COMMONWEALTH OF PENNSYLVANIA

SUSTAINABLE WATER INFRASTRUCTURE TASK FORCE

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IN RE: PUBLIC INPUT SESSION

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PANEL: MARY JO WHITE, Chair/Senator
SCOTT HUTCHINSON, Chair/Representative
Craig Brooks, Member

HEARING: Wednesday, May 21, 2008
Commencing at 1:23 p.m.

LOCATION: Clarion University
Venango Campus
Rhoades Auditorium
1801 West First Street
Oil City, PA 16301

WITNESSES: Raymond Meyers, Richard Castonguay, Penny McCoy, Terry Soster, Paul Marchetti, Jeff Allio

Reporter: Wendy Blair

I N D E X

E X H I B I T S

Number	Description	Offered
	NONE OFFERED	

P R O C E E D I N G S

CHAIR WHITE:

Looking at the schedule of hearings, I'm showing eight, and this is the fourth, so there are

four remaining. One is Thursday, May 22nd in DuBois, May 27th in Pittston, May 28th in Bethlehem and May 29th in Red Lion, and I'm sure you can find those scheduled hearings on the website, as mentioned, but that's for your information.

CHAIR HUTCHINSON:

Okay. We have three speakers, I believe, that are registered in advance, and we will start with them. The first will be Raymond Meyers. Is Mr. Meyers here? If you can come forward and make your presentation, please. Do you have copies of your --- we can take extra copies, I'm sure.

MR. MEYERS:

Yeah. I really wasn't sure ---.

CHAIR HUTCHINSON:

Okay.

MR. MEYERS:

Here's like 25 or 30 copies.

CHAIR HUTCHINSON:

Okay. We'll make sure that they get ---.

MR. MEYERS:

Well, thank you very much for allowing me to share with you this afternoon on this subject, also to offer some recommendations for your consideration.

CHAIR WHITE:

Excuse me. Can everyone hear the testimony?

MR. MEYERS:

Are you okay?

CHAIR WHITE:

Good. Thank you.

MR. MEYERS:

I've been a professional engineer providing municipal engineering services for about 30 years, and this is in small, rural, central Pennsylvania communities. What you're going to hear today, I'm sure, is the importance of developing an infrastructure plan to go about meeting those needs, how to train people, where government needs to fit in. But, and I will explain this a little bit later, I think, in my opinion, there's a major need for a change in thinking if you're going to solve these infrastructure problems at the municipal level and at the public acceptance level.

I think only recently some of the public

is coming to grips with the serious nature of our infrastructure problem, and as an example, and what I would like to share with you deals with the Borough of Huntingdon. Huntingdon is in central Pennsylvania. At the end of last year, on their own, the borough council said, we need to develop a plan to deal with infrastructure in the next 20 years, and they said really, it'd be nice to have something that even speaks to people beyond that. I thought that was pretty insightful, and while their plan isn't

finished, in its preparation, they have allowed me to come here today and let me share some of the findings with you.

Huntingdon is a pretty old community. 1767 is when the town was laid out. It's only a population of about 7,000. They have two state correctional institutions that, maybe with inmates and staff, maybe another 6,000. And Juniata College is a small liberal arts college in town. Like a lot of older communities, they have infrastructure that's more than 100 years old. They have brick sewers that were put in in 1880 and 1890 that are still in service today. In a lot of ways, it's so interesting to look at, but they're so old that the mortar is actually missing. It's dissolved over the years. The bricks

are all nicely locked into place, but you take two or three bricks out and you're history. It starts to collapse. But they have that kind of infrastructure. Also, a lot of sewers made out of baked, oven-fired clay. Very fragile material, state-of-the-art material 50 or 80 years ago, but no longer today.

Basically, Huntingdon is the type of community, like most that I'm familiar with, if it wasn't broke, they didn't fix it. And if you had a water main that broke, you fixed it, but on the other hand, they weren't out there actively doing a lot of preventive maintenance, because they focused their attention on a lot of other areas. One of the

challenges is going to be for the people to make a good inventory of their infrastructure, and when you do, you're going to be surprised at just how extensive these things are. As an example, Huntingdon, for a small community, add up all their water lines, it's 45 miles in length. Now, I don't know what the nearest town is 45 miles away from here, but think about it. Forty-five (45) miles of sticks laid end to end, that's a lot. And dealing with it over the various ages, various sizes, various conditions is a real challenge.

Their first water treatment plant was put

in in 1925, and they're still using it today. Concrete today is not what it was in 1925, and they've got some real challenges with it. They also upgraded that plant in 1935 and in 1995. 1995 to me sounds just like yesterday, but it's already ten years old. You can't get replacement PLC information, and some of the technology, equipment has totally changed. Now when you order things, nothing is made in this country anymore. There's all these kind of challenges that you have to deal with. As far as the sewage treatment plant end of it goes, they put in a plant in '65 and they're still using it today. They upgraded it 20 years later, but today they have to upgrade it with the Chesapeake Bay requirements.

So they have all that infrastructure, and

then, as a small community, they have about 30 miles of roads and streets that you can't ignore, and they have Muddy Run, which is a stream that someone channeled. Nobody will own up to it, but they channeled it through the town, say, 80 years ago, and it goes under buildings. It carries about a five-year storm, which is not very much, which means, in theory, anything over a five-year storm, it overflows and becomes pressurized. It's a real challenge.

The value of these public works for this

small community, if you put them into today's dollars, the sewage side of it is about $23 million. If you had to replace everything with today's money, about $23 million, the water about $28 million, and all the streets and everything, about $56 million. It's over $100 million of infrastructure in this 7,000 community area.

What's different about that, you take that value and you divide it by the service population, you get an investment of about $7,000 per person. I happen to have several old engineering textbooks from 1920, 1930, and they say $100 a person, that'll cover all the infrastructure needs in your community, public water, sewage and streets. So 1920, maybe it was $100 a person. Today, at least in Huntingdon, $7,000 per person. That's quite a difference, I'm sure you'll agree.

Huntingdon sewer rates are $290 per year.

Their water rate's $240 a year. They have $31,000 a year median household income, a little under two percent water and sewer combined, so that'd only be two percent of the income. And their tax is about 27 mills. A typical household pays about $2,000 a year in tax, so I don't think these numbers I'm telling you are a whole lot different than a lot of older

communities in our state.

What they have done is they've put a plan together for 20 years, and they've done it in five-year blocks, and they said we're going to have a block of work and have that done by 2013, our second block will be done by 2018 and so on. And for them, they've centered it around separating their combined sewer system. This is this 1880, 1890 vintage sewer system. And they've made estimates of what it's going to cost to do that, and they have inflated these at five percent interest, which I hope is enough, but they've inflated them at five percent over the next 20 years.

And so altogether, they're expecting about $100 million worth of some kind of repairs or replacements that have to be done, again, for this community of 7,000, and they've asked us, what do they have to do to their rates in order to accomplish that? Well, for millage, they're 27 mills. If they would fund this entirely on their own, it would have to go up 39 mills, 39 mills more, and their sewer rates

would have to go up another $600 a year in addition to what they're already paying, and their water rates another $315 a year beyond what they're already paying. So maybe it's not $100 a month. I'm not sure. I didn't do the math for each one of these, but

it's pretty salty, and again, for a community this size, it's a real challenge for them.

Altogether they would have to come up with about $4,000 a year for water, sewage and millage even if the courts would allow them to do it, but about $4,000 a year per household in order to be self-supporting and self-sustaining. And I don't think these numbers are going to be so different than you're going to find in many other communities, especially older communities who did the best with what they had, but now, looking back, they wish they had been more proactive. They're doing it now, so maybe they're ahead of the game in that respect. At any rate, these numbers are in the presentation and hopefully they'll be of assistance to you.

A couple things that I would recommend. It's been mentioned here EPA has developed the four pillars of sustainability. There's been extensive work done by the American Public Works Association, American Water Works Association and Water Environment Federation. Please do not ignore these references. They've already spent a considerable amount of time and effort, and you should take advantage of those,

tweak those so that you can make things right in Pennsylvania.

Something else that we all need to remember, especially if work is done digging up old infrastructure to do some kind of a repair, there's all kinds of issues that we face today that did not exist even 20 or 30 years ago. Almost every project these days, sometime, somewhere, you find some source of contaminated soil, groundwater that you have to deal with. These are sometimes unexpected, but the reality, they add to the cost. Historic structures, old trenches from previous construction that could cave in. All of these things are new in the construction field compared to 100 years ago or 50 years ago, and you can't do things today for what you did 20 years ago. You just can't simply do it.

