot of monitoring, obviously, that's going on at the points of entry to the distribution system. The water company is required, by State regulation, to monitor for radiological contaminants at their seven points of entry and distribution system, in 2005. Future monitoring is going to be dependent on the levels that were found during the initial monitoring phase and could range from once every three years up to once every nine.

Four consecutive quarterly samples are required, and compliance with the maximum contaminant level is determined by running annual average. The water company actually commenced a sampling in 2003, which was ahead of schedule. And they continue to monitor quarterly, beyond the first four required quarters.

The water company reported these maximum contaminant level violations for the radiologicals at three of their seven points of entry in January of 2006. However, the exceedences during 2005 were not reported to the State within 48 hours, as required by rule. And the water system

failed to provide public notice to the customers within 30 days of becoming aware of the violation, as required by rule. And in response to that, the Department issued the water company an administrative consent order and notice of civil administrative penalty just in February of this year.

United Water has recently installed a temporary treatment facility at a problem location. And the radium removal treatment at this station went into operation just last month. Presently, the water is being stored in the aquifer for use during high demand. And permanent radionuclide treatment removal facilities are being considered for another two points of entry with an estimated operational date of December of '06.

Some good news, if there is any in the story, is that the Department received the radionuclide sample results at all points of entry for the first quarter of '06. And the running annual average is in compliance for gross alpha and combined radium maximum contaminant levels.

But I think the point here is, as we've heard from prior testimony, the water quality challenges-- We talked a lot about supply and quantity. But the water quality challenges we face in providing and maintaining healthy water supplies for the residents to support not just existing growth, but future growth in Dover and throughout the state--

It also reminds us that monitoring enforcement planning and closer coordination between the purveyors, the communities, and the Department is certainly warranted and is critical to our continued goals of protecting the health of the citizens.

So, hopefully, that gives you a little brief of our perspective on this issue.

If there are any particular technical questions, I'm happy to punt to the technical people that work with me, who actually have more information. But I will let you decide.

SENATOR SMITH: Mark, how can we improve the communications issue?

ASSISTANT COMMISSIONER MAURIELLO: Well, I guess I was a little surprised to learn at how it wasn't working. And I know in our discussion yesterday, we-- I think everyone recognizes the need for that. The question is how best is that accomplished.

I'd like to, if I can, turn to my Director of Water Supply, Michele Putnam, and ask her to join me here. She may have some other thoughts on that.

Certainly, your concept of a legislative requirement is one, but I guess I'd look to Michele to see if she has any thoughts on that communication issue.

MICHELE PUTNAM: Well, I guess, generally, we appreciate the fact that you had offered -- that we could consider some legislative amendments, which we are going to do.

Over the long term, I think that it's a real opportunity for local municipalities to plan for that development and that demand, and to work with their purveyors on how they're going to satisfy the water supply needs for what they want to do. And to do that far enough in advance so that they have the appropriate allocations in place and the permits in place so that we don't end up with a situation where people are in the status that they are here. And so that they plan early, and they plan together, and they work with the Department to make sure that that supply is in place.

SENATOR SMITH: Right. But when is it the DEP knows that a private utility is exceeding its water allocation permit? What's that point in time?

MS. PUTNAM: Well, what we-- The process that we have right now is, we issue safe drinking water permits, which allow for the connection to the system itself against the allocation. When you're getting close to the allocation, or firm capacity-- We actually put that in the last permit now. We put a notification that they're approaching the limits to the purveyors.

We also have on our Web site, for anybody to see, the status of the allocation limits, the firm capacity, and the current demands on the system, so that anyone can see where they stand, in terms of their permitted supply. So that's two avenues, right now, that we use to notify people.

SENATOR SMITH: Right.

One suggestion, Senator, for your bill-- We passed the bill, years ago where, in all real estate contracts in the state, you have to put an off-site contamination notice where-- You tell everybody that they can go to the city clerk--

SENATOR CIESLA: Right.

SENATOR SMITH: --and there's a book that indicates where all the contaminated sites are in a given township.

You might want to put an amendment in your bill -- and I'm not telling you how to do your bill. But you might want to put an amendment in that requires real estate contracts to put that--

Is it a hotline number or a Web site?

MS. PUTNAM: It's actually our Web site.

SENATOR SMITH: Right. So individuals can check the status of the water allocations for their individual town and for their individual purveyor, so hopefully they don't get into a contract where there's a water allocation issue. That might be some help in notification.

But on the other side, back to the town side-- When you issue these permits, does the town get a copy of the permit where it says, "You're nearing your water allocation?"

MS. PUTNAM: There are-- Yes, yes they do.

SENATOR SMITH: Okay.

Well, for whatever reason, it's still not working. Because I think the complaint was that Dover only knew about this 30 days before you said no more permits. So how--

Mayor, do you have any suggestions?

MAYOR BRUSH: Just to clarify, we did not know about the exceedences--

SENATOR SMITH: I'm sorry, we have to get you over to a microphone because it's a hearing. It gets recorded.

MAYOR BRUSH: We didn't know about the exceedences, all throughout the period of exceedences, and of the allocations. Over a five-year period, they exceeded their allocations in three of those years, 2001 to 2005, something like that. And we didn't know about that. We weren't informed of that until, actually, the local manager of the water company came to my office and told us about it.

SENATOR SMITH: Do you see any way that we can improve that?

MAYOR BRUSH: I think that's what the Senator is addressing in this bill.

MS. PUTNAM: Well, I think that maybe we could try to highlight now -- is we do it as part of our routine, when they're running out of -- when they're reaching the limits of their permit.

SENATOR SMITH: Getting close to the allocation limit.

MS. PUTNAM: So maybe we can highlight it to the municipality.

I don't know if you want to consider that they have to have some sort of commitment from the purveyor, which I guess--

SENATOR SMITH: No, I think the Mayor's concern is notice. So he knows that--

MS. PUTNAM: I mean, we certainly can implement to make sure that we highlight for you when we're in that situation.

MAYOR BRUSH: As you know, our town has grown in leaps and bounds. And if our planners knew that we may have a water problem in the future, that could have affected the way we planned the town and the development of the town. But, actually, we'd like -- the Council and I would like the contents of Senator Ciesla's bill, which would require monthly, quarterly, annual reporting to the municipality just on a routine basis. That way we'd have shared knowledge. Not that we want to point fingers. That's not the whole point. But we just need shared knowledge here.

SENATOR SMITH: Right.

And was that notification from the utility, or was it notification from the Department?

MAYOR BRUSH: What's that, sir?

SENATOR SMITH: Senator Ciesla's bill -- with the notification they were talking about.

MAYOR BRUSH: I think it's from the utility. Isn't it, Senator?

SENATOR CIESLA: Yes.

MAYOR BRUSH: Yes, I believe it's the utility.

SENATOR SMITH: All right, good.

MAYOR BRUSH: Thank you.

SENATOR CIESLA: Wanted to take the burden off the Department, truthfully.

SENATOR SMITH: Right.

And, Mark, I'd ask that you and your staff take a look at Senator Ciesla's bill--

ASSISTANT COMMISSIONER MAURIELLO: Absolutely.

