

Community Resilience Panel: Water & Wastewater Standing Committee Meeting

MEETING DATE: November 9, 2015
TIME: 1:45 pm EST to 4:15 pm EST
LOCATION: National Institute of Standards and Technology (NIST), Gaithersburg, MD
ISSUE DATE: December 4, 2015

ATTENDEES:

Attendee	Affiliation
Michael Stuhr (Chair)	Portland Water Bureau
Jason Averill	NIST
Don Ballantyne	Ballantyne Consulting
Mike Britch	Tualatin Valley Water District
Allan Eustis	NIST
Stephen Gerwin	Howard County Bureau of Utilities
Stanley Gilbert	NIST
David Goldbloom-Helzner	US Environmental Protection Agency
Dryver Huston	University of Vermont
Michael McMahon	HDR Engineering Inc.
Whit Remer	American Society of Civil Engineers
Sunil Sinha	Virginia Tech

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NOTES BY: Jason Averill, NIST

1. Welcome and Introductions

Michael Stuhr (Chair) led introductions of the participants and reviewed the goals for the meeting. He also asked if anyone would be willing to take on the roles of Vice-Chair and Secretary for future meetings. Sunil Sinha volunteered to take on the position of Vice-Chair and Dryver Huston volunteered to be the Secretary for future meetings.

2. Discussion of the first question for report-out: What are existing codes, standards, guidance, goals, and/or protocol that have been published, or are in-process, in your respective sectors?

The participants agreed that local codes are the dominant province for existing underground pipes, which results in variation in requirements, and thus, performance. It was also discussed that there are a lot of different design standards available such as the ASCE pipe design standards for material and loads, and AWWA design standards. Participants also listed a number of other documents to provide guidance on performance such as ASCE TCLEE Monographs, AWWA J100, American Lifelines Alliance documents which are specific to seismic, and EPA Guides which focus on hazards such as flood drought, and earthquake resilience. However, it was noted that there are few operational requirements.

3. Discussion of second question for report-out: What are the largest gaps and needs within your sector that need to be addressed in resilience planning and guidance products?

As noted following the first question, the group felt that one of the largest gaps was that there was little guidance available for system operations and flexibility. Moreover, participants stated that there was little planning for emergency response, particularly for wastewater and small utilities. However, it was pointed out that emergency response was taking place frequently every time a leak occurs or emergency repairs need to be completed. This meant that many utilities, particularly in cold-weather locales, practice emergency response efforts routinely. One of the main challenges for the sector is to building financial support to implement resilient solutions into water and wastewater systems. Part of this challenge also includes determining how to measure resilience in water and wastewater systems. Furthermore, developing a methodology to prioritize resilience for mitigation and capital planning was seen as a need.

Best practices were also seen as an area that needs work to come to agreement within the sector. Additionally, translating resilience goals to actual resilience plans was identified as an important existing gap. Participants also agreed that performance standards are needed to incorporate acute soil hazards relating to earthquakes and coastal wind storms. Moving forward, there was concern within the group regarding how to engage the next generation of water and wastewater challenges, including the aging infrastructure.

4. Discussion of the third question for report-out: Identify significant interdependencies and gaps with other sectors that impact resilience.

Discussion regarding interdependencies with the water and wastewater sector was relatively short. The group felt that the sector had interdependencies with most other infrastructure systems including fuel, power, and transportation. Additionally, the group noted other key dependencies including emergency response, chemicals for disinfecting water, communication systems for coordination in recovery, and staff to carry out recovery tasks. The group also discussed the need for regulatory flexibility, stating that some water is better than no water even if additional treatment is needed, and that interstate mutual aid can be very difficult due to municipal codes and state laws.

5. Discussion of the fourth question for report-out: How do we address the needs and gaps we identified?

When discussing how to approach the solutions, the group felt that it was necessary to keep in mind that utilities work on limited budgets, and it was best to provide guidance with optimal solutions. That is, it would be best to focus on solutions that provide optimal “bang for the buck.” For example, rather than focusing on capital investments, it was felt that developing solutions for the operational side of water and wastewater systems would be useful and more easily implemented. Moreover, leveraging technology with the experience of current operators was also seen as having potential to make systems more resilient.

In developing guidance for utilities and communities, participants stated that any products developed by the standing committee needed to be clearly addressed to a target audience. The group felt that a

framework containing lessons learned specific to water and wastewater could be developed to raise the issues, but wanted to ensure that the document would not be used as a scare tactic.

Participants agreed that identifying champions in communities was a good first step, but that providing them with adequate knowledge and information to be successful was key. Furthermore, the group felt that guidance documents produced should be 1-2 pages and should be useful to operators.

6. Discussion of the fifth question for report-out: Are there others we need to engage to help us address these needs? Others may include SMEs/groups not at the meeting in your sector or SMEs/groups from other sectors.

Participants identified a number of other groups they wanted to reach out to in order to increase participation and get a broader stakeholder group, including:

- Water Environment Federation
- Firefighters and Emergency Responders
- Association of State Drinking Water Administrators
- American Water – a private utility
- Other standing committees
 - Transportation
 - Energy
 - Communications
 - Data, Metrics, & Tools
 - Social & Economic
- State and local governance
- Non-Governmental Organization (e.g., League of Cities, Council of Governments)