

EXACT Workshop on Water Treatment and Artificial Recharge

September 10 and 11, 2007
American Colony Hotel, Jerusalem

Background

The project *Small-scale Water Treatment Facilities for Domestic Use and Artificial Recharge with Surface Water* is financed by the Netherlands Ministry of Foreign Affairs and executed by UNESCO-IHE in collaboration with Israeli, Jordanian and Palestinian partners (the Core Parties) in the frame of the EXACT project (www.exact-me.org). The project started in 2002 and aims to identify and implement pilot studies in the fields of water treatment and artificial recharge which, if proven successful, can be applied on a wider scale by all three Core Parties. This workshop is organized at the request of the Core Parties to disseminate knowledge and experience gained from the five pilot projects in the region.



Workshop Programme (Tentative)

Monday, 10 September

09:00 Opening
09:10 Introduction to EXACT

Iron Removal Plant in Baq'a

09:20 Introduction
09:40 Tendering of the plant
10:00 Experiences during the first year of operation
10:30 Future activities
10:45 Break

Upgrading of the Aqbat Jabr plant in Jericho

11:15 Introduction
11:30 UNRWA activities on water supply in West Bank
11:45 WQ Monitoring of Al Qilt catchments
12:00 Plant upgrading works
12:30 Future activities
12:45 Lunch

Chromium Removal in Holon-8

14:15 Introduction
14:30 Groundwater contamination in Holon area
15:00 Chromium research at IHE Delft
15:30 Chromium removal research at Hebrew University
16:00 Break
16:30 Pilot plant design and tendering
17:00 Future activities
17:15 Discussion
18:00 Closing

Tuesday, 11 September

09:00 Opening
09:10 Introduction to EXACT
09:20 Jordanian contribution to EXACT

Artificial Recharge in Wadi Madoneh

09:30 Introduction to AR in Wadi Madoneh
10:00 Hydrological research in Wadi Madoneh
10:30 Geohydrological research in Wadi Madoneh
11:00 Break

Artificial Recharge in Wadi Far'a

11:30 Data collection and processing in the West Bank
12:00 The GLOWA project
12:30 The SMAP project
12:45 Lunch
14:15 Introduction to AR in Wadi Far'a
14:45 Hydrogeology of Wadi Far'a
15:15 Hydrological analysis of Wadi Far'a
15:45 Break
16:15 Hydrological research Wadi Far'a and Badan
16:45 Geohydrological research Wadi Far'a and Badan
17:15 Discussion
18:00 Closing



Pilot studies on Water Treatment

Three pilot studies have been identified on water treatment:

1 *Baq'a (Jordan)*

The removal of iron from groundwater. A pilot plant was built and is in operation since 2004, supplying about 20 m³/hour good quality drinking water.

2 *Aqbat Jabr (West Bank)*

A treatment plant producing drinking water since the 1950s using the Al Qilt spring has recently been upgraded. An additional treatment step is in preparation.

3 *Holon 8 (Israel)*

Parts of the coastal aquifer near the industrial Holon area are contaminated with heavy metals. A treatment plant will be in operation by the end of 2007.

Pilot studies on Artificial recharge

Two pilot studies on artificial recharge with surface water have been identified:

1 *Wadi Madoneh (Jordan)*

Wadi Madoneh is situated in an arid region (120-150 mm/a) and the underlying aquifer is rapidly depleting. Based on a hydrological study in the area small retentions dams have been designed which will be in operation by the end of 2007.

2 *Wadi Far'a (West Bank)*

The upper reaches of Wadi Far'a receive relatively large amounts of rainfall (400 – 600 mm/a). Rainfall, runoff and water levels have been continuously measured since 2004. At present hydrological studies are carried out to investigate the best options for artificial recharge in the catchment

Application: if you are interested in this workshop and you have not yet been invited, please apply to Dr. Pieter J.M. de Laat at UNESCO-IHE (p.delaat@unesco-ihe.org)



Rapid Sand Filtration (Water treatment plant Baq'a)



Slow Sand Filtration (Water treatment plant Aqbat Jabr)



Wadi Far'a