SENATOR SMITH: --and see if you have any suggestions for the bill, because we're going to put it up next meeting.

ASSISTANT COMMISSIONER MAURIELLO: Very good.

SENATOR SMITH: Okay?

MAYOR BRUSH: Thank you, Senator.

SENATOR SMITH: Thank you, Mayor, for coming down.

Thank you.

MS. PUTNAM: Okay. Thank you.

SENATOR SMITH: We have a number of citizens from Dover who indicated a desire to testify. And it looks like they're from various homeowners associations.

Let me ask Frank Capone to come forward, from the Windsor Park Homeowners Association; Massimo Yezzi Jr., from the -- is it Windstar?

UNIDENTIFIED SPEAKER FROM AUDIENCE: Windsor.

SENATOR SMITH: Windsor Park Homeowners Association.

And then Ed Truscelli, Presbyterian Homes, Dover Township.

I'm just guessing that your testimony is similar, because you're all from homeowners associations.

Who would like to start first?

F R A N K C A P O N E: I'll start, Senator.

Good morning, Senator Smith and Chairman, and Committee members.

We'd also like to thank Assemblyman Wolfe and our Senator Ciesla.

SENATOR SMITH: And you are?

MR. CAPONE: I am Frank Capone. I am Chairman -- from Churchill Drive, in Toms River -- I am Chairman of the Toms River Business Development Corporation. I am also President of the Windsor Park Homeowners Association.

I would just like to thank you for allowing us the time to comment on the current water situation. And we are going to reflect on what our public officials had stated earlier.

We represent approximately 130 homes in our immediate area. And in conjunction with the Ocean County Chamber of Commerce, as an Association, we are strongly requesting a review of United Water Company's permit be completed so that their allocation of water be

increased, enabling the conversion of our existing wells -- which we now have -- to city water, and addressing our safety and health concerns.

And we strongly support Senator Ciesla's bill, 1722, and urge its immediate adoption.

And I would also like to thank both of them for their efforts in this situation.

I would now like to ask Mr. Yezzi, my Vice President, for his comments.

MASSIMO F. YEZZI JR.: Thank you very much, Senator.

We are in full agreement with the Mayor and Council in their position on that of United Water.

We do represent over a hundred homeowners, all on wells. And well contamination is a major problem in our area, and a major concern.

Speaking from a personal point of view, at one time I lived in a home in Dover Township where they did -- the well was contaminated, and one of my children did develop cancer, and spent over a year in Children's Hospital and six months in Sloan. So I'm very familiar with the problem.

We know that city water is not the final answer, but it is regulated. And it is very important to our community. Our homeowners association is behind this 100 percent. And we do need the support of your Committee.

Thank you.

SENATOR SMITH: Thank you.

MR. CAPONE: Thank you, Senator, again.

Thank you very much for your consideration and your time.

SENATOR SMITH: Thank you, gentlemen, for coming down.

Were there other individuals who wanted to testify on the Dover Township situation?

Yes, sir.

E D W A R D T R U S C E L L I: You mentioned my name. Ed Truscelli, from Presbyterian Homes.

SENATOR SMITH: Yes, sir.

MR. TRUSCELLI: Thank you.

Thank you, members of the Committee, Senators. I appreciate the opportunity.

My name is Ed Truscelli, and I'm with Presbyterian Homes and Services of New Jersey. We're a nonprofit, nonsectarian developer of senior affordable housing in the state. And we have a project-- We've been working many years with Mayor Brush and those folks in Dover Township to develop an 85-unit senior affordable housing community in Dover Township, on Oak Avenue.

And we've received funding from the U.S. Department of Housing and Urban Development, in November of 2004 -- approximately \$10 million of funding to build those units. And the reason I'm here today is to ask this Committee for its support in resolving the issue between United Water and DEP as soon as possible, because we run the risk of losing that funding. And the project is in jeopardy as a result of the inability of our project to receive a water permit.

Our problems pale in comparison to the residents of Dover Township, but it is a significant one, nonetheless. And I just wanted to alert the Committee to that issue.

And we support Senator Ciesla's bill, as well. Accountability is a wonderful thing. And we hope this Committee could provide us some support in resolving the issue.

Thank you.

SENATOR SMITH: I suggest you sit next to Mr. Mauriello.

MR. TRUSCELLI: I think we will be doing that.

Thank you.

I appreciate your time.

SENATOR SMITH: Thank you.

On the Dover Township, Ocean County matter, anybody further on that?

Mr. Pringle and Mr. Tittel. We'll do a tag team.

MR. TITTEL: I just wanted to say that this is--

I just wanted to say real briefly that we support the legislation. But we also need to really look at the whole water allocation system and the problems we have. Because this isn't the only place where we run out of water, and we allow development.

If you look at Woolwich, down in Senator Sweeney's district, it's the same problem: 4,000 units of houses, and no water. Here, you've got even a bigger problem with contamination, and you need to notice. And on top of it, our State Planning Commission wants to make it a center, so you can get even more growth when there's no water. The lack of planning in New Jersey, when it comes to water supply and land use, is just such a disconnect that we really need to do something more about it.

And I thank you, Senator.

D A V I D P R I N G L E: I just wanted to expand on some of the thoughts Jeff laid out there.

We do support the bill. Notice is good, but it needs to go a lot farther. It would stop-- This bill would stop the -- alleviate the problem in Toms River, but it wouldn't have prevented it -- might have caught it earlier.

And this problem is statewide. It's happening in Woolwich, as Jeff mentioned. We need--

Right now, the way the system works is, builders -- when they want to develop -- just need to get a letter from a water supplier that that water is available. There's no checks and balances or controls in that. The water suppliers, regularly, just dole out almost a form letter, without really looking at the allocation permit. And there's no DEP enforcement. And once that train gets rolling, the buildings get in the ground, it's not as if DEP, very often, is going to come-- This is unusual where DEP has come in with buildings in the ground and is saying no.

Now we have that problem in Woolwich, which is why we were concerned with the temporary water allocation permits that were passed in 2000 or 2001.

So in addition to whether-- Some of this-- Some of these amendments could be put in this bill. But to the degree they can't, we urge the Committee to look at some additional things.

Right now, if you're seeking a water allocation below a hundred thousand gallons, you need a registration, not a permit. It's much less inspection. A hundred thousand gallons, especially in this day and age, is a

lot of water in New Jersey. That requires a legislative change, and so we urge the Committee to take a look at that.

I think the Legislature could help the DEP have more will to say “no” more often, faster, with better science than they do do. Again, I think this is the exception. And it could have been, and should have been, handled better by both DEP and the water supplier before we got this far down the road.

I look forward and want to work with you on your building codes. I think that will go a long way in addressing the problem. And a lot of this -- and I'll talk more about it when we get back to the water supply issue. We need to do a much better job in managing our water supplies than we're doing now.

SENATOR SMITH: Thank you for your comments.

Anyone else on Dover, Ocean?

Yes, ma'am.

LEANN FOSTER SITAR: Hi. Thank you.

SENATOR SMITH: Your name, please.

MS. FOSTER SITAR: Leann Foster Sitar. I'm the Policy Director for the American Littoral Society.

