

The Sustainable Path Forward for the Nation's Water Infrastructure

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MOVING WATER FORWARD

History and Background of NAWC

- Founded in 1895 in Pennsylvania by small group of private water companies
- Only investor-owned utilities until 2009
- Integrated PPP-company Water Partnership Council on June 1, 2009
- Today has members in every region of U.S. ranging from large companies owning, operating or partnering in hundreds of communities to small utilities with a few hundred customers
- Population served by private operators:
 - Investor-owned water: 42 million
 - Investor-owned wastewater: 6.7 million
 - PPP: 31 million

Current Water System Challenges

- Rising costs for compliance with new regulations
- Providing expected service
- Aging and deteriorating infrastructure
- Security and reliability of supply
- Extensive capital investment needed (the “Gap”)
- Declining household and industrial consumption
- Customer rates that generally do not support sustainable systems

Workshop Themes of Interest

1. Competing values in policy development pathways
2. Community relations for evolving infrastructure
3. The implications of choices in infrastructure development and how to communicate them

Perfectly Aligns With:

SUSTAINABLE WATER SYSTEMS: STEP ONE - REDEFINING THE NATION'S INFRASTRUCTURE CHALLENGE



THE ASPEN INSTITUTE
ENERGY AND ENVIRONMENT PROGRAM

Aspen Institute Dialogue

- Convened May 2008 through March 2009
- Members of dialogue were approximately 25 individuals from:
 - Public and private water utilities
 - Federal, state and local government regulators
 - Academia
 - Private industry and consultants
 - Environmental advocacy groups
- Initial focus was how water infrastructure should be funded – especially private versus federal?

Objective: Provide Clarity and Leadership

- A clear sense of what is a sustainable water infrastructure?
- The amount of investment needed to create and preserve it?
- Where investments should be made, and by whom?

Three Key Principles Emerged

1. The traditional definition of water infrastructure must evolve beyond gray, to green . . .
2. The new definition of sustainable water infrastructure needs to be embraced by all public and private entities involved in water management, with shared roles and responsibilities
3. A watershed-based approach is required for integrated management of drinking water, wastewater and storm water services

The Sustainable Path

- Concurrence developed that a crisis-driven approach based on the “investment gap” is wrong approach to meet growing challenges
- Rather than looking ahead with apprehension, a new framework that looks ahead with intention is needed
- The “Sustainable Path” defines this ideal, in which all financial and natural resource costs are managed optimally and transparently

20 Elements of the Sustainable Path

- Transparency
- Good governance
- Costs of development
- Security & emergency preparedness
- Stewardship
- Climate change mitigation & adaptation
- Modernized plant operations
- Watershed & regional optimization
- Regulatory optimization
- Affordability
- Public outreach & stakeholder involvement
- Full-cost pricing
- Asset management
- Conservation & water efficiency
- Energy management
- Advanced procurement & project delivery methods
- Environmental impacts
- Network optimization
- Workforce management
- Research & technological, managerial innovation

Aspen Dialogue Recommendations

1. Redefine water infrastructure as one that integrates built infrastructure components with protection and restoration of its supporting natural watershed infrastructure and the use of emerging small-scale water technologies and water management solutions.
2. Watershed-oriented entities, at scales and compositions appropriate to local conditions, should manage the redefined water infrastructure according to the principles of the Sustainable Path (“PoSP”).

Aspen Dialogue Recommendations

3. Federal, state and local officials should adopt watershed-oriented policies and regulations that incorporate the PoSP. Resource management entities and water utilities should adopt the PoSP in their operations and administration.
4. Water utilities must lead in building partnerships that will use integrated water resource planning and management as a principal tool for preserving and restoring water resources while meeting human and ecosystem needs for water in the context of a changing climate.

Aspen Dialogue Recommendations

5. Federal, state and local governments and other entities should remove institutional barriers and practices that impede sustainable water resource management according to the PoSP.
6. Utility and system managers as well as regulators and governing boards should ensure the price of water services fairly charges customers the total cost of meeting service and sustainable water infrastructure requirements, subject to concerns about affordability.

Aspen Dialogue Recommendations

7. Water utilities should employ a variety of practices on the path to sustainability, including: transparency in governance and operation; public outreach and consultation; integrated water management; asset management; workforce management; conservation and efficiency (both water and energy); advanced procurement and project delivery methods; adaptation to and mitigation of climate change; research and development; and technological and managerial innovation.

Aspen Dialogue Recommendations

8. Federal and state agencies and water utilities should provide assistance, especially to small systems, to improve financial, managerial, technical and planning capacity to implement PoSP.

9. The federal government shares responsibility for achieving the Sustainable Path. Therefore, federal funding should target investments in 21st century priorities including: “green infrastructure”; water and energy efficiency; climate change adaptation; clean and safe water for economically distressed households; R&D; and incentives for sustainability.

Aspen Dialogue Recommendations

10. Water utilities should apply appropriate practices to assist low-income customers and federal and state funding agencies should direct affordability support principally towards households in need, except where community-level assistance is more effective and efficient.

Some Observations

- Under-investing, or targeting investments in water resources, infrastructure and management unwisely, has serious social and economic consequences in the present and in the future
- Sustainable water infrastructure requires cooperative strategies and actions among legislators, environmental and economic regulators, and public and private service providers
- Regional rather than national solutions will be required due to differences in hydrology, climate, demographics and governance; purely local efforts likely to be not fully successful

Probably All Sounds Pretty Familiar!

- We know what to do – no shortage of ideas and experts, technological and management solutions
- We too often lack the political – and economic/financial – will to act
- Even when we find the will, governance structures too often are not aligned
- Requires strong leadership in private and public water sectors, and consistent and resilient political leadership

Thank You!

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