Sustainable Water Infrastructure Task Force
Public Meetings
Summary of Comments

Demographics of Comments Received:

Eight Public Meetings:

- Affiliations of those who submitted testimony (total 59):
  - Representatives of Governmental Agency
    1. Pennsylvania Infrastructure Investment Authority
    2. Public Utility Commission
    3. US Army Corps of Engineers
  - Representatives of Regional Planning Agency
    1. Centre County Planning & Community Development
    2. Montgomery County Planning Commission
    3. Southwest Pennsylvania Commission
    4. Three Rivers Wet Weather
  - Representatives of a Water or Sewer Authority –
    1. ALCOSAN
    2. Bethlehem Authority
    3. Buffalo Township Municipal Authority
    4. Eastern Suburban Water Authority
    5. Greater Hazleton Sewer Authority
    6. Lancaster Area Sewer Authority
    7. Lehigh County Authority
    8. Mahoning Township Authority
    9. Milton Sewer Authority
    10. Peters Township Sanitary Authority
    11. Pittsburgh Water and Sewer Authority
    12. Portage Municipal Water Authority
    13. Sandy Township
    14. Scranton Sewer Authority
    15. Warminster Municipal Authority
    16. Williamsport Sewer Authority
    17. Wyoming Valley Sewer Authority
  - Representatives of Private, Investor-Owned Systems –
    1. United Water Company
    2. York Water Company
  - Representatives of a Industry Association –
    1. National Association of Water Companies – Pennsylvania Chapter
    2. Pennsylvania Utility Contractors Association
    3. Pennsylvania Rural Water Association
    4. RCAP Solutions
  - Representatives of Engineering Firms, Private Consultants, etc.
    1. Borden and Lawson Engineering

2. Cahill Associates
3. CET Engineering
4. Cowan Associates
5. CRA International
6. CS Davidson, Inc.
7. East Liberty Development
8. HRG Consulting
9. James Holley and Associations
10. KLH Engineers
11. Image Earth
12. RedZone Robotics

- Representatives of non-profit, special interest groups, watershed associations –
  1. 10,000 Friends of Pennsylvania
  2. Allegheny Land Trust
  3. Brodhead Watershed Association
  4. Chesapeake Bay Foundation
  5. Clean Water Action
  6. Pennsylvania Builders Association
  7. Renew Lehigh Valley
  8. Southeast Pennsylvania First Suburbs Project
  9. Trout Unlimited
- Representatives of Academia
  1. Stroud Water Research Center
  2. Carnegie Mellon University
- Private citizens
  1. Michael Gallagher
  2. Susan Miller
  3. Gary Peacock
  4. Rich Randolph
  5. Craig Ryan
  6. Dr. Anthony Skiptunas

- Attendance at each of the meetings (total 338) :
  - May 8 – Harrisburg -- 87
  - May 15 – Pottstown -- 12
  - May 19 – Pittsburgh -- 78
  - May 21 – Oil City -- 28
  - May 22 – Dubois -- 26
  - May 27 – Pittston -- 30
  - May 28 – Bethlehem -- 31
  - May 29 – Red Lion -- 46

- Contact information for submitting comments:
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Additional Written Testimony:

- Affiliations of those who submitted testimony (total 15):
  - DEP Advisory Committees
    1. Citizens Advisory Committee
    2. Chesapeake Bay Advisory Committee
  - Representatives of a Water or Sewer Authority –
    1. Perkasie Borough Authority
  - Representatives of a Industry Association –
    1. Pennsylvania Water Environment Association
  - Representatives of Engineering Firms, Private Consultants, etc.
    1. Bankson Engineers, Inc.
    2. Buchart-Horn, Inc.
    3. Gilmore and Associates, Inc.
    4. Perkins Eastman
  - Representatives of non-profit, special interest groups –
    1. Chesapeake Bay Foundation
    2. Pennsylvania Manufactured Housing Association
  - Private citizens
    1. Gerald Allender
    2. Keith Baker
    3. Blair Fleishmann
    4. Melanie Ryan Hesse
    5. Ray Reaves

Answers Provided to Task Force Questions:

Needs Assessment

- **What are the total infrastructure financing needs, and what are the causes for those needs?**

Various reports have documented pollution in Susquehanna. Majority of pollution to the Bay is coming from the Susquehanna. It is imperative we act now. There are over 190 systems discharging into the river. Maryland had a similar problem and devoted efforts and funding to address.

Significant state funding is needed NOW to address requirements for Chesapeake Bay reductions in the Compliance Plan. Costs are $620 million to $1 billion to meet requirements by 2010 through infrastructure improvements. Costs for reductions from nonpoint source are identified at $593 million.

Expansion and creation of new water sources with estimates of total needs of $100 million for one authority.

A lot of expenditures are incurred for redundant infrastructure like duplicate water sources, expansion.

Future regulatory requirements and increasing costs for material, cost of oil.

Mains that were first placed into the ground a century ago cost approximately $1 a foot. Today, the remediation or replacement costs range from $61 to $100 per foot.

DRBC Special Protection requirements will result in $1 million to install UV light to treat drinking water that is being discharged back into the Delaware … the reason for the treatment is to kill viruses. If the negotiations with DRBC are not successful, the alternative is to complete $50,000 project to re-direct the discharge to the sewer system or re-treat.

Implementation of consent orders and decrees, long-term control plans to address combined sewer overflows, compliance with total maximum daily loads. Government negotiations increase costs. The levels of treatment wanted by government are often higher than can be achieved with existing infrastructure, causing the building of additional treatment facilities and infrastructure. Example cited was $370 million spent by ALCOSAN since 1997 to expand capacity to treat additional discharges.

Compliance with Total Maximum Daily Loads (TMDLs).

- **Should we include in our needs assessment non-capital costs?**

Proper identification of problem areas will take some work…need engineering money as well as capital funding to determine where needs are, for prioritization purposes.

- **Should we be taking affordability into account in estimating financing needs? In other words, how should we factor in that some communities can afford a higher percentage of the total financing need than other communities?**

Establish affordability criteria such as 2% of MHI.

Yes, may not be easy, but some type of formula is needed.

Affordability needs to be considered when raises in user rates are established and allow for other costs incurred by the citizens such as police and fire protection.

Affordability needs to be considered only through a smart approach to disperse financial burden through regionalization of revenue generation. Those that can pay help those that can't.

Median household income tells only have the story. This means half the people in the community have incomes below the average. Also, doesn't allow for the number of people on fixed incomes, and the increase in the number of state residents who will be retiring soon.

