COMMONWEALTH OF PENNSYLVANIA
GOVERNOR'S
SUSTAINABLE INFRASTRUCTURE TASK FORCE

RACHEL CARSON STATE OFFICE BUILDING
400 MARKET STREET
ROOM 105
HARRISBURG, PENNSYLVANIA

THURSDAY, MAY 8, 2008
11:00 A.M.

PUBLIC INPUT SESSION

BEFORE TASK FORCE MEMBERS:

SECRETARY KATHLEEN McGINTY, TASK FORCE CHAIR
DEPUTY SECRETARY CATHY CURRAN MYERS
DONNA COOPER, SECRETARY OF POLICY AND PLANNING
MR. PAUL MARCHETTI
MR. SONNY POPOWSKY, CONSUMER ADVOCATE
HONORABLE SCOTT HUTCHINSON, REPRESENTATIVE
HONORABLE ROBERT FREEMAN, REPRESENTATIVE
HONORABLE STANLEY SAYLOR, REPRESENTATIVE
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(CONT'D)

MR. WILLIAM INKS
MR. GEORGE CRUM
MR. DOUGLAS BOWEN
MS. GINNIE ANDERSON KANE
MS. SALLY B. HOLBERT
MS. KATHY PAPE
MR. EDWARD TROXELL
MR. RICHARD MARCINKEVAGE
MR. TOM CERASO
MR. LESTER HOUCK
MR. DONALD BLUEDORN
ALTERNATE TOM KUHN
ALTERNATE STEVE DRIZOS
ALTERNATE TY GOURLEY

ALSO PRESENT:

MS. GAYLE MILLS, SENATOR SPECTER'S OFFICE
MR. KEVIN STANTON, SENATOR CASEY'S OFFICE
MR. MARCUS KOHL
MR. DANA AUNKST
MR. SCOTT PAUCHNIK
MR. JOE DEKLINSKI

BRENDA S. HAMILTON, RPR
REPORTER - NOTARY PUBLIC

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P R O C E E D I N G S

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SECRETARY McGINTY: That must be lunch coming, but I do understand for the task force members and the presenters that there is some chow, there's some lunch that will come. But not yet. We'll have to work for it first.

Why don't we do this? Let's go around the table and do introductions of task force members. I wanted to do two things today. One is to give all of you a general update in terms of the work items that we set forth in our last meeting and fill you in on where we are on these things.

And, obviously, our second and big agenda item is to hear from the individuals and organizations who are going to share their perspective with us today.

So let me kick this off. I'm Kathleen McGinty, Secretary of the Department of Environmental Protection.

DEPUTY SECRETARY MYERS: I'm Cathy Curran Myers. I'm Deputy Secretary for Water Management.

MR. TROXELL: Ed Troxell with the Boroughs Association.

MS. PAPE: Kathy Pape. I'm president of American Water. I'm representing the National Association of Water Companies and AWWA.

MR. POPOWSKY: I'm Sonny Popowsky. I'm the Consumer Advocate of Pennsylvania.

MR. HOUCK: Les Houck, Salisbury Township of Lancaster County representing the state association.

MR. KAUFFMAN: Terry Kauffman, Administrator for Mount Joy Borough Authority, Lancaster County.

MR. MARCHETTI: I'm Paul Marchetti, Executive Director of PENNVEST.

MR. KUHN: Tom Kuhn, Executive Director of the House Environmental Energy Task Force for Representative George.

MR. MARCINKEVAGE: Rich Marcinkevage from Lock Haven representing Pennsylvania League of Cities.

MS. KANE: Ginnie Anderson Kane, Upper Allentown Township Commissioner representing the Pennsylvania State

Association of Township Commissioners.

MR. INKS: Bill Inks, Director of Finance of the Allegheny Sanitary Authority, representing the local water associations in Allegheny County.

MS. HOLBERT: Hi. I'm Sally Holbert. I'm representing the State Board of Landscape Architects.

MS. DENWORTH: Joanne Denworth. I'm the alternate on the task force for Donna Cooper who is expected this morning, so she will be taking my place, I have a feeling.

MR. STANTON: Hi. I'm Kevin Stanton. I'm representing Senator Casey's office.

MS. MILLS: Hi. I'm Gayle Mills. I work for Senator Specter and have the whole middle part of the state and get quite a few calls and we're working on this with Mary Beth and then a group in Washington.

SECRETARY McGINTY: Thanks for joining us. We'll send our calls to you as long as you're already handling them.

Welcome. It's nice to see you.

REPRESENTATIVE HUTCHINSON: I'm State

Representative Scott Hutchinson, 64th District.

REPRESENTATIVE FREEMAN: State Representative Bob Freeman, 136th District, Northampton County and the chair -- the majority chair for the Local Government Committee.

MR. CRUM: George Crum. I'm the manager of the Southwest Delaware County Municipal Authority representing the Pennsylvania Rural Water Association.

MR. GOURLEY: Ty Gourley. I'm here on behalf Dr. Jared Cohon, President of Carnegie Mellon University.

MR. KARL BROWN: Karl Brown, Executive Director of the State Conservation Commission.

MR. CERASO: Tom Ceraso, Westmoreland County Commissioner, representing the County Commissioners Association.

MR. BOWEN: Doug Bowen, representing the Authority Association.

MR. BLUEDORN: I'm Don Bluedorn, with Babst Calland in Pittsburgh and I'm the chair of the Statewide Water Planning Committee.

SECRETARY McGINTY: Okay. Great. Well, thank you very much. Oops.

REPRESENTATIVE SAYLOR: Chairman Saylor, Local Government Committee.

SECRETARY McGINTY: How are you? Nice to see you. Representative Saylor has joined us as well.

Okay. A couple things just by way of update and then we'll turn it over to our presenters for their testimony.

First, our regional input sessions. We've been working with some of our offices and I think we are -- now have all of those meetings scheduled.

And where is Marcus? I'm going to turn it over to him to speak to that.

MR. KOHL: Yes. Big thanks to Craig Brooks of the Joint Air -- and this a long title so I'm sure I'm going to get it wrong -- Joint Air and Water Legislative -- Craig, can you fill that in?

MR. BROOKS: I know it very well.

SECRETARY McGINTY: Well, thank you, Craig.

MR. BROOK: You're kidding!

MR. KOHL: Anyway, a big thanks to Craig and his staff for pulling these together. As today is the kick-off of the public information gathering, I believe you all have a handout that was provided which lists the date and location of all of the other meetings.

We do have a change to the handout for the Thursday, May 15th meeting. George Crum from the Southeast has agreed to chair that meeting and DEP will be providing staff for that.

The department will be providing staff support for -- for all of these. So we'll be there taking notes. We'll also have stenographers there. So you will be getting -- hopefully at the June 3rd meeting you'll be getting some bullet points of those comments that were collected.

Nicki Kasi is going to be at all these meetings collecting them and sorting them into the different categories of what they are. So you'll have that on June 3rd.

Not sure if there's a whole lot more to add. You have the dates there and

locations. These will be open to the public.

And thank you to all the senators and representatives for agreeing to chair them.

SECRETARY McGINTY: Yes. Okay. Great. Thank you very much.

We also have -- Marcus identified the dates of the ticket -- of the upcoming task force meetings as well. Correct?

MR. KOHL: Correct. Correct. That the -- I'm going --

SECRETARY McGINTY: We don't have to go through all the dates, but --

MR. KOHL: No. The next is June 3rd. That will be here in Room 105 at 9:30, and the others I'll send out via e-mail. I don't know them all off the top of my head. So you'll be getting those shortly.

SECRETARY McGINTY: Okay. So that's the schedule in terms of input in our next meetings.

Before you get too comfortable, Marcus, I also wanted to ask you, as you will recall, our last agenda item last time was identify members of our working groups and so that has also been finalized and I believe

those working groups are up and running now. Some have already had some dialogue, if not meetings.

MR. KOHL: We have -- all of the working group members have been notified that they are on the working groups. We met this morning, prior to this meeting, with all the work group chairs and DEP liaisons to map out a schedule of future meetings.

I think the consensus among all the work group chairs, we're going to try to have those kick-off meetings around May 20th, that time frame, and from there we'll get the ball rolling.

SECRETARY McGINTY: Okay. Very good. Thank you.

The -- just on the work groups -- the work groups, I wanted to thank Paul Marchetti. He is stepping up to chair the financial resources working group.

Steve Settler (phonetics), it turned out, was not able to do that. So, Paul, we're grateful to you for doing that.

MR. MARCHETTI: Thank you.

SECRETARY McGINTY: We'll see if

you're still saying that in a few months.

Okay. Scott Pauchnik, can you give us a quick update in terms of your discussion with the Legislative Budget and Finance Committee on the financial needs part of the equation?

MR. PAUCHNIK: Sure. I think the last time we spoke we talked about whether or not we wanted to piggyback on what was in Senator Vance's Senate Resolution 224 that dealt with needs assessment on the Chesapeake Bay, whether we were going to do it that way or whether we wanted to go with our own resolution dealing with Commonwealth wide needs assessment.

After further consultation with legislative staff and some of the members, we decided to let Senate Resolution 224 go on its own, let them continue their work, and that we would have a separate resolution that would deal with Commonwealth wide needs assessment.

At this time that language is currently drafted, probably be sharing that with the legislative folks today or tomorrow. Probably today.

And then moving forward, also I think that the water staff have the RFP already written out. So once the resolution is introduced, if we could get movement on that, the RFP will be ready to go and we can start looking for how we move forward on the needs assessment, so --

SECRETARY McGINTY: Add two pieces to that. For Legislative Budget and Finance Committee, Senator Pippy has been very helpful, and his team.

So I think we're all on the same page --

MR. PAUCHNIK: Right.

SECRETARY McGINTY: -- in terms of what needs to be done and how we'll proceed. And Senator Vance has stepped up. She wants to see, obviously, the language of the resolution, but it's her intention to be the sponsor of that resolution to make it all official. So I think we're in good shape.

Representative Hutchinson.

REPRESENTATIVE HUTCHINSON: I just wanted to clarify. I think this is understood, that the same kind of

methodologies and number outputs will be in the two different studies so they are comparable.

SECRETARY McGINTY: That's certainly the hope and objective.

MR. PAUCHNIK: Yeah. You know, we definitely want to marry the two together and make sure that both sides -- both groups are working together on the data whenever we come up with a final report.

But it's just -- it was the intention of Senator Vance to move forward on her resolution alone.

CHAIRMAN HUTCHINSON: I understand that. I just wanted to make sure it was clear.

MR. PAUCHNIK: Most definitely.

SECRETARY McGINTY: Yes.

MR. PAUCHNIK: There may even be a line in the resolution -- a line in the resolution that says, you know, that the two would work together in the end, so --

SECRETARY McGINTY: Okay. Good.

MR. BOWEN: What is the likelihood of getting a contractor in place and getting this

report to us to finish in October?

SECRETARY McGINTY: Yeah. We were talking about the timing earlier. Let's assume we get a resolution next week. Then it's a 30-day process, to let the RFP go through that process, and then there's the work to be done.

My guess is that for some part of the work that we have to do, we're going to be assuming big numbers. Right? Whether it's -- thank you -- 15 billion or 20 billion or 30 billion. It's -- it's big numbers. And we won't have the final, precise numbers through part of the work that we have to do.

Having said that, Dana and Scott have been working with the legislative folks to stage the sharing of data with the task force.

So the resolution, Dana, is going to contemplate some interim reports or some interim sharing of data as well?

MR. AUNKST: Yes.

SECRETARY McGINTY: There you go.

MR. AUNKST: There will be certain goals set.

SECRETARY McGINTY: He's not Irish. See, he gives a yes or no. I give the la la la la la.

MR. AUNKST: No, I was just going to say obviously you're right. You know, we need data coming in and I think it would be helpful if data is coming in consistently.

So there's goals set in both the RFP and the resolution that will allow for constant data to be coming in so we can -- you know, that work group can process it.

MR. BOWEN: Thank you.

SECRETARY McGINTY: Okay?

MR. BOWEN: Yes.

SECRETARY McGINTY: Okay. Anything else before we turn it over and hear the input of the individuals who are joining us today?

Hello, Mr. Drizos. What are you doing back there? You can be up here representing Secretary Yablonsky if you'd like.

Okay. If not, I'm going to make the following suggestion, which is that we have individuals who have signed up to present on financial resources, on innovative measures,

and on needs, tracking some of our working groups, and I would suggest that we hear the presentations in each of those categories and then take time for questions, not after each presenter but after each category.

Agreed? Wow. How easily we make these unanimous decisions.

Okay. We're going to start with financial resources and we're going to invite Paul Diskin to come up and kick us off.

I'd ask for comments of maybe five to seven minutes, if that's okay.

MR. DISKIN: I think we got a little more than that, but I'll try to --

SECRETARY McGINTY: Okay. Seven, eight.

MR. DISKIN: Where would you like me? Okay?

SECRETARY McGINTY: I think there is probably the best we're going to be able to do.

REPRESENTATIVE HUTCHINSON: Madam Chairman?

SECRETARY McGINTY: Yes.

REPRESENTATIVE HUTCHINSON: I want to

remind you we do have a stenographer. I think maybe we need to accommodate her with our testimony.

SECRETARY McGINTY: Sure.

REPRESENTATIVE HUTCHINSON: So if we can ask her.

SECRETARY McGINTY: What would you prefer?

MR. DISKIN: We also have a written copy of it, too, to be submitted.

SECRETARY McGINTY: Okay. Paul, please. Thanks for kicking us off today.

MR. DISKIN: Good morning. And thank you, Secretary McGinty and members of the Sustainable Infrastructure Task Force, for the opportunity to present the Public Utility Commission's views on infrastructure sustainability.

My name is Paul Diskin. I serve as the Energy and Water Manager for the Bureau of Fixed Utility Services. I have been asked to present the following testimony on behalf of the Public Utility Commission. We have been asked to offer recommendations to address the Commonwealth's infrastructure challenges.

At the outset, we would like to commend Governor Edward G. Rendell for his foresight and leadership in establishing this task force. Utility infrastructure improvements in the Commonwealth are critical for the promotion of reliability, economic development, and environmental protection.

While the status of Pennsylvania's infrastructure related to jurisdictional water and wastewater utilities is generally acceptable and receiving appropriate levels of replace -- replacement and/or repair, we have seen incidents that require special attention.

For example, there has been a higher than normal number of water main breaks in the Pittsburgh area and Luzerne County, which resulted in this Commission opening an investigation of a water utility, the first phase of which was concluded with a number of recommendations for improving service.

As will be addressed, comprehensive combination of regulatory mechanisms, from full cost pricing ratemaking principles, to strengthening viability through fostering regionalization, provides the framework for a

reliable sustainable infrastructure.

We believe that some of these mechanisms may lend themselves for adaptation by non-jurisdictional water and wastewater utilities, especially the distribution system improvement charge or DSIC, a proven method for accelerating the pace of infrastructure improvements at a reasonable cost.

In addition, we offer recommendations for a collection system improvement charge or CSIC for wastewater utilities, which will require legislative action, along with a call for increased regionalization to achieve operational efficiencies and economies of scale.

Additional recommendations include increased water/energy synergies, consideration of a new water audit methodology, integrated water resource planning, and water afford -- affordability programs.

The PUC regulates the rates and service of jurisdictional water and wastewater companies. The PUC does not regulate municipal water and wastewater authorities,

mobile home parks, homeowners' associations or cooperatives. This can be compared to the regulatory scope of the Department of Environmental Protection which regulates the water quality, under the parameters of the Safe Drinking Water Act, of all 2,200 community drinking systems, including the PUC jurisdictional systems.

The two agencies share a concurrent and sometimes overlapping regulatory scope. Whereas DEP's scope relates to health and safety issues within the Safe Drinking Water Act, the PUC's scope encompasses the broader question of whether water supplied is fit for basic domestic purposes.

Simply put, water may be potable but not palatable, or fit for household purposes. Water should not stain laundry or fixtures, prematurely retire water heaters or include residue or lack clarity. Additionally, adequate pressure must be available to enable normal water-using tasks.

The PUC's regulatory authority provides for comprehensive administrative procedure with due process afforded for all.

An informal complaint process before the Bureau of Consumer Services exists, along with a formal complaint process before an Administrative Law Judge. For the formal process, a record of the proceeding is created to include testimony and evidence.

An attorney is not needed for residential customers and the process is relatively cost free and straightforward.

The PUC regulates the rates and service of 90 investor-owned water companies serving about 1.2 million residential customers. The PUC also regulates 27 municipal waters utilities which serve outside of their corporate boundaries.

As to wastewater utilities, the PUC regulates 61 investor utilities serving 31,000 customers, along with five municipal wastewater systems that provide service to customers residing beyond the corporate boundaries.

A large majority of the regulated entities are smaller which typically experience degrees of operational constraints which can impact and lessen customers' quality

of service.

Viability standards relating to the technical, managerial and financial wherewithal of water and wastewater systems are essential to be maintained in order to ensure safe and reliable service under the Public Utility Code.

In 1993, the Commission adopted a policy statement on viability which sets the framework for the Commission's comprehensive regulatory program which is geared toward fostering viability for all systems, including the smallest. The Commission recognizes that viable systems are essential to strong communities and that there is a direct impact upon health, quality of life and economic development.

The Commission also recognizes the smaller water and wastewater utilities may experience compromised viability that needs to be rectified. Solutions to the most challenging of the small system dilemmas include various forms of regionalization.

Endorsed by the Commission for many years, regionalization improves service

through resource coordination and increased economies of scale. A flexible approach, regionalization can include various forms, including physical interconnection where appropriate, acquisition and mergers, management of satellite systems, and contracts for professional management.

Since the early 1990s, many successful regionalization projects have occurred and greatly reduced the number of jurisdictional water utilities from nearly 430 to the 90 currently.

A number of factors contributed, but the resolution of some of the most serious of troubled water company problems can be attributed to the regionalization efforts by Pennsylvania American Water, Aqua, United Pennsylvania, and York Water.

Another contributing factor was the Commission's policy statement on acquisition incentives to encourage the takeover of smaller, troubled systems and was recently expanded to continue to remove barriers from viable systems regionalizing smaller, troubled systems.

Furthermore, the success has also been dependent upon the excellent ongoing interagency coordination we have experienced with DEP, particularly through the Commission's Small Water Company Task Force. The two agencies formalized this interagency coordination by the signing of a memorandum of understanding, or MOU, in 1993.

The PUC also entered into an MOU with PENNVEST. From our work with our sister public utility commissions around the country, I can tell you having a successful interagency cooperation and an infrastructure improvement loan program like PENNVEST makes us the envy of all.

Under the Public Utility Code, the rate make -- rate setting process employed is known as rate-base, rate-of-return regulation which ensures that utilities are charging just and reasonable rates and that expenses claimed are prudently incurred.

The rates are set to be non-discriminatory and equitable among customer classes.

Of particular value to this hearing

on sustainable infrastructure is the fact that rates are to include all essential elements of providing safe and reliable service. Deferral of maintenance is not allowed, particularly avoidance of prudent infrastructure investment. This full cost of service compliment (sic) is a critical element within any discussion of asset management and sustainable infrastructure.

The rate setting process has also provide customers with the opportunity to participate. And, in turn, the Commission is obligated, through what is known as the Regulatory Compact, to reach decisions that are in the public interest, that are fair, timely, and that rates are compensatory to encourage investment.

In addition to equitable rate setting, the Commission ensures equitable customer billing, metering, and overall service quality, including useful and timely customer communications.

The Commission's important role in regulating the rates and quality of service was recognized and reiterated by the

Legislative Budget and Finance Committee's recent legislative performance audit of the PUC.

In its report, the LB&FC recommended that the PUC's jurisdiction be extended to municipal authorities when serving customers that live outside the bounds of the municipality that appoints the authority member.

Nationwide it is commonplace that utility infrastructure is deteriorating throughout the country and this dilemma must be addressed in a timely, cost-effective manner.

Many water utilities were built more than a century ago and much of today's plant in service requires expensive upgrading. The unprecedented magnitude of the extent of needed infrastructure upgrades, along with the high cost, call for innovative solutions.

Mains that were placed into service a century ago then cost approximately a dollar a foot. Today, the remediation or replacement costs range from $61 to $100 a foot.

Prior to the implementation of the

distribution system improvement charge, DSIC, under traditional ratemaking, the pace of remediation ranged from a few hundred years to 900 years, not in any way a realistic time frame to match the actual service lives of mains which are approximately 75 to 125 years depending on the materials and soils.