SENATOR SMITH: Would you spell your last name?

MS. FOSTER SITAR: Foster, F-O-S-T-E-R, Sitar, S-I-T-A-R, like the instrument.

Thank you for calling attention to this issue.

Senator Ciesla and Mr. Chairman, the American Littoral Society has worked for over 40 years on conservation issues on the coast. And water supply and water quality are two primary campaign items for us.

I'd like to highlight something Jeff mentioned. The Office of Smart Growth and the DEP are currently considering center-based -- large-scale, center-based development for coastal communities, including Dover. And, in fact, the hearing on the coastal center application is Monday night for Dover. So this hearing is extremely timely and, I think, raises one of the primary issues that we're concerned about, which is how do we translate the knowledge that we have about supply limitations into a workable platform for Smart Growth for the coast?

We are now facing -- not just in Dover, but in eight or nine other communities very similar to Dover -- supply limitations that are not just like Dover, in that Dover's got sort of the unique and troubling contamination problem, but they're similar in that the more growth we continue to put in these areas, the more limitations we're going to run up against.

We don't have the information that's filtered through the permitting programs. And it's used as a benchmark for saying "yes/no" on a proactive basis, not on a reactive basis. These homeowners are in a tough spot. And I think the communication requirements that we're working towards are very positive. But we've got to do something for the long-term, in terms of planning.

Michele, in the Department of Environmental Protection, also mentioned this. And we're fully supporting those efforts, as well. So if there's any other legislation that we can think about putting in place that will actually define, as best we can, what our limits are, how they relate to water quality, and in particular how they relate to development-- That information needs to be implemented and enforced in our permitting

decisions. It's the only way we can be fair to homeowners, fair to the economic status of these communities, and fair to the coastal environment.

SENATOR SMITH: Thank you for your comments.

MS. FOSTER SITAR: Thank you.

SENATOR SMITH: We're now-- If there are no other comments on Dover--

Come forward.

Your name, sir.

RICHARD G. BIZUB: Good morning.

My name is Rich Bizub, that's B-I-Z-U-B, with the Pinelands Preservation Alliance.

I'm actually here to talk about water supply issues. But since the--

SENATOR SMITH: We're going to flip into that.

MR. BIZUB: Thank you.

But all I would like to say is that on behalf of the Pinelands Preservation Alliance, we support the Senator's bill and ask that you move it forward quickly.

SENATOR SMITH: Thank you.

All right, that concludes the Dover-Ocean portion of this hearing.

Let's go back to water supply.

I understand that we have two--

And thank you so much for coming.

We have two freeholders: Warren County Freehold, John DiMaio; and Hunterdon County Freeholder Director, Nancy Palladino,

who've come down to talk, I think, about S-969, even though it's not the topic of the hearing.

But you're more than welcome to come forward and give us your suggestions or ideas.

Is Nancy Palladino and John DiMaio--

Go ahead.

F R E E H O L D E R N A N C Y I . P A L L A D I N O: Good afternoon.

My name is Nancy Palladino, and I'm the Director of the Hunterdon County Board of Chosen Freeholders. And alongside me is Warren County Freeholder John DiMaio.

I've been listening with great interest to the testimony this morning, in terms of supply and need for infrastructure repairs, and how to move the water to spots of development that need them.

The first part of the equation is, where do you get the water from? And that's what I'm here about. I believe that S-969, if properly amended, can begin to redeem the promises that are made to the residents of the Highlands Region, when the Highlands Act became law more than a year-and-a-half ago.

And the framers of the Highlands Act promised that the State would provide sufficient funds to compensate both the landowners and the taxpayers of the region for the cost of protecting that water supply for more than half of the state's population. And the Highlands Task Force had justified the Highlands Act by predicting the treatment costs for consumers of the Highlands water would reach \$30 billion if stringent restrictions were not imposed on our region.

And the Highlands Coalition urged the State to commit \$500 million over 10 years, to be matched by Federal, local, and private funding, to preserve the prioritized watershed areas and lands in the Highlands region. And I'm very pleased that the Highlands Council has endorsed, at least in principle, a user fee for users of the Highlands water to pay for that acquisition.

Unfortunately, 20 months have gone by since the signing of the Highlands Act, and the necessary funding is still not in place. Both the landowners and the taxpayers in the Highlands are still bearing nearly the entire financial burden of the legislation. Other potential sources of funding, including the Garden State Preservation Trust and transfer of development rights, cannot generate the needed fees within any reasonable time frame. So we believe that S-969 can provide a suitable mechanism for the 5.4 million consumers of the Highlands water that should begin to share the cost of protecting it. But, first, it must be appropriately amended.

As released by your Committee, the bill allows water fees to be spent for any of five different purposes, and none of the money is dedicated to watershed and wetlands acquisition, let alone the acquisition of the land or conservation easements in the Highlands or the Pinelands region. And these expenditures are only optional. That bill would be amended to dedicate all of the proceeds from users of water originating in the Highlands and the Pinelands region for the acquisition of land and conservation easements in those region.

As currently drafted, the bill allocates a percentage -- a percentage only of the proceeds of the water fee to the Highlands and the Pinelands if, and only if, the DEP and Legislature decide to spend some of

the proceeds on land acquisition. Even then, the Highlands is shortchanged, because the allocation formula is based on the fees paid only by the respective residents of the Highlands and Pinelands, rather than fees paid by all the users of the water originating in the Highlands and the Pinelands, wherever they may live. Some 65 percent of New Jersey residents consume water originating in the Highlands. They all should contribute to the protection of the region from where their water comes from, regardless of whether they happen to live there. And in order to keep this new revenue system from degenerating into a shell game, the bill must also make it clear that the money going to the Highlands and the Pinelands will be in addition to funds that would normally be provided from other State programs.

Finally, to guarantee that fees won't be skimmed by a future Legislature, the amounts going to the Highlands and the Pinelands should be permanently dedicated by a constitutional amendment. Even if all of our suggestions are adopted, a fee of 4 cents per thousand gallons will not generate nearly enough revenue to make the Highlands region financially whole. Nevertheless, it's an important first step in redeeming the promises made over a year-and-a-half ago. And if you adopt these fair and reasonable amendments, we will do whatever we can to help assure the passage of S-969.

SENATOR SMITH: Thank you.

FREEHOLDER PALLADINO: In a nutshell: If you want the water, pay for it.

SENATOR SMITH: Yes, sir.

F R E E H O L D E R J O H N D i M A I O: Good morning, Mr. Chairman. Warren County Freeholder John DiMaio.

Senators, thank you for hearing us today.

Just to follow up a little bit on Freeholder/Director Palladino's statements. I have some feelings that I'd like to share with you, as well, on this issue. After sitting through most of the testimony this morning, or standing outside the door and listening in, there's no doubt that we have a significant issue here that we need to address. And the way I look at this, this is not a piece here and a piece there. This should be looked at as a system. The north state and the northeast state and the northwest state is effectively a system of water for everyone who is going to use it. There's many issues that need to be addressed. Infrastructure within existing user population centers is failing. I would probably say 20, 30, 40 percent in some cases is being wasted in the ground. Something needs to be done to address that.