And with respect to costs, I provided some information here. Some of you may know the Engineering News-Record puts out the cost of construction estimates. 1913, they had an index published, and it had a base rate of $100, so construction in 1913 had a base rate of $100. Today it's $8,000. So in theory, it costs 80 times more to do something today than it did in 1913. And in case you don't know it, inflation at five to seven percent means things double every 10 to 15 years, and I don't know if five or seven percent is enough today with the

cost of copper, concrete, steel. Things doubling every five to ten years, I wouldn't be surprised to see that happen. So please, when estimates are made, if you're going to project something and let's do something in 20 years, keep inflation included in that so it can be planned for.

Something else, many people will say how important it is to conserve water, and it is very important, but I think some folks erroneously think every gallon of water that you conserve, it automatically transfers into additional dollars of money saved, and that is not a proportional relationship. There is a lot of costs of running a water system that are fixed. They don't go up and down. You can't buy the insurance on the treatment plant, and that premium doesn't go down if you make a little bit less water next year. Wages, salaries, debt service, it doesn't change. So most of the costs, many of the costs, are fixed. So conserving water doesn't instantly mean you save a proportional amount of money.

Also, if I may, we often talk about costs in light of the median household income, and again, be mindful, if the median is in the middle, that means half of all the incomes are less than that number,

just like half are greater. And if you look at the proportion in Pennsylvania in a lot of these aging

communities, it's kind of weighted closer to the end of that lower half, so I really think and I would recommend an altogether different way of looking at what's affordable. This idea of basing it on a percent of median household income, probably we can do better, and I think we want to try that.

And lastly, I really would urge you to come up with a way to provide education long term to all parties. I believe municipal officials need it, the public needs it, I think engineers need it to be able to start to look at things in terms of economics and the total cost of providing the cost of the infrastructure. I even quoted a textbook from 1930 that says, graduating engineers, their biggest weakness is they don't understand economics, and I can guarantee you that is true today. There are some engineers in this group. They'll be honest. They'll tell you none of us understood economics the way we should have when we graduated from school. And I think it's true of new engineers that are graduating as well. So basically, that's what I wanted to share. I hope it's helpful, it gives you some ideas and things to think about.

MR. BROOKS:

Thank you. I'll just make two brief comments. I think you're right on the mark when you talk about education and the fact that we need to

educate the public as well as those in the field about what we're facing. The other thing that really struck me about your testimony that --- about the $4,000 figure or thereabout, I just --- you can do a lot of online sewage for $4,000 a year. And that's why I think we have to think in a different way. And obviously, there's other technical reasons why you can't do that when people live closer together, but that's a lot of money. So that's my only comment I have.

MR. MEYERS:

Yeah. Well, that's an example for a community that has existing infrastructure that just can't walk away from it.

MR. BROOKS:

Yes.

MR. MEYERS:

That you have to figure out how, can they continue to use it for 10 to 20, 50 more years? That's the kind of investment, in their case, that's going to be necessary to do to continue to use it.

CHAIR WHITE:

I think a corollary then is that as we build new systems in rural or sparsely populated areas, all of this needs to be built in, projected costs over time of these projects, in deciding whether they make sense or not.

MR. MEYERS:

And definitely the materials that are available to build things today are superior to what they were 100 years ago. It's just that there's a huge amount of 100-year-old infrastructure that --- again, if you look at old engineering textbooks, they never expected this to last this long and have this kind of service life. And it's wearing out, and it's not going to last another 100 years.

CHAIR WHITE:

On page five of your testimony, where you give the amounts necessary per year to sustain a goal, your footnote says the sewer rate included the Chesapeake Bay cost. Have you been able to isolate those at all? Do you know what portion of the money is directly related to the Chesapeake Bay requirements?

MR. MEYERS:

In this particular community, about $10 a

month, about $120 a year is Chesapeake Bay only and not a penny for anything else.

CHAIR WHITE:

Okay.

MR. MEYERS:

There are a lot of other issues that they need to deal with, but Chesapeake Bay, only about $120 a year per customer.

CHAIR WHITE:

And did I understand you said that is or is not typical of what other communities can expect?

MR. MEYERS:

I think that's probably typical. $5 for a pound of nitrogen removed, I think, we're going to find something ---. What's happening, a lot of people, they may be mentioning numbers, $20, $40, $50 a month, but that may include other necessary improvements that, if you're going to put this investment and have a contract, maybe you want to take care of something that's been a problem for the last ten years, it makes absolute sense to deal with it as much as you can.

CHAIR WHITE:

When you stated about conserving water, I mean, I understand it's not like conserving

electricity. It is somewhat different. Fixed costs are indeed very high. But there's a lot of emphasis on infiltration and overburdening our systems, so you're not including that as conservation? That's a separate issue?

MR. MEYERS:

Well, I'm talking about conserving water, drinking water.

CHAIR WHITE:

Yes. Not sewer water?

MR. MEYERS:

Not sewer. No.

CHAIR WHITE:

Okay.

MR. MEYERS:

Getting groundwater out of the public sewer is a good thing. Absolutely. It makes a lot of sense. Very difficult. Our country has spent billions trying to be successful at it, and we're only partway there.

CHAIR HUTCHINSON:

Thank you.

MR. MEYERS:

Okay. Thank you.

CHAIR WHITE:

Thank you very much.

MR. MEYERS:

You're welcome.

CHAIR HUTCHINSON:

Okay. Our next registered testifier would be Dick Castonguay, a friend from the area who we're glad to have back today.

MR. CASTONGUAY:

Good afternoon. I too would like to thank you for this opportunity. I was fortunate to see that this was going on, and it's going to happen in my community tomorrow, but I'm tied up tomorrow, so I've traveled back to Venango County to see some friendly faces. And the last speaker sort of gave me

some ideas as to some of the things that I guess I just need to make you aware of.

Sandy Township, if you're not familiar, it's a township of the second class that completely surrounds the city of DuBois, or DuBois (changes pronunciation), as some of you may term. We're in a northcentral DEP area, population of about 12,000, but keeping in mind about 4,500 to 5,000 of those are located in Treasure Lake, a gated community that has their own water and sewer system, and that gated community skews our median income. Our median income

is probably approaching $50,000, but if you drop out the gated communities, income is significantly different.

We do not operate a sewage treatment plant. We operate a sewage collection system, water distribution system. We have approximately 60 miles of roads, 35 employees. Within the past four years, we've replaced all of the sewer collection system, about 80,000 lineal feet, not only the lines, but all the manholes as part of the process. There were some that we slimlined to reduce the I&I challenge that we had, and so our monthly debts are --- and these are --- this is with PENNVEST, is approximately $30,000 a month is our debt service, and that's on about 1,100 customers.

So our sewer rates and water rates, I would love to be able to have the kind of rates that I

just heard. Probably our average customer is between $200 to $300 a quarter for an average household. We have people that pay $500 and $600 a quarter for families, depending upon what is going on. Part of that is precipitated by the fact that all of our sewage goes to the City of DuBois, and they, in 2002, broke the management agreement that we had with them and hit us with a rate increase of about $4 per

thousand. So our customers currently are paying $11.90 a thousand for sewage. There is also a $36.75 per quarter maintenance fee that goes on top of that. You can see how rapidly we could build up a pretty significant sewer rate.

Some of the things I wanted to talk about --- and also, I guess, it would only be fair to mention that we have been in prolonged litigation over this issue with the City of DuBois. We've spent probably collectively, between the two communities, between $1.5 million to $2 million in legal fees over this. We are currently in Commonwealth Court. We've done our presentations and we are waiting for Commonwealth Court to render a decision on this matter. And I'm sure that's depending on how it comes out, it will move on to the next level in the Supreme Court, because both communities are pretty entrenched.

But where I see a challenge, and I try to address this in the first item, the regional

governance for regional assets. And a little bit of background there, I believe a DEP person mentioned the no longer --- the regional treatment plants. I was chairman of the co-op study back in the 1970s when we came up with all that. I was opposed to it then and I guess I'm still opposed to it. I didn't feel it would

work because of the long-term impact, and I think that's been validated.

But currently throughout the Commonwealth, there are numerous water and sewer systems that serve multiple municipalities but are owned and managed by either a single municipality or single authority. In some instances the PUC has rate setting authority, but in many others there is no oversight of the rate setting or management functions of those systems. In effect, the system monitor has been granted monopolistic powers over the regional asset, and in some instances, has used that power to thwart growth and development or to enact blaringly inequitable user fees, and we have no say in that; okay? We have to pay it or sue. I think that is ridiculous, particularly if those fees are not being used specifically for the maintenance and care of that infrastructure. If it's being used as a hidden tax for maintaining general government, then I have a real serious problem with that.