Fortunately the Pennsylvania General Assembly enacted DSIC a decade ago after realizing the significant price tags that are associated with maintaining the state's aging water infrastructure.

The DSIC allows jurisdictional water companies to use a surcharge on customers' bills to fund more upgrades of aging infrastructure than would otherwise be feasible at a reasonable rate for customers.

The Commission regularly reviews the water utilities' DSIC expenditures by making certain the DISC expenditures -- by making certain that the amount of money expended is on DISC-eligible property.

Revenue-neutral projects allowed under DSIC include main/valve replacement, main cleaning and relining, fire hydrant

replacement, main extensions to eliminate dead ends, solutions to regionalization projects, and meter change-outs.

The cost of the surcharge is small when compared to the noticeable benefits, with approximate average monthly costs to ratepayers ranging from a few cents a month to about $1.50.

A number of consumer protections are built into the DSIC mechanism such as a cap on the percentage charged of the total bill, an annual reconciliation audit and the requirement for customer notice.

Because of the DSIC, water customers experience improved water quality, greater rate stability, and increased water pressure.

Further benefits include fewer main breaks and service interruptions, along with lower levels of unaccounted for water.

Another critical, if indirect, benefit makes the DSIC a favorite among local firefighters -- that is the improved fire protection that results due to increased pressure and reliability. The DSIC has had substantial impact on accelerating

infrastructure remediation in Pennsylvania. Prior to the D -- DSIC, water utilities' progress in upgrading infrastructure relative to actual service lives was a major challenge.

If there were an -- if there ever were an ideal regulatory tool created in Pennsylvania that is recognized as a best practice around the country, it is the DSIC. Its main features are that it is:

Pro-environmental as it significantly decreases unaccounted for water, as water is one of our most precious resources.

Promotes a major objective of this Administration and the General Assembly which is to update Pennsylvania's aging infrastructure.

And it promotes economic development as it creates and maintains hundreds of jobs.

In fact, DSIC is one of the most important regulatory tools of the past decade. It has been cited by the National Association of Regulatory Utility Commissioners as a best practice, and it has been designated by the Council of State Governments as model legislation.

Legislatures in six other states have since recognized that a new regulatory mechanism was needed to accelerate the pace of infrastructure upgrades at a reasonable cost.

In 2003, Pennsylvania -- PUC approved a Collection System Improvement Charge, which would allow the state's wastewater utilities to use a surcharge similar to DSIC to upgrade its aging infrastructure. Based upon the success of DSIC, the Commission believed that many of the challenges facing the wastewater utilities could be addressed in the same manner.

Unfortunately, the Commonwealth Court concluded in 2005 that the Commission did not have the authority to approve a rate mechanism such as CSIC to recover these costs. The state Supreme court denied appeals to protest.

The LB&FC performance audit recommended that the General Assembly amend the Public Utility Code to give the PUC authority to establish a CSIC program for wastewater companies. Not only would the CSIC accelerate aging infrastructure upgrades, it would also help resolve overflows from

sanitary sewer systems and from combined sewer systems.

The General Assembly has been discussing this recommendation and the PUC strongly supports such legislation and hopes it to be -- hopes it will be enacted.

Four years ago, the Commission launched a consumer-education effort to inform Pennsylvanians about how drinking water is regulated, ways to conserve this precious resource, and low-income programs available to help pay bills.

Consumer-education brochures and fact sheets are distributed to consumers throughout the year.

Additionally, the Commission marks National Drinking Water Week each May. Earlier this week, Chairman Holland, Commissioner Pizzingrilli, and House consumer Affairs Committee Chairman Joseph Preston, Jr., visited one of the many water infrastructure improvement projects undertaken statewide to highlight the need for sustainable water infrastructure.

Water treatment and distribution are

also highly dependent upon energy, primarily for pumping. Similar energy dependencies exist for wastewater collection and treatment.

Energy production relies heavily upon water, primarily for cooling, noting, however, that the generators became non-jurisdictional since electric restructuring.

In fact, energy production consumes the largest amount of water in the state. Increased efficiencies by the water, wastewater and energy industries result in financial savings on the expense of purchased water -- purchased power and water where applicable, but reduction of water use has become increasingly more important as this resource has become more limited in some areas at given periods of time.

Although Pennsylvania is typically water-rich, the ongoing drought patterns, along with climate change, bode well for efforts to increase efficiencies.

Additionally, optimizing the water and energy synergies will become even more critical and cost-effective as electricity rate caps are removed from customers' bills.

Some water utilities may find that hourly rates will apply and may choose to purchase energy from an alternate supplier.

More efficiencies can be uncovered, some of the most promising include:

For water utilities, high efficiency pumps and installing micro-turbines in major transmission lives for pressure reduction and renewable energy generation; electric industry rate incentives for diesel/gas back-up generators to help water companies save costs by avoiding peak hourly rates while shaving the electric company's system load; and for wastewater utilities, methane capturing and/or burning for power generation.

Utilities could take advantage of alternative energy credits, not only within Pennsylvania, but also may have applicability within the entire PJM market, which includes all or parts of 13 states and the District -- District of Columbia.

Efforts to ensure sustainable infrastructure include a combination of components, many of which have already been addressed. These include a relative -- a

relevant prioritization process to address main replacement or cleaning and relining and facilitation of repayment of the investment through cost-based rates, including the DSIC mechanism.

In addition, a comprehensive approach to wise water usage is also advised. In the early 1990s (sic) the PUC instituted a Comprehensive Water Conservation Policy which addressed: Customer education, water audits for large users, water efficiencies, unaccounted-for water, ongoing leak detection, universal metering, and a conservation contingency plan.

Based on these basics, a broader integrated water resource management approach appears to hold much promise for maximizing limited resources, in terms of water and finances, while benefiting the environment.

This holistic approach has been defined as the management of the whole hydrologic cycle to achieve a coherent set of water resource policies and uses that balances all reasonable social, economic -- environmental and economic needs in a

sustainable manner.

To wrap up, we have a summary of 16 recommendations for the task force. A number of these recommendations have already been discussed previously; others are briefly discussed with further information to be produced upon request.

One, to accelerate water utility infrastructure remediation at a reasonable rate, adapt the Distribution System Improvement Charge for applicable non-jurisdictional water utilities.

To accelerate jurisdictional wastewater infrastructure remediation at a reasonable rate, support legislative authority for the Collection System Improvement Charge for jurisdictional wastewater systems.

For all other wastewater systems, to accelerate wastewater infrastructure remediation at a reasonable rate, adapt the Collection System Improvement Charge for applicable non-jurisdictional wastewater utilities.

Number four, to further ensure infrastructure upgrades for non-jurisdictional

water and wastewater utilities, adopt full cost pricing rate -- rate setting, with all utility rate revenue allocated towards water utility operations.

To better ensure infrastructure reinvestment by non-jurisdictional water and wastewater utilities, adopt the Uniform System of Accounts, which, among other things, would enable a distribution -- depreciation expense to be built into rates.

To target low income customers having difficulty meeting their bill obligations, establish customer assistance programs.

To further resolve the troubled water system challenge, expand regionalization efforts, including mandatory takeover regulations amended to apply to all ownership types of chronically noncompliant water systems versus -- versus the current limitation of the PUC being authorized to direct a jurisdictional viable system to take over a chronically noncompliant jurisdictional system even if a viable non-jurisdictional system is the more logical choice.

To minimize the time period for

customers experiencing long-term boil water notices, limited supply or other related problems occurring during the pendency of the litigation process for the most serious of chronically noncompliant systems where customers' health could be jeopardized, develop a new, more expeditious receivership appointment process.

To further promote wise water use and operating efficiencies for non-jurisdictional water systems, institute a comprehensive water conservation policy similar to 52 Pa. Code 65.20.

To maximize limited resources, both financially and related to water supply, and balance competing uses to both benefit social values and improve the environment, incorporate an integrated water resource management approach as applicable.

To provide municipal water authority customers living outside the bounds of the municipality that appoints the authority members with the same customer protections and oversight provided to -- provided to customers of municipally-owned water systems, extend

Public Utility Commission jurisdiction to the water utilities -- water authority's outside customers.

To expand customer protection over rates and service to all customers of the Commonwealth's 2,200 community drinking water systems, along with easing the fragmented regulatory structure, thereby easing regionalization and other efforts to strengthen the water and wastewater utility industries, extend Public Utility Commission jurisdiction to all currently non-jurisdictional water and wastewater systems, with consideration given to implementing an interim regulatory process whereby the Commission could assert jurisdiction on an as-needed basis, such as for complaint handling and rate cases and relinquish jurisdiction when needed.

To save costs and water, and produce some renewable energy, incorporate water/energy synergies where applicable.

To most efficiently target infrastructure remediation dollars, review benchmarks for relevant infrastructure

replacement prioritization methodologies.

To garner understanding and support for costly upgrades of water and wastewater infrastructure, publication -- public education efforts about the value of drinking water and how it is treated and distributed should be broadened by utilities and public agencies alike, including those designated by the U.S. Environmental Protection Agency and the American Water Works Association.

And the last one is to more efficiently determine water losses and improve system reliability and financial viability, replace reliance upon the unaccounted method -- unaccounted-for water methodology with the newer water audit methodology adopted by the American Water Works Association.

Thank you.

SECRETARY McGINTY: Very good. Well, that was a really terrific, comprehensive presentation. I'm sure the task members agree and are very grateful for your effort in laying all that out.

I'd ask if you could find a place just to hang there while we hear Bruce

Hottle's presentation because I'm sure there's going to be lots of follow-up questions --

MR. DISKIN: Okay.

SECRETARY McGINTY: -- for you as well, Paul.

MR. DISKIN: Thank you, Secretary.

SECRETARY McGINTY: Thank you very much.

All right. Bruce, how are you? Nice to see you, Bruce.

Bruce Hottle with the Pennsylvania Utility Contractors Association.

MR. HOTTLE: You have a copy -- the board members have a copy of this pamphlet here. What I'd like to talk about today is, first off, the current needs assessment.

I've been involved in the industry for about 31 years now and this was the first time I've seen DEP and EPA both working from the same sheet of numbers.

The current needs assessment for Pennsylvania is about $22 billion. As a representative of the construction industry, I'm here to tell you today that that number is about 30 percent lower than what today's

actual costs are.

When you -- when you calculate the current surge in fuel prices, cement increases, steel reinforcement increases, health care increases and wages, that $22 billion was established in 2004. Today's needs are going to be 30 to $32 billion and climbing rapidly.

Just to give you an example, I'm currently finishing a project that I bid on December 11th, '06 when my fuel was a dollar forty-five a gallon for diesel fuel. Now currently paying 3.30 -- or 4.35 a gallon for fuel today.

Many projects like that will burn a thousand gallons of fuel per day. You can see what that does to your costs.

Getting back to our testimony here this morning, the needs of Pennsylvania are great. There's no -- there's no community in Pennsylvania who has a system that is up-to-date, fully ready to go today.

In fact, over the last two months in my discussions with various members of the legislature, I have not found one legislator

who has a community within their district that does not have some kind of a tap ban or moratorium on new construction.

That in itself is hurting Pennsylvania and preventing us from bringing in additional industry to the Commonwealth and thousands of jobs are at risk.

The Pennsylvania Utility Contractors Association for years has been pushing the idea of a clean water trust fund, very similar to what the private utilities have in the way of the distribution service charge that the -- that the gentleman before me was just talking about.

To give you an illustration of that, I brought with me today a copy of the water usage report for the municipal authority that I chair in Somerset County. Every municipal authority is required to have a daily reading of their master meter.

And you can see that the chart I brought shows our readings for Lincoln Township Municipal Authority for the year 2007. Our total usage of water for the year was 37 -- 38,747,900 gallons.

If you flip that over, on the back Pennsylvania Utility Contractors Association for a number of years now has been pushing the clean water trust fund to fund those needed improvements.

You'll see that at a rate of 20 cents per 1000 gallons consumed would generate -- our figure show it would generate about 200 to 250 million dollars a year for sewer and water construction in Pennsylvania and that's based on permanent, of all water treatment plants and sewage treatment plants.

In breaking it down for the system that I chair, it works out to a dollar thirty-seven per customer per month. We've got 470 customers on our system. For our municipal authority it amounts to $7,700 a year. Of that 2,700, approximately, would remain in the local municipal authority. However, it would be restricted to a capital reserve account, about 5,000 of that would then be sent on to PENNVEST.

What we're proposing is that PENNVEST be the depository for all funds generated by this proposed trust fund, and

we're leaving a portion of the money in the -- a third of the money remains in the community itself, in the capital reserve account for improvements of the system.

The other two-thirds of the money is sent to PENNVEST. Of that, we recommend half be for loans and half be for grants.

Many communities in Pennsylvania cannot afford to upgrade their systems or even build a system. The -- the system that I chair we just this week lost a $2 million -- $2 million federal grant because we couldn't come up with a 45 percent local share. So that money is -- is gone from Pennsylvania, gone from our system.

We surveyed the proposed system three times to establish the financial wherewithal of the system. The -- the money available -- our mean income level is $30,000 per household.

Under the guidelines one percent of mean income for water and one percent of mean income for sewage, that puts us at a $25 a month rate.

To finance the other half of the

money that we needed we went to Farmers Home Administration. They offered us a million dollars at four-and-a-half percent interest and the service -- debt service cost of that alone would have been $31 per month. Estimated operation of maintenance of the system would have been $25 a month on top of that. You can see we're at $56 a month and our ratepayers just simply could not afford it.

Currently there's no other means to finance that in Pennsylvania. PENNVEST today has a budget of about $262 million and that's declining because the federal share is declining. I think last year we got $27 million. This year we'll be lucky to get $20 million.

Several years ago PENNVEST had a budget of 320 million a year, plus an additional -- through Growing Greener an additional $32 million a year of grant money.

You can see that the needs keep growing exponentially and the monies available continue to decline.

A number of other solutions that the

utility contractors would like to offer, some kind of a uniform design code for Pennsylvania, similar to what PennDOT has with the Form 408. You know, when you bid a highway project, every highway project in all 12 districts in Pennsylvania is designed around the same criteria.

We don't have that in the water and sewer industry. It's left up to the individual engineers and designers as to how they're going to meet the regulations they're required to meet of EPA and the DEP.

We think from the industry standpoint there's tremendous savings available out there if that was all codified into one single document and every system was designed around that. At the big table, the contractor then knows exactly what he's bidding, there shouldn't be any surprises, and that would help bring the cost down.

There's a number of other regulatory issues that add costs to projects but don't add any long-term value. And one of those that has been particularly burdensome to the industry is the current DBE/MBE program.

What we're suggesting is we'd like to see some kind of a mentoring program with a time limit to it, that a contractor take a DBE under his wing and mentor him or her and make her a full-fledged contractor who can standalone and bid work by themselves in a time period of five to seven years.

Under the current program that's approximately 30 years old and, to my knowledge, nobody in our industry in Pennsylvania has ever graduated from the program.

Many of the DBEs that are operating today are merely front organizations that add five to seven percent cost to a project and never touch the material.

In fact, quite frankly, a lot of them couldn't find the project on a map if you handed it to them.

Those things all add costs to our system that add no value to the project.

We, as contractors, recognize that there's only a certain amount of money available every year to do these projects. And if we spend that money on needless

regulation that provides nothing to the project itself, we're doing less and less projects for more and more money.

And that's a situation that needs to be reversed. And I think with that, I'll end my remarks and take questions.

SECRETARY McGINTY: Okay. Terrific. Well, thank you both for your presentation. I'll open it up as the prerogative of the chair and I'm going to throw out the first one and actually, Sonny, I'm going to put you on the spot, too, to engage back with Paul.

Just wondered what the consumer advocate's position is on the DSIC and/or the proposed CSIC?

MR. POPOWSKY: I think the DSIC is -- you know, it's a gimmick. It's a ratemaking gimmick to get the utilities the money quicker.

The reason that the Commonwealth Court rejected the DSIC for the wastewater utilities was not just because it wasn't permitted under law but actually because it was a bad idea and they said it didn't -- it violated, you know, basic ratemaking

principles.

So having said that, we've gone along with the DSIC.

By the way, one of the protections in the DSIC was it was always supposed to be for five percent of the customer's risk, but the commission just expanded that to seven-and-a-half percent.

So I think if a goal is to allow utilities to get more money more quickly, then the DSIC works.

But -- but traditional ratemaking can also be used to do that. It just takes the utility a little longer to -- to get the money. In either case it would ultimately get the money, but at a base rate case they have to demonstrate that they require an overall rate increase, not just that they spend more money on pipes.

SECRETARY McGINTY: Paul, do you want to respond? And then I open it up for anything else.

MR. DISKIN: Yeah. I guess one of the things we looked at -- the Commission looked at is the fact that with the DSIC in

place the companies do not have to come in for rate increases as frequently as they did in the past.

And obviously there is an expense to the customers for that rate increase. So most -- all of the utilities that I've been familiar with that have used DSIC have been able to stretch out the time between their base rate increases and actually may have reduced cost in the total for putting together the expense -- the regulatory expense to put a case together.

SECRETARY McGINTY: Okay, very good.

Given how -- how many of us there are, I'd ask you to just jump in but for the benefit of our stenographer, as you're jumping in, re-identify yourself for her.

MR. INKS: Bill Inks, Allegheny County Sanitary Authority.

I tend to agree with you. We don't include a component for depreciation in our rate structure. However, we include the debt service.

I'm curious as to what your view is to prevent doubling up on the rates, i.e.,

debt service versus depreciation. How do you control the -- the depreciation portion of the rate structure?

MR. DISKIN: Well, in the calculation of rates for our regulated utility, depreciation is a component but also the debt -- the interest expense is also an integral part of it.

MR. INKS: Either side?

MR. DISKIN: Yes.

MR. INKS: Okay. So you move the capital side, the principle side, put the interest side in there and use depreciation as the other component?

MR. DISKIN: That's correct.

SECRETARY McGINTY: Other questions?

I have another one. Bruce, just the design feature of your proposal, is the -- the 20 cents per 1000 on water and wastewater? What's the design of it?

MR. HOTTLE: Yeah. It's based on both water and wastewater. The theory being if, say, you use 3,000 gallons of drinking water a month, you'll generate 3,000 gallons of wastewater a month.

In order to fund both construction of drinking water systems and wastewater systems, all those facilities have master meters. All of them are required to record the daily flows, and that's what we're based on, both water and wastewater.

SECRETARY McGINTY: Okay.

MS. COOPER: Donna Cooper. Hi. Donna Cooper, Governor's Office.

When you were making the presentation, you talked about the rate at which you are currently charging folks is set at $25 a month. Is that correct?

MR. HOTTLE: No. What I was talking, that was our proposed cost of operation of maintenance of the sewer system, the sewage treatment plant.

MS. COOPER: But when you were presenting that, you were talking about the fact that those costs, added to what you're currently charging, would be unaffordable for your ratepayers?

MR. HOTTLE: Right.

MS. COOPER: How do you determine affordability? I heard you mention something

that --

MR. HOTTLE: Under the 1988 Clean Water Act, it established that you survey your customer base. You need to use the latest census figures or go out and actually survey the proposed project area.

You do a financial survey and establish a mean income for the project area. And then you need to establish the rate of -- not to exceed one percent of mean income for drinking water and one percent of mean income for sanitary sewage.

MS. COOPER: That would be two percent?

MR. HOTTLE: So it's two percent of total income. So in the case of the municipal authority that I chair, our customer base has a mean income of $30,000 a year, so it's $300 for water, $300 sewage, divided by 12, $25 a month.

Our current water rate is 32.50 per -- for 3,000 gallons per month, $2.50 per 1000 there above. That's a domestic rate.

For commercial, it's 42.50 per 3,000 gallons. So 3.50 per thousand.

MS. COOPER: So commercial aren't applied to that base, right? Because the standards are median income of the household --

MR. HOTTLE: Right. Right. Commercial doesn't count.

MS. COOPER: Is that standard of one percent on each side, water and wastewater, is that an aspirational standard and is that something that, you know, there's a ranking that says where people are in each wastewater system and drinking water system nationally with respect to that?

MR. HOTTLE: Those are the target figures that --

MS. COOPER: Right.

MR. HOTTLE: -- when you're putting a project together --

MS. COOPER: What does it look like in the real world? Are people at those standards?

MR. HOTTLE: No. We're -- the average rate probably in Pennsylvania -- and Paul would probably know better than I at the current time -- is probably somewhere between

45 and $55 per month.