Conservation members -- I also sit as the Chairman of the Hackettstown Municipal Utilities Authority in Hackettstown. We, in 1991 and 2002, restructured our rates in our system so that if you go above the average dwelling use, EDU, for what you should be using to water your lawn or wastewater, every hundred thousand gallons you're using, our rates go up a dollar a thousand. If you go to 200, 300, 400, it goes up another dollar, and it ladders up to promote conservation. We have to look at the supply, but we also have to look at the waste in the system.

Quite frankly, I look at this and I do support the fee on water. And I'll call it a fee. Because I'm a conservative Republican from northwestern Jersey, and I'm going to suggest to you that this fee needs to

be much higher, quite frankly. The State is over-relying on debt. You put me -- I'm on the record. (laughter)

SENATOR SMITH: We're forming a new group -- Republicans for higher water taxes. (laughter)

FREEHOLDER DiMAIO: Well -- but I'll tell you what. I also grew up in a household with a very conservative Democratic father who taught me that if you want something, if you need something--

SENATOR SMITH: You got to pay for it.

FREEHOLDER DiMAIO: --you pay for it.

SENATOR SMITH: Yes.

FREEHOLDER DiMAIO: And folks, this is a big issue. This is bigger in the State of New Jersey than I feel our failure with mass transit has been, and we're going to find out about that very shortly with respect to the cost of fuels.

I believe that we could really do a lot if we had a constitutionally dedicated fee, much higher than you're suggesting, to pay as we go and meet all these needs. Pay the property owners for their land, because we need their land to protect the water resource. But also, recreate and rebuild the systems that are in the cities and create those interconnections so that we can move water around the state. And to do that -- 4 cents on a thousand gallons is not much. If it was 50 cents on a thousand gallons, on my water bill, with the way we use water in my house with two daughters and a wife and me, it would cost me \$40 a year.

And as Mr. Tittel said earlier, we go through much, much more than that in water or wine or beer, or whatever. So it's a matter of priorities

and it's a matter of doing what's right for the future. We are on the right track. However, we need to pay for our needs.

Thank you.

SENATOR SMITH: I appreciate your coming.

John (*sic*) Hochreiter of the Builders League of South Jersey?
Are you here? (no response)

Okay, let's get Mr. Bizub back up from the Pinelands Preservation Alliance.

MR. BIZUB: Good afternoon, Senator Smith and Committee members. Again, my name is Rich Bizub -- that's B-I-Z-U-B -- and I am a groundwater geologist with Pinelands Preservation Alliance. I've been involved in water resource issues for 30 years, licensed in two states as a professional geologist, and I've served on the National Ethics Committee of the American Institute of Professional Geologists.

I just thought it would be appropriate just to take a few minutes of your time -- I won't impose too long -- to talk about some of the water levels that we see in South Jersey. And when I say South Jersey, I'm really referring to the part of the state -- the northern part of Ocean County. I have provided a handout on water levels, and I guarantee you I'm not going to spend a lot of time on this. But I think it is important that a little bit of attention be spent on the water levels that we see in the finite number of aquifers that we have in South Jersey.

In this handout (indicating), on Page 2, if you look at the bottom, there's a geological cross section. And you can see that there's only about six or seven aquifers. Those are the light-colored bars that go across. The dark colored areas are confining layers. And what I would like to do,

with your permission, is just take maybe two minutes and go through some of these graphs. And I'm starting with the lowest most aquifer. And the numbers really aren't that important. It's the trend that's really a concern.

Just for your reference, on the left-hand side of each of these graphs is a vertical axis -- that's depth to groundwater. And at the base of the graph, starting from the left, is time -- usually around 1960, thereabouts, to the current day. And just working our way through some of these graphs again, starting from the lower aquifer and working our way up, you can see that all the water levels in the various aquifers are plummeting, whether it's the lower aquifer of the Potomac-Raritan-Magothy aquifer. If you keep flipping the pages, you'll see the middle aquifer, the same trends.

And the one thing that I would like to point out is that around 1996 you'll see a little bit of an upward trend.

SENATOR SMITH: Yes. Why?

MR. BIZUB: And that is when the Department of Environmental Protection stepped in and said that we really have a problem here and we need to start cutting back our water withdrawals. That's the result of the critical area designation along the western portions of the state. So it just goes to show you what some management techniques can do to slow down the decline in water levels.

And again, just keep flipping through. On Page 10, the next aquifer up; and the same with 11, the same Englishtown aquifer -- also, going down. And starting on Page 12, you'll see the Wenonah-Mount Laurel aquifer, starting around 1964, going down. The Piney Point aquifer, on Page 14, going down. Starting on Page 17, the Kirkwood-Cohansey formation -- now this is the most productive aquifer along the Jersey shore.

It's known as the 800-foot sands. And again, look at the trend, prior to 1964 -- going down. That's it. This is all the aquifers that we have to work with in South Jersey. And this is really important. We can't make these aquifers. This is it as far as working with what we have.

So to sum up some of the things that I would think that we can do to at least start to reverse or slow down this decline in our aquifer -- our water levels -- is conservation. And we really need to reduce consumption. I mean, it's important to be able to ship water around the state during times of drought, but we need to reduce consumption or consumptive uses of water. And some of the ways that we can do that are-- I think we've all seen, on rainy days, riding around, those sprinklers and irrigation systems going. To my knowledge, there isn't any requirement at the State level to have mandatory rain sensors on irrigation systems.

SENATOR SMITH: Right. Just stop for a second. Let me have the card. Just a half an hour ago, Mr. Art Elmers (phonetic spelling) brought this up saying that we-- There's Mr. Elmers in the background -- and came up with a great idea, Senator. He suggested that we handle the irrigation sensors like we handle smoke detectors.

SENATOR CIESLA: Smoke detectors.

SENATOR SMITH: So that you would be required, on the resale -- if you have an irrigation system, to put them in. And I understand from Mr. Elmers you're talking about 100 bucks.

MR. BIZUB: Less.

SENATOR CIESLA: Less.

MR. BIZUB: That's right.

SENATOR SMITH: Forty dollars, and then it's-- Yes. So anyway, I've asked that Kevil -- to draft the bill. I've asked Kevil to ask the people who draft the bill to draft the bill, and we're going to put it in that Green Building package. If you'd like to be on it, we'd love to have you.

SENATOR CIESLA: I sell them. So I'm going to take a pass on it. In fact, I'm for it. (laughter)

SENATOR SMITH: All right. I'm sorry. Somebody would turn that into something. You're right.

SENATOR CIESLA: They'll be an article. (laughter)

SENATOR SMITH: Anyway, it's a great idea. I heard it a half an hour ago. We're getting the bill drafted.

MR. BIZUB: And to give credit to some municipalities, they have done this at the municipal level through ordinance already.

SENATOR SMITH: Right. It's a great idea.

MR. BIZUB: Beneficial reuse was mentioned. And unaccounted for water, that was also mentioned today too.

The last thing I'd like to say is that when we look at some of the water levels in the State forests -- Lebanon State Forest and Penn State Forest, for example -- the shallow groundwater level-- If we look at the drought of 2002, the water levels in those State forest wells went lower than the drought of record in the '60s. And in the '60s, it took years to get to that point. And in the 2002 drought, we went below that drought of record in just a few months. So the time to address conservation and move on it is now.

