



Choose certainty.
Add value.

Water Services – Risk Assessment

Identify and manage risks in the lifecycle of your water infrastructure project.

Your challenges

As global demand for water and waste water services rises rapidly, huge investment is required for the construction, refurbishment and optimisation of water networks. This critical infrastructure must be safeguarded against physical, technical and technological risks, as well as sabotage and terrorism. The general public and the environment must also be protected from potential harm caused by infrastructure technologies. To build long-term and sustainable infrastructure, investors and operators need to manage these risks and operate water networks efficiently using the latest technologies.

What is risk assessment in the context of water services?

TÜV SÜD assesses physical risks such as flooding, earthquakes, storms and other natural disasters, technical risks addressing the availability of the operational system and its components, and technological risks that arise from the adoption of new technologies such as smart water applications. We also

assess health, safety and environment (HSE) risks for the protection of people and the environment.

Why is risk assessment important to you?

Solutions providers, technology vendors, financiers, insurers and operators must be aware of existing and potential risks to water infrastructure. By assessing and managing physical, technical, technological and HSE risks, stakeholders ensure long-term, sustainable, safe and optimised solutions for water and waste water treatment plants and networks, and desalination facilities.

Our risk assessment solutions

■ As-is analysis

Applying our experience and best practices, we collaborate with clients to systematically develop a risk catalogue using risk analysis tools and methods. Our experts then perform an as-is analysis, such as screening or in-depth analysis, of your planned project or existing system.



■ **Assessment**

The criteria of our assessment services are based on your priorities. We perform assessment based on the as-is analysis and compare findings with strategic goals. Our assessment can include Quantitative Risk Analysis (QRA), Fault Tree Analysis (FTA), Event Tree Analysis (ETA), Human Reliability Assessment (HRA), Reliability-Availability-Maintainability-Safety (RAMS) and HazardPro.

■ **Determining risk mitigation measures**

We support you in evaluating, prioritising and determining the potential savings of risk mitigation measures. Our experts specify risk management systems and prepare Crisis and Disaster Management plans using modular emergency tools. We also recommend the implementation sequence and offer implementation consultancy.

■ **Evaluation of measures**

Following implementation, new measures are evaluated to determine effectiveness. Our experts can audit and potentially certify the implemented management system. We also assess the new as-is status and system documentation.

■ **Technical and environmental due diligence**

We assist you in detecting and evaluating technical and environmental risks in plants, networks, buildings and in the soil. Our experts undertake systematic consideration of the actual technological status, as well as the relevant environmental legislation and international standards. We also work with you to develop and evaluate risk mitigation and improvement strategies.

Your business benefits

- **Save money** – by making astute investment decisions that ensure water infrastructure safety and security, guarantee water supply and waste water treatment availability, and increase water, energy and material efficiency.

- **Minimise risk** – by establishing an effective detection and prevention system, thus reducing liabilities and increasing emergency preparedness.
- **Gain a competitive edge** – by applying the most innovative and optimised water solutions.
- **Benefit from an expert partnership** – with our technological expertise combined with bundled risk assessment and fault detection capabilities.
- **Access global support** – with TÜV SÜD's worldwide network and its commitment to developing the water sector in all key markets.
- **Achieve certainty, transparency and credibility** – with our independent evaluation of the effectiveness of your investment decisions.

Why choose TÜV SÜD?

TÜV SÜD is trusted for independence and impartiality. We ensure neutrality and transparency for your projects and add value to your enterprise. Our systemic and interdisciplinary approach covers all phases of the water lifecycle value chain, from planning through to construction, commissioning and maintenance. By applying early project-related integration across the entire value chain, we help you to manage risks from the onset.

With our international expertise and local market knowledge, we customise solutions to your individual needs. In addition, our vast experience as a damage assessor and conflict mediator enables us to identify and mitigate all relevant risks.

Choose certainty. Add value.

TÜV SÜD is a premium quality, safety and sustainability solutions provider that specialises in testing, inspection, auditing, certification, training and knowledge services. Represented in over 800 locations worldwide, we hold accreditations in Europe, the Americas, the Middle East and Asia. By delivering objective solutions to our customers, we add tangible value to businesses, consumers and the environment.

Related services

TÜV SÜD provides the following related services:

- Water Services – Optimisation
- Water Services – Desalination
- Water Stewardship and Water Footprint
- Safety Audits and Disaster Management
- Water Services – QAQC