

TRAINING ANNOUNCEMENT: DEVELOPING A WATER SAFETY PLAN



Regional Training Course:	'Developing a Water Safety Plan'
Venue:	UN House, Beirut, Lebanon
Date:	January 9-13, 2012
Co-organizers:	UN-ESCWA, BGR, the Global WOPs Alliance (UN-HABITAT), WHO-CEHA and ACWUA
Trainers from:	ONEP-IEA (Morocco) and Engicon (Jordan)

Why implement a Water Safety Plan?

A water utility can improve the efficiency and effectiveness of its operations by using the framework of a water safety plan to deliver safe water in adequate quantities to consumers. Using a comprehensive risk assessment and risk management approach that encompasses all steps from catchment to consumer, the utility can identify and address priority issues that affect service delivery.

Water suppliers have a duty to care for persons utilizing the water or service that they supply. A Water Safety Plan (WSP) is the most effective way of ensuring that a water supply is safe for human consumption and that it meets the health based standards and other regulatory requirements. The primary objectives of a water safety plan in protecting human health and ensuring good water supply practice are the minimization of contamination of source waters, the reduction or removal of contamination through appropriate treatment processes, and the prevention of contamination in the distribution. The advantage of the WSP is that it is applicable to ensuring the safety of water in all types of water supply systems no matter their size or complexity.



Water Safety Plan Team discussing risks to the water distribution system

Purpose of the Course

The purpose of the course is to enable participants to return to their utility and lead the process of developing and applying a WSP in their home institution. By the end of the course, participants will be able to identify the scope and requirements of a water safety plan, understand how to set up a program, and know how to manage a team to develop a WSP which is feasible to implement within the constraints and specificities of the utility. In doing so, the participant will also learn how a WSP can safeguard customers, optimize operations and positively impact the environment.

Specific Outcomes of this Course

- ▶ A team from the utility is familiar with all aspects of a WSP, has identified and compiled major components of the WSP and is committed to take it further within their utility.
- ▶ An outline WSP is available from the course identifying key issues of the WSP and areas that need further development.
- ▶ Participants are able to justify the need for a WSP to their utility management. A process is established within the utility to develop a full WSP relevant to the size and complexity of that utility.
- ▶ Post course follow-up tracks the development of the WSP and supports peer to peer exchange of progress and challenges in development and implementation of the WSP.

An On-line training kit on WSPs is available for participants to replicate the training internally in their utility on www.gwopa.org

The course will be provided **by experienced international trainers of high level**, with an **intimate knowledge of both local technical issues and international standards**.



Mahmoud Hafsi
ONEP/IEA - Morocco



Leila Laraki
ONEP/IEA - Morocco



Hani Tarazi
Engicon, Jordan

Opportunities to initiate utility partnerships

Water Operators' Partnerships (WOPs) are being recognized as a timely response to the urgent need to increase access to sustainable water and sanitation for the world's poor.

Recognizing that **peer support** is most effective in contextually similar environments and that much utility exchange happens between geographically proximal peers, a key role of the Global WOPs Alliance (UN-HABITAT) is to **bring together and support water operators to undertake not-for-profit partnerships** in various areas.

The training will provide a **great opportunity to initiate contacts and discussions on partnerships** between utilities eager to learn from each other and to give mutual support in designing and implementing water safety plans. For more information on WOPs, see www.gwopa.org

Water Resources Protection at the Source

The United Nations Economic and Social Commission for Western Asia (ESCWA), in partnership with the German Federal Institute for Geosciences and Natural Resources (BGR), seeks to enhance collaboration on shared waters and promotes the integrated management of water resources in the ESCWA region. The ESCWA-BGR cooperation focuses on water management aspects at the basin level and the water policy perspective. Experts from member countries and beyond are regularly brought together to exchange experiences and build their capacities, including on technical aspects such as the protection of water sources. The training is hosted at the ESCWA headquarters in Beirut, Lebanon.



UN House in Beirut, Lebanon



Jeita Spring - Water for Beirut

In addition, BGR provides bilateral support to water ministries and authorities in Jordan, Lebanon, Syria and Yemen on technical, institutional and legal issues related to the management and protection of water sources. The training will include a special session on these national experiences as well as a field trip to the catchment area of the Jeita grotto and spring, the single most important water source for the Lebanese capital. The field trip is organized by the cooperation project 'Protection of Jeita Spring', implemented by various Lebanese Authorities and BGR.