With that, I'd like to say thank you for your time.

SENATOR SMITH: Thank you, Mr. Bizub.

Doug Hritz from the Utility and Transportation Contractors Association.

D O U G L A S S. H R I T Z: Thank you, Chairman Smith, Senator Ciesla. My name is Doug Hritz and I'm the Legislative Director for the Utility and Transportation Contractors Association of New Jersey. Our organization currently numbers 1,100 firms active in all phases of heavy, highway, marine, utility, and environmental remediation construction throughout the state.

New Jersey faces very real concerns when it comes to the issue of water supply and drought prevention. We all remember the drought that our state faced four years ago, when reservoir levels fell to such conditions that the NJ DEP was forced to impose serious restrictions on water use for state residences and businesses. These restrictions not only significantly impacted our industry, but also the State economy during that time. And we've all heard that March 2006 was the driest March on record for New Jersey. And in fact, the potential for drought this year has even prompted the Pennsylvania Department of Environmental Protection to put all 67 counties in that state under a drought watch, while asking Pennsylvania residents to reduce water by 5 percent. And today we've heard that New Jersey may face similar conditions.

This Committee, however, has an opportunity to address the water supply issue with a long-term solution. Under the direction of Chairman Smith and Governor Corzine, the Legislature is currently reviewing a budget proposal to establish a dedicated revenue stream that will help to fund certain critical land acquisition and water infrastructure projects throughout the state. The proposal allows the State Environmental

Infrastructure Trust to capitalize the \$12 million the surcharge is anticipated to generate annually, to leverage over \$120 million for the aforementioned land purchases and projects. According to the DEP Commissioner, 75 percent of these funds will be directed towards water resource interconnection projects so that water could be shared during future droughts.

We all know that the program requires a surcharge, in the amount of 4 cents per one thousand gallons of water, on owners of public community water supply systems. This will result in the average cost of only \$3 to \$4 per household, per year. When considering that this fee will help to stabilize our water supply, maintain our high water quality standards, and assist in efforts to mitigate future drought conditions, the long-term benefits far outweigh the short-term costs.

We are here today to say that the UTCA strongly endorses this long-term, strategic proposal in addressing New Jersey's water supply needs. We stand ready and willing to assist the Chairman and the Governor in their efforts to move this proposal through the Legislature. However, if the concept of a water supply surcharge is not deemed feasible at this time, we respectfully request that the Committee and the Legislature as a whole consider establishing the dedicated revenue stream for water projects and programs through the budget.

Thank you for allowing me the opportunity to speak.

SENATOR SMITH: Thank you for your comments.

Wilma Frey from the New Jersey Conservation Foundation.

Are you here?

W I L M A F R E Y: Mr. Chairman and members of the Committee, thank you very much. I've come to this hearing to reiterate and reinforce the message that protecting land and protecting forests is the way -- the most important way to protect water supply. And nowhere is this more true than in the Highlands region, which supplies over half the state's population with drinking water.

The watersheds of the Highlands collect the water that fills the Highlands reservoirs, which are the four major water supply systems in the State of New Jersey. These watersheds, the headwaters, also protect the groundwater aquifers that supply the wells upon which nearly three-quarters of a million Highlands residents rely. And even though we now, thankfully -- and thank you, personally -- have the Highlands Water Protection and Planning Act, the need to permanently preserve our watersheds remains high. Nowhere is this more important than in the Highlands planning area, which, as you know, does not receive the benefits of the safeguards provided by the DEP Highlands regulations.

The Highlands Coalition map, which I have here with me, of the New Jersey Highlands critical treasures identified approximately 350,000 acres of unpreserved, critical natural resource lands. On this map (indicating), the purple is the unpreserved quality water supply lands, and that is at least 150,000 acres. The other unprotected critical resource areas were about 200,000 acres, for a total of 350,000 unprotected, critical environmental acres. The Highlands itself is about 840,000 acres, as you know.

What I've shown on this map is the preservation area, which is in here (indicating), and the planning area, which lies both outside of the

preservation area and within it, such areas as the Musconetcong water and the Musconetcong Valley. In this area, you can see that there are many water supply areas that are very important. For example, the Pequest Valley here in Warren County, Township of Hope; the Musconetcong Valley areas in Morris County -- I think Denville/Boonton area -- which are not in the Wallkill River Valley; all of which are in the planning area and are not receiving the benefits of the DEP regulations.

So these watersheds and aquifers are very important to be preserved and protected. So the most permanent way to protect watershed lands and aquifer recharged areas is to acquire them, either in fee or through conservation restrictions. To do so, funds are needed. And we believe that a water-user fee is an important step and is necessary to increase the amount of funding available for watershed and aquifer preservation.

A number of speakers have mentioned this just as well, and we strongly urge that the majority of any such water-user fee be dedicated to the task of preserving the land, because that is where the water is from. All the interconnections between pipes, while they are important, if you do not have the water supply, they will not work. So we need to preserve the land that preserves the water.

Thank you very much.

SENATOR SMITH: Thank you very much for coming down.

I'm not sure -- is it-- The last name is Fennessy, and I can't read the first name.

CONOR G. FENNESSY: Conor.

SENATOR SMITH: Mr. Fennessy. I wasn't sure whether it was Carol or what, but now I understand. Mr. Fennessy, you're with the New Jersey Apartment Association?

MR. FENNESSY: Yes, Chairman.

SENATOR SMITH: All right. We'd like to hear from you.

MR. FENNESSY: And thank you for your time this morning.

Again, my name is Conor Fennessy, and I'm the Vice President of Government Affairs of the New Jersey Apartment Association. And we represent over 600 multifamily rental housing providers throughout the state. I'm here today on behalf of the Association to lend our support to your efforts to enhance water conservation policies and programs throughout the state. We would like to ask, specifically in reference to the Green Building package that you've been discussing, to strongly consider taking an in-depth look at water submetering technology. The promises hold significant increased water conservation opportunities.

SENATOR SMITH: And what is that?

MR. FENNESSY: Primarily, New Jersey is the last state left that will not allow the submetering of water in multifamily properties. Forty-nine other states allow it and the U.S. EPA endorses the concept that when someone pays for the amount of the commodity that they consume, they'll conserve it. Currently, if a master meter comes to the property for water, the property owner is not allowed to use technology to measure individual unit usage. And we would like to have the opportunity, working with you in the Green package, to make New Jersey the 50th state to allow us to do that.

SENATOR SMITH: Forty-nine other states have it?

MR. FENNESSY: Yes, sir.

Massachusetts was the other holdout, and last year they approved it.

SENATOR SMITH: Let me just ask the water purveyors, do you see a problem with it?

Come forward and identify yourself.

EDWARD A. RAPCIEWICZ: Edward Rapciewicz. I'm Vice President of Operations of Aqua New Jersey. In fact, I sat on a few of the BPU--

MR. FENNESSY: The BPU -- the working group.

MR. RAPCIEWICZ: --the working group. I was part of the working group. Water utilities don't have any problem with that, as long as the submetering is done by another agency and the burden is not put on the water utilities.