I can tell you I served on the PENNVEST board --

MS. COOPER: You're just not sure. But for mean income that would be between -- around -- for both --

MR. HOTTLE: Yeah.

MS. COOPER: -- around two percent? But that would be --

MR. HOTTLE: Well, no. That's for one. For water or sewage.

MS. COOPER: Oh, okay. So you don't --

MR. HOTTLE: So it's the $90 per month for -- for both.

MS. COOPER: I guess my point is there -- I'm trying to figure out whether the aspirational standards as established by the federal law are the standards that people are actually finding a reality across the country as being the way in which current costs for water and wastewater are actually being paid by consumers.

MR. HOTTLE: Well, when you're putting a project together, those are the

numbers that you -- you target.

And then, for instance, if you make a submission to PENNVEST, you hope to get enough grant money out of it to bring you down to those figures.

A lot of times when you put the project together, your actual costs are in the 60, 70, $80 a month range and so you've got to rely heavily on -- on grant funds to bring you down to that target number.

The problem is you've got a municipal authority board made up of five to seven members with the current system, and they're going to do everything they can to keep the rates down to themselves and their neighbors.

MS. COOPER: But does that --

MR. HOTTLE: I don't --

MS. COOPER: Does that standard of one percent on each side, water and wastewater, seem like a reasonable standard?

MR. HOTTLE: I believe so. That was the standard established when the SRF program problem was established in 1988 by the last Clean Water Act.

MS. COOPER: But you said when you're

trying to put a project together it's kind of hard to hit that standard and we are already above that standard as being -- on average?

MR. HOTTLE: On average we are.

MS. COOPER: Was that established at a reasonable level? I mean I feel like Sonny probably would say --

MR. HOTTLE: But it probably -- it was in 1988.

MS. COOPER: Right.

MR. HOTTLE: I'll put it that way.

MS. COOPER: Right.

MR. HOTTLE: Twenty years later, no. But the Clean Water Act has not been reauthorized.

MS. COOPER: But it's an aspirational standard there.

MR. HOTTLE: Right.

MS. COOPER: It's not a regulatory requirement I understand.

MR. HOTTLE: Right. It's the target.

MR. MARCHETTI: Paul Marchetti. Is that okay? Just wanted to make sure.

SECRETARY McGINTY: Paul is very

sensitized.

MR. MARCHETTI: Donna, just to give you kind of our perspective, we use between one to two percent as our target, and it varies in that range depending upon other demographic factors, the needs of the community.

I would say the people -- of the applicants that we get, probably a half to a third are under that target rate and maybe the balance are -- is over when they come in.

But, of course, you know, we have -- the sample that we get of applicants isn't necessarily representative. So -- but our -- anyway our aspirational rate is -- is really double what Bruce's are.

MS. COOPER: Okay.

SECRETARY McGINTY: From Senator Specter's office.

MS. MILLS: Hi. Gayle Mills, Senator Specter's office.

If you're saying 20 cents per 1000 gallons, I mean what's the difference in that versus Maryland's flush tax? Is it still -- I mean it's still a tax. What is --

MR. HOTTLE: Right. The difference is that a user fee is -- if you consume -- say you -- I could tell you from the system that I chair, I have -- I have a couple customers on the system who use 12, 15,000 gallons of water per month and they're domestic households.

And instead of finding where their water leak is on their side of the system, they continue to pay the rate. So that's -- you know, the 20 cents per 1000 would encourage conservation.

If you've got a leaky toilet in your house, a leaky toilet can run as much as 5,000 gallons of water a day away. It encourages people to -- to solve the problem.

Another aspect of it it encourages the municipal authorities to go out and fix their leaking systems. We have many systems in Pennsylvania -- for instance, in one of our recent meetings a lady from Oil City Borough testified that 50 percent of the water that they filter and treat on a daily basis never reaches the customer's meter.

So their cost to serve the

customers is artificially high. It's double. And she testified that -- that she had -- that that's been their situation for many years.

And my question to her was what are you doing to resolve that? She said, nothing until we find the money to do it. At some point in time in the future we'll probably find the money to do it.

On the wastewater side, we have many wastewater systems that suffer infiltration, particularly during wet water periods, and their flow meters go off the chart.

Say their -- say their daily permitted capacity is 5 million gallons and you have a wet weather event and they -- they run seven to a seven-and-a-half million gallons.

That basically means you just flush that entire septic or sewage system into the local river or stream.

So there needs to be -- the way we look at it, the trust fund and the user fee of 20 cents per 1000 promotes people to fix their systems, promotes conservation, and so on.

The Maryland flush tax is strictly

$30 per tap per year. Starting in January 1 of '07 Maryland went out to private homes or systems on the septic system and well, are also now paying $30 per month.

So they're not -- you're not getting any benefit from a municipal system.

SECRETARY McGINTY: A -- a flat fee.

MR. HOTTLE: They're paying a $30 -- $30 per year. I'm sorry. Not month. $30 per year flat fee.

SECRETARY McGINTY: A year.

MR. HOTTLE: It's a $30 per year flat fee. And what Maryland is doing is -- I think that's currently generating about $77 billion a year in Maryland and they're going out and leveraging that with bond issues to help their problem.

SECRETARY McGINTY: Representative Freeman, did you have a question?

George, you have a question?

MR. CRUM: Yes, I had a question. George Crum. I had a question for Paul on his discussion of municipal authorities outside their boundaries.

Is that pending legislation?

MR. DISKIN: No, it is not. Currently -- currently the PUC regulates if a -- if a township is serving outside its boundaries, those customers are under the review -- are under the control of the Commission, the customers outside there.

But as of right now, any authority that serves outside its boundaries, there are no -- the PUC has no control over those. There's no -- does not -- those customers cannot -- we cannot help those customers at this point.

MR. CRUM: And I assume that the driving force of this is customer representation?

MR. DISKIN: That's correct. Since I've been in water for the last year, I don't think there's a day goes by -- one -- every -- I get at least one call a week from someone from an authority saying, can you help us? I say, I'm sorry. We can't. We just don't have the -- we are not authorized by the Public Utility Code to help those customers.

MR. CRUM: If you propose this legislation, how would it address existing

intermunicipal agreements and things like that? Contracts and things?

MR. DISKIN: We haven't dropped anything yet at this point, so, you know, I'm sure that's something we can include in there to -- you know, we can put something together.

MR. CRUM: Thank you.

SECRETARY McGINTY: You want to request that the PUC take a shot at that?

MR. CRUM: No.

SECRETARY McGINTY: Doug, do you want to say something about that?

MR. BOWEN: I guess I have to now. Doug Bowen from the Authorities Association. A couple of questions.

Besides the obvious that I don't think it makes a lot of sense, what would it do for the purpose of this group when we're looking at problems with -- with costs and replacing failing infrastructure?

How is your -- how is your oversight over 2,000 public utilities going to do anything?

Second question is, you say you get a

call a week and you tell them you can't help them. Do you direct them to call the Authorities Association?

MR. DISKIN: Well, what our direction is, I talk to them and say, okay, I'd go back to the authority board or the supervisors, whoever run it. If you cannot get resolution from there, I then tell them the Court of Common Pleas is their next course of action.

MR. BOWEN: Okay.

SECRETARY McGINTY: Okay. I -- Bruce, I wanted to ask you a question. But, Paul, as Donna comes back into the room, we were talking about affordability.

What is the connection, if any, or how would the idea of whole cost pricing figure into what we were talking about before in terms of the overall cost that a ratepayer may see as we add up these different pieces that we've been talking about?

So full cost pricing, connect that dot, if you would, with the -- the DSIC and the CSIC and overall keeping some lid in terms of what the overall cost impact is to the ratepayer.

MR. DISKIN: Right. There's obviously a difference between what a regulating entity charges and what a municipal entity charges. And we just think, you know, that --

SECRETARY McGINTY: That may not be obvious --

MR. DISKIN: Okay.

SECRETARY McGINTY: -- to everybody, so why don't you say it.

MR. DISKIN: Yeah. A municipal entity does not pay taxes and it's also eligible for either low interest loans or grants that the regulated entities are not.

SECRETARY McGINTY: Okay.

MR. DISKIN: So when we are doing -- when we're looking at our proposals here, we thought, you know, using a DSIC or CSIC for the municipal entities would be a way to try to move them closer to what the regulated entities are paying.

SECRETARY McGINTY: Okay. Bruce is anticipating our next panel, which is on innovative measures.

Yes.

MS. COOPER: I have one more question. On the package we were given, it included the Commonwealth Procurement Code Proposed Legislation. Have you all calculated what you think it would be?

Donna Cooper. Have you guys done an analysis of what you anticipate this would actually save? Do we have that?

MR. HOTTLE: You -- you don't have the analysis, but our estimate is $25 million a year.

MS. COOPER: 25 million on the current rate -- on the current rate of -- what's the larger? 25 million of what?

MR. HOTTLE: Of our -- our current spending is around 300 million a year for sewer and water systems.

With the changes to the procurement code, it would save upwards of $25 million a year.

MS. COOPER: Is there a detailed analysis of how that $25 million is arrived at? Could we get that?

MR. HOTTLE: Yeah. I think we have that.

MS. COOPER: Okay. Do you recommend some type of standards, much like PennDOT standards --

MR. HOTTLE: Correct.

MS. COOPER: -- for how this is done in terms of what contact -- what we mean when we're bidding?

And is there anybody that's already done that nationally or is there a national document to that effect for national projects?

MR. HOTTLE: No. Just, for instance, there's -- in Pennsylvania alone there's two or three different engineering societies. The design engineers don't agree amongst themselves.

MS. COOPER: That's right. I hoped we could avoid that if it's already done.

MR. HOTTLE: Yeah. Nobody -- nobody has done it to my knowledge on a national level. Like I said, PennDOT has done it on the highway system. Whether I bid a highway project in western Pennsylvania or northeastern Pennsylvania, I know what is expected of me and what my requirements are and what my liabilities are.

In the sewer and water industry, that's not the case. It's -- you build up a history of jobs you've done with various engineering firms.

One of the things that -- that I've always objected to is many times engineering firms will -- will charge a percentage fee of the contractor's bid for the inspection of the construction of the project.

As a municipal authority, when you contract with an engineering firm, they'll give you a -- a price list basically, so much an hour for principal, surveyor, designers, craftsmen, and so on.

When it comes to actually building that project that they design, then all of a sudden their fee becomes seven or eight percent of the contractor's bid. So that's kind of a self-fulfilling prophecy when we end up building systems that have the bells and whistles that really aren't necessary to make the system operate.

SECRETARY McGINTY: Okay. Well, just following up on that and anticipating our next panel on innovative measures, if we went to a

more standardized approach, like you're talking about, borrowing from the PennDOT -- PennDOT model, is this at all in your mind intentioned with what we might hear from the next panel about innovative measures?

And going back to one of our comments a couple minutes ago in terms of I and I, so there may be in some part of the state the opportunity to address a sewage issue on the basis of streamside buffering and open space and encouraging the opportunity for infiltration of storm water so you don't have as much of an I and I problem.

I guess when I heard your suggestion I was concerned that it becomes a one size fits all and maybe to the exclusion of some of these other more diverse, more tailored approaches we might take.

MR. HOTTLE: Not at all. I don't see it that way. You know, when you look at the 408, you've got regulations in there for two-lane road, four-lane road or whatever.

So I envision it would be much the same. The design criteria for how you establish the size of a pipeline, the flow

rates, the treatment capacity, and so on, those are generally the same.

What we're talking about in the standardization is all the little odds and ends that goes into the specifications themselves as to how the contractor is paid, how -- what the various regulations are, who is responsible for locating existing utilities, and that type of thing.

Those are all items that contractors must cover under their bid, and that language is different for every contract.

The basics -- the basics of installing eight-inch sewer line and the amount of stone bedding and backfill and pavement and those types of things generally run the same.

There are some differences from engineering firm to engineering firm how they prefer to do things.

But where we see the greatest savings is in -- is in the contract language itself and where the liability for unknowns is placed.

SECRETARY McGINTY: All right. Don.

MR. BLUEDORN: I'm sorry. Just one more quick question. Don Bluedorn.

On the uniform standards, under your vision, would they also apply to the treatment works or just to the collection system?

MR. HOTTLE: Oh, treatment and collection.

MR. BLUEDORN: Okay. And how would you -- on the treatment side, have you given any thought as to how they would address unique differences?

I mean I could understand how they would apply to the technology-based limits on this.

MR. HOTTLE: You always have special provisions in any project. Even -- even PennDOT has special provisions that are items that need to be done specifically for that particular project.

MR. BLUEDORN: So you just leave it open?

MR. HOTTLE: So, yeah. You'd have your base -- you'd have your base standard specifications but then you'd -- each project has a list of special provisions --

MR. BLUEDORN: Right.

MR. HOTTLE: -- that you can have.

SECRETARY McGINTY: Okay. Representative Saylor.

REPRESENTATIVE SAYLOR: Representative Stan Saylor. Paul, you talked about in your comments here about the elimination of the sales tax on the construction of facilities.

Any idea what we're talking about in dollar numbers on a yearly basis or on a per project basis?

MR. HOTTLE: I'm sorry. He was addressing you.

REPRESENTATIVE SAYLOR: I'm addressing you.

MR. DISKIN: Oh, okay.

REPRESENTATIVE SAYLOR: First on sewers.

MR. HOTTLE: Here's what we -- sanitary sewer systems are tax exempt. Water systems are tax exempt.

However, when you get to the treatment plant, the process equipment is tax exempt in Pennsylvania but the building and

safety railing and all the components within the building, the heat, the ventilation system, the lights and so on, those are all taxable.

When you're putting a bid together, it's extremely complicated and most contractors see somebody from the Department of Revenue every two years and you basically sit down and go through all your past projects and negotiate a number, is what it comes down to.

It -- it then becomes a question of the equipment that you use to build the system. We have members of our association who do nothing but utility work. They don't go out and build any bridges, they don't build roads, anything other than water and sewer systems. Yet they pay sales tax on their equipment when they purchase it and then you've got to fight out with the Department of Revenue a percentage rebate applicable to that equipment.

Where we -- where -- again, where we see the biggest problem is in the treatment plants themselves. The line work is tax

exempt, the treatment plant, the process equipment is tax exempt. However, the structures and the driveway into it, all those things, the fence around it, the lighting system, the heating system, the ventilation system, all the safety railing, stuff like that, if it's not part of the process equipment, it's then taxed.

There's probably another 20, $25 million a year savings in that -- in that area.

SECRETARY McGINTY: Tom?

MR. CERASO: My question is for Paul.

SECRETARY McGINTY: Tom Ceraso.

MR. CERASO: Tom Ceraso. Am I speaking into the mike?

When you talk about the -- extending the PUC's powers to customers outside the authority's jurisdiction that you don't have now, do you think that -- if that type of scenario were implemented, it could cause a situation where the customers within the jurisdiction end up paying for things outside of the jurisdiction because of how it would be

harder for the authorities to implement things to the customers that are outside of their jurisdiction?

And also, as a follow-up, do you think you're creating a burden upon these authorities because now they have a certain customer base where they have -- that are inside of that jurisdiction where they don't have to follow PUC's regs but they have to make sure that they're following certain PUC's regs for their customers that happen to be outside the jurisdiction creating more cost, that really doesn't deliver better water service or sewage service?

MR. DISKIN: My understanding from working with the municipal -- the townships that serve outside their boundaries, they do charge a different rate to their outside customers.

So to me that would be, you know -- for whatever reason, they do not charge the same fee to their inside customers as to their outside ones.

MR. CERASO: Well, what about like the HFO, the water and sewage intermunicipal

authority, where they have uniform costs across the whole authority, would they be allowed to charge more for that building of the infrastructure that they have to have to achieve to -- to regulations that you guys would put on them?

MR. DISKIN: I'm sure that's something that can be looked at.

SECRETARY McGINTY: Okay. Yes, please, Representative.

REPRESENTATIVE FREEMAN: Representative Bob Freeman.

This is directed to Mr. Hottle. In terms of the uniform design code that you're talking about, are there other states -- I realize PennDOT uses a similar process, but are there other states that apply that concept to water and sewer?

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

MS. BRENDA REIGLE: Yes.

MR. HOTTLE: Oh, Brenda says there is. Yes. Okay.

SECRETARY McGINTY: Brenda Reigle.

MR. HOTTLE: I work primarily in Pennsylvania, so...

REPRESENTATIVE FREEMAN: It might be helpful to look at what other states have done in terms of --

MR. HOTTLE: We can get that information for you.

REPRESENTATIVE FREEMAN: One follow-up to that question, too. I didn't realize that when you had talked about the idea of the uniform design code that you were talking about treatment facilities as well as delivery systems.

Do you envision a design code that would require retrofitting of existing treatment facilities as part of that code?

MR. HOTTLE: Only in the manner that if a -- if you were expanding capacity, say you had a -- say you had a five million gallon capacity plant now and you wanted to upgrade that to seven-and-a-half million gallon capacity, then whatever is necessary to do that.

Again, the language would be covered. Again, that would be a special provision to -- that is unique to that particular project versus building a entirely

new sewage treatment plant or water treatment plant.

There's --

REPRESENTATIVE FREEMAN: But there's never --

MR. HOTTLE: There's different things that come into effect, whether adding capacity to an existing plant and upgrading that facility or building a completely new facility.

REPRESENTATIVE FREEMAN: I guess the only question is that as we track this through this practice that we don't lock ourselves into the point, I think Secretary McGinty was making, as far as the one size fits all or even beyond that where you have a code that constrains the ability to use your resources wisely where you're required to upgrade when those resources could be used much more effectively and much more appropriately in these other areas simply as opposed to responding to a code that now mandates you to upgrade stuff that might not need to be upgraded.

It's nice to have those practices but

there should be cost effectiveness and stewardship.

MR. HOTTLE: Oh, we agree. We don't want to see any -- any money spent on something not necessary. So -- and there are --

REPRESENTATIVE FREEMAN: It might be perceived as necessary, but it might not be the primary objective.

MR. HOTTLE: Our -- our goal is to spend the money as wisely as possible.

SECRETARY McGINTY: Best practices, not straight jackets.

REPRESENTATIVE FREEMAN: Thank you.

MS. COOPER: Just back to on Representative Saylor's question about the sales tax, it would be helpful if you could submit something that showed the financial impact of that proposal.

Given the numbers that you laid out, it's hard to figure out the calculation against 25 million. So if you can just submit it as to what you would think that would be, that would be helpful.

MR. HOTTLE: All right.

SECRETARY McGINTY: Done? Great. Terrific. Get Kathy to join in. I'm glad. The last one, and then we're going to move on to panel two.

MS. PAPE: I just have one question for Bruce. Kathy Pape.

Bruce, as a representative of the Contractors Association, do you have any view on standardization of municipal road restoration requirements?

We see a hodgepodge all over the Commonwealth.

MR. HOTTLE: Yeah. So do we. We -- we think that in adopting the standard specification you should -- our recommendation would be you adopt a -- 408 standards for road reconstruction.

We see that where we work. An individual township may require a foot of asphalt over pipeline ditch, another one may require four inches or six inches, whatever. They're all over the map right now.

Again, that's something that has to be covered at the bid table. You know, and the standardization would save money. I'm

convinced it would save money.

MS. PAPE: Thank you.

SECRETARY McGINTY: This touches on a point that we may hear in upcoming proceedings actually, unrelated, but I've asked Columbia Gas to come in and talk to us. Because they are trying to formulate an infrastructure upgrade approach that would start with the premise of trying to synchronize as many of these infrastructure projects as possible. So you're not digging up the street, you know, this year for sewer and the next year for gas.

And so they've done some serious thinking about that and will come in with a model for our consideration along those lives.

I want to thank both Paul and Bruce. Thank you very, very much for kicking us off in such a very good way.

We're switching now to innovative measures.

MR. BLUEDORN: Thanks, guys.

SECRETARY McGINTY: We have four -- one, two, three, four -- five presenters. My

suggestion would be let's hear the five presenters, and then maybe we'll grab something to eat and come back to our seats and then have the questions if that suits.

Let me welcome Charles Wunz from HRG Consulting. He is also stepping up as one of our work force task groups chairmen. So I appreciate Charles's work with us.

MR. WUNZ: I'm a sweetie, too.

Madam Secretary, thank you very much for inviting me to speak here to -- today. Thanks also to the elected representatives and the appointed members of the task force for being here.

