(Un)expected Water Contamination Research

Matthew Magnuson, Jeffrey Szabo | U.S. Environmental Protection Agency

Water contamination associated with unintentional (industrial spills, natural disasters, transportation accidents, etc.) and intentional (terrorist, cyber, criminal, etc.) incidents can result in a vast array of interrelated response and recovery activities. Confounding these activities are, in addition to anticipated scenarios, the unexpected ways water systems can become contaminated. For instance, who would have thought forest fires could result in drinking water system contamination?

This presentation will discuss multiple EPA research projects that support water/wastewater utility response to and recovery from chemical, biological, and radiological contamination incidents. These research projects also help utilities determine of the extent of contamination, potential response strategies, and the effectiveness of potential decontamination responses. Further, this research assesses potential concerns related to the disposal of treated and untreated decontamination waste streams and other contaminated effluents. In this manner, water utilities can integrate all inter-related response technical aspects, and, more importantly, position themselves for response to the next incident