SENATOR SMITH: If the landlord pays for it, it's okay.

MR. RAPCIEWICZ: Right. Because what would happen is, that would just -- additional meter costs and everything would get passed along to the ratepayers. And as long as it's done by someone else and we have a master meter and collect that way, we have no objection to that.

MR. FENNESSY: No. Yes, we understand that.

MR. RAPCIEWICZ: Yes.

MR. FENNESSY: Their authority ceases and their responsibility ceases at the master meter.

SENATOR SMITH: All right. So who doesn't like this?

MR. FENNESSY: There are concerns about the accuracy of the meters, but certainly there has been tremendous progress. I am not here on behalf of the Association.

SENATOR SMITH: Who doesn't like it? Who's the opposition?

MR. FENNESSY: There are folks who claim that the meters aren't accurate. And again, I'm not here on behalf of the submetering tech folks, who say that they're not accurate and (indiscernible) are being improperly built. Those are things that 49 other states have worked out, and I think it's something we would like to work with you on.

SENATOR SMITH: All right. Well, we'd like to hear more from you on it, in another context.

MR. FENNESSY: Absolutely, okay.

SENATOR SMITH: All right. Go ahead.

Thank you for your comments.

MR. RAPCIEWICZ: Thank you.

MR. FENNESSY: Included with my testimony is a paper that we did, actually, in response to the BPU process regarding our internal estimates. And if only a quarter of the apartments in the state are metered, based on that quarter, if there's only 10 percent conservation, that will save over 2 billion gallons a year.

SENATOR SMITH: What happened in the other states when they adopted this?

MR. FENNESSY: They have seen similar reductions in consumption.

SENATOR SMITH: Do you have any studies or reports that we could look at?

MR. FENNESSY: Actually, in the paper, Senator, which I think are with your materials, on Page 10 there's reference to an EPA study that saw a 15 percent reduction. It's actually attached to my testimony. I'll run a copy; I'll be happy to give you one.

SENATOR SMITH: Did--

MR. FENNESSY: I did hand them in to OLS.

SENATOR SMITH: Okay, we got it.

Go ahead.

MR. FENNESSY: We're jumping to Page 10, Chairman. A 2004 EPA study saw, actually, a 15 percent savings.

SENATOR SMITH: Here it is. Got it.

MR. FENNESSY: In the 2004 study, by EPA and the National Apartment Association and Multi Housing Council, saw a 15 percent reduction. Our estimates are actually lower. We were *ballparking* -- okay, maybe we'll see 10 percent. In the first illustration towards the bottom, that was over 2 billion gallons. Currently, since we can't submeter, we pay for all the usage, and we don't want to pay for the waste. And if we can reduce the usage, we'll reduce the need on the water system.

SENATOR SMITH: You have a stunning statistic there. You say a reduction of 10 percent in submetered apartments and save 2.25 billion gallons of water per year.

MR. FENNESSY: And again, that's based upon a very conservative estimate of only a quarter of the apartments being submetered. So we were trying to be conservative in our estimates today. If you take the

whole universe, which is over a million units, let's guess -- a quarter of those will do it.

SENATOR SMITH: Yes.

MR. FENNESSY: And again, that's for current construction. One of the things we certainly want to work through, and also -- is allow new construction to do it. I think that's the easiest.

SENATOR SMITH: How are you prevented? The building codes don't allow it?

MR. FENNESSY: It's actually a little more complicated. But the BPU -- about half of the state is under BPU jurisdiction with regard to municipal utility authorities. The BPU -- the process we are working on -- would not allow us to move forward, because they were viewing that if we meter, then we become a utility, even though the Federal EPA disagrees with that. The Federal EPA says if you're going to submeter, you're not a utility, because you're not providing the water. But the BPU has had a slightly different reading, and they have said that in this case you can't.

SENATOR SMITH: Yes. How about the tenants' associations?

MR. FENNESSY: They're-- I cannot speak on behalf of Matt Shapiro, but certainly one of the issues they raised were the accuracy of the meters, which I think is something we can come to an agreement on. And they are also concerned that it could possibly increase rents. At the back of our proposal, we actually have a list of principles that we are submitting to the BPU. And we were saying for the first year that the meters were installed, at the inception of the new lease, we would hold the rent flat. So

there would not be a rent increase, and you're paying for water. We're not double-dipping. We're not proposing to double-dip.

SENATOR SMITH: And would the landlords undertake the submetering at their cost, or are you going to pass that on?

MR. FENNESSY: Yes. No, but the cost of installing the system would be on us. Again, the nuances of that would have to be addressed in the regs. And we're proposing putting it in only for new tenants who come in at new lease signing; or, when a current tenant is there, when they re-up. We're not doing this halfway through.

SENATOR SMITH: Okay. A very interesting idea.

SENATOR CIESLA: You're better than you thought. You're actually better than you thought, Senator.

SENATOR SMITH: All right. Well, let's check that out. But, anyway, thank you. We'd like to hear more about this idea. It sounds very interesting.

MR. FENNESSY: Great. We'd like to work with you on it.

Thank you, Mr. Chairman.

SENATOR SMITH: Thank you.

Okay. On water supply issues, how about Mr. Rapciewicz. Did you want to testify, Mr. Rapciewicz, or not?

ERNEST C. CERINO JR.: Hello, Mr. Chairman. I'm Ernie Cerino from the New Jersey Utilities Association. With me is Ed Rapciewicz, from Aqua New Jersey Water. We really did not want to address too many water supply issues, except thank you very much for this hearing. It's actually been one of the better hearings I've listened to in my career, which--

SENATOR SMITH: We're going to charge you. (laughter) If you're that happy, we're going to collect a fee on the way out. (laughter)

MR. CERINO: You're going to charge us. Exactly. Well, that's what I'm going to get into.

SENATOR SMITH: Go right into the State budget.

MR. CERINO: One of the better hearings, actually, honestly, dealing with drought remediations, interconnections -- and you really don't hear a lot of this. And it's about time to educate the public and the water consumers in general. But what I just wanted to speak very, very briefly -- and we've talked about this before -- is general comments on the water tax or the water charge user fee. And I just wanted to clear up that, contrary to popular opinion, not all of the public and private water companies are in favor of the tax, which was reported in the press the other day. And while we think it's very laudable, we have a lot of concerns that the tax is going to create an unfair burden on some of the ratepayers, if the tax is to be used for anything but drought remediation and infrastructure.

I realize we're not talking--

SENATOR SMITH: You don't like the land acquisition enforcement?

MR. CERINO: That's our problem, Senator. And we've talked about this before. And I just wanted to go on the record with that. And I respect a lot of the discussions that we've had about this bill, and you've been absolutely terrific about it. And I know we're not talking about a lot of money here. We're talking about \$4 per year for residential, and perhaps tens of thousands of dollars for some commercial and industrial customers. But we ask that if anything comes from this hearing as regards to the water

tax, that it be allocated to the actual water project, and not be diverted in the budget process. We'd truly like to see it dedicated to water interconnections and drought remediations. And again, our big fear is that this money is just going to get -- what's the correct term -- confiscated, swiped up in the budget process and used for other purposes.