Encourage utilities to create Customer Assistance Programs (CAPs) for customers experiencing difficulty paying their bill.

Components of a water-affordability program may include coordination with local community based organizations to administer and determine eligibility, cash assistance for arrearage reduction or current bill payment, funding through company/ shareholder/ employee/ customer opt-in match, conservation education and/or plumbing devices, repair of minor plumbing leaks and/or a low income rate.

Other mechanisms available to assist with affordability include payment arrangements, regionalization to achieve economies of scale and rate increase phase-ins to mitigate rate shock.

Innovative Measures:

- **What are the types of new technologies or treatment concepts and non-structural solutions available to improve water quality in lieu of infrastructure? What is their effectiveness? What are the costs and benefits?**

Look to other countries, other states for innovative examples of practices.

Establish mandatory installation of new innovative technology on all wastewater treatment systems.

Implement alternative ways to safely handle grey water would free up capacity for blackwater treatment.

High energy plasma pulse technology

Wastewater re-use

Designs that take advantage of gravity

Encourage more land application of biosolids for planting of switch grasses as alternative energy source.

One authority found it was not cost-effective to treat CSO's. They have a proposal to re-use the water by sending the water through limestone banks and back through mine pools. They have identified a private company wanting assistance to implement proposal.

Milton is creating the first plant to be a net generator of electricity through anaerobic treatment of waste (food processing plant produces 60% of water treated) that generates biogas (methane) to power generator for electricity. Will use ½ of power generated, rest goes to the grid. The system will use waste heat to dry sludge up to 95% solids, an improvement from 20%, to be used as a fertilizer, soil amendment.

Need to restore riparian buffers in non-agricultural areas. Need trees to reduce sediments, shades the system to enhance nutrient removal processes. Put them everywhere where removed, such as urban areas.

There are better practices for erosion control for sediment runoff reduction than silt fences, such as silt socks are excellent filters, especially if put behind fences.

Preserve more wetlands and floodplains.

Creating wetlands may not be as effective as riparian buffers. Most developers don't want to lose the land. Look at pervious surfacing alternatives, rain barrels (can save 75 gallons per household that doesn't wind up in storm water.)

Incentivize/require conservation.

Promote water conservation. What is missing is the education to promote use of water conservation measures by customers and the incentives to participate in water conservation initiatives. Water conservation is only of interest during a drought, this needs to change.

Conservation of resources is not proportional to the cost of operation. The majority of a system's costs are fixed and unaffected by the volume of water treated

Promote protection through innovative measures that recharge aquifer, promote re-use, conservation, education for environmental protection, find incentives for installation for conservation measures, need education of engineers and technical staff on effectiveness of alternative solutions to building a treatment plant.

Need "green" solutions that will help reduce duration and frequency of storm events in combination with "grey" solutions. "Green" solutions are those that minimize stormwater getting to sewer system like rain barrels, rain gardens, plantings along streets, porous pavement. "Grey" solutions are those linked to construction of infrastructure expansion and improvement. (Costs by ALCOSAN estimated at $60 million now, $10 million ten years ago)

Green Vision Principles include promoting a balance between natural and built environment and promoting energy efficiency and water conservation through the rebuilding of urban infrastructure to produce safer community while reducing the demand for both water and energy. East Liberty cited as an example where the problem is a single sanitary sewer system that conveys both waste and stormwater. The goal is to minimize stormwater, rather than build bigger pipes by building simple structures between street and curbs, including vegetation in aisles between streets, in parking aisles, add plantings along pedestrian walkways; making portions of streets pervious along curbs and building reservoirs under the surface; using rain barrels, rain gardens at every house; and expanding parks Through these measures they expect to eliminate the same amount of runoff generated from a 1 inch rainfall, thus eliminating combined sewer overflow discharges 95% of the time.

Rainfall interception from woodlands can range from 15 to 48% from the canopy, total woodland can increase interception to 76%. An analysis of the costs incurred through loss of woodlands incurred by downstream entities is needed. Downstream entities need to be involved in land use decisions upstream, need to develop market, local based economic data on impact of elimination of woodlands and control increased stormwater and flooding.

The width of the forest buffer is important due to the filtration processes. The more bottom surface area for filtration and pollutant assimilation for nitrogen and organic matter, the better. Stream systems can process between 25 and 75% of nitrogen added to the system.

Consider treating Abandoned Mine Drainage (AMD) as a solution to meeting nitrogen and phosphorus reduction goals. Suggest passive AMD treatment systems as a cost-effective solution. Active systems are also a solution by cost more to operate and maintain.

Existing detention structures need to be monitored, audited as to efficiency, maintenance.

Explore banking of land until infrastructure is in place to address development problems.

Establish centralized fund for auditing of flooding structures, detention basins.

Utilize/mandate efficiency audits

Goal should be to encourage the best mix of technologies that work, that are financially sustainable, and that are managed centrally.

Install micro-turbines, biogas technologies and windmills for energy efficiencies for small systems.

- **What other types of non-structural solutions are available to enhance system planning efforts? How can they be incorporated into a system's planning process? How can trading, water conservation and reuse strategies be incorporated into this planning process?**

A moratorium of new development along the Susquehanna River

Nutrient trading would be a more useful tool if it were more stable and less risky; consider adding a nutrient credit bank to reduce trading risks and enhance predictability and effectiveness for both producers and buyers of credits.

Expand the use of credits and the concept of trading to facilitate incorporation of non-structural alternatives (nonpoint source practices) rather than engineering construction into all projects, not just those in the Chesapeake Bay.

Alternatives to capital upgrades, such as nutrient credit trading, may be useful tools in some circumstances and situations, as long as it can be demonstrated that measurable water quality improvements will be achieved, but these should not be viewed as a panacea. Infrastructure (structural or non-structural) upgrades and innovative technologies will still be preferable in many situations and, in fact, will be necessary to generate future credits to trade. Consequently, establishing funding sources at all government levels to achieve these upgrades should remain a priority.