This really is a critical issue to Pennsylvania and obviously it deals with not only the environment but also our economy.

I speak to you with over 36 years of experience in this area. My first job started in June 1972 with the Environmental Protection Agency in Philadelphia, and I worked in both the construction grants program and also in the NPDES permit program.

After leaving the Environmental Protection Agency, I've worked for two

different consulting engineering firms. I'm a registered professional engineer in about nine states and the District of Columbia. I'm also a diplomate of the American Academy of Environmental Engineers.

It's with that -- that depth of experience that I come to speak to you today. I've worked on projects throughout Pennsylvania. I'm a Pennsylvania native. I grew up in the town of North East, Pennsylvania which is outside of Erie, and currently I live in Lewisburg.

Over my career I have had the opportunity to work on many innovative projects. Those fall into different categories.

Certainly the University Area Joint Authority's Beneficial Re-use Water project, the largest water use project in the northeast United States, is really exciting because it not only preserves the environment of Spring Creek and the wonderfully named area called Fisherman's Paradise, it also provides for the continued economic growth caused by the Penn State and State College area economic dynamo.

And that's what projects should be. They should be environmentally friendly and they should also not prohibit, they should encourage economic development.

Cranberry Highlands project, where water from the Cranberry Township wastewater treatment plant in Butler County is utilized to irrigate Cranberry Highlands Golf Course, a very successful municipal golf course out in southwestern Butler County.

Regionalization projects, such as the central Clinton County Water Infiltration Authority. Rich Marcinkevage here on the task force and I worked closely for a large number of years, where instead of building two water treatment plants to serve two water authorities, two water systems, we built one and shared that resource and shared that expense.

Regionalization has been important in other areas. For example, I worked on the Edinboro/Washington Township regionalization issue where we're able to now have planning in place to abate a serious discharge to Lake Edinboro which is a glacial lake up in Erie

County.

I also worked on Saxonburg, which is the largest PENNVEST-funded project in, I think, PENNVEST's history. That serves the Route 8 corridor in southcentral Butler County.

So I've had -- I've had a wonderful and very interesting career. And I am going to have just short remarks.

But let me just say that -- that I know what the problem is. And the problem is all of us.

This is just -- this is just the Pogo thing from the -- from the cartoons. We have met the enemy and he is us. We, quite frankly, have enjoyed way too many years of sewer and water rates that have been too low and now it's kind of time to pay the piper.

I really enjoyed the comments and the discourse earlier about the issue of affordability, because I was -- and hopefully nobody from the cable TV industry is here, but I was paying my cable TV bill last night and I noticed it's about -- it's about three times what I pay for sewer.

You know, I think -- I think sewer service is mandatory and it creates the society that we live in, and I think we should be more willing to pay for both sewer and -- and water service. And now we're in a hole because we haven't been doing that.

I enjoyed the comment from the representative from ALCOSAN because it -- it pretty much bolsters what I was going to say, and that is, in general, municipalities and municipal authorities do not fund depreciation accounts and -- from my experience and, as a result, when they face a large project, even though that large project may be very, very predictable, seek an outside source, frequently from -- with the support of their state legislators, with PENNVEST or with other state or federal sources, which, as has been noted earlier, are kind of drying up.

This idea of cash flow accounting that -- that many systems use meets their cash flow needs year to year, but just like the pound or so I've gained since high school every year, you don't notice the passage of one year of aging infrastructure or two years

of aging infrastructure.

But when you get to 20 or 30 years of aging infrastructure, it's like noticing the extra roll around your waist.

And that's really where we are today I think. It's kind of a creeping problem and I think it's -- it's crept up on us and it's here now.

We're all very familiar with the age of our infrastructure. So much of it was built starting in the '50s, '60s, and '70s, and -- and what are we to expect but more -- more aches and pains. It should be pretty obvious.

And to some extent I think that -- that maybe we do have a little bit of an upside down system here, and I certainly intend none of my remarks to be -- to be critical but rather my opinion.

And that is we seem to have somewhat of a program now dealing on the best wishes and the best thoughts and good thoughts of our state representatives and the availability of -- of PENNVEST dollars and other grant dollars to -- to have absolutely no rewards

for the most -- financially best managed systems but perhaps arguably financial rewards for the systems that are least well managed.

That's a concern, because I think it encourages just the opposite of what we want to encourage, which is good financial stewardship.

I'm, in fact, going to be in charge, I guess, of the innovative measures work group, and -- and I kind of see that task as throwing a net in the water and catching all the fish that come into the net and then sorting through all those fish and deciding perhaps which of those stay within the innovative measures and which of those might go to some of the other work groups for further evaluation.

Certainly some of the things that were already discussed today are very obvious issues and so important that I -- that I added them to my list.

The promotion of regionalization concepts where the idea that there are economies of scale, which are very apparent, needs to be promoted.

For a while in the 1970s there was a huge backlash against regionalization. There was an idea that interceptor sewers running from one community to another community would -- would sponsor growth.

I've always felt that we needed to let land development and zoning requirements deal with that and we'll deal with infrastructure at the lowest possible cost to provide it.

But regionalization doesn't mean only building pipes and fewer treatment plants, be they water or sewer. It can be sharing of laboratory facilities, of sludge processing facilities, of -- of specialized equipment for leak detection or for flushing of sewer lives. It can be management, operation and maintenance kind of concepts, MOM concepts. Where systems could be separately owned but managed by one entity.

There are obvious things such as the sharing of staff. Maybe one executive director for several authorities, that can be accomplished. Satellite systems such as the one that I can cite in Derry Township, very

near here, obviously reduces the cost of -- of providing -- providing sewer service to the southern area of the Derry Township service area. They basically have an unmanned plant and all the -- all the functions at the plant are reported back to the -- to the big plant that is manned.

Mutual support agreements are pretty obvious -- obviously needed when there are, in fact, water main breaks or -- or sewer clogs or issues like that.

The discussion of standardization, which was brought up by the earlier panel, I think, is one that comes with regionalization.

It's very important that -- that we not -- as we serve the environment, that we don't become an impediment to economic growth.

And I -- I understand the difficulty that -- that contractors and developers have when they face a different standard for water and sewer service in every one of Pennsylvania's municipalities.

That's a gross overstatement. It's

not that bad, but it is a concern in many locations and one that needs to be addressed.

In addition to the idea of organization, there are accounting and -- and financial innovative issues that can -- that can be addressed. I already mentioned the one, which is rate structures based on the actual cost of doing business, which would include a component for addressing depreciation.

One unique idea would be to perhaps have the funding source, be it at a state or federal level, kind of say to the grantee, we're going to give you the grant for this project but that's the last grant you're going to get for this project. You have to pay for keeping it going on your own rate structure.

The idea you can't go back time and time and time again while avoiding the issue of having adequate rates is -- is one that I think needs to be addressed.

There's a common issue here and that is the funding of capital projects, be they financed through debt or through equity, and it has to do with what are the customers that

pay for this.

If you finance a project through equity, the existing customers have paid for the project. If you finance it through debt, the future customers pay. That's an important issue.

I like the comments about bidding minimums. We have struggled with that with one of my authority clients, and what we have done is we've developed a -- a -- indefinite quantity construction labor contract concept where we bid it every three years and the various projects that are done at the treatment plant then are done under work orders without separate bids. The cost of these contractors to bid, to get bonds and insurances for as little as 20 and 30 and $40,000 projects is extremely high and I certainly endorse those comments made -- made earlier.

There was -- there was a few shots at engineers earlier and so I happen to maybe anticipate those. There is a need for right sizing. Right sizing became an issue toward the end of the EPA grant programs where they

said you can build it so big but you can't build it bigger than that.

And I can't tell you how many Act 537 plans I might see that talk about the small municipality doubling in size in the next 20 years when it hasn't doubled in size in the last 200 years.

Interesting thing about too big facilities is that they can be as hard to operate as too small.

The idea of efficiency audits, you know, how do we use staffing? How do we use electricity? Are we using our best methods for sludge disposal, or infiltration and flow removal and leak detection, et cetera.

I have one client that decided that he didn't want to have to run his blowers at his sewage treatment plant all the time. He could turn them off and on. Well -- and still meet all his effluent limitations.

You know, what a great idea, because it reduced his electric bills by about 30 percent when he just did that. I'm not saying it will work everywhere, but those are the kind of thoughts that we need to try to

encourage.

SECRETARY McGINTY: One more comment, Charlie? Just so that we can accommodate the other panelists.

MR. WUNZ: Okay. Sorry about that.

SECRETARY McGINTY: No. No. You're doing great. I'm just thinking people are looking at that lunch over there.

MR. WUNZ: Okay. I didn't see it or I would have already been done.

One other thing to say, and that is maybe not for this session, but -- but within the department, in addition to aging infrastructure, I think we have aging operational staff, and -- and we need to look at what -- what incentives, what training programs can we -- can we utilize to get the younger folks back -- back into wastewater and water treatment.

And that's a problem. It's more or less in different areas of the state, but I think it's a significant issue. And with that, I'll end my comments. Thank you.

SECRETARY McGINTY: Thank you very, very much. And also we'll be tight on space

up there, but somehow if you'd be able to hang around and anticipate the questions that are put to you, I'd appreciate it.

Let me invite Dr. Bernard Sweeney. Bernard Sweeney, very glad that he's taken the time to present to us today.

I think Stroud Water Research Institute is certainly a -- a real jewel that we have in Pennsylvania and its work is really known across the country, if not around the world.

Bern, it's nice to see you. Thank you for joining us.

DR. SWEENEY: Thank you for inviting me. My pleasure to be here to testify before this important committee.

Sorry, I have a little bit of a cold, but I'll venture through this. We have a -- whoops. I have a PowerPoint presentation.

I do have a copy of the PowerPoint. I hope everybody got it. If you didn't, e-mail me and I'll send it to you.

Can we turn the lights down? The lights.

My first comment is that this is a

Pennsylvania-based testimony in the sense that Stroud Center is a Pennsylvania-based not-for-profit. The data that I'm going to report to you was all generated within Pennsylvania. And I was born and educated in Pennsylvania.

The issue that I was asked to come and testify about is should restoring streamside forest be considered an important part of the infrastructure to reduce the costs of drinking water for downstream users?

The answer is yes. Thank you for inviting me. Let's eat. No.

SECRETARY McGINTY: First, we have engineers with personality. Now, we have Ph.D.s with personality. What is that all about?

MR. SWEENEY: So why is -- why is -- why is the answer yes? Of course, I'm not finished. Why is the answer yes?

Because the cost of filtering and treating drinking water goes up in response to increases in the amount of stuff, unwanted stuff that's in the water.

Riparian forests can keep that stuff

out of our drinking water supply streams and also can keep it from moving downstream to the water intakes of our towns and cities.

By stuff, I mean -- and stuff is a great word. It can describe a lot of things. I mean things like dissolved organic chemicals, suspended sediments, nutrients such as nitrogen, microscopic bacteria and animals, pharmaceuticals, and on and on and on.

The stuff is what gets expensive to remove from our drinking water systems. And that's what we're talking about.

I'll take you to Philadelphia for a case study that we just finished to try to drive home some of these points.

It was regarding the Schuylkill River Watershed, which supplies Philadelphia with about half of its drinking water. So about half of the water in Philadelphia comes from this river.

And these are 125 tributaries of the Schuylkill River that we just finished doing the evaluation of water quality on and, as you can see, the water quality score goes from zero to 20.

Zero being a stream that is effectively dead. 20 being a stream that probably supports brook trout.

And a stream that is 10, or in fair condition, I warn you, has already lost half of the plants and animals that will typically live in it. Okay. So fair is definitely not good.

Four hundred, five hundred years ago each one of these bars went right up to the top. Each one of these streams would have been in pristine condition. Brook trout thriving in them. But as you can see, they don't go to the top now. There's actually a huge chunk of white space here, and that white space is lost water quality from these -- from this system.

So on the average about half of the water quality has been lost from the Schuylkill River Watershed.

There's no question of why the city of Philadelphia has to spend a enormous amount of money treating and filtering this water. There's a lot of stuff in it.

We analyzed this data a few weeks

ago, and we asked the question, what single factor best explains the variation of water quality across 125 streams. And the answer was the percent of forest covering the watershed.

We were a little bit surprised, but we shouldn't have been, because back in 1994 the American Water Works Association published this chart which showed that if they took their drinking water from a watershed that had 60 percent forest in it, at that time it cost $37 to treat per million gallons.

If they took their drinking water from a watershed that had ten percent, it cost about three times that amount to wat -- amount of money to treat the water because there's a lot more stuff in it and that stuff is expensive to remove. This is a no brainer.

So getting back to the Schuylkill River tributaries, yeah, the cleanest streams on this side of the chart, these are the cleanest streams in the Schuylkill River, had the highest percent forest cover and the worst streams had the lowest percent forest cover.

So whenever you trade trees for

humans and human activities water quality suffers. The more forest in the watershed -- our interpretation, the more forest in the watershed, the more small streams that are completely forested.

So any one of those 125 tributaries, if you looked at the watershed, it would look something like this. A lot of tiny little streams, intermediate size, medium size streams, and so on and so forth.

If 60 percent of this watershed is forested, almost by default we have a huge percentage of those small streams that are completely forested and protected by a streamside forest.

These small streams occur throughout every one of those watersheds. It's not like they're concentrated in one corner or another.

Also the small gullies that lead the water to those streams are all over the watershed surface. They're abundant and they're everywhere.

These are the major points of entry of contaminants in our watersheds. This is

where we need our most protection.

So forests along small streams help keep the stuff out, plus they increase the capacity of the stream to self-purify. What I mean by self-purify for a stream, is the ability of the stream ecosystem itself to process, degrade or sequester contaminants before they move downsteam to water -- to our cities and towns.

Let's look at two case studies that will try to drive home this point and -- and prove to you that's the case.

The first case study is a long-term study at the Stroud Preserve where we tested the 95-foot wide riparian forest buffer protocol published by Dave Welch in 1991. It was started in the 1919. It was funded in part by Pennsylvania DEP and U.S. EPA.

What we did was we took a small stream that had a cornfield growing right to its edge. We moved the cornfield upstream. We planted a forest. We created a level-lip spreader to deal with surface run-off. We drew monitoring wells to look at the water chemistry that was coming off of these

cornfields and we studied it for the last 16 years.

Okay. Here are the average results for the last ten years or so. Nitrogen removal, 26 percent removal by this system. Suspended sediments, 43 percent removal. These are two of the big actors in drinking water treatment.

This is both a good news and bad news story. Because the good news is that, yes, we removed 26 percent of the nitrogen and 43 percent of the sediment. The bad news is that, yes, 74 percent of the nitrogen is still going into the stream and 57 percent of the sediment is still going into the stream.

So that's why we need the stream itself to play a role in this water filtration and treatment.

Case study number two, looking at self-purification. The ability of a small stream to process organic matter and remove nutrients with or without a streamside forest.

This is a study we completed a couple years ago where we studied 15 streams in

Pennsylvania and we compared the ability of the stream to process nutrients and unwanted materials if the stream didn't have forest on it, like this little segment here, or if it did have forest, like this little segment here.

So these are paired reach studies. In other words, we compared with what was happening there with what was happening there. The difference mainly being the presence or absence of trees.

This is one of our study sites. This is a deforested study site obviously. I'm going to turn the camera around and show you what this stream looks like as it flows into forest. I think anybody would agree that they could jump across this stream. Anybody in this room.

There is the stream looking down stream. Nobody in this room could jump across that. If you could, we'll sign you up for the Olympics.

The stream is significantly wider. Forested reaches are significantly wider than adjacent deforested reaches. Up to three

times wider. That was one of the most significant findings of the study.

So you say to yourself, what the heck does that matter in this -- in this regard? It's a huge, huge matter.

The reason is that the filtration and treatment process in a stream occurs on the stream bottom. So if you have a forested stream that's twice as wide as a deforested stream, you have a lot more bottom area for each length of stream where you have filter and treatment capacity.

Okay. So forested streams have greater treatment capacity per unit length of stream.

Our findings show that we had significantly more nitrogen that was taken up by forested reaches, up to ten times more, and significantly more organic matter was processed in these streams, up to five times more if they were forested. This is huge.

These findings have been corroborated by other studies across the country. In fact, the fact of the matter is that stream systems can process anywhere from 27 to 75 percent of,

for example, nitrogen that's put into them.

That's huge. That's a huge capacity for water treatment.

So streamside forests can reduce costs of treating drinking water due to nonpoint source pollutants. So if nitrogen -- if nitrogen is coming into a small stream from a farm field like this, having a streamside forest will help that stream, helps to keep that stuff out of the stream, but will also help that stream to process it.

But also it's best management practice for point source pollution, because, let's face it, if you put a stream region in a position to better process nitrogen that stream doesn't care whether that nitrogen is coming from a farm field or coming out of a sewage treatment plant. It's still going to be doing a better job of processing it.

So the take-home message for the committee is that streamside forests do reduce the costs of treating and filtering drinking water by keeping the pollutants out and by keeping them from moving downstream.

Tree do clean our water. Every tree

counts in the watershed, especially next to a stream. The wider the forest the better.

This is where the fair share plan is being played by the Pennsylvania Farm Bureau, the Chesapeake Bay Foundation, and others can really play a role where we can get this infrastructure on the ground now where we need it.

Every tree definitely counts in the watershed.

This person gets it. I -- I hope -- I hope that the committee gets it.

Thank you.

SECRETARY McGINTY: Thank you very much, Bernard. I really appreciate that stretching our part is what constitutes infrastructure.

John Schombert, welcome, 3 Rivers Wet Weather project. John.

MR. SCHOMBERT: Thank you very much for me being invited today. I'm also chair of the needs committee, but this is a little different topic today. I think that -- okay. We're ready.

I think the idea that 3 Rivers Wet

Weather was invited to the innovative presentation was -- was a good sign for us.

We're talking about an innovation approach. This is not technical innovation. This is how we approach the problem basically in redo. I'm going -- I guess that does it. No. Here we are.

We got to do a little company advertisement here, because that's really some of the innovation here. 3 Rivers Wet Weather -- we were originally called 3 Rivers Wet Weather Demonstration Program, but we realized a few years into our -- our work that demonstration was not the issue here.

It's really change. It's facilitation. It's collaboration. It's that kind of change.

But the innovation was that we created a non-profit organization through a partnership between a regulatory agency, the Allegheny County Health Department and a public works agency, ALCOSAN.

Bill Inks is here representing the watersheds, and we have been partnering with ALCOSAN on this project for ten years and

we've had a lot of legislative support, both at the state and federal level.

Our real goal here is -- is not just to bring in the technology, because that -- the technology will follow the problem. The idea here is to demonstrate and facilitate a regional approach for our area that includes some of the things you already heard about, like standard engineering protocols. Every community in our region wanted to know, well, if I'm going to do this, what are they doing next door? Are we all going to be doing the same thing?

And I think the fact that we have consent orders now for 83 municipalities in Allegheny County -- Allegheny County Sanitary having a federal consent decree has kind of put the program together over the next 18 years or so on how our region is going to move forward.

We had to work very closely, even initially, through the development of a -- helping DEP and EPA negotiate and facilitate the development of a region -- a consistent consent order for all the municipalities to

sign on. Whether they're combined source system or sanitary sewer system, they basically have the same work schedules and work direction to go in this process.

We have had what we consider substantial and lengthy -- the longest federally funded project of this kind under the federal Clean Water Act, thanks to Senator Specter, and most recently Senator Casey. We've had a lot of support from our local congressmen as well.

And we've had a consistent roll out of grants to us. We have now seen the state step up with a couple of million dollars over the last three years consistently to help us do some of our regional projects.

But the real project here is governance. A term I'll steal from the University of Florida, an author down there, is adaptive governance.

Just to give you a sense of the -- the challenge here in Allegheny County, is that we have one sewage treatment plan, ALCOSAN, serving 300,000 customers, almost a million people in that area. Over 265 square

miles we have -- through 83 municipalities. 4,000 miles of publicly owned sewer pipe.

You add to that approximately 4,000 miles of private domain pipe. That's -- that's from your house to the street or the shopping center, that sort of thing. Made up of 82 municipalities -- suburban communities in the city of Pittsburgh. The city of Pittsburgh is about a third of the system.

In addition to that mix, we have ten operating authorities or financial authorities within the mix.

So this is really, you know, part of the problem. We have governance that, if we have to make decisions right now, over 500 elected officials and 75 appointed officials are involved in that decision process.