In that the Commonwealth has promoted regional solutions for water and sewer service areas

for decades, and that many funding streams that were provided to those utility systems for capital construction or expansion used regional population

bases, not just the base in the community that owned the system, but a regional base, then regional governance should have been mandated as part of the condition of that funding.

First off, if regional governance is not acceptable, then the Legislature must expand the scope of the coverage for the PUC to oversee these regional assets. And I believe that the PUC's testimony that has been submitted to this committee, that is one of the recommendations that they have in their presentation. That was available online. I read their presentation and I think there's some excellent points in the PUC's presentation.

Failing to implement either of the above recommendations, then our only hope is for you to remove the DEP bureaucratic requirement forcing entities to use existing regional sewage treatment plants and issue us a permit, okay, so that we can construct our own STP as well as the funding opportunities that were provided --- or originally granted to those communities that currently have them. I know that's probably ludicrous and ridiculous, but I think it's ludicrous and ridiculous to not have regional governance on a regional asset. And having

the things that are --- there are lawsuits all over

this Commonwealth between various entities of government over water and sewer and the management of fees. It's ridiculous; okay?

Second issue that I'd like to address is the prohibition of DEP regulations for the use of mine water as a public water supply source. Sandy Township, Clearfield County is honeycombed with hundreds and hundreds and hundreds of acres of underground mines that are full of water, that have become part of the underground movement of groundwater in our area. It's alkaline. It comes to the surface. In multiple places we've measured --- the average daily flows are greater than 1,200 gallons per minute at some of these. The iron and manganese are manageable. As a matter of fact, we used one of these to supply a delayed harvest coldwater fishery. The stream is red, but it's an alkaline water. The iron drops out within a very short period of leaving --- becoming oxygenated or mixing with air.

We would like to use this water as a groundwater source for a municipal water supply. There's federal abandoned mine discharge money that's going to be available. We'd like to take a look at that but were repeatedly told that there is a bureaucratic DEP regulation that prevents us from

using that as a source for water.

Okay. We have millions and millions of gallons of this. Think of what we would do by doing this. It would provide two benefits, really. We would treat the entire flow coming out of that to reduce the iron, to improve the quality of the stream. Then we would do a secondary treatment on that for municipal water, okay, to make it so that we met that requirement of the Safe Drinking Water Act.

The other thing it would do for our area is even though we are on this side of the continental divide, our water comes from the other side, from the Susquehanna River Basin area. So we have to go through a very laborious, very long allocation permit. I think it took five years to get our allocation permit from the Susquehanna River Basin Commission. The best thing that we can do is not get our water from the Susquehanna River Basin, and get it from the Ohio River Basin. So by being able to develop sources on our side of the continental divide, I think, would greatly enhance that.

The third issue that I want to bring up is something that we just became aware of recently, and it concerns the DEP Bureau of Waterways Engineering notification to dam owners related to the

need to upgrade spillway capacity to handle a 36-inch rainfall in 24 hours; okay? Many of the dams are used for water supply impoundments, and less than 20 years

ago they were required to improve these same things. Now they're receiving letters.

And an interesting point about that, when I called Harrisburg and talked to some people in dams and encroachments --- because Sandy Township was blessed with a number of dams. Treasure Lake has five alone. We have Sebula (phonetic), okay, just to name some of the ones that we have. And I said I understand that a letter has already gone out to Sebula Dam, the owners and the engineer. Can the Township receive a copy of that? No, we don't feel it's necessary to provide a copy to the municipality in which that dam is located. We are responsible if something happens. We have to do the mitigation, the emergency management of it, but they won't give us a copy of the letter that they sent to the dam owner.

I asked also for the dams of Treasure Lake. Those letters are sitting on a desk in Harrisburg. They haven't been issued yet. I asked if those letters would please be --- a copy of those would please be sent to the township. I think it's just unconscionable that we can't even get a copy of

the notification letters on their ideas on this dam.

But 36 inches of rainfall in 24 hours, okay, you know, how often can any area in Pennsylvania anticipate a rainfall event equaling 36 inches in 24 hours? And even if it did happen, okay, we would have flooding that would be apocalyptic. Come on. Thirty-

six (36) inches. If you go to the Penn State climatology website, it gives you extreme rainfall events for the Commonwealth of Pennsylvania; okay? There's nothing probably greater --- over seven inches in 24 hours. But yet our communities are being made to design spillways and dams for a 36-inch 24-hour event. City of DuBois has received one of those letters. Lowest estimate, $2.6 million just for the spillway improvements; okay? We're talking about sustainable infrastructure. We can't afford that.

In closing, I would like to thank you for allowing me the opportunity. Remember that small communities have limited fiscal capabilities. And I would be glad to try and answer any questions that you might have. And it's great to be back in Venango County.

CHAIR WHITE:

You know, you make an excellent point that I don't think we focus on often enough, and that

is the relationship between water and sewer systems and basically land use planning. I have many municipalities, particularly Butler County, which is a growing county, who are insisting on building their own plant because they want to control their destiny. They want to control where and how development takes place. Once you get into a regional system, you're absolutely correct. The owner of the system basically

calls the shots as to how and when the growth of the system occurs, and this becomes a very, very difficult political issue. So I think rather than have everyone build their own systems, we do need some type of governance, and the PUC might be the logical authority to do that.

MR. CASTONGUAY:

We have PUC senator oversight on the water rates for the City of DuBois. We don't on the sewer. I'd love to have it on the sewer; okay? That would be acceptable, but I think long term. Long term, we have to try to secure regional governance. Because of the land use issues, all of the other issues that are intertwined, we are doing a regional comprehensive plan together and some other things, but we definitely have some challenges on our ideas about water and sewer service and the rates for the same.

CHAIR HUTCHINSON:

You make three excellent points, and I appreciate it. I thought the abandoned mine, though, water was very unique, something that I never really thought about.

MR. CASTONGUAY:

I believe there's a regulation that says you have to use best available source, but they don't consider that as one of the allowable for us even to explore, even though in Jefferson County, which is part of this region, okay, I believe they have a

discharge of alkaline water over 2,400 gallons per minute they are looking at doing something with. We have two locations that combined are 2,400 gallons a minute that we could put to much better use by cleaning it up and using part of it for a municipal source.

CHAIR HUTCHINSON:

Thank you. Thank you for your testimony. Our next registered speaker, Penny McCoy, assistant executive director of PA Rural Water Association.

MS. MCCOY:

Okay. I'm not going to stand behind the podium.

CHAIR HUTCHINSON:

As long as people can hear you and she can see you, we'll be fine.

MS. MCCOY:

Good afternoon, and thank you for giving me this opportunity to speak. I am a Mercer County resident, and my job takes me throughout the whole state. I have the responsibility of most of the water and wastewater systems in the state. And although I agree with probably every person who's going to testify before you, money is a key issue, I do not feel it is the main issue. Affordability is not a one size fits all. The two percent does not fit all small and rural communities.

I see money as just one of the factors. According to the engineering sector of our industry, research has shown that public officials and other relevant government agencies believe the greatest block to action on infrastructure issues is the out of sight, out of mind nature of system management. For far too long and way too many systems, a chronic problem of crisis management has prevented adequate system maintenance to be performed. The primary reason given is always lack of funds, and this is true. However, lack of funds is a direct result of insufficient rate structures. I can tell you that

Western Pennsylvania has higher rates than Eastern Pennsylvania. It's always amazing to me when I talk to people about their rates.

The reason we have inadequate rates is because systems refuse to include fixed costs, appreciation and capital improvement costs. They prefer to keep the rates lower to appease the ratepayers and to make the governing body look good. These practices have caused systems to develop crisis maintenance practices which in the long run have and will continue to place an enormous financial burden on the very ratepayers they thought they were protecting.

We as an industry have to move beyond the crisis management mentality and develop the appropriate management step strategies to repair, replace and maintain our community assets. Proper

management strategies will not be developed until we have the means to make sure that the elected and voluntary governing bodies serving our industry have been properly trained and qualified to make the decisions needed for the future. The 1996 Safe Drinking Water Act emphasizes the development of capacity or liability of water utility systems. To comply with the capacity or development requirements, Pennsylvania must ensure that all community water and

wastewater systems demonstrate technical, managerial and financial capacity for compliance. The Water and Wastewater Operator Certification Act, Act 11 of 2002, helped ensure the technical capacity of the industry by making the systems have properly trained and qualified operators. However, the Act did not address the training and qualifying of the system management. It also did not address the financial skills of that management.

As amazing as it may sound, the smaller community systems today have developed the most effective technical capacity. These systems have operators that are trained in all aspects of the treatment, distribution and collection of the community's product. The large and regionalized systems' technical capacity has taken the form of each operator being trained only in a specialized field. There is no cross training in the regionalized and the

larger systems. But the regionalized and larger systems have better managerial and financial capabilities. That's because they have good management practices.