Robotics industry has tools to help systems make informed decisions for asset identification and valuation, failure impact evaluation, risk management, condition assessment, rehab and replacement planning, capacity assessment, maintenance analysis and planning and financial management. With these tools, systems are able to break the

system into components and collect digitized information for analysis and archiving. Systems can use robotics to collect information in the pipes to inspect their condition. Future uses include cleaning and maintenance and repair, rehabilitation, replacement. The goals are to: (1) Focus on asset management and condition prediction, (2) assist in baselining for true benchmarking and time based analysis, (3) develop new technology for cleaning and rehab challenges, (4) leverage innovations, export solutions worldwide and (5)support best and most cost effective decisions for PA**.**

Water quality and water supply are interlinked. They must be addressed together with a risk based, basin wide methodology to maximize resources. Currently being addressed as point targets to address specific local issues. It is overwhelming to have to work with a multitude of different municipalities and local governments to achieve the mission to implement financial assistance programs for environmental infrastructure improvement. Need to promote change through facilitation. To utilize the benefits of an integrated water resource management approach across governmental boundaries, need consistent mapping and data management. An intensive data collection effort, focusing on collecting the data within an asset management system for future use is essential. This can be done by implementing a web-based site to collect and store data, integrate layers of data, GIS mapping (piping systems), and system-wide flow monitoring data, with data stored in a central hub. Also need to engage the dissenters and the proactive messengers, academia, councils of governments, broad range of stakeholders, local elected officials, media to generate support. Make sure have a consistent message given to a group of "message carriers." Aim message to rate payers, elected officials, managers, engineering community. Link the requirements to benefits in the community; such as water quality, recreation use, public health, economic development.

It would be nice to have one regional entity to help prioritize all water supply and water quality projects.

In a survey in southwest Pennsylvania, 60% of the respondents believed they have water and sewer issues and are willing to pay if it will have an impact on improvement, especially if they can see the results of their actions. People do not find the status quo as acceptable, but would be resistant to forced consolidation or formation of broad authority, but are willing to share resources. As a result, the study recommended formation of a "water district" to provide regional planning services, assistance to local authorities with responsibility to provide water and sewer. District should have independent board with the function of integrated water resource planning, prioritization of regional water projects, coordination of funding, providing technical assistance, regional data collection and management. The district would not have the authority to compel, only facilitate and help plan. The district could be funded with budget of $1.8-$5.4 million per year (75 cents to $2.00 per person per y ear) Benefits include ability to create efficiency of operation and maintenance, share equipment, provide greater access to money with greater equity to work out problems.

Provide incentives to create county-wide authorities or co-operatives to manage water wastewater, stormwater, or define by stormwater watersheds. These co-operatives would

be more financially viable, and could be more easily taken over if needed. Assess fees based on Equivalent Dwelling Units or special use tax based on fair impact with vouchers to address affordability. Create a voucher program based on economic goals for communities that can't afford appropriate fixed rate structures to insure sustainability.

Financial Resources:

- **What aspects of the operation of a water or wastewater system should be eligible for subsidized funding from the local, state or federal government? How about onlot system management and the promotion of community sewage management programs?**

Eliminate PENNVEST income cap on borrowing money to upgrade onlot systems.

On lot management and overall sewage systems management should be a local government responsibility; the rule rather than the exception. We need to encourage others to move in this direction.

On-lot management systems programs should be funded locally – they all have the capability to afford this.

Shouldn't have any aspects of O & M costs covered in financial assistance programs. These costs should be covered in user rates. Grant and low interest loans should be used to cut down debt service costs, but not O & M.

Grant money is no longer something that can be expected for the purpose of O & M.

Only capital costs should be subsidized. O&M shouldn't become dependent on subsidies; require that grant/loan recipients implement a mechanism to set aside money for future OM&R

Systems need to be self sustainable, user charges should cover all the costs for operating and maintaining that system.

Accountability: a grant/loan recipient should be held accountable and should have to pay monies back if subsidized capacity is exceeded.

In estimating financing needs, DEP should take into account local capacity and a community's willingness to proactively address its needs before they become environmental issues and compliance history; those who continue to exceed even new, subsidized capacity should not be rewarded with future subsidies.

The results from dividing the $22 billion in identified infrastructure need by the population of the state of 12 million, then multiplying this by 2.2 to represent an average family, the cost per family is approximately $22.50, factoring in interest payments, etc. This could be increased to $30 to provide the funds that low income citizens could not

afford. Still lower than most television cable bills. The bottom line is that we must talk sense to folks about paying for the public goods and services they receive, just as they do for their cars, homes, groceries, etc.

Each customer should be paying about $75 per year to replace pipe gradually over time, or thousands of dollars later when system fails. Can provide all services and plan for the future for less than one cent per gallon used.

Base funding on the economics of the service area and whether upgrades are mandated. Assistance should be provided to meet new mandates. It is time for the state to step up and recognize their responsibility.

Authority's finance plan includes a rate hike (rate based on flat O & M, adjusted by communities to deal with debt service aspects based on amount of money still owed or amount of infrastructure in community expecting to need replacement in the near future) and the creation of a capital reserve account for use of upgrade, expansion, replacement. Account will also allow for future need to address regulatory requirements with 30 percent set-aside for capital improvements, invested within rules and guidelines.

Though some enhancement of infrastructure grants and loans may be relevant, sustainability cannot be solved through a grant welfare system. True costs should be borne by the users and the beneficiaries. The Commonwealth finally got rid of Act 339 subsidies a few years ago, let's not return to them.

Commonwealth should share in the costs for all aspects of operation. Cited Act 339 as an example.

Communities and society have a responsibility to promote the general welfare, provide safe water, treat wastes for today and for future generations. All have to step up to eliminate discharge of raw waste, eliminate dead zones in the Chesapeake Bay and the Gulf of Mexico and address the problems caused by aging infrastructure.

- **Methods suggested for generating financial resources:**

Distribution System Improvement Charge (DSIC) allows jurisdictional water companies to use a surcharge on customers' bills to fund more upgrades of aging infrastructure than would otherwise be feasible at a reasonable rate. Revenue neutral projects allowed under the DSIC include main/valve replacement, main cleaning and relining, fire hydrant replacement, main extensions to eliminate dead ends, solutions to regionalization projects and meter change outs. Surcharge ranges from a few cents to $1.50 a month. Need a similar charge for collection systems, but need to amend the Public Utility Code to accomplish.

A bond fund, enlisting industry to help.

Support $1 billion bond proposal by Senator Musto.

Ask the insurance companies to help fund – preventative medicine leads to investment in safe water.