I can't see how we can move forward with that kind of governance. We need adaptive governance.

I want to just make a note. We've been working with Secretary Myers' staff and approached -- had some discussions a couple years, or about a year and a half ago now, on the concept of integrated plannings, water

planning.

Those projects have been kicked off. We got some early meetings set up in Allegheny County on the Chartiers Watershed, which is two counties -- and here's the innovation -- Washington and Allegheny, working on one watershed to -- to look at ways where all of the regulations and planning components that influence water uses, Sewage Facilities Act, the Stormwater Management Act, the Flood -- stormwater -- or the Flood Control Act, the municipal planning codes, all have some influence on -- on managing within a watershed, but they don't integrate.

And for the first time, looking at pulling these processes together and seeing what changes may need to be made, hopefully some day we'll be making some recommendations from all this to the legislature on how to make this work.

To give you a quick sense this is -- all the little fine lives up there are the 4,000 miles of publicly owned pipes.

To start the process off what -- we couldn't work with 83 municipalities. That

was -- it was just a little too cumbersome. So you can see some shading there north of the rivers, east of the rivers, and south of the rivers, we've created three working groups, three basic groups. These are made up -- initially were made up of elected officials.

Each community was asked to appoint two representatives to these committees. For the early part of our process, the first few years leading up to the consent orders, we had a very high percentage of participation in this process from the elected officials.

Once the consent orders were signed they kind of lost a little interest. But we still maintained the same structure, the working relationships, because it puts 25 to 30 municipalities in each basin.

By the way, in Allegheny County you don't cross rivers to meet with people so this works out well for those members, too.

So there's a lot of reason why people have become a little closer in relationships on other working projects, like other public works projects, like streets and so on.

But now we work at the same scale but

with the professional staff, the engineers, the managers, to work through the issues of the consent order on how to continue to move everybody along with the same agenda.

One of the next issues that we needed to do in this whole process was identify the leadership and establish the communications. And I'm going to talk a little bit more about that.

First of all, it was developing a slate of influential leaders. Locally we -- we've had people that have been with our basin groups for the entire ten -- almost the entire ten years of our process here.

And I think that's just amazing. Because you have a term of office in most municipalities of two years, and our turnover has been fairly limited. And -- and the key people are people who are well organized -- or well associated with the municipalities and they continued their association with us.

We also looked for those -- to identify those energetic people, those message carriers that will take your message out to their constituents and to the public,

continually, and keep them engaged.

But you also have to engage the people who are your dissenters, and that was an argument that we had early on with many of the municipalities, well, we don't want that guy, because he doesn't agree with this process. Well, yeah, that's why we want that guy.

I think you have a panel here that has some of that same interaction as well, as I look -- as I look through the leadership on this panel.

So obviously we've worked with academia. Ty Gourley here, Gary Stokum, we worked on a number of different projects, most recently with the Institute of Politics at Pitt, to develop some regional alternatives.

We tried to engage as much as possible our councils of government. They have the ability to do some -- some initial regional approaches, like joint bidding.

Part of the consent order is there's a huge assessment process for the municipalities to -- to close-circuit televise and inspect all 4,000 miles of pipe over a

six-year period.

There was joint bidding on that that brought in a tremendously economical price of about -- I believe in the area of a dollar ten, a dollar twenty-five a foot for televising, which is just the opposite of what we expected when we saw all this work coming to the region.

We thought there might be a lot of competition between municipalities driving the cost up and just the opposite has happened because of the regional approach.

I -- I want to thank the state and local officials for their support. Our board bylaws require that there be a sitting legislator on our board and we've got two volunteers.

We've got Representative Harry Readshaw, who's also the chairman of ALCOSAN and creates a great association there. And Senator Jay Costa from Allegheny County also on the board.

They keep us connected to Harrisburg and what's going on.

There's a big hill between Harrisburg

and Pittsburgh that you drive over. You've probably noticed it.

But sometimes the communication is -- is a little difficult that direction, too.

And keeping the media involved. We have some -- some people in the media that we know will get the message consistently out on the issue. You make -- got to -- whoops. Yeah. Got to keep up here.

But you've got to make sure that the message is consistent and concise.

Again, I mentioned vested message carrying, finding people who will continually speak for you so you don't have to speak all the time.

We built that message over time. The message went from talking about regionalization. We even had hour-long discussions -- many hour-long discussions. And when did we start using the word regionalization publicly? I look back at that now and I thought how silly that sounds. And I'm sure it does to you.

Now, we talk openly about the need to consolidate the system. You've got the county

executive, Dan Onorato, willing to -- he understands completely what a role for economic development in the region it is to make sure we comply with these consent orders.

And no one can figure out how to do that without openly talking about the need to consolidate this public utility.

We've got a broad participation of -- in our audience of -- of ratepayers, municipal officials. The municipal managers are key. They really make a lot of the decisions for the community.

And, again, the engineering community. Our working groups, flow monitoring working groups. One of the largest flow monitoring programs to quantify the wet weather and dry weather flows from this 4,000 miles of pipe.

That project is going on in Allegheny County. It's one of the largest ever done in the United States.

ALCOSAN is the leader on that project. On behalf of the municipalities, they're implementing a plan that 3 Rivers Wet

Weather put together for the municipalities, as well as their responsibility under their consent decree.

That's collaboration. That's the kind of work -- this is -- now that the consent orders and consent decrees are in place, we have an opportunity to work this way together.

Frankly, I'm not going to -- I hope I don't offend anybody. The lawyers aren't involved anymore. We've got the decision makers involved in this process to make sure that we move forward.

The -- the next item was we do all this. The municipalities have to collect an enormous amount of data through this assessment process.

I want to be clear that the consent orders that the municipalities have is not fixed. ALCOSAN takes them out to 2026.

Bill, right?

MR. INKS: Yes.

MR. SCHOMBERT: That's 2026. And that is the fix. That's through the long-term implementation and long-term control plan.

The municipalities' consent orders end in 2012, task-wise anyhow, with the culmination of a planning and assessment process. How do we move forward from there? And that's -- that's part of the tools that we're developing.

One is if we're going to collect all this data, let's do it in a way that we can store the data so it starts to support an asset management program, something that we can hand on to others.

So I'm going to quickly, on the communication, what we've -- the way we've done is that we meet, the meetings are us. We could operate a catering business with as much coffee and doughnuts as we put out there.

We make sure the agenda is concise, clear. We've got time limits, hour-and-a-half meetings. We try to have them facilitated. Our -- our core basin group chair is pretty good at facilitating meetings.

And we make sure that we include the right kind of speaker. ALCOSAN is the main focus right now, describing their consent decree process, their facilitated planning

process, so they're in a direct role with our stakeholders at this point.

And making sure we have follow-up. We have a basin reach newsletter that we send out periodically to keep those who aren't routinely engaged with us engaged in the process as well.

But as I mentioned the key here of moving forward is the establishment of a database tool for communication. We're doing that through a site that we call a municipal's data support site.

The innovation here is that this is a two-way street. We have a prototype up there right now that's going through a revision under a grant we have from DEP to basically create a much better facilitative process so there's a value added back to the municipalities. So they have a reason to come to this site, dump their data in, and know what they're get back is going to be better.

Little things like being able to impose the sewer maps over Google Earth, being able to show an elected official with the topography relief of a Google Earth map and

the sewer lives imposed -- in contour with that map.

What a visual that is for the elected official, instead of looking at a two-dimensional pattern here and trying to figure out, well, how does the sewer work? There's no uphill or downhill when you look at a schematic. Generally, as engineers, we look at schematics and see, well, it doesn't seem to -- you know, we know what up and down -- what up and downhill are but the elected officials don't understand that.

One of the first projects that we did was a regional project, again, with a DEP grant, thanks to our legislature, was the GIS mapping. The entire system, 4,000 miles of pipe had to be mapped in about two years.

We could have had 83 maps. We could have one map. We worked with the municipalities. Under this grant we were able to use modern technology, satellite GPS technology, to create a first version of the one overall map of this entire sewer system, which is really made up of about 163 separate maps that had been integrated and digitized

now.

The municipalities' condition needs to go on this site. As they do their assessment, the flow monitoring data that's being generated right now for the next 11 more months needs to go on this site, after it's been quality assured and quality dated, and this needs to be kept up and maintained frequently.

Some of the other strategies that need to be run by a business -- this goes back to the asset management, the collecting of all this information so it can be folded into an asset management concept.

There's a long-term control plan that ALCOSAN will be creating. The municipalities have to do a feasibility study to merge together so the region moves forward with a lot of activities.

And, again, running this as a business, as a utility, rather than an individual municipal government, pain in the necks, basically to most elected officials, is -- is really our goal.

So what's the definition of success?

Well, in the municipal consent orders -- but basically in the ALCOSAN consent order water quality is that -- is that big role.

But we also need to recognize that this isn't just a matter of meeting a goal on water quality. Part of our message to our communities is that this infrastructure is also an important component of public health. I have a lengthy public health background so this really is meaningful to me.

It's also the quality of life for Allegheny County. We have three rivers. We actually have four rivers. Let's not forget about the Youghiogheny. It's in Allegheny. It comes into Allegheny County as well.

But the recreational use of those rivers is substantial. The -- the growth of new facilities, the casino and stadiums along the riverfront, the highest number of boat registrations anywhere in the United States, inland boat registrations anywhere in the United States, is what Allegheny County is all about.

And what has been helpful to us, particularly for the county administration, is

for their recognition, investing in this infrastructure, water, sewer infrastructure, this economic development.

When we started this process, as the Secretary knows, there were about 45 communities that had tap-in prohibitions because of waste load overloads in their collection system within these 83 municipalities.

Consent orders would relieve them immediately of that overload as long as they're moving forward and complaint -- I'm sorry -- relieve them of that tap-in prohibition as long as they were moving forward in addressing the compliance with the consent orders.

And with that, here is my correct information. We have a great website. And thank you very much for the time.

SECRETARY McGINTY: Thank you, John, very much. And, again, if you could remain for questions there as well.

Rob Wendelgass, Clean Water Action. Come on up. We have two more presentations, then a break to get something to eat, and come

back around the table for questions.

While Bob is coming up, Steve Moyer, why don't you just come up as well and we'll place you up there. There are two seats that are -- are open.

MR. PAUL SCHWARTZ: Secretary McGinty, I am playing Bob Wendelgass on TV.

SECRETARY McGINTY: Oh.

MR. SCHWARTZ: Bob is right here and I'll speak to -- my name is -- good afternoon. My name is Paul Schwartz. I'm with Clean Water Action as well, out of the Washington, D.C. office.

I -- I appreciate that Steve and I are all that rest between the commission and lunch, and we'll hope that my remarks prick some debate.

What I want to talk today about in invocations is how we get to a sustainable water system management from site to watershed and how we meet the 21st Century sustainable clean and safe water challenge.

I think Secretary McGinty, Governor Rendell and you really deserve a lot of credit for taking leadership, thinking nationally,

thinking across the built infrastructure platform, and by your willingness to take on sacred cows so that we can chart a course for environmentally and economically sustainable and healthy communities.

Especially of note is the America 2050, a forum that will happen tomorrow in Washington, D.C. and build America's future and other fora that this state picture is part of as a national conversation about how we move forward.

Clean Water Action has a good vantage point from which to develop one frame and to help put forth concrete solutions to be a key support in implementing strategies that move us forward together.

We've been around since 1971 and helped to draft the original Clean Water Act and Safe Drinking Water Act out of the advocacy community.

We now are in 20 states with a million members, 100,000 of whom are ratepayers and taxpayers through most of the municipal authorities sitting here in the room.

We're also very supportive of the efforts for the feds and the states to raise money and contribute to municipalities through PENNVEST and through the clean water and state revolving -- clean water and drinking water state revolving funds.

We worked hard to see those authorizations, to try to get those authorizations fully met or bumped up, and we worked hard against the diminishing of those appropriations.

We've also worked with the water infrastructure network, which includes many of the folks sitting around here, on varieties of nonappropriated streams through trust funds.

We want more money, but we want them better spent. Really what I'm here today to say in unequivocal terms is the big-pipe era is over. Big pipe, centralized infrastructure for water, stormwater, and wastewater is not sustainable for Pennsylvania or the United States over the long term.

These municipal systems consume too much water, disrupt too many ecosystems, and use too much energy to move water and

wastewater around.

Growing populations, increasing land development, and climate change will make these problems much worse.

Sustainable water systems in the future will use, treat, store, and reuse water efficiently in a small scale and will blend designs into restorative water hydrologies.

We seek to promote federal legislation as part of the picture, along with the state, to promote these designs that would include:

Funding for research and demonstration projects.

Tax incentives for builders and homeowners.

Development of national standards for water efficiency.

Green collar job education and training programs.

Funding for state and local government entities to prepare long-term integrated water resource management plans that meet minimum criteria such as including all of the following pieces:

Wastewater; water supply, treatment and distribution; stormwater; source water protection; floodplain protection; protection of wetlands and forested lands and buffers; and other aquatic resources.

And involving cross-agency implementation planning that would prioritize for all types of federal and state funding those investments identified through a long-term integrated water resources management plan.

That's the type of focus that we want.

As many have already stated today, our current water infrastructure is on a path to failure. Many big pipes transporting water to and wastewater away from our cities are old and under capacity. Existing methods of water use and wastewater treatment are wasteful and environmentally disruptive.

But could this big problem be an opportunity? If you had a 10-year-old car with $7,000 worth of repairs, what would you do? What would you do with your own car?

Use the visual image. Why are we

not -- so why not use the reality of the deteriorating and deteriorated infrastructure as a rationale for investing in 21st Century next-generation technologies and designs?

There's a concept in asset management, one of EPA's four pillars which have been referenced here, called run to failure, where it is efficient to stop repairing the old system and eventually to replace it with something new.

Since much of our old and outdated water and wastewater is, according to EPA, NACWA, AMWA, AWWA, ASCE, and a plethora of other acronym-based organizations, at the end of its useful life and ready to break down, we have a golden opportunity to leapfrog into the future as developing countries such as China and India are doing.

I know that calling our essential infrastructure's failure an opportunity may strike many of you as counterintuitive. But if we kept these systems in good shape, we would actually have fewer opportunities to shift to new solutions.

Let me be the first to knowledge that

our old paradigm has saved lives by reducing pathogen exposures and preventing some periodic flooding, but this 19th Century Victorian era solution set by piping clean water into cities and building drainage and sewage pipes to take away stormwater and wastewater consume too much water, disrupt too many ecosystems, and use too much water -- energy to move water and wastewater around.

As for the sunk costs of our aging infrastructure, we need to shift our state and national investments towards the future. We do not need to keep old pipes working well enough -- we do need to keep old pipes working well enough at critical points to protect public health, but instead of using federal and state funds to repair and replace these pipes and treatment plants in the old way, it may be wiser to pivot state and federal investments into a new infrastructure paradigm.

What would that new paradigm look like? One potential is a hybrid decentralized and centralized infrastructure for the future.

If you were a hawk flying up at the 20,000 foot level, what would a bird's-eye view of the future infrastructure in cities look like? Think about that for a second. Be the hawk. Get up in the air. Look down.

It would be substantially greener. Rain gardens and trees would be used to retain storm water. Streams and habitat would have restored -- would have been restored by reducing the ground water flows into sewers, minimizing stormwater run-off into streams and reducing the overall demand for global water.

The actual infrastructure would be a combination of enhanced performance of the aging centralized infrastructure and multiple decentralized installations across the city landscape.

Water-efficient appliances might be found in scattered homes or buildings across the city, while integrated water, stormwater, wastewater, reuse systems might be found in urban infill developments designed around the specific challenges and opportunities of the site.

Municipality utilities would also

decommission large wastewater treatment plants that reach the end of their service life. They would build satellite facilities that treat wastewater for reuse and aquifer recharge and recover energy and nutrients from the sewage no longer thought as wastewater but as potentially wasted water.

A trio of decentralized technologies and designs would be used to reduce the flows of water in these aging systems. They would do this by -- by stressing efficiencies and reuse of stormwater and wastewater and to reduce the flows of stormwater and wastewater in the drainage and sewer systems as well.

In rural and suburban areas this bird's-eye view would be continued reliance on onsite cluster water systems, stormwater, and wastewater systems. Water-centric subdivision planning, in particular, would push towards off-the-grid efficiencies and a minimal impact on natural water flows and hydrologies in the watershed.

Most importantly, both the urban and greenfield infrastructure would be integrated with energy and nutrient recovery from the

wastewater.

So why is it then that our government perpetuates unsustainable water infrastructure?

The federal government, and to some extent its state and municipality partners, have played a significant role in perpetuating the hard-path or centralized approach.

Regulatory structures were devised that assumed that modern sanitation and safe drinking water could only be provided in big cities and emerging metropolises through centralized distribution or collection and treatment.

Federal and state subsidies to local projects from a host of mostly federal and some state agencies were built around those assumptions as well. We've heard a lot about that today.

Progress in small towns was achieved, for example, when public water lives were extended to all homes or when failing private septic systems were replaced by public sewers and point-source treatment plants.

Therefore, local water protection

advocates typically have to ask their communities to buck federal and state regulators, as well as give up federal subsidies, if they are to advance a sustainable water system or centralized solution.

Multiple federal and state agencies have also gotten involved in a piecemeal fashion in one or another aspect of water infrastructure, through water supply or water quality concerns, flood control, housing rural development, et cetera, but rarely is a serious integrated water perspective taken at any level.

This siloing of mission and the lack of coordination among agencies have led to federally mandated and federally funded projects, which have collectively overstressed the environment and water resources making them wasted resources.

So what are some of the solutions? National, state, and local agencies can promote the development and adoption of sustainable water systems by moving aggressively on several measures.

In the short term, the public sector can help promote innovation now through a series of low-cost, short-term measures to facilitate and coordinate better information to assist local decision makers and community stakeholders in the water sector.

These include pilot and demonstration projects, guidance materials, evaluation of new products and design, education through conferences, newsletters, websites, and training. Labeling and standard setting initiatives, riparian buffer zones, best stormwater management practices implementation.

In the long term we're looking at a research problem. Some states and the federal government are uniquely positioned to take the lead in long-term research in many areas.

After the 1972 Clean Water Act was passed, we had inflation adjusted $300 million a year at the national level for R and D, which left us, when we switched to the state revolving funds, under the assumption that states and the private sector would pick up R and D.

This has not happened, except in a few cases like the NYSERDA program in New York or in California.

We could pick it up here in Pennsylvania, and in other states and nationally, through collaborative funding of research projects with public agencies, private companies, academic institutions, and key agencies for support of long-term research at the federal level, including NSF, NOAA, and DOD.

We could fund the formation of several centers of excellence at universities or research institutes. We could stimulate private and nonprofit foundation investment by signaling long-term commitments to greater efficiencies and the lighter footprint in the infrastructure.

Financing incentives. Governments are typically financing long-scale public water supply, drinking water, wastewater, stormwater, and flood control projects without considering decentralized system alternatives or the disruptive externalities of these siloed systems.

Financial reform might include: Requirements for all sustainable water system management planning and evaluation for all direct and indirect costs and benefits.

Subsidies and tax incentives for water capture, conservation, treatment and reuse, which are usually on private property.

Installation of efficient closed-loop water systems at all government facilities.

Financial incentives for utilities to adopt sustainable water system approaches with subsidies from EPA's two SRF accounts, the USDA's rural utility service, HUD, commerce and other federal and state grant and loan programs.

Regulatory reform.

Historically, regulations and ordinances have been written to require and set standards for large centralized systems in separate parts of the water cycle.

Regulation should be reformed to include:

Permits to utilities for oversight of privately-owned, decentralized systems that -- to meet statutory requirements.

Integrated standards for utilities to meet water supply, water quality public health and ecosystems needs.

And models for state and local design codes that think more holistically about integrated and decentralized -- integrated, decentralized and centralized approaches, as well as for oversight of pricing and service by new design-build-operate companies so that expanding private markets are equitable and consistent with water resource planning.

And last, long-term sustainability.

As externalities of existing settlements on the state and nation have become more important and the benefits of a lighter footprint decentralization and integration emerge as reasonable alternatives, potentially minimum standards for long-term sustainability of public infrastructure should be required by federal and conforming state legislation.

In the short-term, projects on federal and state property that are using federal and state funds, such as federal-state-local government supported

housing projects should be energy efficient, required to implement sustainable infrastructure plans, including such things as rain or roof gardens, water-efficient fixtures and reuse, and use renewable energy sources.

