



2nd IWA Leading-Edge Conference & Exhibition on **Strategic Asset Management**

Outcomes for the workshop on: 'Target Definition and Assessment of Risks'

Target Definition and Assessment of Risks

■ Objectives/Context

- Develop and implement risk models and tools
 - Repair/Replace decisions
 - Reliability management
 - Incorporate sustainability and triple bottom line
- Improve data and precision for projecting likelihood/consequences/criticality
- Generate and prioritize the correct balance of OPEX and CAPEX
- Refine best practices
- Educate and train



Leading-Edge
Asset Management

Target Definition and Assessment of Risks

■ Main Gaps/Challenges

- Definition of risk (need one standard definition)
- Knowledge and training for sector/utilities/individuals
- Further quantification of social and environmental consequences and comparison to financial consequences
- Level of Service vs. Risk sharing (public vs. private); Other stakeholders (i.e. transportation); Formalize in contracts and service agreements
- Providing information about existing risk applications in differing local circumstances



Leading-Edge
Asset Management

Target Definition and Assessment of Risks

- Finding the appropriate tools for the application of risk to:
 - Sustainability and climate change
 - Organizational culture/performance/people
 - External influences
 - Regionalization (scale, economies, and watershed basis)
 - Non-Utility functions
 - Economic diversity (more vs less developed)
- Delineate the difference between engineered solutions and application of risk analysis
- Enhance Corporate Risk Applications (Succession Planning, Water Quality Level of Service, thoroughness and appropriate level of design, etc.)
- Prioritize O&M Activities



Leading-Edge
Asset Management

Target Definition and Assessment of Risks

■ Proposed Solutions

- Apply risk analysis and risk management to major water sector issues
 - Basic provision of service such as water supply, water quality, reliability, source protection, etc.
 - Climate change
 - Practical planning, standardization, legislation, and regulations based on risk, performance, and cost
 - Infrastructure decisions
 - Scarce resource allocation
 - Regional efficiency and effectiveness



Leading-Edge
Asset Management

Target Definition and Assessment of Risks

- Provide additional and needed tools to clarify concepts and principles (i.e. What is most critical? How to balance risk, level of service, and cost? Social and environmental impact? Consider risk level in decision-making)
- Provide learning and training with standardized definitions, practices, and guidelines; sharing of everyday examples; raise the profile of risk in decisions
- Continuous improvement for better data integrity
- Apply and adapt risk to diverse sets of utility needs (understanding the context in evaluations)
 - Size of utility
 - Region of World
 - Degree of Development
 - Social and Environmental performance and equity



Leading-Edge
Asset Management