The "Fair Share Plan" – Created by a coalition to enact legislation for funding for the Chesapeake Bay, the plan calls for modifications to the trading program for more flexibility for developers and the creation of a credit bank, an investment the first year of $170 million ($100 million for wastewater upgrade, $50 million for farmers, 10 million for conservation districts, $10 million for farming cuts) and another $500 million over seven years in 50-50 match for wastewater upgrades. The plan will "help PA meet federal and state clean water mandates, help ease the financial burden on wastewater plant ratepayers and farmers and protect the state's economy… plan will also address changes necessary to encourage a viable nutrient credit trading program, enabling future economic growth and development and providing opportunity for future homeowners and businesses."

Clean Water Trust Fund administered by PENNVEST – Create the fund through a user fee (20 cents per 1000 gallons, $200 per household). One third stays with the community, the balance would be put into a trust fund to be managed by PENNVEST, ½ of trust monies to grants with rest in revolving loan funds. Repayment to trust would increase amount of funds for future use. Wouldn't need to create any additional bureaucracy to manage and implement, use the existing framework and criteria put in place by PENNVEST.

Most "cost-effective solution" is everyone should pay for services provided (user rates). Second is giving the taxes back to the users. Third most effective is a statewide bond issue.

Believe in a true free market where industries should pay for their contribution at whatever costs it takes to treat the water quality problems caused. Work on pro-rating, based on individual uses such as plastics, chemicals, etc.

Establish general user rate for all up to a point, then an increased rate for increased use.

Legalize marijuana and tax it just like cigarettes. This would raise billions and the money now being spent on law enforcement preventing its use could be better spent by employing more police in our cities to curb much more violent crime.

The federal government needs to resume an appropriate level of financial support through its Clean Water and Drinking Water programs, to support achievement of federal mandates. Nutrient pollution is a water quality issue across the country, not just in the Chesapeake Bay watershed. Estuaries and coastal waters such as Long Island Sound, the Gulf of Mexico, and San Francisco Bay among others are suffering the effects of excess amounts of nitrogen and phosphorus from a variety of sources, including wastewater treatment plants. States in the Northeast, Mid-Atlantic, Mid-West, South and West are all facing the need to upgrade their sewage treatment facilities beyond the standard

secondary treatment requirements of 20 years ago. Just as the federal government had a significant and appropriate role to play then, so it does today in taking the next step in protecting and improving water quality across the nation.

Financial Sustainability:

- **What methods and tools should be developed to assist water and wastewater systems in delivering cost-effective service while maintaining public health, safety and environmental standards?**

Implement pilot projects, guidance materials, labeling and standards programs, riparian buffers, long-term research programs. Fund formation of "Centers of Excellence" for research for "lighter footprint" and efficiencies.

An ongoing research and development program should be established through a university or group of universities to advance more cost effective service technologies. Certainly one of the greatest needs is new technology to assist in reducing energy costs.

Establish an insurance fund to help systems using new technologies to protect against failure.

The state should consider different bulk purchasing opportunities for common products used by systems. Perhaps bulk power purchase cooperatives could be established. Insurance pools specifically oriented to systems may be another way to reduce costs.

The public system owners and public officials need to be educated on costs of delivery and treatment and safe wastewater disposal. Safe water is taken for granted or ignored, the value of which is not recognized unless a problem arises.

Utilize existing education efforts to educate the public including those designed by US Environmental Protection Agency, the American Water Works Association (*Only Tap Water Delivers)* , the Water Environment Federation (*Water is Life and Infrastructure Makes it Happen)* and the Co-operative Extension Service (*Liquid Assets Program)*.

Replace reliance upon the unaccounted-for-water methodology with the newer water audit methodology adopted by the American Water Works Association.

Voters and rate payers are not knowledgeable enough to evaluate the condition or financial status of utilities. Additional public education is necessary. Lack of knowledge is not an excuse.

Systems can be self-reliant through (1) regionalization (achievement of economies of scales) by providing incentives; (2) asset management – need help managing resources we have, can't afford another round of grants without future management for long-term maintenance, need to develop capitol improvement plans based on cost benefit, need to educate officials, train operators, managers; set rates to cover costs; (3) judicious

contracting out of services to private sector where effective—use cost accounting to find least cost solutions.

Service providers need to function more like businesses. Obviously the private utility companies under PUC control are already operating as businesses, though there may be additional incentives provided through the PUC that could stimulate improved business operations. The municipal and authority owned systems could benefit from additional technical support in improving core business operations such as budgeting, staffing, cost accounting, billing, collections and use of technology to improve operation. A partnership between state government and Pennsylvania Municipal Authorities Association to provide education and technical assistance would be helpful.

The rate setting process employed by the PUC is known as rate-based, rate-of-return regulation which ensures that utilities are charging just and reasonable rates and expenses claimed are prudently incurred. The rates are set to be non-discriminatory and equitable among customer classes and are to include all essential elements of providing safe and reliable service. The rate setting process also provides customers with the opportunity to participate. Overall, assurance of accountability prevails throughout the entire process.

Adopt the Uniform System of Accounts described by the PUC which enables a depreciation expense to be built into rates.

Utilize point-of-use treatment to minimize treatment demands and costs and distribution system maintenance. Water system owners could treat to a level and then let the homeowner/system users install point-of-use treatment, such as reverse osmosis if additional treatment is desired. New homes could be built with dual systems, one with reverse osmosis and one for toilets, laundry, etc. The savings in treatment could be used for distribution system maintenance.

Cost saving measures include changes to procurement code (HB1652 last year), standardization of design standards, (example is PENNDOT 408 standards), criteria guidelines and rules for qualification for financial assistance, streamlining of DBE process to educate DBE firms on advantages, responsibilities, etc through a mentoring program of 5 to 7 years, asset management incorporated into system policies and procedures mandated, regionalization of wastewater systems for cost savings, and education (contractor responsibilities, system operation, financial practices and investment protocols.)

Try design-built concepts to standardize up to 30% of the total project, then ask for innovative approaches for the rest to minimize costs. Identify Best management practices where possible.

Realize cost savings to eliminate waste caused in current process. There is an estimated 10% loss through requirements from sales tax code, antiquated procurement codes, DBE requirements and lack of standardized design. Suggest eliminating sales tax on equipment, materials, supplies needed for construction of infrastructure when used for

public works projects. Standardize bid procurement documents, contract documents, paperwork, design standards would make it easier for contractors to bid on projects from over 700 different municipal entities. DBE requirements are not meeting its designated goals. Detailed documentation demonstrating solicitation effort is causing significant amount of manpower to generate. Costs for creating documentation are passed on through the bids. DBE firms need to be trained and mentored to participate in the public work projects. Without this, do not have the ability to participate. Divert DBE program resources to focus on training of DBE firms to build capacity to compete in the economy and local government officials to manage and administer public work projects and contracts.