The countries of the ESCWA region

Who can apply for the training course?

Applications are welcomed from utility manager, who are invited to nominate a team of three representatives who would subsequently lead the preparation of the WSP. The session is tailored for **utilities from Arab countries of the ESCWA region and the training will be delivered in Arabic**, with case studies provided from the region.

The capacity of the session is limited to 10 utilities (3 participants per utility) in order to ensure good interaction between the trainees and the trainers and among the trainees themselves. The candidate utilities will have to meet a certain number of **criteria** listed below. Applications will be considered against these criteria and accepted on a first come, first serve basis.

Selection criteria

- ▶ Demonstrated commitment of the utility to the development and implementation of a WSP as conveyed by the utility's motivation letter.
- ▶ Nomination of an appropriate team able to participate effectively in the course and lead the subsequent process of WSP development.
- ▶ Only the utilities presenting a comprehensive team application will be considered for the training (further information can be found in the attached Application Form)

There is **no charge for the training and fieldtrip** elements of this workshop, including coffee breaks, lunches and ground transport related to the training. However, utilities are required to pay for travel and accommodation for their selected trainees. A limited number of sponsorships for travel and accommodation are available to support participation of public utilities from developing countries.

Priority will be given to applications from: Egypt, Iraq, Jordan, Lebanon, Palestine, Sudan, Syrian Arab Republic and Yemen. Please inquire with Dr. Anne Bousquet (anne.bousquet@unhabitat.org) for more information about this option.

Pre-reading and other Requirements

All participants will have received and read this required material before attending the course:

- ▶ Guidelines for drinking water quality (2004); Chapter 4 - Water Safety Plans. World Health Organisation, Geneva Volume 1 Recommendations.
- ▶ Water Safety Plan Manual. WHO, IWA, 2009.
English: http://www.who.int/water_sanitation_health/publication_9789241562638/en/index.html
Arabic: http://whqlibdoc.who.int/publications/2009/9879290216995_ara.pdf

As part of the training workshop, an outline for a WSP is developed by the participating utility teams. Hence, participants are requested to collect specific information and conduct the following tasks in preparation for the course:

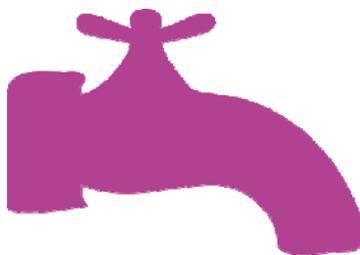
- ▶ Be familiar with the catchment, water abstraction, water treatment and water distribution systems for the respective service and WSP areas of their utility.
- ▶ Be able to describe the water supply system in their utility.
- ▶ Consult with key staff and stakeholders to identify risks in the system and service delivery issues and what is already in place to reduce the risks and address the delivery issues.

How to apply?

Applicant utilities must fill out the application form and submit it by **the 28th of December 2011** to:

Dr. Anne Bousquet, GWOPA : anne.bousquet@unhabitat.org

and to Mahmoud Hafsi, ONEP/IEA: mhafsi@onep.org.ma



Annex 1 - Provisional Agenda

MONDAY 9 JANUARY	
8.15-8.45	Registration of participants
8.45-9.30	Opening Session, with welcome words by: <i>ESCWA - Ms. Roula Majdalani, Director Division Sust. Dev. and Productivity</i> <i>BGR - Mr. Andreas Renck, BGR Project Coordinator</i> <i>GWOPA - Dr. Faraj El-Awar, Program Manager GWOPA</i> <i>ACWUA – Dr Khaldon Khashman</i>
9.30-9.45	Introduction and Conference Outline
9.45-10.15	Presentation 1: Water Safety Plans, overview and experience to date
10.15-10.45	Presentation 2: The status of WSP in the Middle East and WHO guidelines (<i>Dr. Yousfi, Director of WHO-CEHA</i>)
10.45-11.00	<i>Coffee break</i>
11.00-11.30	Presentation 3: Water Safety Plans, the Moroccan experience (ONEP)
11.30-12.00	Activity: Discussion and experience of participants with WSPs
12.00-12.30	Presentation 4: General overview on water treatment technologies, mastering the challenges
12.30-13.30	Lunch Break
13.30-14.00	Module 1: Assembly of Water Safety Plan Team
14.00-14.30	Discussion: Experience of participants with team formation, commitment of utility
14.30-15.00	Module 2: Describe the Water Supply System
15.00-15.30	<i>Coffee break</i>
15.30-16.00	Team Activity: Compile the Water Safety plan for Mod 1 & 2.
16.00-16.30	Recap of the day, identification of common and individual challenges
TUESDAY 10 JANUARY	
9.00-9.30	Presentation 5: Case-study of WSP in an Arabic country (to confirm)
9.30-10.00	Module 3: Identify Hazards and Hazardous Events and Assess Risks
10.00-10.30	<i>Coffee break</i>
10.30-11.30	Team Activity: Compile the WSP hazard and risk assessment
11.30-12.00	Presentation 6: Climate change and impact on utility operations.

