Pennsylvania Utility
Contractors Association

Testimony before Sustainable Water Infrastructure Task Force

Needs & Financing
Cost Saving Measures

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Opening Remarks

Good morning. My name is Bruce Hottle. I am the President of Eagle Concrete Products, Inc. in Somerset, Pennsylvania. I am here today representing the Pennsylvania Utility Contractors Association, referred to as PUCA. PUCA represents sewer and water contractors and suppliers across the state of Pennsylvania. I am a former Board Member of the Pennsylvania Infrastructure Investment Authority (PENNVEST) and the Chairman of my local water authority. I come here today to testify firsthand about water and wastewater infrastructure needs. However, my intent is to offer real solutions to address our needs.

Bruce Hottle

Eagle Concrete Products, Inc.

Needs & Financing

Many wastewater systems that are in operation in Pennsylvania today are operating well beyond their intended useful life. As communities grew, systems were patched together to meet the local needs without a lot of consideration as to how they will be maintained and replaced in the future.

Not far from where we sit today, a system has been operating since before the Civil War. As soon as wet weather hits, these systems quickly become hydraulically overloaded, and raw sewage is flushed through the treatment plants and into the local streams and rivers.

These systems were never designed to be in use today. When first constructed, these systems were state-of-the-art, using the best materials available at the time. The designers and contractors who built these systems never envisioned that

these systems would still be in use at the end of the 20th century.

The old systems were built with clay pipe mortared together at the joints with cement, and manholes were built from brick and mortar. Over time, the cement in the joints has cracked and washed away causing the infiltration problems we see today, especially when extended periods of wet weather hit our state. Due to the age of many of our systems, Pennsylvania is particularly hard hit with this problem. Thirty-five years ago when I first entered into the wastewater construction industry, it was still acceptable to mortar pipeline into manholes and mortar the joints of manhole sections together. The testing done for approval of this construction was minimal at best.

Today, we build new systems with the most advanced technology using GPS satellite surveying and laser transits and pipeline grades and elevations within hundredths of a foot. Systems are tested to pressure tests and vacuum tests to ensure no infiltration, and more importantly, that there is no exfiltration of the wastewater being transmitted to a treatment facility. Today we join pipe with rubber “o” rings and manholes with butyl mastic sealant that will withstand the most severe atmospheres. Today these new systems are designed

to last 75 - 100 years and to be watertight for the entire lifetime of the designed use of these facilities.

These new facilities don't come cheaply and that's the biggest obstacle we face in meeting the wastewater challenge of the next twenty years.

Many municipalities lack the proper revenues to update their systems. In fact, the U.S. Environmental Protection Agency's 2004 Clean Water Needs Survey Report to Congress documents a **20-year capital investment needs for Pennsylvania's publicly owned water and wastewater infrastructure needs at more than $20 billion dollars. You can figure this equates to about $30 Billion today due to the rate of inflation of the cost of construction materials, labor, healthcare, and diesel fuel.**

The Federal Water Pollution Control Act, commonly known as the Clean Water Act, is one of the nations' most successful environmental statutes. The vital part of the Act's success is the Clean Water State Revolving Fund (SRF), which provides federal financing for wastewater collection and treatment projects at the State level. This funding is distributed in Pennsylvania by the Pennsylvania Infrastructure Investment Authority (PENNVEST). The State's matching funds and the return flow of principal and interest

have furnished nearly $320 million in loans and grants for water and wastewater infrastructure maintenance and construction at the beginning of Governor Rendell's term. And, the amount of money today is only $262 million in loans and grants. Even so, the snowball effect has continued to grow the pot of money, but not nearly enough to keep up with Pennsylvania's infrastructure needs.

Despite the enormous needs and despite the Clean Water SRF's outstanding track record, the Bush Administration continues to propose massive cuts each fiscal year. Every state loses under this proposal. Pennsylvania needs to recognize that the Federal dollars have been under attack over the past years and this trend is expected to continue. Pennsylvania needs to take legislative action to support our infrastructure needs.

Alcosan in Allegheny county, the second largest system in the Commonwealth, projected in 2005, a cost of $3.1 billion to replace an old worn out system and come into compliance with environmental standards. Every time it rains, Alcosan could be fined for dumping raw sewage into the Ohio River and its tributaries, namely the Allegheny and Monogahela Rivers in the City of Pittsburgh.

