Water Safety Plans
- An effective risk-based management tool for managing drinking water supplies

6th IWA-JWWA Workshop on Promotion of Tap Water Drinking and Public Relation Practices in Water Utilities

21 January 2011
Overview

- Global DWQ and progress towards MDG’s
- Overview of WSPs
- Global and Regional WSP activities
- Summary
Latest report on progress towards MDG’s
Global progress towards MDG’s

- Over half of the global population have access to drinking water through piped supplies
- South and South-East Asia and Africa have lowest populations with ‘unimproved’ supplies
- Whilst progress is being made on accessibility, what does this tell us about water quality?
Global progress towards MDG’s

- Significant risks associated with water safety delivered through piped supplies

- Diarrheal disease accounts for approx 4.1% of the total global burden of disease and 1.8 million deaths per year

- 88% of burden is attributable to unsafe water supply, sanitation and hygiene
Q: How much disease could be prevented by better managing water, sanitation and health?

A: 10%

"Almost one tenth of the global disease burden could be prevented by improving water supply, sanitation, hygiene and management of water resources."

WHO Report 2008:
“Safer water, better health”
Traditional approaches are inadequate.
Water safety plans

- Preventative, risk-based approach to managing water supplies (built on HACCP principles)
- Catchment-to-consumer risk assessment and management
- Water utilities pivotal in the implementation of WSPs
- Improves service delivery and drinking water quality
Framework for safe drinking water

Framework for Safe Drinking-water

Health-based targets

Water Safety Plans

System Assessment

Monitoring

Management and Communication

Surveillance

Public health context and health outcome
Lack of capacity and resources

Significant challenge to risk management in practice is lack of awareness and capacity

*IWA utilities survey (2008): ‘What is the most significant barrier to implementing risk management strategies?’*
Demand Step-by-step guidance for WSP implementation
Response WSP Manual
Water safety plan manual

Demand Resources in non-English languages
Response Translated WSP manual

FRENCH
**Water safety portal**

**Demand** More readily accessible tools and case studies  
**Response** Web based toolbox for tools and case-studies

www.wsportal.org
WSP quality assurance tool

Demand Assess progress of WSP implementation
Response WSP assessment tool

Piloting of the WSP Quality Assurance Tool
Support Material for Utilities and Facilitators
Prepared on Behalf of the World Health Organization & the International Water Association
Revision 6, November 2009
Regional progress for water safety plans

Europe

- Inclusion of risk management requirement as part of EU DWD
- Region-wide research
  - Concluding (TECHNEAU 19m Euros)
  - Commencing (number of FP7 calls)
Regional progress for water safety plans

Latin America and Caribbean

• Latin America and Caribbean WSP Network
  • 300+ Members
  • 25 Countries

• Declaration of Lima
  • ‘Competent authorities should incorporate health standards and reliability in the regulatory regime...These will be based on the best scientific evidence available...’
  • ‘WSPs are a potential tool for effective management, which allows the operators to provide a safe supply of drinking water and to allow surveillance by the authorities.’

• Regional Conference 2011
Regional progress for water safety plans

Africa

- Capacity building for utilities (UN-Habitat, CAP-NET, IWA)
  - CEO Sensitisation and operational training
    - Anglophone (RSA September 2009)
    - Francophone (Morocco May 2010)
    - Lusophone (Angola June 2010)
  - Twinning between utilities (WOPs)
  - Training of Trainers workshops
- USEPA 5-year funded programme for WSP upscale in E-Africa
Regional progress for water safety plans

• Statement of Amman
  • Current DWQ management practices are reactive and not appropriate
  • WSPs are *the* practice for drinking water management
  • Utilities and regulators need to work together

• Regional Conference (Oman, May 2011)
National initiatives

ALL HOST CITIES TO HAVE WSP IMPLEMENTED BY 2010
Regional progress for water safety plans

Asia / Pacific

- WHO/AUSAID Water Quality Partnership for Health
  - Capacity building and piloting of WSPs from 2005 – 2009 (Phase 1)
  - Countries include Bangladesh, Bhutan, Nepal, Lao PDR, Philippines and Vietnam
Regional progress for water safety plans

Asia / Pacific

- **WSP Curricula integration**
  - ASEAN University Network on Southeast Asia Engineering Education Development Network (AUNSEED Net) develop long-term strategies for integrating WSP concepts into engineering curricula and research activities in universities around the region

- **Global IWA-WHO Conference November 2-4 2010 (Malaysia)**

- **Asia-Pacific WSP Network (to be launched in 2011)**
Objectives

- **Advocacy** - promote the WSP approach as part of national water strategies and for implementation
- **Communication** - be a forum to exchange information and knowledge about the implementation of WSPs
- **Research** - promote and support the evaluation of the impact of WSPs on the supply of safe drinking water
- **Implementation** - support WSP implementation through facilitating partnerships, resources sharing, knowledge sharing and support for capacity building
Total Non-Compliances in Water Quality

constant volume of supplied water

Operational and Legal Monitoring

WSP Implementation
Reduce operational costs

Human Resources Costs – Internal and External

<table>
<thead>
<tr>
<th>Item</th>
<th>Costs</th>
<th>Year</th>
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<tbody>
<tr>
<td>WSP Implementation</td>
<td>73.500 euro (~105.000 USD) - 2007</td>
<td></td>
</tr>
<tr>
<td>Keeping WSP</td>
<td>43.500 euro (~62.000 USD) - 2009</td>
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Operational Costs:

- Water quality operational monitoring
- On-line critical water quality instruments

Reference year: 2006
Summary

- Increasing population being served by piped supplies – sharper focus on managing these systems
- There is a significant potential for reducing disease burden through widespread implementation of WSPs
- Wide range of practical tools available to support WSP implementation
- Greater cooperation within regions – donors, multilateral agencies, membership associations
- Benefits (operational, economical) being realised – need to present them more clearly
Try our NYC tap water—
it’s refreshing! Delicious! Healthy!

Drinking tap water helps our environment, because about four of five plastic water bottles end up in the dump. You can fill your reusable bottle here.

At a fraction of a cent per gallon, New York City tap water is one of the best bargains around. And like most public water supplies, it’s constantly tested for safety.

Shipping water—like shipping anything—uses fossil fuels and creates air pollution. Why not get it from a tap, why haul it in a truck?
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Thank You

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