SENATOR SMITH: There is a poison pill in it.

MR. CERINO: We're aware. We're just hoping that we could have something with a little more poison, so to speak.

SENATOR SMITH: Okay.

MR. CERINO: Thank you very much, Senator.

SENATOR SMITH: Thank you for your comments.

MR. CERINO: And I'll turn it over to Ed Rapciewicz. Thank you again.

SENATOR SMITH: No problem.

MR. RAPCIEWICZ: Again, I'm Edward Rapciewicz. I'm with Aqua New Jersey.

Some of the things in the bill that we had a problem with is, basically, the way it is structured it creates a regressive tax for those water users to use potable water for basic purposes of drinking, bathing, cooking. And at the same time, there's a loophole wherein water users can install residential irrigation wells or hire water trucks to fill swimming pools, and avoid the tax. Somehow that has to be addressed.

Again, we also live in a state that is already considered to be one of the most expensive places to operate a business. There are exemptions within the text of the bill for some specific industries, but it fails to recognize those businesses that are good economic partners in the

State of New Jersey that fall outside those requirements. These companies would include, but are not limited to, Campbell's Soup, Progresso Pet Foods, Ronson Mushroom Products, and concrete manufacturers -- and that's just to name a few. It's important that we not continue to create reasons for businesses to exit the state because of the burden of additional taxes.

The other provision is the provision to use tax revenue for grants to local government to acquire public water systems if the purveyor fails to meet standards. This, in our opinion, raises constitutional questions.

And that's the limit of my comments.

SENATOR SMITH: All right. My only standard comeback to the comment about the tax thing is that, if we don't have clean water and an adequate supply, no business is going to stay in New Jersey. That's the problem.

MR. RAPCIEWICZ: We understand that.

SENATOR SMITH: Okay.

MR. RAPCIEWICZ: Yes.

SENATOR SMITH: Thank you.

MR. CERINO: Thank you, Mr. Chairman.

MR. RAPCIEWICZ: Thank you.

SENATOR SMITH: We have two representatives of the League of Municipalities -- Mr. Neely and Ms. Yeldell.

UNIDENTIFIED PERSON FROM AUDIENCE: Mr. Neely left maybe about an hour ago.

SENATOR SMITH: How about Helen Yeldell, is she here?

(no response)

Okay. And we have Mr. Tittel and Mr. Pringle on the list, if they'd like to talk about water supply.

MR. PRINGLE: Thank you.

With another drought -- appears to be pending, or at least a drought watch possibly imminent, I'm (indiscernible) especially appropriate to be talking about this today. And I also want to thank the Chairman for his many years of leadership on these issues.

When I looked at the Committee notice, even though it seemed to change a few times, the final one was quite daunting in where to begin, because we're really talking about the entire water supply. And water supply and water quality are obviously opposite sides of the same coin. And on the one hand, while we've made a lot of progress on both waters supply and water quality over the last 30 years, in a lot of ways we've also, in some of our solutions, actually aggravated the problem. And even where we've made strides, some new problems are potentially going to be overwhelming those strides. Most notably, we've made great strides around sewage treatment plants.

And I know Senator Ciesla, in his former life, played a big role locally in some of those issues. But the way we've developed in this state, over the last 30 years, is about to more than offset all of the cleaning up that's occurred in the Passaic Rivers of the world, because the sewage treatment plants are about to be overwhelmed by sprawl.

And I just want to highlight a few things and propose some solutions. The Water Supply Master Plan in New Jersey hasn't been

updated since 1996. I think we're within a year or so of getting it finally done. We need to get it done. And this time we need to implement it, because basically the 1996 plan pretty much sat on the shelf. And a lot of the projects that we're talking about, a lot of the engineering projects, unless the whole kit and kaboodle is implemented, the engineering solutions -- while they need to be part of the solution -- if they are the only solution, they will end up aggravating the problem.

And a good example of that would be the confluence project that we're talking about funding, and the New Jersey -- the American, Tri-County pipeline extension we're talking about sending down to Woolwich. Without the appropriate controls in place, we're going to provide additional capacity to the Woolwiches and Hunterdon Counties of the world, we're going to continue sprawl and development, we're going to pave over our recharge areas, we're going to increase demand, we're going to lose supply, and we're going to continue to contaminate our water. So as part of the infrastructure, we also need to make sure it's Smart infrastructure. And the rules are not in place. DEP has a lot of discretion. They need to update their rules. And in some places, we need to go back to the Legislature for additional authority. But even when the DEP has discretion, they're going to need legislative support to have the political will and clout to get it done. And so we hope the Committee will be supportive of that, as those things move forward.

I want to highlight a couple of things I heard today. The North Jersey Water Supply folks talking about pumping from the Passaic to the Wanaque Reservoir -- during low-flow conditions, the Passaic River approaches 100 percent treated sewage. There are over 50 sewage

discharges on the Passaic River upstream of drinking water intakes. Not just a pipeline that sends water up to the Passaic -- actually, up the Wanaque -- but the Passaic River itself is a major direct water supply source. The Passaic Valley Water Supply Commission has their primary intakes very low down on the Passaic River. So it is both a quality and a quantity issue on how we're developing and what kind of rules we have in place.

And one of the fine environmental things the McGreevey administration did was advance the C-1 program. C-1 is the status of waterway -- the highest level we give most waterways in this state that would say you can't degrade water quality. You can do development. You've got to do it in a way that doesn't degrade the water quality of these important streams. And for the first time we gave reservoirs, just for the very reason that they're drinking water supplies, C-1 status. However, the Passaic River pipeline that goes from Passaic to the Wanaque is actually significantly more degraded than the Wanaque itself. So -- and I'm not suggesting that we shut down that pipeline, but that pipeline is, in fact, degrading the water quality of the Wanaque. So I think we need to recognize that as we move forward.

It's been mentioned that the Highlands -- and that can be affixed to that. And as great as the Highlands Act is, and we fully support it, it can't be affixed. If we implement the Highlands Act perfectly, all we will do is not make things worse.

SENATOR SMITH: Right.

MR. PRINGLE: It's not going to make things better.

SENATOR SMITH: Staying in place.

MR. PRINGLE: I think we need to recognize that in the report.

There are some other things we can and should be doing to do things better. The North Jersey Water Supply folks talked about the TMDLs for phosphorous. We don't even have a standard that were in NJPDES permits for nitrates, which is an equally large, significant problem on the Passaic River and a lot of our more developed waterways.

SENATOR SMITH: Does the State have the ability to do that?

MR. PRINGLE: They do.

SENATOR SMITH: It's not a preemption issue?

MR. PRINGLE: It's the exact same problem. Who's going to pay for it? How much is it going to cost and who's going to pay for it? Is it going to be the water suppliers? Is it going to be the sewage dischargers? Because what the sewage -- the easiest thing for the sewage dischargers to do is to have additional nutrients in the water, but that means the water supplier's has to deal with it on their end. Or if the sewage dischargers do it, than it helps the water suppliers, but then it's on the sewage dischargers. And in most places, sewage dischargers pay property taxes. Water supply is generally a separate utility bill. But whether you're paying for it in the end, the consumer is probably is going to pay for it in one way, shape, or form. And higher water rates and/or higher property taxes isn't obviously a politically popular move, especially when you're looking at that narrow prism, as opposed to the long-term benefit, like we talked about in the Highland's Act of -- if we don't do the Highlands Act now, we're going to have to do so much more treatment in the future. It's actually cheaper to

pass the Highlands Act than to not pass the Highlands Act and have to do all this additional treatment in the next 20 or 30 years.