Very few systems across the Commonwealth have the ability to raise the funds required to solve these problems by themselves. Most systems operate on a budget designated to cover operating cost and provide a small profit. The main concern is to pay all debts and still keep cost low to the community. Small communities in particular have an extremely difficult task of keeping service affordable and still meet their obligations.

Sources of funding are limited to the Rural Utilities Service (RUS) of the Farmers Home Administration, direct grants in aid from the Corps of Engineers, borrowing from PENNVEST or raising money from local bond issues.

RUS funding comes at a rate of 4% for a loan period of 40 years. The only grant money available is to bring the monthly user fee down to a rate of $45.00 per household per month.

Direct grants through the Corps of Engineers are very rare and only a few survive the current budget cutting climate in Washington D.C.

Borrowing from PENNVEST is a much better solution. However, PENNVEST has a limited. It’s difficult to believe,

but many communities in Pennsylvania still have raw sewage running in the storm sewers and flowing into the waterways of our state. PENNVEST's current budget of $252 million a year for loans, and $10 million a year for grants is a start, but nowhere near to what it will take to get the job done. The Water and Wastewater Treatment Association projects that the water and wastewater need nationwide is $300 - $350 billion. Pennsylvania needs will fall between $20 - $50 billion of that amount.

Finally, many communities simply lack the financial means and experience to float their own bond issues.

What is truly needed is a new dedicated source of revenue that is stable and constant, and dedicated to the water and wastewater needs of the people of the Commonwealth of Pennsylvania.

Many communities in Pennsylvania now have moratoriums on new connections to existing treatment facilities because of hydraulic overloads during wet weather periods. The inability to build new factories, new homes, new schools, and the service industries to support all these impedes the ability of Pennsylvania to attract new industry to the Commonwealth.

And, old worn out systems add to the burden of reclaiming the Brownfield sites within our oldest cities.

If we are to solve this problem, we need to look at bold new methods to solve our environmental problems.

The Pennsylvania Utility Contractors Association has proposed legislation to provide an additional $240 million dollars annually through the Clean Water Trust Fund. These funds would be distributed by PENNVEST using new criteria to provide one-stop financing for municipalities. **This means that a new bureauacy is not created.** A lot of municipalities believe they can institute their own user fee without the involvement of the state government. In reality, their portion is nothing more than a down payment on a system. Let me explain. I compare this concept to that of a home mortgage. You know the story - every young couple trying to build or purchase their first home struggles to save the down payment for their home. Nevertheless, they still need to go to the bank to borrow the balance for the home. The Clean Water Trust Fund will be the Bank. Municipalities then can go to this bank to borrow the money to build the entire system.

Given EPA studies that project many billions of dollars of need within the Commonwealth the $180 million worth of funding that PENNVEST has available is inadequate at best but coupled with antiquated guidelines makes the process seem almost hopeless for some municipalities. It is for that reason that we put forth and are strongly recommending that Pennsylvania step into the fore front and be a leader in this nation and create its own Pennsylvania Clean Water Act. **This law would be crafted to create a permanent solution to our clean water problems by the creation of a user fee for all public water and waste water systems at a rate of 20 cents per thousand gallons, which would only mean $2.00 per household. This user fee would create $240 million dollars per year for capital improvements throughout the state.** The funds would be channeled in three ways. The **first third would remain with the collecting Authority or Municipality and act as a piggy bank** so as to develop the start up or down payment necessary for solving clean water problems that we all know exist. The **other two thirds would go into a trust fund for the distribution through PENNVEST for such projects. Half of which or one third of the total amount would be given out in grants** so that all communities large and small, rural and suburban would be able to bring their construction cost to a level that is affordable for their residents. **The final third is the**

funds collected would be placed into revolving loan funds, which would grow by repayments as a snowball would grow as it rolls down a hill. This snowball effect makes the pot of money large enough to meet the needs of our Pennsylvania communities. **Lastly, and more importantly, we would avoid the cumbersome and at times unworkable guidelines mandated by the Federal government.** I would like to think of this process similar to that of my parents in how they saved their money, little as it may have been, and carefully making their decisions so that they might be able to provide for those things that were necessary for maintaining a wholesome household. This unique concept of saving money in advance within each Municipal organization; for their down payment on projects; for the development of a meaningful grant program to make projects everywhere feasible; and the development of a revolving loan (a bank if you will) will fill the financing gap far into the future. It is something that we should be all proud of being a part of creating and that is what I am asking of you today.