Another factor that you probably haven't heard about so far when we talk about the infrastructure problem is the aging workforce. Once

we have found ways to repair and replace the components of our systems, they will need to continue to be maintained. My figures now are 47 to 82 is the average age of the water and wastewater operators in this state. One of my primary jobs is operator certification. In the last four years, I have trained 11 people that are under the age of 35, so that's a huge problem that we need to face, and we need to face it right away, because in the next ten years we're going to lose a lot of that workforce.

So yes, I agree, it all comes down to money, but the root of the problems are lack of customer education that encourages the maintenance of these systems, adequate rates that can and must pay for the improvements, and insufficient management training. So I thank you for your time and I'll be happy to answer any questions.

CHAIR WHITE:

Thank you. Where's the 82-year-old operator?

MS. MCCOY:

I'll just tell you, the most famous one is in Butler County. His name is Ted Seamens (phonetic). You probably do know him.

CHAIR WHITE:

One of the things that we have, one of the challenges is that to the extent that these are being offered through community colleges, we have very few community colleges. I mean, the six counties that I represent, there's only one county that has a community college. This facility where we're sitting right now, the Venango Campus of Clarion University, has picked up the slack on a number of those types of programs, including right across the street where they have their school to train line people for the utilities, which again, their ages were in the high 50s, and so there are challenges there in getting that education provided to people close to home. It's not always that people can afford to travel great distances to obtain the training they need. So I appreciate that comment. That's a very good point.

CHAIR HUTCHINSON:

Thank you for your testimony. I think you had some good ideas there. And certainly the aging workforce is something that has to be addressed. And we appreciate your works already in that area.

MS. MCCOY:

All right. Thank you.

CHAIR HUTCHINSON:

Okay. Next up, I would like to call

Terry Soster from KLH Engineers.

MR. SOSTER:

Thank you.

CHAIR HUTCHINSON:

I'm going to throw a little comment. Terry has said he's been through our community many times, but he's been a pass-through, but today we're glad to snatch him for a few minutes and draw upon his expertise.

MR. SOSTER:

That's correct. For 15 years I drive across your bridge every weekend and turn left. Today was the first day I turned right, and I was surprised what I found out there. But thank you. I'd like to make my presentation. It's going to be based on a list of questions that I was provided. I'm assuming that that list of questions is known to you.

CHAIR HUTCHINSON:

Yes.

MR. SOSTER:

Therefore, I'd like to go in that order. The first I'd like to talk about is the innovation that's available in the local water and wastewater industry. It is my opinion that there's a tremendous amount of innovation in terms of technology and

equipment that's available to be used in the industry, whether that innovation may be geared to economics, it's probably more geared to producing water quality or treating water better. But I've provided you a handout that you can have for the records where EPA has been publishing papers on emerging technologies. I've provided you a list in there that's extensive. There are hundreds of technologies that are available.

One thing, though, that I'd like to talk about that may shock some people, that if you're talking about sustainability, I'd like to talk about practicality. I believe today that owning a combined sewer system has a lot of benefits. I think many people think that it's ancient technology when you combined water --- stormwater with wastewater. I think there's some benefit to owning a combined system today.

We've heard of the problems in infrastructure with infiltration and inflow. It's a significant problem. I've come to the conclusion it's a problem that's not fixable, that as you remove infiltration, water that previously couldn't enter enters. I believe the bulk of the problem on infiltration doesn't rest in the sewer system. I don't believe it rests with the line to the house. I

think it rests in what lies under your house. And if you have the political fortitude to go tell private

homeowners to rip out their plumbings and redo their plumbing whether nothing exists under the floor, you might fix the problem. I think we'll create other problems, though. I think we'll create problems with wet weather events in basements, with flooding neighbors, flooding streets.

Our firm has permitted three facilities in the State of Pennsylvania that the concept is to take all the water we can to a treatment facility that can be conveyed there economically, which relates to regionalization, by the way, which I'll come back to. I happen to not be a big proponent of regionalization. These plans work very well. We leave the water in the system.

If you look at what's happening from a regulatory water quality basis, environment, we treat wastewater. There now is a trend for quantifying stormwater. We are now tracking stormwater. We are now sampling stormwater. And we're looking at basins as to the water quality of the basin. We've done work where we've found leaving the water in the sewer and getting it to the plant, not overflowing on the street, but getting it there, economically, and

treating it makes a lot of sense.

There's one big issue, though, and I might add that what I'm stating today, I have not looked at the legality. I don't know what the relationship is with DEP and EPA on policy or law, but

this is something that's been a debate for ten years. And I've placed a copy from a report of a letter I wrote, I think in 1997, to the DEP in Pittsburgh, of a concept called blending. Now, blending is allowed on combined sources. It is not allowed on separate sanitary sources. What is blending? We've designed, engineered --- this is not discretionary. We engineered these systems in Greenville, PA, Washington City, PA, where we left the water in systems, conveyed it to the plant.

If you go by the DEP's design manual, which governs how we design, we would have to design these huge treatment plants for flows that occur two percent or less of the time. The other 98 percent of the time, the operators would be left with huge treatment plants that will not operate. It would be like driving a Ferrari or an Indy car to Oil City to go to work every day.

So how do we correct that? We monitor the process. At certain flow rates, we take the flow

outside of the rest of the plant, bring it back in at the end of the plant, disinfect it and discharge it, therefore allowing the biological portion of the plant that does a lot of the work to be a lot smaller.

You may not understand the program, but water quality is regulated by what's called a Part One Permit that's issued by the DEP. When we build a

plant, we apply for the right to discharge to a stream. We are issued what's called a National Pollution Discharge Elimination Systems Permit. It defines water quality, defines concentrations. In my opinion, it's the best permitting system I've ever seen developed. It's stringent, it protects the environment, there's no loopholes, and it's self regulating where you monitor yourself. And if you fail to comply, you have to address the issues in a timely way. And if you lie in complying, you go to jail. It's a tremendous program. It's a program where the water quality is defined not by engineers, but by scientists, by environmentalists, chemists, microbiologists. Biologists set the limits that we have to meet to protect the stream, whether it's Oil Creek or the Allegheny River.

A generalized requirement that all the flow has to be treated through every unit, I believe,

is impractical. What is governing --- if we can meet that permit, what do you care what we do to treat it? If I meet that permit, what do you care on how I treat it? We've designed these plants in Greenville, Washington. They work. What have they done by us doing this? We've taken in a lot more water than we've ever taken in, water that might have been spilling out of the sewer somewhere. We take in stormwater and we treat it. We haven't spent a lot of money in doing it. We've spent money, but not the

money that would have been required to treat all of it and create this unworkable system. And in the end, what do we have? We have a water that meets the permit, goes out into the stream.

I will tell you today that that is a very controversial concept. If you could enact that, and again, I don't know the legality that exists between the Department, EPA or who sets that, places like Alcasan (phonetic) and Pittsburgh, almost every community would have tremendous cost savings.

I can tell you this. We talk about economics. What is going to happen, in my opinion, energy in this country is going to change socially the whole fabric of this country. It's going to change how you drive your car, where you live, how big of a

house you live in, and if you look at these treatment plants and the energy that's used there, they're phenomenal. User rates will skyrocket with some of the issues. And some of the people here today have mentioned that there is a significant difference between being allowed to do this, I'm going to call it blending, versus non-blending. I don't know how you get this approved. As I said, we have them working in Greenville, Washington City, where, I think in the eyes of many regulators it's illegal, but I am waiting for the day for someone to go into those towns where we hold the permits and tell them they're going to

have to spend $5 million or $10 million because we don't fit the mold, which goes back to another one of my recommendations to you.

We design treatment plants on a basis of a manual. I've put the front cover in my handouts here. It's called the DEP Domestic Wastewater Facilities Manual. In that manual, it tells us how big we make tanks, how long water has to reside in tanks, how much water can go over a certain device. I tell you today, if you want a specific recommendation, that consideration be given to eliminating that manual. Many of the technologies --- in fact, I didn't inventory it, but I listed 100 new

technologies. My guess is not one of them are in that manual. It used to be that mechanics ran treatment plants. Today, some very sophisticated people run treatment plants.

But I believe something to be considered is eliminate what's called a Part Two Permit process. I told you the Part One process is filing to get the water quality requirements of what you have to treat to. The Part Two process is filing your plans and specifications with the local departments, regional, having them review them and approve them so we can get a construction permit. What's the purpose of that program? My engineering seal's on that drawing. I assume, I've never read the legislation, there's something in legislation that if I don't do my job

right, I've got a problem. I carry errors and omissions insurance if something happened that's my fault.

