

Project Update



Evaluating Risk Management Frameworks and Tools, and Their Application for Managing Source Water Risks in the United States (project 4748)

Reporting Period: October 2018 - February 2019

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Activities and Progress Since Previous Update

During this project period, the research team has been developing guidance for utility implementation of the Source Water Risk Management (SWRM) Framework. The approach reflects a generalized risk management framework (drawn from ISO 31000, and also known as the “Australian/New Zealand Standard” [AS/NZS 4360:2004 and 2009]) as defining the overarching steps of an iterative process.

Within this overarching framework (in which the key steps may be seen as similar to a menu with headings defining a series of dinner courses: appetizer, entree, dessert, etc.), various options and templates are offered for helping to execute each step. Continuing with the dinner menu analogy, the suggested implementation approaches are akin to the choices on the main menu for the appetizer course, main entrée, dessert, etc.

The templates and approaches offered in the guidance, under each step in the SWRM Framework process, are drawn from various existing tools and standards. The specific materials are intended to be largely a hybridized assembly of materials from the AWWA/ANSI G-300 Standard and the World Health Organization’s Water Safety Plan. Additional materials are included as deemed useful, such as those drawn from other frameworks (e.g., Techneau), as well materials developed by the research team.

The team is in the midst of pilot testing the guidance for implementing the SWRM Framework at 3 U.S. utilities.

Work to Be Performed in the Next Reporting Period

In the next six-month project period, the team will focus on completing the guidance and associated pilot testing, and then conducting an evaluation of the guidance and pilot test for the SWRM Framework. The team will concurrently work on upgrading/refining the associated guidance and developing final project work products as part of the process.

Findings of Significance

The findings to date indicate that while many utilities have actively sought to better understand the potential sources and types of contamination risks present in their source waters (i.e., risk identification), there has been relatively little ability for most utilities to move forward with more systematic and comprehensive risk management activities. As such, the team is focusing its SWRM Framework and associated guidance and pilot testing on the steps that move beyond risk identification, move forward with risk assessment/characterization and prioritization, and then to identifying, evaluating, and selecting risk mitigation options to address the priority risks.



Benefits to the Water Community

The results of this project will help WRF subscribers and the water community better understand their options and apply strategies for moving forward with systematic assessments of their priority source water-

related risks, and to assessing and implementing strategic options to mitigate the priority risks. Options to consider include those that mitigate the adverse consequences of source water contamination, as well as the more traditional source water protection approaches aimed at reducing the probability of contamination.

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