To save costs and time on bidding, require the bidding of construction contracts once every three years then allow the use of the same contractor for all projects over a time period.

Consider increasing private sector investment in water and wastewater. It makes sense to look at private sector partnerships when the private sector can meet a need public can't address such as costs and needs (match water and wastewater services to customer demand, stratified by use (residential, commercial, etc.) to identify demand for amount and quality of services needed accounting for factors such as climate, population shifts, etc.), or when community has exhausted all public sector financing solutions. In many cases the private sector is able to address financing and operation deficiencies. The system could be turned back to public sector at a later time. Other examples include contracts for O & M, management of capital investments without ownership by private sector. The benefits to private ownership include significant upfront payment to the community and long-term funding, transferal of risk from public to private sector who has greater ability to adsorb risk, rates and increases in user rates are specified upfront, private sector more able to access technical expertise hard to obtain by public sector. Good projects for private sector investment include those with discreet boundaries, pieces with defined scopes of sufficient size to drive economies of size (consolidation, regionalization, multiple communities) or private sector investment in a state programs such as PENNVEST (a concept) to limit risk of investors thus reducing overall costs to augment programs. This should not eliminate state programs. Would need to demonstrate support through enabling legislation, tax incentives in investment, transparent regulatory regime to promote efficient expenditure and promote incentives, needs assurances that the projects and/or programs are politically supported. Wastewater is of more interest for private sector because the regulations are easier, less politically sensitive, inherent means to generate revenue through re-use.

Use engineering consultants as collaborative partners, work as teams to address issues. Form business partnerships to flesh out permit issues, time frames.

Need to provide technical assistance, training and not just broad brush approach of adding money.

No interest/low interest loans are better than grants; permits OM&R to be charged for from the beginning while giving the community a cost break; money comes back into the system for future users.

Zero percent loans are needed to address new federal regulations that are developed without corresponding funding.

Look at guidelines for sustainability already established by industry groups such as the American Public Works Association, the Water Environment Federation and the American Waterworks Association. The US Environmental Protection Agency also has developed standards and guidelines.

A number of factors can impact the completion and costs of a project such as the need to maintain service while work proceeds, control of traffic, the proximity of adjacent utilities and dealing with subsurface contamination, protection of prehistoric and historic resources, etc.

Look at other non-capital ways of addressing treatment needs like circuit rider programs, onlot management instead of sewer lines.

Currently have too much focus on inability to cover O & M and need to look at definition of what we call O & M. Look at creating pot of money to subsidize costs for O & M alternatives, circuit riders, etc. and other non-capital solutions. This may be more cost-effective.

Need to solve the problem by getting rid of water at the source. To address the entire problem this includes the inflow and infiltration in private laterals which are typically made of terracotta pipe with too many joints. Other sources for inflow and infiltration include downspouts, foundation drains and sump pumps that are tied to the system when they shouldn't be. This can be addressed through programs that do dye testing when the house is being sold. However, these programs don't address the problem comprehensively. A more effective method is a targeted approach in "sewersheds" of known problem areas. The problem is funding ($5000 per household) that no one wants to pay and prefers to forget. An assistance program needs to be put in place to provide grants for a percentage of the cost to homeowners to address the cost to replace lines. These funds could be disseminated through a regional entity.

Full-costing methodologies for assessing rates need to be evaluated and utilized. Most follow a cash basis methodology, (look at existing costs, without much room for future infrastructure needs) Need to add factors for depreciation to allow for replacement, repair costs within a full cost framework. One size does not fit all. A phased approach may be appropriate in some cases.

Need to set standards for the operation and maintenance of utilities and their financial assets. We can't allow for deferred maintenance.

Require that grant/loan recipients implement a mechanism to set aside money for future OM&R.

- **Are there specific workforce and management training programs that should be developed to assist water and wastewater system staff to more effectively operate and manage their systems?**

Workforce Development needs to be a priority. We need to continue to explore partnerships with other educational institutions. Can not expect workforce development to happen on its own. Need to identify the knowledge, skills and abilities needed and develop a broad based approach by involving systems, labor and management, educational institutions and merge younger workers with older, more seasoned workers.

Jobs in the industry are good jobs, offering steady work and income for workers. However, the industry is viewed as a dirty, yukky business…we need to show them that it can be pretty neat. The profession of certified operator does not have the recognition it needs, there is a great deal of science involved in water and wastewater treatment. These are the people responsible for safe drinking water and clean water. Need salaries commensurate with responsibility.

Have achieved some results through collaboration (Keystone Development Partnership with PA American Water and Labor and Industry have delivered training, worked with the energy industry).

Pennsylvania Rural Water Association created a system manager certification track as part of the training programs they offer.

Need to promote water and wastewater fields as possible career options for students. Work with high school counselors and local community colleges.

Need to consider implementing a tuition reimbursement program and a job placement program. Have the task force recommend DEP work with community colleges to create certificate programs, with the creation of tuition reimbursement program

Facilities should support internships, tours by students in community colleges. At a minimum the level of education needed is a high school diploma, but with new technologies being installed suggested at least a two year degree, prefer bachelor's degree. Would like to see a focused certificate program, rather than a general environmental sciences program.

Continuing education requirements in the Drinking Water and Wastewater Systems Operator Certification Act are a good idea, continuing education good. Need a similar training program for supervisors, board officials (promote, maybe require). Need to bring asset management training to Board members and local officials of water and wastewater systems.

Professional management training is key. We have achieved great strides through the operator certification program. However, the casualty is the elimination of the DEP operator training program and the DCED managers training.

Money is key, but not the main issue. Affordability is a factor, one size does not fit all. There is too much focus on crisis management. We have a prevalence of inadequate user rates that don't include operation and maintenance, debt service. For these reasons, elected officials need to be properly trained to make the decisions needed.

Train planners on economics, planning and environmental principles.

Need an expansion of education program to promote the appropriate management and the benefits of onlot management systems.

- **What methods can be employed to encourage cost-effective sizing of systems, including regionalization or decentralization? Are there specific incentives that would be necessary to facilitate this approach? Does regionalization to create efficiencies of scale make sense generally, or only in certain circumstances?**

Secret to success is effective management and optimization.

Regionalization of systems would not necessarily help —there are areas that this will work and some areas won't.

Government unit system in PA makes this nearly impossible to achieve. Parochialism will always prevail. Easton was an example where regionalization worked, where the authority took over operation and maintenance.