DEP, as Dana said, is struggling with work management issues in terms of personnel. I will tell you right now, it will not fix that problem. We are struggling to get people into our corporations, whether they can draw on a drafting board or an engineer. We are struggling. There's tremendous competition for talent that isn't there and I don't

think is coming. Again, I have not researched that, but that is just my opinion. There is disinterest, I believe, on the part of young people in this country in engineering and mathematics and operations, and I believe the void was being filled by foreign people coming in. Those people are staying home because their economies are now developed.

We could relieve DEP of a tremendous workload by we don't file our plans. Now, we would file and have some system that you know we're building something, but give me the NPDES permit water quality promise. Let me design what I need to design, require me to have errors and omission insurance, if you have to make that a law. If it doesn't work, let the court system handle it.

I'll go back to what's the purpose of the Part Two. I think that it's probably a noble thing

where they're trying to prevent an engineering disaster from occurring by cross checking us. What the Department does is they check a real small part of the design, only the process. They don't check the structural. They don't check the electrical. They don't check the constructability. I have a business where a good part of my business is when I'm doing forensic engineering. I'm in court figuring out who

did something wrong. So obviously there are issues where they're getting through the Part Two permit. Some of them, by the way, that I see are horrendous.

So what I would suggest, that there be some study given to eliminating the Part Two permit. Give us the water quality under Part One. We design it, we build it. Put more emphasis on enforcement. Let the Department go out and look at the water quality. If it doesn't work, it'll be settled as to who's the problem. Was it the engineering, was the operation, did someone build it wrong? It'll save you a lot of time, the Department. It'll promote a lot of innovativeness. There may be some issues with having to be careful about some poor engineering being done, but as I said, there's poor engineering being done today that's getting through the system. I don't think it would be that much of a problem, but I would recommend that we look at that.

I'll give you another example of how that manual restricts innovation or practicality.

Washington, PA needs more capacity. We have done a study where that plant has a design rating that was established in its Part Two permit that we can treat ten million gallons a day. We're approaching that number. We've done a study. We have assembled a

significant amount of actual operating data. We've simulated higher flows at that plant. And we've found we need that plant to treat 12 million gallons a day. That's two more million than the ten it's rated for. Two million gallons of capacity is probably worth $10 million of capital to try to build that. I am in my second or third year of trying to get that capacity approved.

I show you an example in that handout I gave you of the letter I got on the review of should it be allowed to go from 10 to 12. That DEP manual has a requirement in it that you must have 18 inches of freeboard, which is the level from the water in the tank to the top of the tank. We have a tank that has 14. They want us to raise the walls of the tank. It's completely unnecessary, has nothing to do with the water quality. We are meeting the permit. Every condition of the permit we're meeting. Now, I'm not trying to be mean spirited. I'm just trying to emphasize to you that you have reviewers that go down that book, and if it's supposed to be red and we made it black, it kicks back to us tremendous cost,

tremendous time requirement, and I think it restricts innovation. So again, I go back, throw the book away. Come up with a system that eliminates the Part Two.

Give us the water quality limits. Make sure every engineering firm has insurance. And let innovation take its place.

Also, the blending issue, again, I think is huge. It's huge. If we have to design and treat every drop of water, it's extremely expensive. Now, I'm not doing this to say that that saves rate money. What I'm saying is there is tons of money needed. You heard it. The systems are falling apart. We televise sewers. They're crumbling. Let's spend the money fixing that. Let's use that money to fix things that are needed. So my first recommendation eliminates part one. I think that the DEP design manual is the biggest barrier to innovation, some cost savings.

We've talked about accountability in practices here. I've heard a little bit about municipalities and authorities. I personally think the system that's in place now with the authority and municipal management is fine. I'm not sure how you get any better than that. Even in regards to the operations, again, granted there might be pockets or places where things might not be operated right, I am finding in general that the people who are running authorities in the larger communities actually have more talent and expertise than me. It is not unusual

for me to go to a client and ask about an operational issue, because we're seeing really high level talent in these places.

The comment was made about management. I agree that management's a big issue today, not the operational skills, but the management. But even there I am seeing some very professional people being managers, and even in some small towns up north, I worked with some people who are very professional. I believe on the operational side that there may be certain places where there are problems, but I think in the majority, things are running fine. I even think the training's fine. I don't think you need to do anything. The Rural Water, the American Water Works, the Pennsylvania Water Environment Association, they're active. They watch the operational. They watch the regulations and I think they react. Training, I think we're training people well.

The problem, I agree, is people retiring. I think what you need to do for sustainability, you've got to get into the school system. And I'm not talking about colleges. I'm talking high school, junior high. I mean, you somehow have to encourage the boys and girls in those schools to become --- and to get an enthusiasm for math, engineering, operations

and science. There is a dire need, I think it's

almost crisis in a lack of technical people and the people we're going to lose.

Relative to also sustainability, the Department has two in place systems that I think regulate things very well. Each year we're required, or clients are required, or permittees and plants are required, to be more accurate, to file what's called a Chapter 94 Wasteload Management report. It's filed every year in March. And what it does, it summarizes the previous year's flows and the four years prior to that, and it projects five years in advance. And the purpose of the report is to monitor whether facilities are approaching design conditions, they're going to be overloaded. There are other aspects of that report, though, that if they're done properly, highlight whether pump stations are inadequate, whether the sewer system has issues.

I think you can do several things with that existing program. Again, I think energy's a big issue. I think for sustainability, to save money so it can be used elsewhere, part of the 94 could be altered to require, whether it's a one-time energy audit, where you go in, let's look at these plans and see where energy's being expended and can we save

money.

This is relatively old technology. We've gone into plants that were built in 1970s, replaced aeration equipment with newer aeration equipment and

cut the power bill by 30 percent. I sit there and think that most people know about that. I'm not sure that they do. But I think the 94 report energy audit requirement may be a one time --- might be something you want to look at. The other thing that you could do that would save the Department's time, and also, I believe, flag problem areas, the Chapter 94 reporting process is just a series of reporting flows, pollutant loadings.

I do not see why that could not be turned into a system where you develop a protocol where everybody is submitting, in some standard form, on the Internet, and not only that, you could have the logic in the software that would --- and there are technical flags that can be --- because everything's quantitative. It's not qualitative. It's a number where if the number is exceeded, it kicks it out. My suspicions are that reports we submit don't get reviewed for years, because they're overworked. But I think the 94 process is a very good system. I think it can be expanded. I think energy should be started

to be looked at, whether it's a one-time audit or not.

The other thing that could be incorporated might go to the management aspect or concern that the prior testifier alluded to. When you finance a project using the municipal bond market, there is a trustee appointed who keeps track of the

bonds and who gets paid those bonds. And in that trust, the trustee writes an agreement with the entity to whom they're lending money, called a trust indenture, and there are requirements in there that state that if we're going to lend you this money, we're going to get this bond money, we're going to float it for you, here's some things you're going to do for us to make sure things are going right.

And one of the things in there is called an annual engineer's report, and I included a copy of the verbiage of the trust indenture. But what it says is every year, you will have an engineer do this report. It tells you whether the rates are adequate. It will tell us whether the budget they made up is adequate. You will provide some coverage over your expenses, O&M and debt, that you will save, and you're going to use that money to fix some things. You will tell us whether you have proper insurance, and which, by the way, I always object to, because I'm not an

insurance person, but they have certifying insurance issues. You'll tell us whether the plant's working right.

It's a relatively simple report, but we file it every year on these systems that have been financed with bonds with the holders of the bonds, because the bondholder wanted to make sure I get paid. I don't know how you can incorporate --- I don't know --- I think you should in some manner maybe require,

whether you have a bond issue or not, where if it's PENNVEST, make it a part of the PENNVEST program, you're going to do an annual report every year. And the legality, if it puts some legal responsibility on me to write a decent report, when I write reports for authorities, I sometimes have the authority board sitting there, and they're under the impression I'm writing this report for them, and they may even critique it that they don't like this or don't like that, and I remind them rather bluntly, I'm not writing this report for you and I will not listen to what you tell me unless it's something very obviously wrong in terms of an error. This report's being written as fiduciary responsibilities because there's people that hold debt on you.

If somehow you can incorporate into the

PENNVEST program that report, it might help the management issue, because aside from the operational, there are management issues, where, as Mr. Meyers pointed out, his authority looking down the road and looking at what's needed, and the time frame and the money, even though facilities may be operated properly, there may be management issues where they stop looking down the road or saving sufficient money. Some type of annual report may help that situation.

