



# Software for Drinking Water & Wastewater System Reliability

OTT ID #1491/1531

## APPLICATIONS

Drinking Water Distribution Systems, Wastewater Treatment Facilities, National and State Level Water Treatment Plants and Programs, Water Quality Evaluation, Optimization, and Effluent Quality Risks etc.

## TARGET PROBLEMS

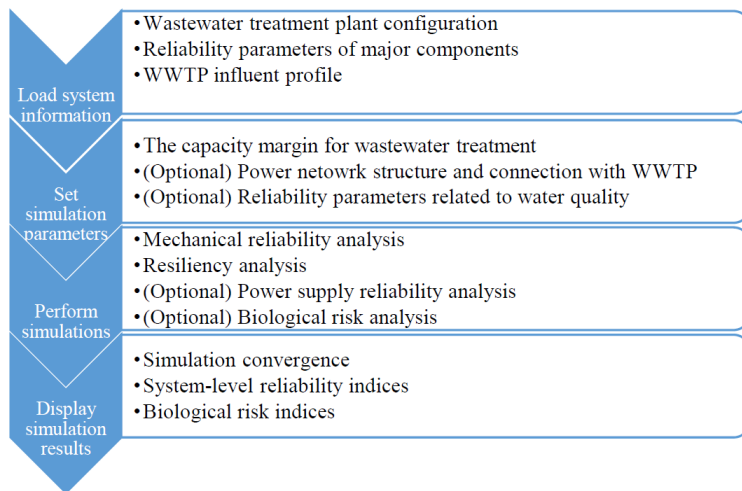
- ❖ Deteriorating water distribution infrastructures or loss of water supplies
- ❖ Water line breaks and service interruptions
- ❖ Failing of wastewater treatment facilities
- ❖ Untimely discharge of untreated wastewater

## KEY BENEFITS

- ❖ **EASY DECISION MAKING** - System reliability analysis and comprehensive decision support tool
- ❖ **HIGH PERFORMANCE** - Optimized asset management strategy for water/wastewater systems
- ❖ **RESOURCE ALLOCATION** - Informed decisions on resource allocation (e.g., budget allocation and staffing projection)
- ❖ **COST EFFECTIVE** - Implement cost effective preventive measures before system failure

## TECHNOLOGY

Inventors at University of Wisconsin - Milwaukee have developed a holistic reliability analysis for water and wastewater infrastructure that considers a comprehensive set of probable or contingency scenarios.



The software and proprietary algorithms aim to develop comprehensive decision support tools for evaluating the reliability of municipal water/wastewater systems, enabling cost-effective preventative measures before system failures.

With this solution, water system planners and operators can make informed decisions on resource allocation for reinforcing the water infrastructure. Asset management strategy can be optimized to enable effective water/wastewater utility infrastructure management despite ever evolving water sector uncertainties.



## Technology Overview



### INTELLECTUAL PROPERTY

Copyrighted software along with easy to use user interface.

### INVENTOR(S)

**Lead Inventor:** [Lingfeng Wang, Ph.D.](#)  
Professor in Electrical Engineering and Computer Sciences  
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