Sustainable Infrastructure Overview

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Bureau of Water Standards and Facility Regulation
Statewide Committee
State Water Plan
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Why are we here?

• Provide Overview of the Initiative
• Need to start taking a more comprehensive look at our water infrastructure
• Solicit Input and Support
• Different Way of Thinking
  – Not something new, something part of our everyday jobs

Goal: Keep Pennsylvanians Working Repairing Pennsylvania’s Infrastructure

Action Item #4
Launch Rebuild Pennsylvania to repair the aging infrastructure with over $700 million to accelerate progress in the next three years. With these funds, over the next three years at least 1,000 bridges will be repaired, all state-owned hazard dams will be addressed and matching funds will be provided to help local government repair their dams. Capital funds will provide targeted infrastructure improvement necessary for business expansion, completion of a recent number of flood mitigation projects, improvement on state rail/air/bridge lines and expansion of the capacity of regional airports.

Details
PennDOT will commence the accelerated bridge repair program immediately, the balance of the infrastructure improvements require the passage of the Governor’s budget proposal

From Governor’s Office Presentation
Over $250 Million in Infrastructure Improvements in Twelve Months

<table>
<thead>
<tr>
<th>Non-Capital Roads</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge Repair</td>
<td>$300k</td>
<td>$350k</td>
<td>$360k</td>
</tr>
<tr>
<td>Inter-related Site Repair</td>
<td>$125k</td>
<td>$200k</td>
<td>$10k</td>
</tr>
<tr>
<td>Non-Structural Repair</td>
<td>$1k</td>
<td>$10k</td>
<td>$0k</td>
</tr>
<tr>
<td>Non-Structural Repair</td>
<td>$2k</td>
<td>$3k</td>
<td>$0k</td>
</tr>
<tr>
<td>Non-Road Traffic Repair</td>
<td>$10k</td>
<td>$15k</td>
<td>$0k</td>
</tr>
<tr>
<td>Total Non-Capital Roads</td>
<td>$450k</td>
<td>$500k</td>
<td>$40k</td>
</tr>
</tbody>
</table>

Non-Operating Funds:

<table>
<thead>
<tr>
<th>Fund/Source</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRY/WRD Local and State</td>
<td>$2.3M</td>
<td>$3.4M</td>
<td>$3.0M</td>
</tr>
<tr>
<td>DHEC Highway / Safety Projects</td>
<td>$5.0M</td>
<td>$5.0M</td>
<td>$7.0M</td>
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<tr>
<td>Total Non-Capital Funds</td>
<td>$1.4M</td>
<td>$1.3M</td>
<td>$1.0M</td>
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<tr>
<td>Total Non-Operating Funds</td>
<td>$2.3M</td>
<td>$4.7M</td>
<td>$4.3M</td>
</tr>
</tbody>
</table>

Executive Order

- Sustainable Water Infrastructure Task Force
  - 24 Members
- Identify the following:
  - The "gap" between financial need and available resources
  - Cost savings due to non-structural alternatives
  - Actual costs for providing services
  - Recommendations for promoting components of Sustainable Infrastructure (more later)
- Revise existing policies and procedures, guidelines and regulations to insure consistency with the principles of Sustainable Infrastructure

Sustainable Infrastructure (SI)

What does it mean?
Sustainable Infrastructure

Just the latest buzz-word - that will soon go away?

NO

SI is an umbrella concept that is the motivator for existing State infrastructure-related programs, plus additional programs, or a refinement of existing programs, that might be added to reinforce the concept.

What started SI?

Recognition, on a national scale, that:

- Much of our water and sewer infrastructure is in bad condition and getting worse.

- The government has shallow pockets

- The utilities can work more effectively and efficiently to improve delivery and control costs

2002 EPA Gap Report

The Purpose - To reach a common, quantitative understanding of the magnitude of increase in investment needed.

http://www.epa.gov/owm/gapreport.pdf
Our piping system was largely constructed over the past 60 years.

National Funding Gap – Coming Peak

So what is sustainable infrastructure?

It is usually defined as the four SI "pillars"

- Better Management (Asset Management, Effective Management)
- Full Cost Pricing (Infrastructure Financing)
  - Adequate rates, subsidy where necessary
- Water Use Efficiency (System Efficiency)
  - Optimized operation
  - Water and Energy Conservation
- Watershed Approach: Innovative solutions
  - State Water Plan
  - Regionalization
  - Non-structural Alternatives
Crosswalk

Pillars and the Governor's Order

- Better Management
  - Effective System Management
  - Asset Management
- System Efficiency
  - Efficient Operations
- Infrastructure Financing
  - Sustainable Water Infrastructure Task Force
- Watershed Approach
  - Regionalization
  - Maximization of Non-Structural Alternatives

DEP Programs
Link to SI Initiative

- Describe these programs by "pillars"
- Link to the Executive Order Components
- How do we interconnect programs more effectively to promote SI?
- What do we need to do differently?

Better Management

- Operator Certification
- Workforce Development
- Capability Enhancement
System Efficiency

- Workforce Development
- Capability Enhancement
- Water Conservation Technical Assistance Center
- Energy Conservation and Efficiency Initiatives

Infrastructure Financing

- Focus of the Governor's Task Force

Watershed Approach

- State Water Plan
- Integrated Water Resources Management
- Green Infrastructure
- Sewage and Water Facilities Planning and Permitting
- Regionalization
What is the PA Gap Study?

• Goal – Identify:
  - Utility Cash Flow Needs, 20 years
    1. Capital
    2. O&M
  - Cash Availability
    - Existing user charges
    - "Affordable" future user charges
    - Available subsidies

What is the PA Gap Study? (continued)

• Quantify the "Gap" (#1 above minus #2 above)
• Promote Needed Change
  - State assistance program methods & targeting
  - Subsidy distribution criteria
  - Encourage better management methods like AM
  - Increased user charges where necessary

What is the PA Gap Study? (continued)

• Study Method
  - Joint State/EPA Study Design
  - State collects data, 10% of systems (ongoing)
    - 196 Wastewater Systems
    - 158 Drinking Water Systems
    - Selection by Water Basin, based on flow or population served
  - EPA HQ/Contractor data analysis
  - Joint EPA HQ/State report preparation
Next Steps

- Strategic Planning Effort
- Support Sustainable Water Task Force
  - Report Due October 2008
- Contact Information
  - Division Phone Number: 717-705-4090
    717-787-0122