Regionalization, we talked about that. I know it can be a cantankerous issue. My comments on

that, my opinion, the Act 537 planning process that's required by municipalities, so it's not an authority function, it's required by municipalities, I thought long and hard before I came here as to, is that adequate? And I believe it is. I think the 537 process where you have all these planning activities you look at and it's being done through the municipality, even though an authority may be doing it on behalf, it's the municipality's going to approve it, I believe it's still the best method available that determines whether you regionalize or not.

I think it's wrong to think that regionalization's the answer to everything. In fact, if today you held a gun to my head and said,

regionalize or not regionalize, I tend to lean towards not regionalize. I think that there are economies of regionalization, but I think there are times when the solution to problems would be a lot better if every watershed had its own little plant. You know, in the City of Pittsburgh, and I have no knowledge, but when you look at it, do you spend $3 billion fixing the Alcasan facility, or would you have been better off building a $30 million plant in each of the watersheds?

My point being is that I don't think regionalization should just be assumed to be the answer to everything, and I also believe the 537 process resolves that. If it's done properly, it

brings all the issues to the table, and some of them can be very difficult, where, as the gentleman said, the tendency is to think that authorities have too much power, that they're not representing my interests. In general, I think the situations where I've been, and that issue's becoming more and more of a problem where municipalities are going in and taking over the authorities, I've actually seen the opposite occur. I've seen municipalities go in, take over the authorities, take the funds that the authority had, use them to build a community center and then not run

the facility, in my opinion, as well as the authority did.

The authorities tend to be very specialized on wastewater, which is a very complicated business, or water, which is very complicated. They're also somewhat isolated from the fact that they'd be elected every four years. Therefore, there's a tendency to say I want to do this, and not worry about half the populace, even though it's needed, that the populace isn't going to accept that. So I tend to like the authority system. I think the municipal authority's an excellent thing. I think the 537 process is fine in terms of whether you regionalize or not if it's done properly.

I also have a comment in here on on-lot systems. I happen to own a place north of here that I

live at on weekends, and I had a survey done on the place, and I was cited as part of a number of people in this area-wide survey as a reason that there should be a facility building, public facility, even though I live three miles from the base of the hill. My citation had to do with I didn't have a spring on my outhouse door, and apparently if you don't have a spring on the door and it overflows, that's some kind of issue. But that is a real criteria that I was

cited for.

I believe on-lot system management, I think on-lot systems work. I have done sewer projects where I've built big sewer systems in communities where I had to be escorted out of the town in a police car because half the audience felt that their sewer system worked and I was the culprit that was going to cost us $10 million for a project. So I understand that side. My system works. I can't even tell you what I have. My suspicions are it's a 50-gallon drum that's been shot with a shotgun and some pipe, but I do not have sewage running out. My well water's been tested. It's good.

Point is this. On the on-lot, and maybe Dana knows, this could be done already, rather than giving criteria like the DEP manual, where you have to be this big and have to have this size, maybe the criteria could be performance based. I mean, if my well's fine, if I don't have an obvious discharge to

the road --- and I don't know what that criteria would be, but there've got to be experts that can come up with criteria that says just because you don't have a one-acre lot, you've got to replace your system. Maybe there's one-acre lots where systems don't work, where my little lot system works.

So I think the on-lot management program's going to be looked at, because it is generating --- in the case of where I'm at, it's a significantly sized sewer project in some very small towns where I've lived there for 15 years. I don't have all the data that was used, but I don't see a problem. And I sort of sympathize with the people that are there. And granted, if I did the study and there was a problem, I'd say here's a problem. So I think there could be significant capital spent there where there might not need to be, because of the fact that you have these general standards for on-lot systems. Your lot's too small. Doesn't matter, does it work. Your lot's too small. So I think that could be looked at.

In general, some restrictions that I think need to be addressed, and I'll state these, and I know there are other political and social issues involved with some of this. The Prevailing Wage Act, and again, I know that's probably untouchable, but it costs a lot of money. The Steel Procurement Act,

again, probably a lot of social and political opposition to eliminating that, but the facts are today it's hard to buy materials that are all American made. I think that's something that I'm not sure is

still relevant.

The idea, and I'm not convinced of this as of yet, of design build --- traditionally in this state, you hire an engineer to prepare bid documents, you put the process up for bid, and you select a contractor that's the low bidder, they build it, they leave. I just got done with a project in Maryland where a water plant had a very severe problem. We were retained along with the contractor and equipments supplier, and we went in, and in a year and a half, built an addition to a six billion gallon a day water plant to correct the problem. On the surface, to me, 95 percent of my projects are traditional engineer put up for bid. That idea of hiring a team to go in and design it and build it and we started it up and the manufacturer warranteed work we did, and then we left, went extremely well, so well, in fact, that we're doing other design build work.

Again, that is something I would throw out as a way of allowing people to do things today. I can tell you this. With some of the authorities I work with, they're already moving that way. Whether it's legal or not, I don't know. That's not my business. But I have seen authorities increasingly

not putting things out for bid. They may bid the pipe

out, and then they're retaining some local contractor who's putting the pipe in, or buying a pump and retaining a local contractor to put the pump in, rather than pay to have it engineered, bid, put out, and it seems to be working. Granted thereto, I think all these systems developed because there must have been problems in the past, and we tend to enact these things to prevent collusion or whatever else is, but the design build process seems to be working well in some of these communities.

But in closing, I guess the one thing I'd emphasize, and I'm only asking that you consider it, but I don't know all the ramifications, I think the Part Two permitting process restricts innovation. I think it burdens the Department when they don't --- when they're struggling now with workforce. And I think, like in the case of Washington, PA, where to secure some approval and gain additional capacity when it's being compared against --- it's taking years to do this, maybe what you do, maybe it's something for another committee, maybe you have a peer review system where you can have other engineers where the permittee pays to say that something's workable.

I believe I touched everything. As I said, it might be a little bit disjointed, but I went

by the questioning and I did give you a handout there if you want to read it.

CHAIR HUTCHINSON:

We're going to break for one minute so the stenographer can change her paper. So we'll have a moment of silence.

SHORT BREAK TAKEN

CHAIR HUTCHINSON:

All right. I think we're ready to go. I'd like to call Paul Marchetti forward. Paul? Paul is actually, I believe, a member of the Task Force. He is best known as head of PENNVEST, and we're just delighted to have him here. I know ---.

MR. MARCHETTI:

Up there?

CHAIR HUTCHINSON:

Yes, please. And I know in some of the previous meetings, that some suggestions or questions have been raised regarding the PENNVEST process, et cetera, and maybe you'll have a chance to talk a little bit about that while you're talking today. So thank you, Paul.

MR. MARCHETTI:

Sure. Thanks for the opportunity. I'm happy to be here. I didn't really come with a

prepared statement, but I am happy to be part of the Task Force. I also happen to be chair of one of the committees looking at financial resources and what we

have available. And I think this whole effort is a really important endeavor for all of us to be undertaking. And we're well aware of what the problems are in terms of funding infrastructure projects and what the great need has been out there for any funding agency, be it ours or others in the Commonwealth or in other states for that matter.

We're facing a tremendous need. We may not be able to fill that need, largely, but not exclusively, due to the fact that we're having reductions in funding coming from the federal level, particularly for wastewater projects, and that's been a real problem for us over the last few years. We're now only able to get to about maybe two-thirds to a half of the wastewater projects that are coming in to us, and that trend is only going to get worse unless something happens in Washington to improve the allocation of resources to this effort.

But that having been said, I think there are things that we could be looking at to make our financial resources go farther, and it's something that we're trying to look at in PENNVEST, and I think

other agencies are looking at it as well. One is an important thing I still hope that we can help get off the ground, although it's really a DEP initiative, is this nutrient trading program, which, for those of you who don't know, I mean, what we're trying to encourage

is for wastewater projects, and this is particularly in the Chesapeake Bay area drainage basin, if there are alternatives that are cheaper to physical plant upgrades.

For example, farmers putting in what are called best management practices. What they can do if they do that is create, and this is primarily for nitrogen and phosphorous, but they can create what is called a tradable nutrient credit, and that allows a wastewater treatment plant that also has to meet nitrogen and phosphorous limits, it allows them to meet those requirements by purchasing that credit from a farmer instead of doing a physical plant upgrade.

It's fairly well established that agricultural BMPs, as they're called, are very often a cheaper way to go in order to meet nitrogen and phosphorous discharge limits than capital upgrades at wastewater treatment plants. And that's why this is a good program. DEP has been working on this for many years. We're trying to figure out a way that we could

fund the purchase of credits. Right now a lot of our money comes from EPA. EPA won't let us use that money to lend to people to buy nutrient credits. We're actually in discussions with EPA headquarters in D.C. to see if we can get them to change their minds on that. And I'm hopeful that we might be able to do that, only because I think, again, we need to figure out creative ways to stretch our financial resources,

and that's one of them, because it could be representing a significant cost savings for wastewater treatment plants in the Chesapeake Bay area if we can somehow figure out a way to encourage this nutrient trading program. So I'm hopeful that that is going to get off the ground and we'll be able to participate in that.