Another piece of this is, well -- is a program that isn't being used, unfortunately, under the Clean Water Act by DEP. It's called WQBEL -- water quality-based effluent limits. It's (indiscernible) term for, basically, before you -- instead of or before you do a TMDL, which is a full cleanup plan for an entire watershed, you can require a discharger to put on the best technology that exists and do it in a vacuum. And while it would be great to do the totality of a watershed, the TMDL program isn't well-implemented for a variety of reasons. It's a Herculean task. And while it would be great to do that, practically the toughest nuts to crack are the TMDLs in the waterways that need it the most. In the meantime, we could be doing these WQBELs -- that would be a significant step in the right direction.

Another thing I'd like to highlight is the situation in Camden, and very much linked to development going on in Pennsauken and Woolwich -- just as an example of how we're doing bad planning. Pennsauken is separate from -- Petty Island is a part of it -- but beyond Petty Island, Pennsauken and Camden are doing some significant redevelopment and need additional water capacity. The Pennsauken-Merchantville water system doesn't have the capacity to provide it. So they are buying water from the city of Camden. So rather than the city of Camden holding onto their excess capacity as a resource to do redevelopment in Camden, they're shipping it to the suburbs, which is bad enough, but that water is contaminated. It has significant problems. It's amazing that Camden actually has its wells in and around Camden -- if you

know the area, that's a fairly scary concept. But there's significant contamination problems in Camden and they're selling, essentially, Camden contaminated water to Pennsauken-Merchantville, which is bad enough. But going right through that area is something called the Tri-County pipeline. And they want to extend the Tri-County pipeline down to southern Gloucester County, to fund for their sprawl, when there's this critical need for capacity in redevelopment, literally, in the Tri-County pipeline's backyard. But they're just bypassing the city and going to fund further sprawl. So it's that kind of lack of strategic planning that is rampant in this state and has caused the kinds of problems we're seeing in Dover and the like. I've made that point, I'll leave it at that.

So I'd like to talk about some of the things that we think can address many of these problems. One is to get that Water Supply Master Plan updated and implemented. Second is to fix the State's water rules. There are three, kind of, categories of what I mean by fix the State's water rules. One is, we've had this great initiative about category one waters. There still aren't nearly enough Category 1 waterways. South Jersey, because of the way we've implemented C-1 in the past for scientific reasons, it's been a very narrow scope of why -- what waterways get C-1. You need to be a trout stream or drinking water supply, generally. And just because of the nature of the water, South Jersey doesn't have trout. And most of South Jersey has groundwater as their water supply. And C-1 is a surface water issue. But there are many other reasons -- ecological, recreational significance, etc. -- that waterways should get C-1 protection. So we'd like to see more C-1s throughout the state, but especially in South Jersey.

Two is, the existing C-1 program isn't doing what it's supposed to do. If a waterway is C-1, it says, "no degradation of that waterway." However, we're only implementing it in about two of the 10 or so DEP programs that impact water quality. We're implementing it through storm water, the 300-foot buffers, and we're implementing it through NJPDES -- the permit -- the direct discharge permit program. But there are many other programs that impact water quality. When you fill in a wetland in a C-1 watershed, you're going to degrade that water quality. When you site septic systems incorrectly -- and that happens very often in this state in a C-1 watershed -- you're going to impact water quality. When you extend a sewer line through a C-1 watershed, you're going to impact, or you can impact, water quality. And there are 10 other water programs like that in the state where, even though waterways are C-1 and they're supposed to not be degraded, and are legally required not to be degraded, the real on-the-ground truth is they are, in fact, getting degraded.

And then, finally, while we recognize not every waterway and the majority of waterways won't be, and arguably, shouldn't be C-1, that doesn't mean they shouldn't be better protected than they currently are. Most waters in this state only have a 25- to 50-foot buffer, and we currently shouldn't be going up to 300 feet for waterways, but we can do a lot better than 25 to 50 feet, than we currently do. And that's actually one of the ways we can -- we've talked about not making things worse. That's one way where we can make things better. As we redevelop these areas, we can make -- even while we're doing the redevelopment and building good things, we can have the buffers around the waterways get extended, filter out some of that pollution before it ever gets into the waterway.

Third, we need to renew the Garden State Trust. We need to expand it. The water tax, separate from that, is a very important piece of that, and applaud your leadership on that. And we're glad the Governor has come out in support of it. We do have some concerns on the ratio. We think it should be overwhelmingly dedicated towards open space, and not infrastructure. And again, any infrastructure shouldn't go forward until the rules are in place, to make sure that that infrastructure addresses a problem without aggravating other problems.

Fourth, we need to implement the Highlands Regional Master Plan aggressively, especially in this next year. The council, I believe, is voting today and formally delaying their actual adoption of the Regional Master Plan by six months. We're not necessarily opposed to that. We knew, in a very tight deadline as is, it's more important to get it right than it is to get it done on time. However, exemptions and grandfathering that were written into the law are happening all the time as we move forward. So we need the DEP rules to be more protective and we need that Master Plan to be done and aggressively implemented throughout the Highlands, not just in the preservation area.

I think at that I will-- Let me just close by saying that we've repeatedly-- Actually I'll go back -- and Shing-Fu Hsueh -- I believe he's still the mayor of West Windsor -- and he's a long-term, career DEP employee. He's no longer there. But he was the drought coordinator or DEP in the -- I think it was the 1998 drought -- in the '98, '99, whichever year that was. And one of the things he said -- and he got into a lot of trouble for saying it -- is every time we have a drought, we say we're going to learn from our mistakes. And every single time we reinvent the wheel and we never do. So

I hope that this time, whether the potential drought watch becomes a drought watch or a real drought, or whatever, I hope that -- and I know the Chairman is certainly here desiring -- you'll do everything you can to make sure that we not just learn from past mistakes, but actually implement those lessons.

SENATOR SMITH: David, we've been trying to do this piece of legislation since 1990. And every time we get it near the finish line, we get a heavy rainstorm, or a flood. So-- (laughter) Not that I want a drought.

MR. PRINGLE: But then we get floods down here in the basement.

SENATOR SMITH: Not that I want a drought, but--

MR. PRINGLE: Right. And that's one of the things, with the last -- the couple floods we've had in the State House Complex in the last two years. One of the stronger recommendations that has come out of DEP, as well as the Flood Task Force, was that we need greater buffers in non-C-1 streams.

So with that, thank you.

SENATOR SMITH: We certainly have lots of room for improvement.

MR. PRINGLE: Yes.

SENATOR SMITH: Anyone else that came to testify that we didn't give an opportunity to speak? (no response)

Let me thank you all for coming and participating. And we appreciate all your good ideas.

(HEARING CONCLUDED)