I brought along with me, in addition to my testimony, a charter passed at the end of a WERF, National Onsite Wastewater Recycling Association, and the International Water Association international conference in Baltimore of 2007.

It's a three-quarter of a page declaration or charter bracketed by some information on sustainability and sustainable water systems and how they work from an energy water nexus, et cetera.

And I wanted to read one quote -- just because I'm out of the environmental community and sometimes we're not the best messengers for -- for this message -- from Glen Daigger, who is the senior vice president and chief technology officer for the Civil Infrastructure Client Group for CH2M HILL, in testimony to the House Committee on Science and Technology this past summer in 2007.

They're doing a follow-up hearing next Thursday in the Science Committee which I suggest people tune in on. It would be excellent testimony.

Quote, fundamental research is needed to allow advances in basic nano- and bio-technology to be adapted and integrated into the technologies which are enabling the evolving breakthrough -- breakthrough water management paradigm. Individual elements of this developing paradigm consisting of aggressive conservation -- leave sirens -- no -- distributed stormwater management and rainwater harvesting and decentralized water reuse have been demonstrated, but these components are synergistic and the full benefit can be observed only when they are integrated and complete systems.

So thank you for your attention, and I hope I've provoked at least a different -- a look at a different pathway that we may be able to walk down.

SECRETARY McGINTY: Well, thank you very, very much and thank you for coming to us from Washington.

And, Steve, you're such a nice guy. Look what we've done to you. Put you at the end of line, but we're eager to hear what you have to say.

Steve Moyer from Trout Limited.

MR. MOYER: Thank you. I notice some people were headed for the food already, but maybe they're coming back.

I'm really glad to be here. On behalf of Trout Unlimited I want to thank you and members of the task force for having Trout Unlimited talk to you today.

TU is a national nonprofit conservation organization. We have about 150,000 members around the country and perhaps surprising to some, most -- we have more members in Pennsylvania than any other state, which is not surprising to me since I'm a native, not a resident, a native of Pennsylvania, and I think from my love of its waterways is really what propelled me to be in my career and I know that we have many other people that are just exactly like that in Trout Unlimited.

One other thing, as an intro, is

Trout Unlimited volunteers around the country, gives and invests thousands of hours of their own volunteer time to restore streams. And I think that's one of the best things about Trout Unlimited, and trying to harness that volunteer energy is one thing that I think you should keep in mind as you go forward with your deliberations.

And, lastly, Amy Wolf is really the chief of our acid mine drainage work, and that's mostly what I'm going to talk about here today. And I really commend her work to you and ask you to keep her involved in your deliberations as you move forward.

So I'm here today to really talk about TU's -- some of TU's most prominent work in the state, and that's abandoned mine drainage restoration, or acid mine drainage restoration, AMD, and how it relates to clean water and certainly specifically drinking water.

In 1998 we embarked on the challenge of abandoned mine drainage remediation as it pollutes more than 5,400 miles of Pennsylvania streams and it's one of the largest sources of

pollution to the Commonwealth's waterways, as you all know very well I'm sure.

We began our abandoned mine drainage work in Kettle Creek in Northcentral Pennsylvania and launched -- helped to launch the regional AMD clean-up in the entire West Branch Susquehanna River basin in 2004.

Secretary, you were very helpful with that. Always appreciated that.

So there are two areas of focus that I'd like to discuss this afternoon. First, AMD's effects on ecofunctions in streams, such as nutrient retention and nitrogen and phosphorus; and, two, AMD's impact upon public water supplies, which I think should be, hopefully, very relevant to your deliberations.

So beginning with the first topic of AMD's effect upon ecofunctions in streams. I want to start with the understanding that healthy streams will have a good diversity of fish and other aquatic life. Thus, healthy streams have the capacity to produce, as well as process, organic nutrients.

In turn, healthy streams also have

the ability to utilize and retain organic nutrients such as nitrogen and phosphorus.

But when you add AMD pollution to the stream, that means higher acidity and toxic metals such as iron and aluminum, a stream can no longer support diverse, or unfortunately in many cases, any fish or aquatic life.

Without aquatic life, there are no organisms to produce or process organic nutrients. So take, for instance, an inflow of nitrogen and phosphorus from anthropogenic sources, and now you have a stream whose capacity to utilize and retain these organic nutrients is being significantly reduced.

Excess nitrogen and phosphorus are key ingredients that are degrading the Chesapeake Bay, of course, as you all well know. As such, municipal wastewater treatment facilities in particular are being targeted throughout the Bay watershed to undergo expensive upgrades in order to reduce their nitrogen and phosphorus outputs, and rightfully so.

But while that is certainly an important measure in restoring the health of

the Bay, there are likely other factors that also play into reduction of nitrogen and phosphorus, such as remediation of AMD pollution.

So as you consider how to deal with nitrogen and phosphorus, do not discount the role that AMD-impaired streams in the headwater regions of the Bay with respect to the health of the Bay and its watershed.

So moving on to my second topic of AMD's impact upon public water supplies. Home to 1,205 miles of AMD-polluted streams and more than 36,000 acres of abandoned mine lands, the list is long for remediation projects that are necessary to restore this beautiful region and the price tag is quite high.

Never -- nevertheless the benefits that will result from restoring streams and lands impacted by abandoned mines are countless and enduring, ranging from an improved quality of life for residents and increased outdoor recreation and related business opportunities.

However, one benefit that people

don't often consider is that in certain circumstances AMD remediation may lead to providing cleaner drinking water.

As part of an economic analysis for AMD remediation of the West Branch basin that TU commissioned, our consultants conducted interviews with nine municipal water authorities located in that most heavily AMD-affected areas of the West Branch. Of the 56 water withdrawal sources, including surface and ground water, 21 water withdrawal sources are on or near AMD-impacted streams.

Furthermore, several water authorities are being forced to look at additional water withdrawal sources which include those polluted by AMD due to drought conditions and population expansion.

In a specific situation where drought conditions are causing a municipal water authority to locate other sources of water, the cost is simply too high to treat the AMD-polluted water even if that water withdrawal source is nearby and plentiful.

At this time I don't have specific dollar figures to quote the additional costs

incurred by municipal water authorities to bring AMD-polluted water up to drinking water standards because our consultants aren't yet done finishing that work, but as soon as it's done, we'll get that to you.

Our consultants have -- are also investigating the economic impacts of AMD upon private drinking water systems. And as of May 2007 more than $11 million has been spent by DEP and through bond forfeiture funds on waterline extensions to bring clean water to 606 residences and five businesses within the West Branch watershed.

So the question is, are there other cost-effective options for providing clean drinking water instead of expensive waterlines, chemical treatment at the municipal water facility, or replacement of private wells?

So we at TU believe that there are alternatives that will not only lead to providing clean drinking water but will also restore healthy ecosystem functions to streams.

Remediation of mine drainage

pollution should begin as close to the source as possible. Reclamation and remining are excellent remediation methods that yield permanent water quality benefits and would be particularly important to improving water quality of ground water sources of drinking water. But these are not always feasible options.

Passive treatment technology for AMD has proven to be a cost-effective and reliable method of successfully improving water quality.

So when properly designed and constructed, passive treatment systems can remediate a wide range of AMD pollution, improve water quality, and restore streams to where they can harbor healthy fish populations and provide important ecosystem functions such as processing organic nutrients.

And, ultimately, passive treatment systems may help to open up new sources of surface water for public water supplies. Active treatment systems may also provide a reliable source of treatment for AMD, but the long-term operation and maintenance costs are

higher than those for passive treatment and are often more difficult to secure.

Each AMD site is unique and both passive and active treatment systems must be considered.

So just to summarize, remediation of AMD as close as possible to the source, whether through reclamation and remining, passive treatment or active treatment, or a combination of these, is going to provide the greatest suite of benefits and results in the most cost-effective approach to solving Pennsylvania -- one of Pennsylvania's biggest water quality problems.

So thank you again for having TU, and we'd be happy to answer any questions that you might have.

SECRETARY McGINTY: Terrific. Very much appreciated.

So back to the game plan, why don't we grab something to eat and if we could sit right back down. Up at the top if there's a way to have five seats for our five panelists on this subject, I'd appreciate that as we -- as we reconvene. So let's trying to eat it

quickly.

(A luncheon recess was taken.)

SECRETARY McGINTY: Okay. Well, I'm sure there are many questions that have cropped up during those five wonderful presentations as well, and like the last time, since I got the mike here, I'm going to kick off with at least one.

And, Mr. Wunz, I'm just curious in terms of, I'm assuming for a second here that all of the innovative measures that we talked about, Bern Sweeney, you know, thinking about trees as infrastructure, and maybe the John Schombert's innovations in governance as infrastructure, but all of that, if we can save money and have a better approach through those types of innovations, we're all for it.

But as an engineer, how does it strike you? How can we operationalize the inclusion of Bern Sweeney's trees into getting done in a municipal water-related infrastructure?

MR. WUNZ: Well, one thing we could do would be to suggest that the department expand its look at credit trading, and there

have to be other areas of the state besides just the Chesapeake Bay where the water quality standards would qualify for or allow trading.

And for those of you who are not from the Chesapeake Bay area, the idea is that it might be cheaper for me to treat my nitrogen than the treatment plant next to me. So I'll treat nitrogen, but I'll actually overtreat it, below my standard, and then he can buy the amount that I'm under from me.

Now, the importance of this is that it's not only treatment plants, it's riparian buffers, it's forested strips, and -- and it's nonpoint source kind of activities that can be undertaken to improve water quality.

And that was pointed out by a number of the speakers.

The other issue that -- that is important here is that there is a pretty serious disconnect between stormwater and water and wastewater authorities.

I can't think of a stormwater authority in Pennsylvania, and I -- and I think that we -- is there one?

MR. SCHOMBERT: I'm chair of the water and sewer authority, and it's stormwater.

MR. WUNZ: Excellent. Excellent. He then may end up being a leader in bringing all the aspects together. Because clearly there's a relationship between the stormwater management and the water that you drink and the water that you -- that you discharge.

And, you know, Cory Miller was in the room earlier and, you know, Cory and his UAJ Authority bring a lot of those concepts to base.

So that's definitely innovative. It's -- it's right on the edge, and it's things that we need to be looking at.

SECRETARY McGINTY: Well, thank you. Let me open it up. Others, questions or comments?

You know me. I have another one. Okay.

MR. KAUFFMAN: Terry Kauffman. This is for Charles also.

One of the things you made note of was you've already cast your net -- hopefully

want to cast your net -- one of the things is you want to cast your net for the innovative technology items.

You also said in your testimony that we are part of the problem in that we haven't changed. How wide do you view casting your net for innovative measures, i.e., the neighboring states, United States, some of the other remarks we saw prepared feel like some of the European countries may have better technology in addition to some of the environmental updates?

MR. WUNZ: Well, I think I would intend to cast the net as wide as I can subject to not violating state or federal water quality standards or state and federal laws.

So, now, when you talk about the Europeans and their widespread use of anaerobic technologies to generate biogas and then they're using the biogas in burners to generate electricity or steam, yeah, very definitely, we need to see more of this in the United States, just as an example. In other states, several, certainly as well. The

southeast, Florida, Washington, Oregon have been leaders in water reuse. Southwest rather.

You know, we need to look at -- at -- somebody said earlier it's not a wastewater. It's the what's used water. And I think that that's -- that's certainly true.

So as wide as possible because there's no harm in this. You know, there's no harm in considering things that we end up rejecting.

SECRETARY McGINTY: Well, I don't see another question, so I'll toss out another one, which is I heard a little bit of a tension and strain in some of the presentations, on the one hand, as a costs-saving measure. As a measure of government innovation, we were talking about regionalization and, Paul, I heard you to say the days of centralized approach, you know, are over and we ought to look at decentralization.

So I'm just wondering if we could hear some exchange on those two different points of view and maybe they're not as

divergent as the labels would suggest.

MR. SCHWARTZ: I don't think they are as divergent as the labels would suggest and I would make a fundamental distinction between drinking and wastewater in this case as -- and also make a distinction between where solutions are in place at what scale, site level, neighborhood watershed, and -- and where management takes place.

And certainly you could have management over a broad geography or -- or planning or thoughtfulness about how systems integrate or disintegrate in relation to the water cycle and the DOP environment while having a suite using the best centralized approaches we have and where there are new opportunities through greenfield development, working from the site level up with predevelopment, LID, with incorporating cluster systems or -- or -- and wastewater reuse.

One of the things that is really clear is that if you want to do reuse and just look at stormwater, you have surges and you actually need the wastewater and could store

it in septic systems as storage capacity to create the type of water flows for reuse that you would need.

And so I think we just need to look at a suite of options and -- and -- and be really open to how it is they could work.

Clearly in -- in other places around the globe, in Europe and -- and in Asia, in Brazil and other places are just leapfrogging ahead of us. We used to be at the forefront of thinking about this stuff.

And now MIT's second campus, anybody know where it's going to be? Singapore. $400 million to them for -- and something like 20 percent of all the Nobel laureates in the United States working on water, putting in a huge percentage of their time over in Singapore.

It's an export market that we're missing. We're clearly missing out and I don't see a tension between the centralized and decentralized except to the extent that we just look at the old paradigm as the only way to sink money.

MR. SCHOMBERT: And I have to agree.

The consolidation that we're talking about is really management of consolidation, financing in particular. There's a lot of economies of scale, like the mapping, you know, doing things like that regionally.

The big projects, the effort, the long-term control planning effort in Allegheny County we'll take is a regional effort. It may actually result in -- in -- there's been some very active discussion -- in some decentralized facilities where you pull in flow out of an overloaded central facility and treat it in an -- in a area and then -- as well as the development of wet weather facilities that will operate only during rainfall or snow-melt events, that there may be 20 of those around the region that supplement the solution.

So, yeah, we're talking about --

DEPUTY SECRETARY MYERS: Yeah. I'm going to be taking over as Kate's alternate because she had a one o'clock that's going on without her and probably shouldn't continue that way.

Yes, Donna.

MS. COOPER: The first innovation you put on the table was about the cost, and I just wondered if you could share -- we talked about it in the first session as well, and then you said the problem is us and one of the issues is the cost and how we take charge.

So given that the federal legislation had an aspirational goal and PENNVEST evaluates municipal application of twice that, I mean do you have a thought about where you think we should -- how we should be thinking about the cost of service?

MR. WUNZ: Well, I think probably the biggest point that I tried to make was there needs to be some reflection of the -- of the aging of infrastructure in the -- in the rate structure.

It certainly is allowed under PUC rules. Of course, municipalities, municipal authorities are largely not regulated by PUC. So they're allowed to do -- to do cash flow budgeting which -- which would not typically consider the cost of the aging infrastructure.

One way that historically that was

addressed was through the requirements for reserve funds or bond redemption and improvement funds in municipal bond issues.

Interestingly enough in -- in situations that are financed by PENNVEST, there's no such requirement that PENNVEST has for establishing such a set-aside or such a fund.

So -- so I think probably that's -- that's the largest area that needs to be -- needs to be recognized and -- and it goes hand-in-hand with the idea that there be capital programs so that you're not necessarily a--have board members surprised by a project.

But I mean the comparison was made to the 10-year-old car. I mean the treatment plant thing is really the same thing. If it was, you know, it was -- we have so many treatment plants with 1960's technology built in 1975 and people thinking we're never going to have to replace them. It's -- it's amazing.

MS. COOPER: But maybe what I'm asking is from too far away, because I don't

work in water. But is the -- does the notion that the rate base should be paying at one percent or two percent on either side of the house, wastewater and sewage -- I mean drinking water, is that a controlling paradigm that needs to change in terms of how we think about municipal water systems and their rate -- their rates that they're charging or is it, as you point out, that we need to be clearer about what needs to be included in that or is that percentage threshold something that is sort of at the back of everybody's mind when they're costing out projects and when they're thinking about things and as long as we're in that framework we're not going to actually get to where you're suggesting that the full cost be understood?

MR. WUNZ: There are two issues really. One is -- one is establishing what that number should be, and I think that maybe goes to -- to economics experts and maybe not to the engineers.

But then the issue is selling that point to the -- to the public. I mean we -- we live in a flush-and-forget society and, you

know, as long as the water is -- is coming out of the tap and we can flush the toilets we're happy and heaven forbid we have to pay a bill for either of those services.

I mean, you know, I'm always struck by the fact that -- that the one fatality that's not talked about in the Civil War is the death of President Lincoln's son who drank contaminated water.

I mean we're all victims of our success. Because we don't get sick, you know, we don't care. It's not important to us, and we need to change that dynamic.

DEPUTY SECRETARY MYERS: Okay. Thank you.

Any other questions for the innovative measures panel? Then I think we'll move on to the needs panel.

Dennis Beck from the Portage Municipal Water Authority. He's going to be the segue into this topic.

So Denny. And while we're moving around, if we could get our other panel members up there, so we just have maximum time for the discussion.

MR. DENNIS BECK: I was just called a definite sweetie over here. So I gave her a copy of what I'm going to say. So I got points this afternoon.

Actually I'm going to talk about reality. I'm from a small water system, about 2,500 customers in Portage, Pennsylvania and I wanted to talk about the reality and innovations.

The first reality I want to talk about is, since we started this meeting at eleven o'clock, I estimated eleven o'clock, the federal government has spent $51.2 million on the war in Iraq. 51.2 million. $5,000 a second.

If -- if we think that the federal government has money to spend and to give us for infrastructures, we're all wrong, because there's no money in Washington until we get rid of this war.

Really. That was my first one.

There's two wars going on here. There's the war in Iraq, and what I have here is the war in Iraq has put this nation in deep debt and has decreased the ability of the

federal government to maintain funding for any infrastructure projects, unless we can show that the infrastructure project will stop -- will solve the war in Iraq. And that's the only way we're going to get any money for it.

The second war I want to talk about is water wars, and I want to make sure that the panel and the task force realizes the importance of water, is one of my -- my points.

The second war, we have water wars in this country. We've got Wyoming suing Montana for water. We've got Las Vegas suing the farmers for water. They call that the craps for crops lawsuit out there. We've got Georgia suing North Carolina for water. We've got the Midwest attempting to go drain Lake Erie for water for irrigation. We've got the United States government suing Nevada on water rights. We've got California suing Nevada, and we've got Arizona suing Colorado.

So some people are realizing the importance of a good water supply or any water supply, whether it's crops or whether it's for expansion of Las Vegas. You know, the city is

growing, they need more water, and they feel they're entitled to it more than the farmers are entitled to it.

My next point is I think that the task force should keep in mind that we all need to show everyone, politicians and the public, the importance of a good, safe, sustainable water supply.

That's got to be one of our -- one of our tasks and one of our main points.

Our economic development anywhere is dependent on an adequate supply for the industry or factory. If there's no water, there will be no industry or factory or growth.

I did a presentation a couple years ago where I showed an economic growth triangle, which was an inverted triangle, and at the point at the bottom supporting the whole structure was the water supply. So think about that.

Let me talk about the Portage municipal water supply. I think we're an oddball. We're just -- we're just -- we're a little different. We've done some innovation

stuff, and I don't think we're -- we're in the same group as most of the water suppliers across the state of Pennsylvania.

We've taken several steps to move towards a sustainable water supply. We are blessed -- and I think we're blessed -- to have two water supplies. In 1989 DEP came in and found Giardia in both water supplies. We had to issue a boiled water supply for everyone in both water supply areas and we had to build two water treatment plants for our system.

So sometimes it's a blessing and sometimes it's not.

We also have back-up wells at each system to back up that water system and the wells are fed through the water plant through the filtration system, which was one of my main points on -- on putting the wells in.

In 2001 -- 2001, in January of 2001 we established a long-range plan for the water authority. In March of 2001 the Corps of Engineers came in and said we -- we got orders from Representative Murtha to rebuild the water supply in this small town of Cassandra.

What do you know about it?

We said, sit there. Here's the long-range plan. Here's the amount of pipe we need, the amount of hydrants, the amount of valves. They said, how old is this data? We said, two months.

They gave us a half million dollar grant to help do that project.

We also borrowed another 1.5 million to rebuild the entire infrastructure from the treatment -- from the reservoir to the treatment plant to town, from that section of the water system, and the water pressure t -- where it comes into town to meet the old system went from 140 psi to 225 pound -- psi just taking the old pipes out.

So we increased pressure and supply on that end of town.

In 2005, we entered into an agreement with Gamesa, the windmill people. They came in in 2005 and said, we did a year's study. There's enough wind on the top of the mountain.