12.00-12.30	Discussion
12.30-13.30	Lunch break
13.30-14.15	Presentation 7: Water Source Protection, with: <i>Case-study Syria (Protection of Figeih Spring, Mr. Mathias Toll) and</i> <i>Case-study Jordan (Water Aspects in Land-use planning, Mr. Tobias El Fahem)</i>
14.15-14.45	Module 4: Determine and Validate Control Measures, Reassess and Prioritize the Risks
14.45-15.45	Team activity: Compile the WSP Document for the control measures
15.45-16.15	<i>Coffee break</i>
16.15-16.45	Activity: report to plenary, 2 utilities on risks and control measures
16.45-17.15	Screening of a 15minute film on Jeita Spring/Lebanon and brief intro to the field trip of Wednesday 11 th .
WEDNESDAY 11 JANUARY	
9.00-16.00	Field trip to Jeita spring and catchment area <ul style="list-style-type: none"> - Dbaye Water Treatment Plant - Jeita Grotto - Spring capture and main water conveyor - Visit of the catchment area - Planned waste-water treatment facilities to protect water resources - Delineation of groundwater protection zones - Planned storage dams <p><i>The field visit is organized by the cooperation project 'Protection of Jeita Spring' implemented by various Lebanese Authorities and BGR.</i></p> <p><i>Lunch will be served at Restaurant in Daraya.</i></p>
THURSDAY 12 JANUARY	
9.00-9.300.	Activity: Discussion and Feedback on Trip
9.30-10.00	Module 5: Develop, Implement and Maintain an Improvement/Upgrade Plan
10.00-10.30	Team activity: Compile WSP for improvement plan
10.30-11.00	<i>Coffee break</i>
11.00-11.30	Module 6: Define Monitoring of the Control Measures
11.30-12.00	Team activity: Compile the monitoring plan for your WSP
12.00-13.00	Lunch break
13.00-14.30	Presentation 8: Effect of water and wastewater projects on WSP (WWTPs, Wastewater reuse, wastewater recharge, large infrastructure projects) by Hani Tarazi, Engicon
14.30-15.30	Group work: mutual assessment of WSPs drafts
15.30-15.45	<i>Coffee break</i>

15.45-16.15	Module 7: Verify the Effectiveness of the Water Safety Plan
16.15-16.45	Team activity: integration of WSP related task in staff current workload
16.45-17.15	Module 8: Prepare Management Procedures
FRIDAY 13 JANUARY	
9.00-9.30	Module 9: Develop Supporting Programs
9.30-10.30	Presentation and discussions : Paying for the plan; Financial viability and sustainability of utilities.
10.30-11.00	Modules 10 & 11: Plan and carry out periodic review of the WSP Plan and carry out periodic review of the WSP + Revise the WSP following an incident
11.00-11.20	Presentation of draft WSP. Utility no`1
11.20-11.50	<i>Coffee break</i>
11.50-12.10	Presentation of draft WSP. Utility no`2
12.10-12.30	Presentation of draft WSP. Utility no`3
12.30-13.00	Discussions, Q&A
13.00-14.00	Lunch break
14.00-14.20	Presentation of draft WSP. Utility no`4
14.20-14.40	Presentation of draft WSP. Utility no`5
14.40-15.45	Discussion, Q&A, wrap-up