There are a number of communities served by one municipality across the state, with no oversight. The one municipality is using its power to thwart growth and assess high user fees, where fees are used to pay for general government and operation. A regional governance entity needs to be created. If this is not acceptable, then expand the scope of authority for the PUC to oversee these regional assets.

Act 537 planning process is adequate, the best method available to determine whether regionalization is an option. These plans tend to lean towards not regionalizing, recognizing there are economies of scale. Sometimes it may be better for each watershed to have its own plant. Regionalization can't be assumed as the answer, Act 537 can be the solution to insure assumptions aren't made.

Act 537 planning process is resulting in pressing communities to implement high cost, low impact projects by requiring service extension to small areas without treatment.

New approaches are needed to develop strategic service alliances between service providers. This doesn't mean consolidation, regionalization or privatization, but alliances

to pool certain common operations such as billing, repair parts and equipment, bulk purchasing, energy purchase, insurance, professional services and training.

Support regional administration/management, not just combining systems into ever larger treatment facilities. Regionalization of physical facilities (as opposed to management) depends on each situation. Need to develop most cost effective system for the area, depending on the geography and demographics.

The state has a fragmented service structure, large amount of retirement – functional regionalization (sharing of resources) is not working well, often resulting in litigation. Suggest re-structuring or consolidation into systems large enough to be sustainable (>50,000 customers).

Promote consolidation by providing incentives for consolidation through PENNVEST or state requiring investigation to see if consolidation a more effective alternative.

It is effective to create a regional authority to address issues of limited finances to meet needs, workforce development issues, promote innovative planning, eliminating expenditures on duplicate infrastructure.

Get municipalities out of business of water and wastewater industry and focus on creation of authority.

Get rid of the "haves and have-nots" through regionalization, could be easier in the management arena than the treatment arena. Have one authority with centralized expertise to utilize expertise of all.

A definition of success is consolidation of a system into an utility-based management structure with full integration. This is required for economic development, public health protection.

- **What eligibility criteria would you apply if additional state financing was devoted to water infrastructure?**

Provide incentives for low O&M

Systems that do not perform adequate maintenance should not be given an advantage, should get user rates up to cover maintenance or penalized. Don't give them a free ride.

Need comprehensive strategy for Sustainable Infrastructure without putting an unfair burden on those systems that are well-managed.

Need to re-think policies and procedures to keep in mind: (1) investments should be efficient through investment in existing infrastructure rather than the creation of new infrastructure (2) be equitable, older communities need help more; (3) investments should

be financially sustainable through budgeting of resources and asset management; and (4) should be environmentally sustainable, should operate within natural hydrologic systems.

Focus funding on in-city improvements, prevention of sprawl. For the past 50 years public policy directed economic investment and new construction toward agricultural lands outside the urban areas. Our cities have been intentionally neglected. The oldest infrastructure must be maintained first. The only way our cities and urban areas will survive is to invest in well maintained streets, sewers, water supply, mass transit, parks commercial areas and schools. Business and residents driven out by neglect will return.

It is impossible to have sustainable infrastructure without advancing a sustainable land use policy. Infrastructure can not be sustainable if it continues to spread out to service every new suburban medium and low density development. In addition, the retention of commerce and industry in existing developed areas with infrastructure is vital to the sustainability of urban infrastructure.

Encourage re-use of brownfields, regeneration of urban centers into new residential centers of the future. Another commenter suggests eliminating the current diversion of PENNVEST resources to fund brownfields projects and use limited funding for water and sewer systems.

Boroughs have few opportunities to increase their tax base. A large majority of these systems have infrastructure over 100 years old. Put boroughs in a separate category to maintain existing systems of older communities. We need to update these older systems to sustain economic viability.

Assistance programs should provide initial funds; but only once. Systems have to assess future rates on their own. Finance projects through equity (existing customers pay), versus debt (future customers pay).

Use the financing of projects by bonds as a model, where a trustee is appointed and conditions are established; such as an engineering annual report to identify whether rates are adequate, budget is correct, provide coverage over O & M and debt service to save to fix assets over time. Use this as tool to insure long-term capability to pay back the loan.

Tying additional asset management, SI requirements to assistance programs will increase the bureaucracy and necessary paperwork. This needs to be requirement for anyone wanting to issue tax-exempt bonds, not just financial assistance programs like PENNVEST. Tie requirements to accessibility to any funding program.

Don’t tie subsidy simply to the problem itself; this only rewards those who create a problem, instead of those who want to act to proactively address a situation before it becomes an environmental problem

Legislative and Regulatory Issues:

- **What are the statutory and regulatory barriers to enhancing our infrastructure improvement efforts within the Commonwealth while still protecting public health and the environment?**

Smaller systems don't have abilities to assess needs, manage assets, conduct feasibility studies. Many can't tell us where their sewers are – don't have expertise for oversight.

The lack of regulation of private wells and onlot systems falsely diminishes total costs for delivering water and wastewater services.

Need rules and standards for private well installation. Need licensure of well drillers including training requirements. Also, need higher standards and regulations for oil and gas drilling. Too many drinking water supplies have been impacted by drilling of oil and gas. Pennsylvania is one of the few states that does not tax gas production that leaves the state. Encourage responsible oil and gas drilling and production.

Policies creating problems include the fact that municipalities have oversight over land use planning but not over water infrastructure, water infrastructure laws treat surface water, ground water, stormwater separately from land use planning… Need more comprehensive approach like HB2266 to create integrated water resource planning. Systems for managing water resources are now fragmented.

Local municipalities are overwhelmed due to current processes and lack of ability to control land use and deal with zoning issues. State needs to allow municipalities to declare moratorium on any new development to give time for land use planning and zoning.

Enforce planning process through empowering Planning Commissions to insure compliance with local plans, eliminate abuse of existing regulations. Need accountability.

Requirements that increase costs for construction include bidding requirements for purchases over $10,000, the need to use prevailing wages for jobs over $25,000, the Separations Act that requires separate bids for various trades for jobs over $4,000, assessing sales tax on equipment, supplies for construction and tap-in fees.

Act 57 of 1998 needs to be updated to include new technical corrections and account for industry standards for streamlining. PUCA suggested 15 changes to Act 57 to mirror federal provisions and recognize current practices. Terms of contracts and bids for public works projects are not negotiable, unlike private projects. Need to allow contractor ability to re-negotiate prices, etc. after bids are open to allow for change and risk. Current requirement causes full contingency and risk to be put upfront into the bid and contract, causing payment whether a problem occurs or not. Standardize bid procurement documents, contract documents, paperwork, design standards would make it

easier for contractors to bid on projects from over 700 different municipal entities. Legislation is needed to insure public entities use the standardized documentation.