In fact, **there is an effort on the national level to develop a Trust Fund similar to the proposed legislation put forth by PUCA.** The Clean Water Coalition is comprised of many industry stakeholders. They met regularly in Washington D. C. and their current topic is creating a national trust fund.

I ask that you also consider two (2) other funding sources: 1) the elimination of the 6% Sales and Use Tax imposed on certain municipal water and wastewater construction projects; and 2) Senate Bill 28 introduced during the 1995-1996 Session by Senator Michael Dawida. This bill created a special lottery for financing the stadiums. The lottery did not take funds from senior citizen programs.

I urge you to take a serious look at the Pennsylvania Utility Contractors Association's proposed Clean Water Trust Fund. It has the funds necessary to correct the neglect of the past, and bring Pennsylvania into the 21st century with the most advanced environmental funding of any state in the United States.

Cost Saving Measures

We are all aware that there are tremendous problems with sewer systems throughout the Commonwealth of Pennsylvania.

Being a businessman and a taxpayer I believe we also need to control costs for these very necessary improvements. A couple of these ways I would like to specifically address in my testimony.

1) **Procurement Code Changes and Standard Specifications** - First of all, anything that creates additional work or unnecessary confusion within the industry that performs the services necessary for the corrective actions understandably adds costs. One of the biggest culprits of this is the inconsistency with which Municipalities' and Municipal Authorities' owners specify their bidding and work process. **Last year House Bill 652 of the 2005-2006 Session was introduced. This bill amends the Procurement Code and provides for 15 cost saving measures.** Some of the measures address uniformity issues. Other measures are already being upheld in the courts and are proven to be cost effective.

   Each of the many hundreds of owners along with the mix of still other hundreds of engineering firms throughout the state have taken their own road with respect to design, materials, procedures, construction and bidding processes. These "take your own way"

approaches have created thousands of different and unique specifications and designs for a contractor to try to understand, obtain competitive material pricing and to assemble a bid competitive enough to fall within the budgets that are available. Clearly, **standard specifications in the very large utility construction industry would bring about very huge savings, and by virtue of more competitive bids because contractors would be doing things routinely rather than learning it all new**, instead of risking it all each time a bid is submitted. A good example of standard specifications is present in Pennsylvania and within the Department of Transportation as they have what is known as the PENNDOT 408. This single book of specifications was created in cooperation with PENNDOT, engineering firms and contractors throughout the Commonwealth. It is easy to understand that the simplification of only one specification book throughout Pennsylvania is much easier to understand, creates far less confusion, back charges in claims and more competitive bids. I would urge the task force devote at least some of its efforts to help stimulate and bring about the preparation and adoption of

procurement changes and some standard specifications for this industry.

2) **Surface Utility Engineering** - The PA One Call System and the U.S. DOT for the National One Call Best Practice Study recommend the use of Subsurface Utility Engineering to locate utilities prior to the design phase. In the excavation process which is the required way in most cases to perform repairs or install sewer lines, one of the most costly problems is the existing underground utilities, and more importantly, the lack of exact location of these underground utilities in the bidding and construction process. Not having this accurate information creates a requirement for a contractor to put into his bid contingency reserves, which will cover the cost of delays and changes that are almost guaranteed to accrue during the excavating process. Additionally, there can be and usually is a large amount of additional charges to the owner for this lack of accurate utility information and the problems that it causes during construction and especially in sewer lines because of the necessity to maintain line and grade. Currently within the utility locating industry and definitely in the design process, the information and technology to provide exact utility locations is not

available. This void of accurate data can easily be solved by the advanced investment in subsurface utility engineering. This process includes the advanced soft dig or potholing or excavating of the existing utilities and then the accurate measuring and plotting both for location and depth. Once that information is gathered and then accurately incorporated into a utility construction plan, so as to avoid conflict with existing utilities when it is not necessary and when it is necessary to developing an accurate plan for their co-existence within the construction process. This advance subsurface engineering process would therefore create a construction drawing and bidding specification that a contractor could depend upon to be clear of the unknown and those costs associated with it thereby reducing his bid price. It would also insulate the owner's from those additional costs currently assessed upon them during construction when precise locations of utilities cannot be provided in advance. **Studies have shown that the dollars invested in this process will return in savings in the construction cost that of 10 – 17 times those invested dollars, depending upon the utility density involved in a construction project.** Clearly these savings should be pursued, as every dollar we can save in the construction process will put us closer to completing our

task. (Re: Subsurface Utility Engineering Booklet prepared by U.S. DOT Office of Engineering, October 1994).

