



Preparing for Failure

U.S. Water Utilities Often Need Guidance to Manage and Avoid Costly Claims and Legal Issues

By Bruce H. Tobey & Katherine Martel — Apr 15, 2014

Like it or not, water utilities are destined to experience water main breaks. Given the age of the nation's water infrastructure systems, expansion of construction activities and other issues, it is inevitable that water main breaks will occur. Whatever their causes, failures happen and costly claims and legal issues follow. Fortunately, utilities are no longer helpless in handling these challenges, and best practices can provide more cost-efficient and effective solutions.



In January, the Water Research Foundation (WaterRF), an internationally recognized leader in cutting-edge water research, released an industry practices guide for drinking water utilities on legal protection and claims management issues before, during and after infrastructure failure events. The WaterRF's water utility guide arms companies with a comprehensive set of guidelines when water main breaks occur and assists utilities in crafting strategies to ensure emergency management readiness, improving customer service and reducing vulnerability to the risk of claims.

The report, "Best Practices for Water Utility Legal Protection and Claims Management from Infrastructure Failure Events," captures the work of a team of three firms with national reputations in the fields of environmental research, municipal infrastructure law and risk management: The Cadmus Group, Inc., Pannone Lopes Devereaux & West LLC, and DataRisk LLC.

The team's extensive effort proceeded through several tasks to complete this first-ever best practices guide for water utilities, whether the utility is owned and operated by private investors or by a public entity. The researchers' four-part investigative process included:

- Collecting and reviewing available information on utility practices from current literature, participating utilities, and other stakeholders, including industry association committees, contractors, insurance providers, and risk management consultants;
- Preparing a literature review, utility case studies, and a summary document of stakeholder interview findings;
- Developing guidance and recommended practices based on project findings; and
- Compiling checklists as quick references on managing damage claims and legal issues before, during and after infrastructure failure.

DC Water

Critical to the team's success was the contribution of many pioneering public and private water utilities that participated as stakeholders in the study. One important participant was the District of Columbia Water and Sewer Authority (DC Water).

With a service area measuring approximately 725 sq. miles, DC Water provides retail water and wastewater sewer service to the District of Columbia and wholesale wastewater treatment service to Montgomery and Prince George's counties in Maryland and Fairfax and Loudoun counties in Virginia.

Tanya DeLeon, risk manager for DC Water, calls the WaterRF project "a powerful discussion that begins a broader and deeper dialogue across the country" for water utilities that face shared challenges but deal with them through differing sets of guidelines and procedures. With deserved pride, DeLeon notes that DC Water is "at the forefront of managing claims," explaining that DC Water's procedures are considered best practices for the industry.

"We work hard to educate our customers and communicate with them at all times," DeLeon said. "But we are also not willing to be held accountable for a claim when we didn't cause the problem."

When DeLeon began her work at DC Water in 2002, the average annual pay-out for claims was \$4 million. Within one year and after the implementation of a clear set of claims management guidelines, she was able to reduce that expense to \$1 million.

Despite the significant savings, the utility company's workload was daunting. In January 2014 alone, DC Water fielded nearly 12,000 emergency calls for service. While bitter cold weather contributed to an increase in the number of calls received to fix water breaks and repair leaks, the normal January caseload drives DC Water crews to handle upwards of 100 calls per day.



This effort puts pressure on the workforce for rapid response when necessary, all the while, managing regular daily maintenance. It also causes stress to already-strained budgets, and the inescapable claims that follow.

Conclusions

Working with input from DC Water, other stakeholders and research materials, the study team's final report presents a vast body of data and a variety of conclusions and recommendations.

For example, the researchers' review of case law and other legal guidance shows that the standard of care to which water utilities are held varies from state to state. The realization led to the critical need for utilities to be well-prepared for potential claims. To achieve this necessary state of preparedness, water utilities and their legal counsel should explore liability issues together to gain a common understanding of governing law and the possible exposure that may be faced.

The literature review by the study team revealed a wealth of guidance on emergency planning, including data needs related to the management of damage claims. On the other hand, very little information was found in the literature relative to insurance requirements for water utilities to protect against damage claims.

Additionally, it was found that having an asset management program in place can play a key role in minimizing damage due to infrastructure failure, particularly if the program had a special focus on the valve management program. Knowing the exact location of each valve, whether the position of the valve was open or closed and having performed regular operability maintenance of the valves, made it more likely that the utility's crew could quickly isolate the area of the break, and thereby, minimize the amount of water discharged and damage to surrounding properties.

Seven case study investigations were also conducted that identified lessons learned, and which served as a resource for the study team to formulate recommendations on steps a utility should take in three areas: 1) before a break occurs; 2) while a failure event is underway; and 3) in the aftermath of an incident. The three areas included these recommended steps:

Before a Break Occurs

1. Asset management program development and implementation, including inventory, inspection and maintenance.
2. Effective system mapping through the use of GIS, since effective documentation of assets allows for a quick response to a failure event.
3. Thorough documentation of new installations or repairs and the inspection of utility asset conditions when new customer connections occur.
4. Response crew communications training, so appropriate information is shared during an incident and promises that cannot be kept are not made.

5. Insurance coverage review with providers to assure that critical assets are adequately protected.
6. Emergency response plan updating and staff training exercises with the updated plan.
7. Claims management strategy planning with input from all responsible parties and support from utility management, with access to damage claim forms for use by customers and other affected property owners.

During a Failure Event

1. Isolation of water main, repair completion, and return of the main to service.
2. Collection of photos and video documentation of the failure site and damaged properties.
3. Communication with customers and property owners who experienced damage from the failure event, with access to a claims form with instructions.
4. Collection of maintenance records, customer data, cost data, and other historical information from utility departments that may be needed during the investigation or claims processing.

In the Aftermath of an Incident

1. Providing public outreach appropriate to the type of failure event and the extent of damage.
2. Ensuring adequate staff and outside resources are available to conduct an effective defense of the utility's rights.
3. Determining the cause of the infrastructure failure to help identify and prioritize additional maintenance needs beyond the initial pipe repair, and to pursue cost recovery if third parties are responsible.

With these best practice recommendations now available, water utilities have a vital resource at their fingertips that was nonexistent in the past. Although the steps outlined here deserve thoughtful consideration, they should not substitute for a closer look at the full report and a viewing of a series of videos that have been produced by the WaterRF, which complement the research project. Likewise, water utilities must continue to demonstrate the spirit of cooperation that existed during the multi-year study project to ensure that further best practices emerge that will minimize exposure to risk and promote excellent customer service before, during and after infrastructure failure events.

As a 12-year risk manager veteran of DC Water, DeLeon is first in line to continue contributing

to the progress this study provides. “Water utilities are like a strong brotherhood or sisterhood with common interests,” she said. “We all provide a unique and valuable service. Anything that we can do to help others, we do it.”

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