We're on the Eastern Continental Divide and our watershed borders that Eastern

Continental Divide.

They came in and they said, there's enough wind there. Are you interested in having us put windmills on your property or on your watershed? Our board response was, what took you so long? It's free. It's clean. It's renewable. Yes.

So we have the -- it's the Allegheny Ridge Windmill Farm. There's 40 windmills up at this time in phase one. They're just starting phase two. They're going to put another 35 windmills across the ridge. They're two megawatts windmills and each one, when it's running, will power 500 to 600 homes.

For the eight that we have on our property, there's 29 on the watershed. We don't own all the watershed. But for the eight windmills we have on our property, we're getting $6,000 apiece per year for those. So we're getting $48,000 a year for the next 25 years. About a million four for those -- for having those windmills on our watershed, which is helping us to be sustainable.

The wastewater system in Portage is

in the middle of a -- I think about a $8 million expansion project to double the size of the wastewater treatment system. So they'll be up to size within the next year.

We realize, and we hope, that someone from somewhere will eventually see the potential of our area with our great water supply and land to develop and local rail lives and local people to work to bring some kind of industry in for us.

We're pushing our sustainability to try to bring industry in for our community.

Two comments to close. I'm going to be really short today. I don't want to forget about this. I am glad there is not Evian. Do you know what Evian spelled backwards is? Naive.

I don't know if there's a message there or not, but there may be on bottled water.

Anyway, my two comments to close are this. There's approximately 2,500 water systems in Pennsylvania. At least 2,200 of them are classified as small systems serving less than 3,300 customers.

We're at about 23, 2400 customers. Okay? About 7,000 people. 22 out of 2,500 systems are serving less than 3,300 -- less than 7,000 people in the state of Pennsylvania. Okay?

These people, most of them -- and I've done -- I've done corrosion control studies with numerous of them in central Pennsylvania. Most of those 2,200 are worried about survival and not sustainability. They're worried about paying their bills month to month and they're not worried about infrastructure.

They're worried about it, but they can't do anything about it because they've got no money left over. They're running on shoestrings. Okay? So keep that in mind.

In the big picture of talking about improving infrastructure in the whole state of Pennsylvania, most of that is going to be involving small water systems and small wastewater systems. So keep that in mind.

Another point I'd like to make, the PENNVEST application, the procedures need to be streamlined. We pay so much on engineering

costs to fill out the application and then refile the application because something -- they want some extra permits put in there, and refiling because they want something else.

So it's additional cost to us. The PENNVEST application procedure is just onerous. Onerous. We need to do something to -- to streamline that.

George Crum, sitting on your task force, he and I last -- at the end of March did a presentation at the Pennsylvania Rural Water Association's annual conference entitled Alternatively -- Alternative Energy Sources for Small Water and Wastewater Systems in which we talked about putting in small windmill systems, because most of the small systems are way out in the country, mostly up on the hill, because that's where the water supplies are.

Putting small windmill systems in. Putting Micro Hydros in, microturbines in, which work on gravity systems. And also biogas. We talked about those possibilities. We had a great interaction with -- with the people who attended that conference.

We're also scheduled to do a presentation at the AWWA conference at Valley Forge next week. I have the last -- the last presentation on the last day. So we will see how many people are still awake.

And also at the PMAA conference in Hershey. We're going to do that presentation again up there, to get to all the water systems and tell them what's out there.

George -- or Charles Wunz talked about serving the environment, and I just want to pitch -- pitch the environment, because I'm a real environmentalist. Conservation is number one. Conservation on water, infrastructure, everything. Conservation is the number one solution to waste, to preserving our environment, to controlling climate control -- climate change, is conservation of natural resources. Cut down on your driving. Cut down water use. Reuse, recycle, reduce, keep that all in mind. They're all our responsibility.

I talked -- I looked -- I looked at my carbon footprint this morning. Okay. I had to drive a 140 miles to get here, and I

drove 130 to PMAA headquarters over there and the three of us drove over.

Doug and Jennifer and I came over in a van, so I reduced my carbon footprint a little bit coming over here. But it's something that I keep in mind all the time.

And also on Earth Day I had 300 students from the Portage High School out to clean eight miles of road and two miles of stream, which I do every year. So I'm -- I'm taking that as a credit for my carbon footprint this year.

So, anyhow, that's my pitch. Just some things I wanted to bring up for your consideration and to keep in mind on your -- on your task on the infrastructure.

DEPUTY SECRETARY MYERS: Well, thank you very much. We appreciate it.

MR. BECK: Okay.

DEPUTY SECRETARY MYERS: If you could just stay up there --

MR. BECK: Yep.

DEPUTY SECRETARY MYERS: -- we'll have questions at the end.

Okay. I'll go back to the top of the

list and let someone else speak to it. Bernard Biga from the Wyoming Valley Sanitary Authority.

MR. BIGA: Thank you, Deputy Secretary Myers. I like to -- oh, sorry. I meant to say may I share your mike before I start so I wouldn't get scolded. But I already did, so I apologize.

Again, I'd like to thank the task force for allowing -- for inviting me to speak about the problems facing us and, therefore, the needs of one specific wastewater facility.

I'm Bernie Biga, the director of operations for the Wyoming Valley Sanitary Authority, and, as such, I'm responsible for the day-to-day operations. My presentation will be from that perspective.

We are located in the northeast region of the state on the banks of the Susquehanna River in Wilkes-Barre, Pennsylvania. The Susquehanna River is our receiving stream.

I will give you a little background because I think you need to know who and what

we are and the size of our operation.

We were formed in -- in 1962 but did not go online until our primary treatment facility in 1969. At least 20 -- almost 20 years later, in 1987 where we were upgraded to a secondary treatment plant.

There are 14 original members of our authority, and we provide service to an additional 22, for a total of 36.

There are 94,000 EDUs of dwelling units in our service area, and we have -- we have a population of about a quarter of a million people.

For this year, 2008, our operating budget is $17.8 million and of that 10.2 goes directly to the operation and maintenance of the plant and our pumping station.

We also have a $2.75 million capital budget, which we fund ourself, and each year we try to do some projects to keep the plant in what we consider the best operating condition.

In preparation for nutrient removal, four years ago we began changing the air lives to our four treatment trains, which were

leaking, and we needed the DO, nitrification. We -- we undertook those projects ourselves, and we do a number to the tune of 2.75.

We also carry spare parts inventory of about two-and-a-half million dollars. Again, that's funded through our operating budget. We are permitted for 50 million gallons a day. Although there's a clause in there that if we exceed 32 million gallons for three consecutive dry weather months we are hydraulically overloaded.

Unfortunately, that 32, the lower number, was used for calculating our loads for the Chesapeake Bay strategy. Our organic loading is about 40,000 pounds a day.

Every picture tells a story. I think Rod Stewart said that or someone. This tells two very interesting stories.

The flow at 4:00 a.m. and after 6:30 a.m. on that chart -- that's from April 12th of this year -- was about 30 MGDs. That's our low flow for the day. Typically in -- in the July and August months, it's about 10 to 12. So we have a lot of infiltration getting into the system.

A thunderstorm moved through the area and that flow jumped from that 30 million to 80 million. Again, as we all know that are on the wastewater side, that's a problem. I'll talk a little bit about that later.

We are a treatment facility. We have four independent treatment plants at our facility. So each one is rated 12.5 million gallons a day. In the mid right-hand picture, you'll see there's a -- our train three is out of service for some repair work.

The -- the major plant components, and the panel will be getting a more detailed, hard copy of my presentation, which breaks down the equipment, but I didn't want to waste everyone's time now.

We have a main pump house that goes to our headworks. We have the four independent secondary activated treatment trains, and we have a solids handling system.

Out-plant components, we have 56 pumping stations. And also we have 56 diversion chambers. Probably the biggest problem that we face.

We also have 35 miles of pipe, and 20

of it is gravity and 15 miles is force main. The reason I chuckled is the force main. The reason I chuckled is because we would like to see there's a lot more involved in the collection systems.

What does it mean? It means that the cost to the Wyoming Valley Sanitary Authority ratepayers is going to increase significantly over the next several years.

And why? Well, it's because of what we have to do. We have to meet Chesapeake Bay strategy for nutrient limits. There are CSO requirements that are going to have to be met, and, you know, what we're talking about today, the infrastructure upgrades.

The Chesapeake Bay strategy -- and I'm going to be embarrassed in about 30 seconds and -- and -- and the next board meeting I attend, we must meet the mandated cap loads for nitrogen and phosphorus.

The reason I'm going to be embarrassed is because of that $6.2 million number up there. I was very proud of that.

Being a plant of our size, we were going to do it for basically a reasonable, a

very reasonable amount of money. Right now, and over the previous 20 years, we have been removing about 70 -- 70 percent of the nitrogen entering our facility.

It is just inherent in the design, and it was the -- the former board members and design engineer who saw this coming down the road, and we appreciate that.

Unfortunately, after meeting with our design engineer yesterday, I came back to the office with a $14.8 million number. So that has changed. If we have to -- we all know in the Chesapeake Bay Basin that has to be met by the year end of 30 September, 2011.

Back to the infamous combined sewer overflows. That's the point for those who don't know -- and I'm sure many of you do -- where the combined sanitary and storm flows that exceed the hydraulic capacity of the system are diverted.

Here's a -- quick two schematics. There were 55 existing combined sewers in those 14 member towns. And from the top of the slide down, that was an existing pipe. We built the diversion chamber over it and we

take flow out of the pipe to the top of the weir you see in the -- in the center of the chamber. All flows that exceed that go over and go directly into the receiving stream, unfortunately, in most cases, the Susquehanna River, and it is untreated.

What are we going to do? Well, it's going to have to be fixed sometime.

The cost to eliminate from the system, we had an engineering study done in 2002 and that was about $90,000. Of course, it was on that year's regulations. That number has increases about 114 million.

However, as I said, at that time they were looking at site treatment, where we would somehow with screening with squirrel concentrators or some other method remove the sedibles and -- and floatables and disinfect it and discharge it. I don't think we're going to be allowed to do that. I -- I hear a rumor that if you do it it has to be treated to the level that your plant treats.

Engineering estimates for total separation of combined sewers in the service area are approaching $400 million. That's

pretty hard when somebody has $17 million in the budget.

Currently, we do have a CSO project underway at the Ross Street diversion chamber at Wilkes-Barre that is -- that is the combined effort of EPA, the state, and ourselves.

I think it's 55 and then 45, and of that 45 we split it with the state. I'm pretty sure that's the combination.

With that said, the best time to plant a tree was 20 years ago. The second best time is today.

For that reason, we support Senate Bill 101 which is authorizing $1 billion specifically for CSO overflows.

We, you know, understand and realize that the $1 billion is not going to do much, but if we can get some participation from the federal government and we understand we have a share, as I said, of our $7.4 million budget, I think we are -- are footing 1.6 or 1.8 million of that.

And over the last 19 years that I've been with the authority, or 17 of those years,

at least, any upgrade we've done we've done on our own.

All the capital projects, if you multiply it 2.5 times, you know, 20, that's -- our ratepayers paid for that directly.

The 56 pumping stations, we had 25 originally, which weren't enough, but our board thought it would be smart if we went and took on 31 additional more -- more additional. And we did.

They're all in relatively bad shape. We keep them operating and -- and really do a pretty good job at it, but to upgrade the 25 original is about 15 million and 31 acquired stations another 10, for a total of about $25 million.

The plant equipment needs, you know, we all know that about 20, 25 years our equipment lasts. We do water sludge with centrifuges and an incinerator, fluidized bed incinerator. We're going to take a hard look at that. Natural gas -- prices -- is our ancillary fuel, and it's killing us. And we are -- we do have primary treatment. So we have a hundred percent waste activated sludge

which we incinerate, which we can't get to go.

We're looking at adding grease or some oils to it. Waste stuff, if we can do it, to help with that. Otherwise, you know, we're going to have to take a hard look.

But, anyway, if we go ahead and upgrade that, we're looking at another $9 million. Basically the total cost of all sizable projects -- and I say sizable, because we really do try to do the smaller projects, you know, funded by our ratepayers, and -- and a lot of them we design. We have an in-house engineer and technician. We design in-house and do in-house.

And we will be undertaking like close to a million dollar project this summer, as I said, replacing the air line. All the other equipment below the water line in train two will be -- will be the last train.

We're doing it. We already purchased the equipment to the tune of $330,000 and we'll be installing that soon.

The total cost is a 131, plus whatever extra was added yesterday, to about

440, depending on -- if you look at that one CSO project of 7.4 million and multiply it times 55, you come pretty close to that number of -- of $440,000.

And I need this disclaimer. WVSA's charge is the transmission and treatment of wastewater. We do not know the age nor the condition of over 800 miles of pipe in the collection systems of our service towns.

Some of them I know for a fact were installed in the 1800s. You know, we were talking before, you know, pipes put in in the 1950s, '60s, and '70s. Well, we aren't even in the 1900s. And over 400 miles of those pipes are combined sewer systems.

The cost of separation is unknown, with the estimates running in the hundreds of millions of dollars.

And with that, I'd end my presentation.

DEPUTY SECRETARY MYERS: Thank you very much.

Okay. And let's move on to Jeff Hines, United Water.

MR. JEFFREY HINES: Thank you, Deputy

Secretary. Correction. I'm with the York Water Company. My name is Jeff Hines. I'm the -- the president and chief executive officer of the York Water Company.

Incidentally, the York Water Company was founded in 1816 and is the oldest and best run utility in the nation. And so we've been practicing full cost pricing for 192 years.

I serve as a director and past chairman of the National Association of Water Companies, the Pennsylvania chapter, and on behalf of the Pennsylvania chapter I'd like to thank the task force for inviting me to speak today.

Let me start by providing a brief description of the association. The National Association of Water Companies represents all aspects of the private water service industry, including ownership of regulated drinking water and wastewater utilities and the many forms of public/private partnerships and management contract arrangements.

The Pennsylvania chapter consists of 12 member companies that provide reliable drinking water to more than 3.5 million

Pennsylvanians every day in 43 of the Commonwealth's 67 counties.

In addition to delivering potable water, several of our member companies also own and operate wastewater treatment systems.

I think it's fair to say that Pennsylvania's community water systems deliver tap water to homes and businesses every day that is safe and complies with state and federal standards. However, some systems, whether publicly or investor-owned, lack the capacity and are having an increasingly difficult time finding the capital and human resources required to comply with the stringent water quality standards to remain viable.

In a world of shrinking supply, increasing population, more stringent regulations, and a seriously aging infrastructure, costs will inevitably rise.

The political and community implications of rising water costs will be far-reaching as the cost of water begins to move inexorably toward its true value.

In 2003 Christy Whitman, former U.S.

EPA administrator, and Tracy Mahan, assistant administrator, commented to the water utilities that the federal government should not be expected to take the brunt of the financial burden for replacing the nation's drinking water and wastewater infrastructure.

At a conference of the Association of Metropolitan Water Agencies, Mahan remarked, it is a fair question to ask, who are we going to charge? Ratepayers? Or taxpayers? At the end of the day can we really say our infrastructure is sustainable if it is funded by the federal government?

The question as to who pays is further complicated by the fact that most customers do not understand the complexity of gathering raw, untreated water, treating it, and delivering it for distribution directly to our homes. Nor do they understand the collection and treatment of wastewater.

Therefore, customers do not realize that the water and wastewater industry is an extremely capital intensive business, especially in comparison to other utility services, and simply do not place a

high-enough value on this service.

A significant portion of our nation's water and wastewater infrastructure is reaching the end of its useful life. There are thousands of miles of pipeline that were installed 50 to a 150 years ago which need to be replaced.

This aged infrastructure, although mostly unseen and taken for granted by the public, has been the essential building block for any advanced society.

We are all beneficiaries of this magnificent network of treatment plants, pump stations, and pipes that was handed down to us by generations before.

And the truth of the matter is, because our drinking water and wastewater infrastructure has lasted so long, we haven't worried about the cost of replacing it. We can, therefore, be sure that going into the future tap water and wastewater service will cost more than it does today.

So we've arrived not at a crisis but at a turning point. The choice we face is either to adopt strategies to renew our water

and wastewater infrastructures or accept the erosion over time of reliable water and wastewater service.

Again, to make my point clear, the National Association of Water Company members maintain over 11,000 miles of water main. That's enough water main to traverse the United States nearly four times.

The size of the mains range from one inch to 60 inches with some of these mains being over 150 years old. The replacement of these older mains is critical if we desire to leave the future generation with a sound, reliable water system.

In the past five years alone, the Pennsylvania Association of Water Companies, the York Water Company, and United Water Company have invested collectively over $670 million to ensure safe, reliable drinking water.

While the state has and will no doubt continue to assist water and wastewater systems through infrastructure financing programs, like PENNVEST, PENNWORKS, and PEDFA, ultimately -- ultimately it is the

responsibility of water and wastewater professionals to educate their boards and customers, implement asset management and replacement plans, and make the tough choices regarding rates for service and the need for frequent increases going forward.

We simply cannot put a price on the service that delivers public health, fire protection, support for the economy, quality of life, and environmental protection.

So, in conclusion, how we do address this capital intensive instrument and how do we assure we have the proper financial mechanisms in place to meet the needs of the underground infrastructure replacement, as well as the cost to upgrade treatment facilities to ensure continued compliance to new regulations?

Self-sustainability, not dependence on government grants, should be the goal of water and wastewater systems and public policy should seek to encourage and support this goal.

That concludes my prepared remarks. We've also submitted suggested funding

principles for the task force to review.

And one final comment on self-sustainability, if you're self-sustainable, it doesn't matter what the federal government does with their money. You don't have to worry about it.

Thank you.

DEPUTY SECRETARY MYERS: Thank you very much, John -- Jeff. I have a John here.

I see we have one more -- no, we have two more on this panel. Don Amadee from Buffalo Township.

MR. DON AMADEE: Thank you. Madam Secretary, honorable members of the Sustainable Water Task Force, and citizens of the Commonwealth, thank you for allowing me to address the task force on the significant challenges we face in building, financing, and operating public water infrastructure in Pennsylvania.

Since I have only a few minutes of your time, I hope to quickly tell you what I do, what challenges I face, and what recommendations I would have for the work of this task force.

Unfortunately, I have no slides and I'm not very funny, so -- however, it is a shame that some of the people have left because the secretary did ask me to pass out the door prize once I'm done.

I manage a public water and sanitary sewer authority in southern Butler County, about 30 miles north of Pittsburgh. We serve a population of about 6,800 people, and that's population customers. We probably have around 3,200 individual customers. That's in three different municipalities.

We make our own water from a surface water treatment plant on the Allegheny River, and we treat our own sanitary flow at a wastewater treatment plant on Buffalo Creek.

My service areas include a 175-year-old borough, rural farmland, 1950s-era residential subdivisions, trailer parks, modern planned residential subdivisions, and one of the Commonwealth's newest and largest industrial parks.

When I was asked to testify to this body on the challenges facing small authorities, my first thought was, of course,

we need money.

And when I was told that there would be others testifying today as well, my second thought was, well, I hope there are enough different ways to say we need money or it was going to be a long and boring day. We know it's been long so far.

Since I've told you what my service areas are, I suspect that you can guess what my challenges are. How do I operate, maintain, and rebuild the largely original water system in my 175-year-old borough?

How do I make my 89-year-old water treatment plant meet the standards and the demands of 2008?

How do I comply with a mandate from DEP or a request from my citizens to extend water or sewer service to my rural farmland or my 50's-era residential subdivisions with low population densities without charging tap fees that look like annual tuition bills or monthly bills that look like your January gas bill?

How do I take over the failing patchwork systems in the trailer parks in our community without bankrupting the owners,

closing the park, and forcing those customers, those citizens to move elsewhere?

And, finally, how do I keep up with the demands of growth in my new subdivisions and industrial parks without making my existing customers finance the expansion or raising fees so high that these customers go elsewhere?

So these are some of the challenges I face. Unfortunately, I don't know how I will overcome those challenges, but I do know one thing. As fond as I am of the adage that we have no problems that money can't solve, I know that money alone will not be enough.

I guess that should give us hope because we all know that for at least the near future, and probably our future, we're going to have less money to solve those problems with and not more.

So if there is no magic bullet, what suggestions do I have?

Well, I believe that we need to make the best use of the dollars we have at our disposal. We need to get those dollars to the people who can do the -- make the best use of

them, and we need to streamline the process of access to that money.