3) **Criteria Guidelines** - The well meaning but complicated process for the qualification of loan recipients was devised with ten-year-old statistics and economic values. Unfortunately when using these processes in today's world of lower unemployment and hiring household earnings most of the communities in need of such loans do not rate high or are not qualified at all to receive funds. Or in some cases only qualify for a partial loan, which means they must spend additional monies with multiple funding sources, RUS, PENNVEST, local banks, bonds or others. Certainly these criteria guidelines should be reviewed and new guidelines to disburse the new Clean Water Trust Fund monies in an equitable manner are needed.

4) **Disadvantage Business Enterprise (DBE) Solicitation** – The EPA requires DBE Solicitation for certain public projects. No one is opposed to providing opportunities for DBE's when a legitimate DBE business exists. However, many DBE's are simply "paper" entities that add a 5-10% profit on a manufacturer's quote and fax the quote with their profit margin tacked on. **The DBE Solicitation process is time consuming and costly as both the municipality**

(authority) and contractor must each perform extensive research, solicitation and documentation requirements before the project can be bid or awarded. There were several incidences within the past year where the municipality failed to meet the DBE Solicitation requirements and almost had to rebid the project. **This could have cost the ratepayers several hundred thousand dollars to re-bid.** Fortunately, PENNVEST was able to make certain loan fund adjustments that prevented re-bidding. Under the current system, it takes an additional staff person each for the contractor and the engineering firm. Multiply this by the number of contractors and engineering firms to determine the "labor" costs of this program. **The DBE program does nothing to educate the DBE firm to the public bidding process.** Bids do not magically arrive by fax or email on a contractor's desk. Rather, the contractor must either subscribe to a bid service or read local media sources for published bid notices.

PUCA believes the DBE firm would be better served by a Mentor Program that after five to seven years the DBE firm would graduate from the DBE Mentor Program.

5) **Asset Management** – Wastewater utilities should incorporate asset management guidelines in their policies.

Cataloguing every aspect of a sewer system to determine longevity and the need for rehabilitation on a routine basis is a management "best practice" that needs to be mandated for every water and wastewater infrastructure system. A long-term plan to upgrade or improve the system as regulatory or legislative changes occur is an integral part of a well-run management system. Water and Wastewater systems need to ensure that local rates cover the full cost of service, including capital asset maintenance and replacement, for system longevity and viability.

6) **Regionalization - The Task Force should consider investigating the possibility of regionalizing some wastewater systems for cost savings.** I know other speakers today will discuss this topic in more detail, so I simply want to reiterate this concept is something that could benefit the citizens as we move forward with an overall strategy.

7) Lastly, I want to add that education is an important component to any cost saving measure. Over the years, I have seen **many municipal or authority members who simply lack the knowledge about construction funding, interim financing, bid laws, payment terms, case law, PA One Call**

responsibilities as a utility owner, DEP Data Collection, and the differences between performance and maintenance bonds. An educational program for these officials would be highly beneficial and should reduce the number of court cases due to inexperience and misconceptions. Anytime a dispute arises that leads to a courtroom it is non-productive for both sides. However, there has been many recent cases where the courts are determining that the municipality's or municipal authority's actions were "arbitrary or vexatious" (without just cause or basis in law). These cases are usually due to the lack of knowledge about construction law, deadlines and payment terms. The goal of everyone should be to complete a project on time and on budget. Clearly, education on this issue should be considered as a part of the overall strategy.

Closing

Members of the Pennsylvania Utility Contractors Association work in the infrastructure industry day-in and day-out. We believe that our suggestions are real solutions to an ever-growing need. The time is now for the Legislature to take

real and meaningful action to protect our environment for future generations. Children are playing in raw sewage even as we speak. Health risks are rising every minute that we wait to remedy our infrastructure problems. From our firsthand knowledge, a comprehensive plan to address the entire infrastructure needs of Pennsylvania is imperative. We offer assistance to this committee as you proceed with your legislative recommendation to the Senate and the House of Representatives. We understand that a healthy and environmentally sound Commonwealth is an economically sound Commonwealth. Pennsylvania is where we live and work and Pennsylvania is where we want our children to live and work too!