Inconsistency of regulation enforcement, shortage of staff and new requirements. Need a shortened, organized permitting system. DEP needs to be more responsive. Develop streamlined processes for minor permit changes. Permitting procedures of Ohio and New Jersey are simpler, more direct, easier to follow. Need to be proactive, less fighting.

Enforcement needs to be a priority.

DEP should guide permittees toward more financially sustainable approaches to meeting infrastructure needs

Regulation review and permitting process needs streamlined by creating general permits for all existing treatment technologies, accept PE seal for all but the installation of innovative technologies, thus allowing DEP to focus on compliance. Example is the lack of review by DEP for distribution extensions. Delays in permitting are causing affordability issues.

We need to focus on practicality, not sustainability. We have a significant problem with Inflow and Infiltration that is not fixable, bulk of problem isn't in the sewer system, it lies under the houses where we have to go to the private homeowner to dig up basements to fix leaking pipes. It is more economical to take all the water and treat it at the system. Plants work very well, leaving the water in the sewer makes sense versus stormwater control.

Advocates "blending" by engineering systems to allow for fluctuation in flows to stage treatment to minimize size of plant required. NPDES Part 1 process works. Water quality is defined by scientists, chemists to set limits, self-monitoring, penalties for non-compliance. However, requirement to have each component of system meet the limit is impractical. Could have tremendous cost savings if allowed to blend.

DEP Wastewater Treatment Design Manual prescribes processes. This manual should be eliminated. Many of technologies (over 100 new ones) are not included. Problems arise when permit reviewers just go by the book

Eliminate the Part 2 permit process. The engineering seals are on the designs and specs for the plant to meet the limits, don't need additional review by DEP staff. Require the engineers to have error insurance and let the "courts handle problems". Most engineering firms have a unit to deal with court investigations, therefore DEP review doesn't necessarily prevent problems from happening. Let innovation takes its place. Suggest possible peer review system.

The Chapter 94 report is a good idea. This report summarizes flows for past 5 years and projects forward 5 years, thus forcing the system to highlight capacity need and adequacy of infrastructure. Require an energy audit as part of the 94 report (one-time)

and identify ways to promote energy efficiencies. Save DEP time by developing protocol, a standard form through the internet to submit electronically.

PENNVEST continues to be best source for funding, but the well is running dry. Systems that have been successful in getting funding in the past, now funds are limited and projects aren't getting funded.

PENNVEST is a model for a revolving loan program, use PENNVEST for distribution. However, requirements placed on PENNVEST have "taken away their shine". Application process is extensive. Payment process is paper intensive, audit requirements extensive. Need to minimize the paperwork, compared to local bank requirements to save more money for projects.

Applications are taking longer and are more expensive than tax-exempt bond applications to complete, due to requirements for engineering design, historical studies. Need to have a line of credit with bank due to uncertainty as to when first check arrives. Too much red tape. Overall, there is just a large amount of paperwork that is needed – may be overkill.

Banks don't care what the applicant does as long as they pay money back; where PENNVEST has to have enough information to rank the project, user rates and household income for affordability and targeting and to determine whether there will project delays due to the ability to get a permit.

The requirement that DEP permits be in hand prior to application for PENNVEST funding may possibly delay some types of projects, it is an understandable requirement which allows the PENNVEST dollars to be spent in an expeditious manner. There can be some compromise, if the permit issues are minor and DEP can envision a reasonably quick resolution. The administrators of this program have guided its evolution to become a major force and, without doubt, the most well-thought-out program of its kind. Don't re-invent the wheel. PENNVEST needs continuing financial support.

Constant expansion of sewer lines causes a reduction in recharge and the lowering of the water table. Need to address concern that water supply being shipped downstream through sewers. Need to keep water more on site through onlot systems. Municipalities need minimum standards for private well production. Base on actual need, community need.

Take a harder look by approval agencies (DRBC, DEP) and funding agencies (PENNVEST) to see if more obvious alternatives are available than building new infrastructure, creating redundancy, adding capacity where not needed due to excess capacity existing elsewhere

Eliminate prohibition of DEP to use mine water as ground water drinking water source. Can easily remove iron through secondary treatment to easily meet drinking water standards. The alternative is to get a water allocation permit for an out of basin transfer. It can take over 5 years to get awater allocation from the Susquehanna River Basin

Commission. A better alternative is to develop own sources in the Ohio Basin by eliminating this requirement.

- **Through the legislative or regulatory process, what can be done to encourage greater local investment in infrastructure and eliminate or lessen the cost of providing infrastructure improvements?**

Limit out-of-basin allocations.

Need to include stormwater infrastructure as an integral part of water and sewer infrastructure.

Federal and state mandates will double or triple local sewer rates. Need solutions now. Our neighbors in Maryland and Virginia have responded to similar mandates by providing more than $1.6 billion in funding.

It is a struggle to keep user rates low while meeting compliance. This means no reserves for replacement and repair.

Amend the Public Utility Code to give the PUC authority to establish a Collection System Improvement Charge (CSIC) for wastewater systems, similar to the DSIC for drinking water systems.

New regulations result in the need for incurring more debt. Solution is asset management to avoid crisis funding for new regulations.

Require economic analysis of future regulations that have no measurable impact on public health or the environment.

Every municipality should have regulations requiring every homeowner to install methods for collecting rain water for re-use to minimize use of public services. Keep water runoff within property. Do this for new development, not retroactive

Enact HB2016 which is a comprehensive purchasing reform model based on the Commonwealth Procurement Code. This will also reduce litigation and provides for accountability.

Eliminate the ability of municipalities and others to use funds generated for water and wastewater services for other community services such as police, fire, traffic control, road repair, etc.

Authorities can be very efficient service providers and can operate outside of the influence of local politics. Unfortunately in some cases, authorities are taken over by municipalities who wish to cash in on their assets for short term goals. Under the current Pennsylvania Authorities Act, municipal dissolution of authorities can occur swiftly and with no public purpose. Changes to the act currently being considered in legislation

offered by Rep. Paul Clymer would require municipalities to disclose the reasons for taking over their authorities.

