



DHI SOLUTION

WATER SAFETY PLANNING

Safe water supply • Health risk management • Operational monitoring • Training

SAFE AND CLEAN DRINKING WATER IS A BASIC HUMAN RIGHT

Safe and clean drinking water and sanitation are also basic factors determining the level of public health and thereby, the wellbeing of all people, rich or poor. Access to these fundamentals is a basic human right. It is essential for the full enjoyment of life and all other human rights (UN General Assembly, 28 July 2010). In developed countries, the public water supply is generally good and reliable. However, outbreaks of water-borne diseases are still commonplace and of great concern. In less developed countries, the public water supply is often intermittent, of poor quality and poses a significant health risk. Therefore, there is an immediate need for solutions that enable continuous provision of safe and clean drinking water in both developed and less developed countries.

HEALTH-BASED RISK MANAGEMENT IS THE MOST EFFECTIVE

Health-based risk management from source to consumer is the most effective means of consistently ensuring safe and clean drinking water supply. In the WHO Drinking-Water Guidelines, such an approach is termed Water Safety Planning (WSP). WSP is applicable to all water supplies regardless of location and size of the supply.

As safe and clean water is a basic human right and very important to the wellbeing of society, the water supplier accepts and bears a large responsibility for this. WSP implementation is the best way to effectively shoulder this responsibility. All the technical knowledge and skills available in the specific water supply are required and subsequent success relies on continued improvements. Thus, the water supplier must do most of the work during implementation of WSP for comprehensive knowledge and ownership. Consultants can assist in training, guiding and keeping the process on the right track.

INCREASED PUBLIC AWARENES AND STRICTER REQUIREMENTS

The focus on drinking water in the media has created an increased public awareness of safe drinking water and higher expectations. WSP includes documentation and provides the confidence needed to meet these expectations.

We provide consultancy services related to all aspects of implementation of water safety plans.

SUMMARY

CLIENT

- Water supply companies
- Food industries
- Water authorities
- Donor organisations

CHALLENGE

- Continuous provision of safe and clean drinking water
- Stricter legal requirements
- Increased public awareness

SOLUTION

Implementation of Water Safety Planning (WSP)

VALUE

- Continuous supply of safe water
- Saving time and resources
- High consumer confidence
- Ability to meet stricter legal requirements



Training is an important part of WSP Implementation Photo: © DHI

HOW TO ENSURE WATER SAFETY PLANNING?

- Wholeheartedly decide to start and allocate the necessary resources
- Assemble a water safety team
- Describe the water supply in detail
- Educate and train staff
- Analyse the risk of any potential hazard entering the water supply and causing harm to consumers
- Decide what to do to deal with these risks
- Take steps to put your decisions into action
- Document the steps you took
- Analyse whether you reached your goal



Microbial contamination is often the most serious issue and should have highest priority Photo: iStock© Jarrod Erbe

WHAT CAN WE DELIVER?

We have years of experience with WSP implementation.

An important part is to motivate the staff. It must be clear for all that drinking water is a precious and vulnerable commodity that has to be treated with great care. They should understand that the consequences of not doing so may be catastrophic.

We initiate the WSP implementations with presentations and discussions for all employees. This helps to motivate and include everyone in the process. This is followed by tailor-made training of the more central staff from management to technicians.

Subsequently, we keep the implementation process on track with contact during the implementation period.

We deliver support in many areas including:

- identification of hazards and hazardous events
- adequate control measures
- evaluation of the microbial barriers by advanced Quantitative Microbial Risk Assessment (QMRA)
- assess disinfection practices
- identify suitable sensors (including online sensors) for operational monitoring
- data management systems for storage, handling and documentation
- management procedures
- hydraulic modelling and water quality modelling
- analyses and reduction of Non-revenue Water (NRW)
- analyses of water hammer
- external audit for verification of the WSP implementation

The WSP implementation can be coupled with other activities such as environmental management and sustainability monitoring.



Wastewater contains both hazardous chemicals and pathogenic microorganisms. This is an important risk factor. Photo: © DHI

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