And regionalization is going to be key to making the best use of the funds that we have. It's -- I think every presenter today has discussed regionalization.

Everyone agrees with the concept when you bring it up, but no one ever seems to be willing to take the steps necessary to make it happen.

Pennsylvania is crippled by the ingrained, parochial mindset that we all share. There's been a great deal of discussion and planning for regional solutions in the southwestern part of the state.

The Regional Water Task Force and the 3 Rivers Wet Weather demonstration program, they're looking at regional solutions. We heard about some of those today.

I support this effort and I hope that it succeeds. But until local leaders see a significant advantage, they are not going to be willing to give up any power or any control.

Great example of how regionalization

can work and is working is the Indiana County Municipal Services Authority, ICMSA.

If you've driven through Indiana County on Route 422 or Route 119, you've most likely seen the telltale green-and-yellow buildings of a ICMSA pump station or package treatment plant. They're usually at the outskirts of the community and so, as you go rolling through, you'll see them out there surrounded by a fence.

These areas have joined ICMSA because they saw a well-run organization who could make their water or sewer problem go away and they said, I want to be part of that.

That's how we're going to get people to buy into regionalization. Not by mandate, but by taking away their problems and providing them with a turnkey solution.

That same process is happening in my system. We have a neighboring community facing an expensive and disruptive sewer project through a largely rural and low income area, and they have no desire to get into the sanitary sewer business.

They saw the success of our operation

just a few miles downstream, and they decided to have us own and operate the system for them. I have high hopes for that project, and I hope we don't let them down.

One important note I think is often misunderstood about regionalization. Actually I thought it was misunderstood, but I've heard several people mention it today. So I guess we know.

It does not always have to involve water interconnections and long sanitary sewer interceptors.

Our own project is a prime example. I could save nearly half of the $6 million price tag of this project if we could operate the system as a satellite using a package plant and a circuit rider.

I think the reason we're not is a desire by permitting agencies, DEP, to consolidate treatment and to reduce the number of surface discharges. I understand and I agree that that's a worthy concept, but we're looking for ways to save money and make the best use of our dollars, and I think that this is a great way to generate savings.

The $3 million that I would save on just this one project would certainly be a welcome addition to someone else's construction budget.

By the way, in case you're wondering -- and I'm sorry that the Governor's representative left -- but if you're wondering if my customers are paying their fair share, they are.

Our minimum sewer and water charge is $63. That's a minimum charge each month. Our average ratepayer pays about $90 a month for water and sewer services. Or if you want to think of that in terms of our median income, that's about two-and-a-half percent of the median income for our area of 45,000.

Professional management training is going to be key to making regionalization work. We've made great strides in operator certification and continuing education over the last few years, but one of the casualties has been the virtual elimination of DEP's training programs for operators and DCED's training programs for management personnel.

I'll make, at this point, a shameless

plug for one of my favorite organizations, Pennsylvania Rural Water Association. The representatives are here today.

They've made up the shortfall that this caused in operator training, and they launched a new professional utility management course to give our managers the skills they need.

Systems run by graduates of this program are going to be good places for the Commonwealth to spend their limited dollars.

When considering how to best use our limited dollars, I often wonder why we are still pouring dollars into sanitary systems that serve rural and largely agricultural areas with thin populations and high development costs.

In 1998 my system completed a $14 million sanitary sewer project that served 1300 customers. We had many areas that were in real need of sanitary service and the project was a success, but we spent over a third of our project budget to run long interceptors through farm fields to pick up small patches of homes on country roads whose

problems basically amounted to some gray water in the roadside ditch.

We wanted to wait to serve these customers in later years but our 537 plan, with that option, was repeatedly turned down. Given our current funding situation, I think we need to stop pressing communities to complete low priority projects like these.

I believe every dollar we spend on water and sewer infrastructure in support of development will come back to us twofold. Water is the fuel that drives our economic engine.

I'm looking for money right now to rebuild my 89-year-old water treatment plant. I need to rebuild because of the age of my physical plant; but if I could add capacity, or at least provide for the footprint of future capacity, I could serve the needs of new residential, commercial, and industrial development, and the revenue from those sources, as opposed to increased rates and new loans, would finance my future operations and expansions.

I guess that contradicts my earlier

comments and statement that there's no new money. If we can attract new customers, then they will bring us new money.

I think that's one of the highest priorities and best uses for our limited funds. I think these projects should have priority because they provide our systems with new customers and new revenue.

The PENNWORKS program was -- it uniquely targeted these types of projects, and it should be revived, I believe.

If there is no new money to put into PENNWORKS, then we may want to consider reprogramming some existing funds into this highly successful program.

I can't say enough about the fine work of the Pennsylvania Infrastructure Investment Authority. My system received one of the very first PENNVEST loans and we would not be what we are without that program.

I think PENNVEST is a model for revolving loan programs throughout the country, and any funding solutions developed by this body, I believe, should use PENNVEST for distribution.

However, I also believe that some of the requirements placed on PENNVEST in recent years has taken off some of their shine. Now, Dennis, doggone you, you stole my thunder here.

But this is what one of our typical PENNVEST applications looks like. These are the 13 different pay requests that we fill out to get access to that money. Each one of them takes about 60 days to be processed, go through PENNVEST, go through the comptroller's office.

This is the inevitable audit that follows any PENNVEST funding.

And this, on the other hand, is what it takes to borrow a similar amount of money through a commercial bank.

Now, as I said, I believe you have some of the best and brightest at PENNVEST. And I -- I applaud their work. But I feel sure if you ask them for suggestions on how to make the best use of the limited funds we have, I'm sure they would tell you that there's an inherent cost to this work and if we can reduce that cost, then we can put more

dollars into water and sewer projects.

So these are my impressions of challenges we face and some of the ways that we can continue to fund needed projects with our limited funds.

I agree they may be simplistic or perhaps even naive -- another he stole from me.

As you may have guessed, I'm a engineer. I -- I'm a technician, not a trained urban planner, financial expert, or a politician.

As I see it, our charge places upon us obligations, not just to the customers of our system who depend on us for water and sanitary sewer service, but we also have an obligation to the citizens of the Commonwealth who need and expect us to expand service into areas where it's needed to address public health issues and to support residential, commercial, and industrial development.

Water is life to our cities, our towns, our boroughs, and our townships. It's also the fuel that keeps our economic engine running. And by making the best use of the

funds we have and by getting those funds into the hands of those who can do the most good with them and by streamlining the process of accessing that money, then I believe that we'll meet the requirements of that charge and we'll meet the requirements of our obligation to our customers and to our citizens.

Thank you again for this opportunity to provide input to the task force, and I look forward to sharing in the fruits of your labors.

Thank you.

DEPUTY SECRETARY MYERS: Thank you, Don. I want to comment on many things, but I do want to just say to you, because of the comment of the centralized system being pushed by the department, that has not been the administration's policy for five years.

But people being people, it takes a while to change things. So I'm glad to know about your problem.

We do not any longer think that every septic system is a temporary solution waiting for a pipe. If it's in good soils, it's as good as any other way to treatment domestic

sewage and small package plants are great and satellites are wonderful ideas.

So those will all be on the table, and we'd like to know areas people have experience and thoughts with them.

MR. AMADEE: Thank you.

DEPUTY SECRETARY MYERS: Okay. Last, but not least, Jim Hassinger from the Southwestern Pennsylvania Commission.

MR. JAMES HASSINGER: Thank you. I just need to grab one of your microphones. Any available seat will work.

Thank you. I just had a few things I wanted to talk about for a minute, and among those, of course, is appreciating the work of the task force.

We in southwestern Pennsylvania do have right now a draft task force report of the Southwestern Pennsylvania Regional Water Task Force. At SPC we're taking a thorough, active, and serious look at recommendations that are in draft form from our own task group that is chaired by Dr. Jerry Cohon of the Carnegie Mellon University.

And so we're in the middle of doing

some similar things, and we thought this was a really wonderful coincidence of opportunity, and not so much coincidence, perhaps because the problems are serious and they are matters of public and private concern in southwestern Pennsylvania like they are in the rest of the state.

So the -- the synergy that can be created by the work that's being done at the state level and with people all across the state we think can help us.

We don't want to get too far ahead of where this task force may be and we don't want to get left behind either. So we are engaged with our policy advisory committee of SPC. We'll be meeting later this month.

We've asked the committee to report by the end of the summer on recommendations that have been developed by that task force.

We have very challenging topography. As you know, I expect that there's already been discussion about some of the problems that are specific to the southwest, which is, for our purposes, is about ten counties and over 7,000 square miles.

We have, of course, CSO issues. We have stormwater management issues. We have acid mine drainage. We have septic tank issues, on-lot systems, and there are -- in terms of even the discussions about where to put emphasis and how to put together efforts to address all those issues, there are issues of equity with the part of the planning process and the decision-making that we have to wrestle with, and we appreciate what has to be wrestled with at the state level.

But there isn't -- in all of that, there isn't a great deal of money relative to the size of the challenge. There isn't a great deal of precedent relative to the size of the challenge and complexity of it and there isn't a great deal of protocol already established in the planning process in the same way that it is there, to a certain degree, in the transportation planning process which SPC, as a regional body, is perhaps more recognizable as.

We are the MPO for the region and do the transportation planning that relates to the federal revenue sources to projects that

are partly federal, partly state, partly local, and with a look in the cooperative process at the regional level.

And so this task force that we have encouraged members from our own counties to join and participate in and make recommendations on is cognizant of that role that SPC plays, has played in significant ways in transportation, but also its role as a local development district and economic development district and the diversity of the things that it does.

Like some other organizations at the regional level, in, particularly, the Appalachian portion of the state, which is seven organizations that cover most of the state, and the rest of it, of course, covered by organizations like DVRPC who have relationships with the obligations that are associated with Chesapeake Bay interstate compacts.

And so there is a fair amount of research that has been done recently by significant projects, by groups like the National Research Council that was brought

into help with the University of Pittsburgh's Institute of Politics' work for us on this matter, and their reports are out there and available.

But they have -- the reason I'm speaking to it particularly is because they have pointed to the need for continuing development of plans at the regional level and encouragement of solutions that fit the region in ways that the region itself thinks is appropriate, along with its partners at the state and federal, but cognizant of recognizing the specific role of the authorities and -- and the -- the resources that they have and the expertise that they have, the geography that they have to deal with, and their relationships with the others around them.

Folks have pointed at SPC as one of those kinds of organizations that may represent a way of going forward to examine larger areas in relationship of the environment and the other pieces of the infrastructure that have to fit together as an overall regional plan.

So when we do a regional plan, we do it as an integrated plan for development in concert with the counties and other governments, and state and federal, in a way in which it's a collaborative effort.

We have to figure out how to allocate scarce transportation resources, like the scarcity that exists in water, in an equitable way to the needs that exist for diverse kinds of transportation.

And the relationship between the transportation infrastructure, water infrastructure, and other kind of infrastructure, I think, is indicated by something very simple.

There's a -- there's a number of square feet of bridge deck that we have in southwestern Pennsylvania that has to be maintained. It's been built. It's already there. It has to be maintained.

There are so many waterways, there's so many valleys and hills that have to be traversed in that region that it does represent about, I think, about 30 percent of what is part of the state's waterway system.

There are 30 million square feet of bridge deck that has to be maintained. We put about a $150 million a year routinely into maintaining the bridge systems as part of that collaborative effort in the transportation systems that go over those waterways.

Next year we'll probably, in concert with the state, if some new revenues become available, put upwards of a quarter of a billion dollars per year into the bridge maintenance issues. And for the foreseeable future, we'll get a lot done in the next several years.

But that's a continuing issue. It's a continuing issue that's being recognized more at the federal level partly because of crises.

When the bridge collapsed in Minneapolis, people began to understand how important bridge maintenance was and doing bridges properly and understanding their engineering properly and working with the entire transportation system. But it's only one part of the infrastructure.

I remember when I was in class in --

in school up at Penn State many years back when -- as part of the curriculum, we read Rachel Carson's book and, among other things, we had some presentations that were about the entire study of the infrastructure. Not just what we do in terms of maintaining air and water qualities, but how they fit together sometimes is illustrated in a little cartoon that I saw -- I kept it as a bookmark in one of my texts.

It's a little Family Circus cartoon and there's a mother and little child and they're walking down the street. And they see a guy pop out of a -- out of a manhole and he's up on a ladder. And the kid says to the mother, mommy, I didn't never realize there was a downstairs to this street.

And there is a downstairs to the street. There's a city under the city. And there are places where there is no city under the city. There is no infrastructure under the street.

And maybe it doesn't need to be there. Maybe parts of the region really have to have a different kind of treatment of

septic than you would for an elaborate sewage system, and we can work that out at the regional level. With participation and collaboration with others, we can understand that well.

So that's one of the reasons I think that people can look to something like the SPC.

There is a very complex network of what goes into maintaining our economy and our environment and livability for people all around the state and throughout the nation, and in the plans that we're developing at the regional level, the perspective that we're trying to take in, is the user integrator.

We have to understand there's an integrated system, and so we do look for opportunities to improve things as they interrelate.

There are ways that we know -- and I'm sure others have spoken to it and will -- to design the street differently so it's much better at storm water retention.

I saw one of those at a national planning conference just last week. A street

was re-designed while they were doing revitalization of storefronts for commercial purposes in a small town where they had stormwater problems on the street. It was all concrete. All blacktop.

And they redesigned it so there was more natural infrastructure in the streetbed itself and adjacent to it, and the natural materials help direct water to places where it could be retained temporarily and would not overload the sanitary sewer system or, in a combined system, the stormwater sewer system.

So there are ways to do it. I think our ability to share that information with each other and take advantage of it in a way in which we can create plans which we can move forward together is advantaged if we do think about it as an integrated system and if we do take advantage of opportunities to do planning in a way in which we think about one at the same time we're thinking about others and work on plans to do that.

Now, we're going to -- I think you'll hear more about the recommendations that are specifically linking an SPC staff support to a

new structure to develop water management resource planning collaboratively with the members and the -- and the local authorities and municipalities and the state when you get fuller presentation from the task force.

But I would say that SPC, like other organizations that were studied by the task force in the region, like Atlanta Regional Commission, Northeast Ohio Area Wide Coordinating Agency, Wisconsin -- Southeast Wisconsin Regional Planning Agency, and others that are recognized around the country who have different ways of approaching it.

Some of them have vestigial responsibilities that they carried over from decades ago when there was more money.

I think probably Southeast Wisconsin and NOACA, who are in Cleveland, are very much more like that.

Others, like Atlanta, are dealing with crisis in water supply. And so they've created new legislation at the state level to help bring together a board which is staffed by the Atlanta Regional Commission, the MPO for that area, in order to aid that process.

So we'll look at things like that, and we'll try to come to a resolution about the best way to proceed, engaged with you. We want to be engaged with this task force as we work in the region with our members and -- and do some productive things.

I think we're ready, willing, and able to do that. We have done it before. We at SPC -- I wasn't there, but do understand that we had a full division of engineers working on environmental issues, when there was money available and it was federal money principally. So we know what happens when federal money goes away.

So there is an understanding and expertise in what can be done at the regional level and we do want to look at ways that are appropriate, productive for local authorities throughout the region, as well as the state, and maybe there's some lessons that we have learned along the way that we can share and vice-versa. We'd appreciate that.

So I appreciate the task force, the work of it. And that's all I wanted to share today.

DEPUTY SECRETARY MYERS: All right. Thank you, Jim.

I would just comment that we put you on the needs panel, but you equally belong on the innovative concepts and innovative solutions panel. But we do want that innovative solution panel to be not just about technical solutions but also about financing solutions, financial solutions, and about institutional and management solutions that can make it work.

So the one thing we just put this whole --

MR. HASSINGER: Well, thank you, and that's okay.

DEPUTY SECRETARY MYERS: -- need --

MR. HASSINGER: Yeah. I appreciate that.

But the task force has done some pretty extensive work and development in understanding of needs within the region. And I'm sure they're going to share that and --

DEPUTY SECRETARY MYERS: We'll need that information.

MR. HASSINGER: It's extensive so

we'll let that --

DEPUTY SECRETARY MYERS: Right. You're more thorough, I think, because you've got a tri-county plant and it's pretty much unduplicated around the state.

I want to give people a chance to ask some questions of this panel.

Okay.

MR. CRUM: George Crum. I had a question for Bernard.

Have you figured out what the impact on your users would be, the ratepayers, if there's no other funds available, just for your mandated project?

MR. BIGA: No. The only one I can tell you is -- is right now for the nutrient removal. It will double their rates.

And our rates are only for the transmission and treatment. The -- 36 of those municipalities, they are revenue authorities for the collection. So while they pay us a very reasonable rate, they're at that two percent that we talked about, just for their wastewater collection and treatment.

MR. CRUM: Do most of those

municipalities roll that into their public works or is it a separate fund?

MR. BIGA: The member towns roll it into their public works. I live in the town of Kingston. It's just taxed -- based from the taxes. Other ones are starting a-hundred-dollar, two-hundred-dollar-a-year sewer maintenance fees, and the 22 newer ones, since 1970s, they are separate authorities and they are -- you know, their ratepayers pay twice. They pay to the local authority for the collection and then they pay us for treatment.

MR. CRUM: Do you bill them separately or do you bill the entity and then they bill the customer?

MR. BIGA: We -- we bill everyone individually, except one. There's the Dallas Area Municipal Authority. It was ten years or so ago DEP thought it would be best if they stopped treating wastewater and became a pump station. They did pump it to us and we treat it.

We bill them. We bill the authority. That is the only multiple entity

like that. We bill everyone else individually.

MR. CRUM: I had a question for Don, too. Does your authority do any on-lot management?

MR. AMADEE: We do not, no.

MR. CRUM: Does anybody in your region do that, in your service area?

MR. AMADEE: I don't believe so. I don't know of any.

MR. CRUM: Thank you.

DEPUTY SECRETARY MYERS: Other questions for the panelists? I think it must be the hour. Fine presentations.

Well, thank you, gentlemen, and we just have a couple other odds and ends.

MR. BLUEDORN: Thank you, guys, very much.

DEPUTY SECRETARY MYERS: And we can get out by 3:00 and keep this to a four-hour session.

Just a reminder that you have the future task force meeting dates and work group meeting dates. The chairs for each of the committees, if you're still here, stand up

just so people know who are they. Chuck Wunz is one. Is Chuck still here? Okay. Paul is the financing.

I have the list here. I want them right.

MR. MARCHETTI: Financial resource.

DEPUTY SECRETARY MYERS: Financial resource. Financial. Financial sustainability is Dean Kaplan. Is Dean still here?

MR. KOHL: He left.

DEPUTY SECRETARY MYERS: He had to leave.

Okay. Needs assessment, John Schombert.

MR. KOHL: John just left

Deputy SECRETARY MYERS: He just left. We saw him on the panel from 3 Rivers West Weather.

And Erik Ross is going to do legislative regulatory. Stand up for your members.

Do you have lists of all the members that have been assigned to the task force, the work groups that they requested?

One other thing of business I have is what's next on the slate, is what I worked with putting together is the regional meetings that the legislative members that very courteously agreed to host in the regions throughout this month. You have the list.

What we have done is with the Technical Advisory Committee, and others, put together, and the work group chairs, put together an initial list of some of the fundamental questions that need to be answered by each of the work groups.

So I'd like -- these are just drafts, and I'm going to put two piles by the door before you go out and if you could take these and if there are important questions that are missing or wrong-headed questions of -- that bother you and you'd like to give us some commentary on how we can improve these questions, again, these are to solicit discussion in the regions and to solicit public input for each of the work groups.

Any other business or questions or concern that should be addressed?

Marcus?

MR. KOHL: Just one thing I was going to note, I've been speaking to the speakers individually about electronic copies of their presentations. Those will all be placed on the web as soon as possible.

DEPUTY SECRETARY MYERS: Right. Marcus Kohl is my assistant, my executive assistant. And so he's -- for the foreseeable future, he is the hub of all the communications and getting things back out to folks to where we will be underway. So he's built the meeting today, and I thank you very much, Marcus, for a job well done.

And we'll be working with each of the groups on the various meetings that are coming up. Thank you all for your time and participation.

(The proceedings were concluded at 2:58 p.m.)

I hereby certify that the proceedings and evidence are contained fully and accurately in the notes taken by me on the within proceedings and that this is a correct transcript of the same.

_____
Brenda S. Hamilton, RPR
Reporter - Notary Public