All providers should develop long-term infrastructure replacement plans to identify total actual need, provide training to staff on development and implementation of plans (using PRWA, WWOAP, AWWA and others to help with this effort), create system inventories based on size, etc. (asset management), enlist colleges and universities to create internships with systems to provide field experience, designate a group to oversee development of plans (DEP came to mind) with regulatory initiative. Plans should be in a standard format and updated every 1 to 5 years. Plans should include concept of regionalization; considering benefits of economies of scale, allow for proper amount of staff resources.

What is needed is comprehensive plan that identifies total needs with method for financing. Get over goal to have the cheapest user rates in the area. Need to do economic analysis on existing and future regulations.

It is time for a statewide planning agency, or have all existing agencies have the same regional offices.

Create a Regional Infrastructure District, with communities with common interests overseen by logical entity to raise revenues for use of resources for all. Public resistance will be problem. Create boiler plate procedures and standards to facilitate effective management and operation.

It is causing a lot of trouble interpreting each municipality land use ordinance. In order to improve and sustain water quality, prevent floods and improve economies, it is time to level the playing field. To do this, it is time to take away land use, land development, stormwater management and other related decisions away from local government and create a regional water management entity that has a good technical base, understands the communities and is able to provide oversight. To do this, re-write the planning codes and local land use planning requirements. As part of this effort, uniform land use regulations are also needed.

Require annual financial reports and the implementation of a private sector model on the public sector to create capital improvement plans.

Mandate an annual report from wastewater systems, much like the Consumer Confidence Report for the drinking water system. Need to add financial information to both reports. We need and annual audit of systems where results are publicized. This evaluation should include management structure and business processes to insure capability of system. Based on review of the audit, the state would give grades, with failure to manage the system according to best management standards would result in “bankruptcy”, “take over”, “fines”, or some other resolution.

Regulations established in accordance with Act 537 are currently under review. Modifications to them should be considered to address sustainable infrastructure.

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

To further promote wise water use and operating efficiencies for systems not regulated by the PUC, institute a comprehensive water conservation policy similar to 52 Pa. Cod Section 65.20.

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

Extend PUC jurisdiction to all currently non-jurisdictional systems, with consideration given to implementing an interim regulatory process whereby the PUC could assert jurisdiction on an as-needed basis, such as for complaint handling and rate cases and relinquish jurisdiction until needed.

General:

- **Aside from the issues identified above, are there other issues you are facing that you think the Task Force should consider?**

Another problem is toxins. 20% of cancers are linked to exposure of some contaminants. Including mercury, PCBs, petroleum and organic products, antibiotics and steroids, hand soaps and detergents in the list of chemicals discharged into our water systems everyday. Another key source of toxins is landfills and the trash we throw away…liners will eventually break. Can cause cancer, highly resistant bacteria.

Concerned with pharmaceuticals, 80,000 chemicals now being discharged into waters. Need to test for these chemicals. With that in mind are we asking for $10 when need $100?

Use manure, but not sludge from treatment plants for land application until sure what chemicals in it.

What about lawn treatment, lawn services and fertilizers. We are pushing too much on farmers. Need to stop competing with neighbors for the most beautiful lawns.

Global climate change, global warming, if it is proven to be a problem. This increases the incidence of high intensity precipitation and decreases the number of low intensity events. The result is to lower input to ground water and increase runoff.

DEP recently sent a notification to dam owners to inform them of the need to upgrade spillways to handle 36 inches rainfall in 24 hours. This is unrealistic. How often would this occur and if it did, it would be disastrous. DEP is also refusing to share the letter with municipality where dams are located, only being sent to owners. As an example, the cost to meet this requirement is $2.6 million for one community to meet these new upgrade requirements.

The precautionary principle of do no harm first should be considered in the development of task force recommendations. Concerned that this effort is so singularly focused on cost sustainability for infrastructure that it is used to undermine efforts to improve water quality. There are some strong feelings about the effect of Total Maximum Daily Loads (TMDLs) on treatment plants and the costs of upgrades to meet them. The issue of appropriateness or relevancy of TMDLs is beyond the scope of this effort. The task force should assume that in order to meet future water quality goals, additional costs will be required. Cost alone should not drive the decisions to pursue those goals. Creativity in the regulatory environment is necessary. A whole array of approaches such as effluent trading, watershed management and strategic alliances of infrastructure operators should be put on the table for discussion.

- **What recommendations do you have for the Task Force to address these issues?**

Need an immediate moratorium on landfill creation for a time and permanent moratorium along major rivers to minimize impact of toxins.

It has been easy for DEP to concentrate on perhaps 20% of the total problem, the community water and wastewater systems, while paying “lip service” to the real problem, the agricultural community. If they spent the time, effort and money on them, the pollution problem could be solved.

The final report of the Task Force should be a living document.

The opportunity for public input is very limited; additional opportunities should be provided as the task force proceeds.

DEP and the Task Force need to get hands on experience and see successful alternatives such as Broad Top.

Case Studies/ Specific System Examples Cited for Future Reference

Plan for Lehigh Valley looked at three options for 2020 – one do nothing, two consolidate into 3 entities, third is consolidate into one big system. The third option was

determined to be most cost-effective by saving $55 million per year in duplication of resources and functions through sharing of excess capacity, lab resources and implementation of management decisions at technical rather than political level. (Sprawl does not have to be a direct result of consolidation, with consistency between land use planning at regional level) Study will be published in early June.

Investigation Papers completed by the Public Utility Commission on main breaks and public notification policies. (May 8)

The Green Vision for East Liberty as described through written testimony provided by Perkins Eastman.

Southeastern Pennsylvania First Suburbs Project (May 15).

Citizen's Advisory Council paper, "Pennsylvania's Approach to Integrated Wastewater Management: A New Paradigm."

Testimony of a number of authorities captured various levels of needs for a number of reasons including nutrient removal, combined sewer overflows, infrastructure replacement. Capital planning, budgets, user rates of between 0.5 and 2% were cited. Testimony to focus on includes:

1. Wyoming Valley Sewer Authority (May 8 and May 27)
2. Mahoning Township (May 27)
3. Scranton Sewer Authority (May 27)
4. Williamsport Municipal Water Authority (May 27)
5. Lancaster Area Sewer Authority (May 29)

Case history of City of Huntingdon presented by Raymond Myers, CET Engineering. (May 21)

Attachments:

Specific answers to Task Force questions supplied by:

1. Blair Fleischmann
2. Melanie Ryan Hesse, RLA, ASLA
3. KLH Engineers
4. Pennsylvania Water Environment Association