Another thing that people --- an issue that I hear kicked around a lot and has been today is looking at other non-capital ways of addressing our wastewater water quality problems. I'm talking mainly about wastewater here. You could extend it to drinking water as well, but I tend to think of it in terms of wastewater since that's where really our funding challenges tend to be right now. And I think we should be broadening our view of the kinds of projects we can fund. Again, nutrient credits is one

of them, but I think we've got to be looking at, and for PENNVEST as well, and other funding agencies, looking at being able to fund non-structural and non-capital alternatives, like circuit rider programs, for example, and being able to fund programs where you have on-lot management instead of --- you know, if you have wastewater problems in an area where you have widely dispersed homes and you don't want to be running lines everywhere, as Dana mentioned, but where a circuit rider program may make more sense, right now

we can't really fund that, because it's more like an operating and maintenance cost. It's not a capital cost. And I think we think too narrowly when we try to focus all of our subsidies and our assistance on capital. That seems to me, I think, a mistake.

CHAIR WHITE:

Paul, excuse me. What is a circuit rider program?

MR. MARCHETTI:

Where you have like a centralized management of --- you might have a wastewater treatment plant or system that would have somebody go out and look --- have a central management of smaller regional --- smaller wastewater treatment projects in a region, for example --- I mean, but they don't

necessarily know how to run them or they don't necessarily need somebody there 24 hours a day to run these little package plants. But you have somebody go out and manage them and look at them and make sure they're being maintained and operated correctly from a centralized management system as opposed --- so it allows you to manage these systems that could be a regional system without having to run lines everywhere. But anyway, they're riding the circuit, as it were, of these little package treatment plants. That might be one way to think of a ---.

But anyway, we can't really fund that now. We don't have a subsidy mechanism or funding

mechanism for doing that. I think that's something I'm trying to work on, and actually, I'm anticipating a little presentation I'm going to be doing tomorrow on this very issue. But we may be able to create funding accounts, as I call them, where we can actually give somebody a loan that they will have a pot of money to draw upon over a period of time to fund operating maintenance costs for circuit rider programs or other non-capital costs, and I think we need to think about that, because these are potentially more cost-effective solutions, and we're, I think, losing a lot of opportunities to save money

if we continue to focus all of our funding and all of our subsidies on capital attempts at solutions. In some cases they're needed, but I don't think they're always needed, so I think we need to be thinking more broadly about how we can provide funding to help solve these.

It's the solution to the problem that you want to subsidize. You don't necessarily want to subsidize one type of solution which is capital intensive. That's really what we've been doing up until now. So I encourage all of us to be thinking more broadly about how we can address these solutions, because we don't have enough money. We simply do not have enough money, and we're not going to have enough money to solve all of these problems at the state

level or even at the federal level, so we need to make as smart a use of what limited resources we have to stretch as far as we can. So that's sort of my pitch, but if anyone --- if you have a comment or question, I would be happy to ---.

CHAIR WHITE:

Thank you for your time. That's exactly what we wanted.

CHAIR HUTCHINSON:

Paul, the only other, and maybe this is

too wide reaching, and maybe it's something that you, as your subgroup moves forward, at our first hearing in Harrisburg, mention was made of the voluminous application process that PENNVEST has in comparison to getting money ---.

MR. MARCHETTI:

From a commercial bank. Yeah. I remember that.

CHAIR HUTCHINSON:

Yes. The little thing versus this.

MR. MARCHETTI:

Right.

CHAIR HUTCHINSON:

And obviously, you know, there are differences between commercial financing and government financing, but I just want assurances that we are doing all we can as lawmakers, as oversight of the regulatory process, that we can make your process

as easy to deal with and as less cumbersome on those who are applying for funding, and is there anything we can do to make your process easier and more user-friendly?

MR. MARCHETTI:

I'm not sure about that, although that's an excellent question. It's something we need to

think about. But let me comment on that comment that we've heard, because it's true. I mean, we do have --- the issue that the representative was talking about is at the last Task Force meeting, one of the presenters held up a PENNVEST application that was like this big (indicating) and all the stuff you have to go through to submit that application, and then held up an application to a bank that was about this big (indicating), and the comment being, well, Jesus, you know, it's an awful lot easier to go that route than this route.

Well, the reason is that banks don't really care about anything other than getting repaid. That's all they care about. They're happy to lend you this money as long as you're going to pay it back. And, well, we worry about that, too, but in addition to worrying about that, we have to make sure that anything that we fund we have sufficient information to rank that project, because you want to, again, target your limited funding towards those projects

that are going to have the most environmental or public health bang for the buck. You need to collect certain information to do that. We also need to collect information on user rates and household income and all these other things that we use to measure

affordability so that we can target our subsidies where they're really needed the most. We have to make sure these projects are permitable by DEP. A lot of what that person was holding up, I believe, was the 537 permit information. Yeah, these projects need to be permitted. A bank doesn't care about any of that.

The ironic thing about that comment, frankly, was that whenever we're talking about sustainable infrastructure and what a good thing it is, and asset management and so forth, that person, as well as any others who's making that suggestion that if you're going to apply to PENNVEST, you've got to have this, that or the other sustainable infrastructure requirement in order to get PENNVEST funding. Asset management, it ought to be --- I keep hearing this. It should be a condition of applying for our funding to make sure you have adequate asset management or adequate safeguards for ensuring sustainable infrastructure. I've heard this for years from EPA, because EPA has been chanting this sustainable infrastructure notion for a long time now.

My comment is this. If all of these ideas are good, and I agree they are, they should be

required not --- they should not be limited to a particular funding source. They should be required of

everybody. And in fact, if EPA, at the federal level they think this is such a good idea, then that ought to be a requirement in order for anyone to issue a tax exempt municipal bond for water and sewer projects. I bet there are --- I haven't added it up, but there are billions of dollars in subsidies given out every year by the federal government in the form of tax exemption for municipal bonds. Well, if sustainable infrastructure is a good idea, they ought to tie that requirement to the ability to issue tax exempt debt.

That's taking it to its farthest extreme, but my point is, these requirements, we have a lot of requirements because we have to fulfill certain obligations when we hand out the money that we hand out, and I think those obligations are good, but they shouldn't be limited to us. They shouldn't be limited even, necessarily, to financing programs. They should be tied to the accessibility of a community to any sort of government subsidy. If they were a good idea for our program, they should be a good idea for every program.

In answer to your question, I'm not sure that there is a good answer, because a lot of these requirements are very good ones and they are ones that we want to support and they achieve or move us in the

direction of goals that you want to support, like, again, targeting your money where it's needed from an affordability point of view, targeting where it's needed from a public health and environmental point of view, targeting your subsidies where it makes the most sense from a long-run infrastructure sustainability point of view. All I'm saying is it shouldn't be unique to us, or any funding program, for that matter. So that's my speech on that issue.

CHAIR HUTCHINSON:

Thank you very much. I appreciate that. You have anything further?

CHAIR WHITE:

No.

CHAIR HUTCHINSON:

Okay. One other that I'd like to call. And thank you, Paul.

MR. MARCHETTI:

Sure.

CHAIR HUTCHINSON:

Jeff Allio.

MR. ALLIO:

Hello. I'm Jeff Allio. I'm currently employed by RCAP Solutions in Meadville, Pennsylvania. Before that, for 11 years, I was a DEP ---.

CHAIR WHITE:

Speak up a little bit, please. I'm not

sure they can hear you.

MR. ALLIO:

Before that, I was employed by DEP as a local government liaison. I currently have 14 projects in Northwestern Pennsylvania addressing emergency response, security, vulnerability and asset management plans in small sewer and water projects. My organization would like to partner with you in facilitating sustainable infrastructure in the Commonwealth. I am here, however, as a private citizen to share my perspective of these issues that you are addressing due to the short timeframe to prepare my remarks.

RCAP Solutions is a member organization of the National Rural Community Assistance Partnership Network. RCAP Solutions is a comprehensive nonprofit community development agency covering the northeast region of the United States, including the Virgin Islands and Puerto Rico. We are based in Gardner, Massachusetts. Currently we have four employees in Pennsylvania and have worked with over 200 different communities in the Commonwealth. Our network enables federal grants to empower our members to assist small,

rural communities to assess their needs, begin planning to meet their needs, and build partnerships to address solutions to fulfill their needs. In Pennsylvania we focus primarily on sewer and water

capacity building projects, while other states have more of a focus on housing and community planning.

