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Water Security Toolkit User Manual Version 1.3

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Abstract

The Water Security Toolkit (WST) is a suite of open source software tools that can be used by water utilities to create response strategies to reduce the impact of contamination in a water distribution network. WST includes hydraulic and water quality modeling software, optimization methodologies, and visualization tools to identify: (1) sensor locations to detect contamination, (2) locations in the network in which the contamination was introduced, (3) hydrants to remove contaminated water from the distribution system, (4) locations in the network to inject decontamination agents to inactivate, remove, or destroy contaminants, (5) locations in the network to take grab samples to help identify the source of contamination and (6) valves to close in order to isolate contaminated areas of the network. This user manual describes the different components of WST, along with examples and case studies.

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