No community is too small for us to work with as long as we have adequate funding. I have personally worked with one 36-member water association to address compliance needs to meet the copper rule requirements of the Safe Drinking Water Act and begin the process of replacing 90-year-old water lines that leak like a sieve with our $55,000 loan. Also a lot of leadership development.

The viability of this organization hangs on a thread, and yet I am amazed at the heroic effort of this small group to keep it going. Many of the small groups that I work with that own and are responsible for the operation and upkeep of these public facilities would gladly turn their responsibilities over to other entities, even for one dollar, if they could get out from under the daily operations and the responsibilities that go with them. No one wants them, however. They are not economically viable. It is not what you can build that is

important. It's what you can sustain. And that is critical to the viability of many small entities that are responsible for the safety and public health and the improvement of the water source.

My coworker in Maine and I have developed an asset management spreadsheet tool that is very effective in helping small water and sewer systems

address their needs in developing sustainable reserves to handle emergencies and long-term replacement of their capital equipment in their rural infrastructure. Although there are more sophisticated asset management tools available in the market, our local tool enables us to develop a comprehensive inventory, address priority, and project replacement cost value of each major component.

It is important for them, the local governing boards, to get started on best management practice. With our outreach and technical assistance, we can show a skeptical volunteer that the end of a long march begins with a small step. They have the ability to cut and paste our data from our tool onto more sophisticated tools in the future once they see the value of the asset management tool. Anticipation of realistic capital replacement costs is critical to sustainability. This tool will improve the security

of these small infrastructure systems, while at the same time allow the manager to identify if they have a sufficient rate structure to maintain the system and avoid the neglect that they often see in extremely small systems.

Currently at this time, we only work with sewer and water systems that are funded by USDA-RUS programs. If the Department could provide funding, we would be very grateful for the opportunity to extend

this service to the other small systems in the Commonwealth. Larger systems are more likely to see the value of this type of tool and invest to meet the GASBY 34 requirements. Systems under the radar screen of these accounting firms need a little more encouragement to implement these best management practices.

The Indiana County model of developing infrastructure with centralized planning and management has a lot of merit for you to consider. While I would encourage more centralized management of sewer and water systems, I believe the decentralized approach to technology and equipment will prevent sprawl as identified as a burden to state financing of infrastructure in Governor Ridge's environmental millennium study. Recharging the aquifers near the

point of use makes sense economically and regionally and environmentally. Improved management will assure sustainability.

I would encourage your task force to review the RCAP Solutions website, and I put the website on the copy, to see our innovative approach RCAP Solutions has working in the Commonwealth of Massachusetts and the State of New Hampshire. There we are working mostly with low income residents in manufactured home parks to form a cooperative and buy the property from the owner of the trailer park, in some cases for a dollar. Once the new owners take

pride in ownership of their property, they also invest in bringing the sewer and water system into compliance. The reason that the owner wants to sell it is because they've got responsibility for taking care of it.

I would encourage the Commonwealth to provide incentives to form countywide authorities to supervise local cooperatives that would manage sewer water and stormwater facilities by micro-watershed management districts. I suggest you use the Pennsylvania DEP stormwater watershed map as a guide for defining those districts. They would be allowed by democratic vote of 60 percent of participating

residents to form a cooperative business entity to manage their infrastructure, with local governments to make minor adjustments to the boundaries, such as a road instead of a hilltop. A management entity with a population base of 5,000 people should be able to manage with improved professionalism. Once formed, if these cooperatives fail, they would be more attractive to private entities and/or county authorities who have the ability to sustain viability through economies of scale and professional management. Failure to maintain environmental and fiscal viability standards would require county intercession, such as like a distressed community.

An EDU rate, equivalent dwelling unit,

can be assessed equally among households and businesses to the district to meet the Delaware River, Chesapeake Bay and Ohio River strategies. For example, a commercial facility may rate at five EDUs for sewage and 10 EDUs for stormwater. This approach would be a more fair way to assess human environmental impact. The EDU could be a measurement for barter between the infrastructure impact and the acreage impact of the agricultural community. In a distressed status, these would be in a form of a special use tax recoverable as a lien on the property.

Although I could never imagine Pennsylvanians restructuring local government by watershed as they have in New Zealand, I believe that some simple form of a scientific-based environmental impact fee could be established to address our impact on the environment. The fee would be based on degradation and sustainability of the upkeep of the infrastructure to minimize that impact.

Once a fair impact fee would be established, I believe a voucher system could be used to address affordability. I believe subsidies could and should be used to address regional economic needs. In Northwestern Pennsylvania, the demographic information indicates there is an outflow of population and there is just not the political will of managers to raise the rates to sustain the viability of these critically important systems. We have

watched delinquencies consume hours and days of local governing boards' time in addressing politically very unpopular decisions with their neighbors.

At public meetings we always state that there are only two things you can do to pay your bills. One, bring more people online, or two, raise the rate. When neither is available, a third option has to be created by the state. A demographic-based

voucher type of grant formulated on economic development goals could bring some equity across the region. Vouchers can be phased out as the system demonstrates financial viability, financial sustainability with affordable rates. Possibly the Department of Welfare could partner with DEP and local system managers to facilitate proper methodology for the distribution of vouchers while allowing the local system managers to develop sufficient rate structures to promote financial sustainability of the infrastructure.

RCAP Solutions provides training and other services. We have developed a one-day workshop demonstrating the benefits of decentralized sewage management for on-lot systems. We are recognized by PENNVEST, CDBG and USDA-RUS for effective and objective income surveys. We are good at assisting communities demonstrating low to moderate income populations within their project area.

Through the RCAP network, we facilitate small loans up to $100,000 for ten years for emergency repair and system improvements. We have developed ten 45-minute long governing board training modules to facilitate technical, managerial and financial capacity building. We can do these training modules

on site as part of our outreach work. Your water program staff has approved these trainings for small water systems. We hope and look forward to funding to continue this outreach along with our asset management work.

Since PVC plastic is an oil based byproduct, there should be a special study to determine the impact of peak oil syndrome on environmental infrastructure. The fiscal impact on communities that have yet to address their environmental impacts or are in need to upgrade their current environment infrastructure need not be put to a disadvantage. That is to assume that the leaders in the state believe that PVC products are superior to the other types of infrastructure products. Since you cannot address all communities at one time, following the low hanging fruit approach has the disadvantages to communities in the more remote areas. Essentially, you are placing a greater financial burden on a smaller group of people living in areas with smaller economic growth potential to meet the same environmental standards, I will add, through nobody's

fault other than global demand for oil based products. I do not presume to have any advice on this matter. I just think it is in the interest of the Commonwealth's

long-term financing needs that superior products be encouraged because of their long-term life cycle maintenance benefit.

Land application of biosolids has not proven economically viable in many parts of the state. I believe more incentives are needed to encourage the use of this resource as a soil amendment in strip mine reclamation to enhance the growth of switch grass or other non-food products. Possibly electricity credits could be used to overcome barriers where electrical generation is the end product. The state, through regional planning agencies, need to stimulate the use of transferable development rights programs at the local level which can preserve riparian buffers along waterways and source water protection zones for drinking water supplies in the form of green infrastructure. Local municipal resources are not adequate in Northwestern Pennsylvania to meet ideal land use goals alone.

I thank you for the opportunity to share my insights to the issues you are addressing. I will provide my contact information with a hard copy of this presentation to the Department. And I've included several brochures that we have. We have one

on asset management, loans, our income surveys and our

decentralized wastewater training. Also, I have included a couple samples of our newsletter that we provide to project leaders. I can leave this with you folks, and then I just need to drop off a copy at your offices.

CHAIR WHITE:

Yes.

MR. ALLIO:

Okay? Thank you.

CHAIR HUTCHINSON:

Anything?

CHAIR WHITE:

No.

CHAIR HUTCHINSON:

Okay, folks. We've come to the end of our hearing. I want to thank, first of all, our testifiers, and I also want to remind anyone else who wishes to provide input that there is an e-mail address, ra-sitaskforce@state.pa.us, if you wish to provide further comments in writing at that address, or if you funnel it to myself or Senator White, I'm sure we can get them included as part of the record. There is a deadline for the submittal of those comments, and that is June 1st, and we are up against a deadline for this task force, so that will be a hard

deadline, I believe. So with that, do you have

anything further to say, Senator?

CHAIR WHITE:

No.

CHAIR HUTCHINSON:

With that, I would like to call this meeting adjourned and thank everyone for their participation.

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MEETING CONCLUDED AT 3:15 P.M.

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