

Brief overview of the Beit Lahiya wastewater emergency, 27th March 2009, North Gaza Governorate, Gaza Strip

Background

The Beit Lahiya Wastewater Treatment Plant (BLWTP) in North Gaza Governorate is shown in aerial view in Figure 1.



Figure 1 Aerial view of Beit Lahiya Wastewater Treatment Plant (CMWU and InfraMan 2007:8)

Early Morning 27th March 2009, wastewater pumped from the large infiltration lagoon (containing about 2 million cubic metres [m³] of wastewater) to the two temporary disposal ponds (estimated maximum volume of 250,000 m³)¹ about 1.2km to the north (near the red line) overflowed the banks, caused erosion and damage, and about 40-50,000 m³ of treated wastewater escaped down a natural Wadi towards the Bedouin Um AlNasser Village. This happened Friday morning, no one was hurt or any houses flooded or damaged. A CMWU team visited the site with coordination from Israel on Friday 27th March, and commenced an emergency response. Pumping from the large infiltration lagoon was stopped, and contractors were engaged to deposit sand to prevent any further flow of wastewater towards Um AlNasser Village.

¹ The ponds are located in a depression surrounded by sand dunes. The ponds receive and infiltrate (mostly through lateral flow) around 12,000 m³/day in a 7/3 wetting-drying cycle (CMWU & Inframom 2007:8)



Figure 2 The stationary front edge of the estimated 40-50,000 m³ wastewater that escaped from the temporary disposal ponds overnight/early morning of Thursday 26th/Friday 27th March 2009 (Photograph by the WASH Cluster Team, Sunday 29th March)



Figure 3 Sand being collected by the CMWU contactor close to the leading edge of the escaped wastewater (Photograph by the WASH Cluster Team, Sunday 29th March)



Figure 4 Emelnasser Village close to the stationery leading edge of the escaped wastewater, and the sand deposited by the CMWU contractor (Photograph by the WASH Cluster Team, Sunday 29th March)



Figure 5 Sand being dropped by the CMWU contractor at the stationery leading edge of the escaped wastewater (Photograph by the WASH Cluster Team, Sunday 29th March)

Figures 2-5 taken on the morning of Sunday 30th March show the spilled wastewater, Um AlNasser Village, and activities of the CMWU contractor to arrest any further spread of the wastewater. The General Director of the CMWU, Monther Shoblak, is currently coordinating with the Israel authorities to proceed with repairs to the damaged walls of temporary disposal ponds.

Further actions required

CMWU will coordinate with Israel to undertake emergency repairs to the damaged temporary disposal ponds as soon as possible, and will provide an update report to the WASH Cluster Coordination meeting on Tuesday 31st March 2009 at 2.00pm in the UNDP Building in Gaza City. The CMWU engineers believe there is no risk of any further spillage of wastewater from the temporary disposal ponds, and the spilled wastewater is rapidly infiltrating the Wadi sand.

The wastewater spillage has no odour as is unlikely to pose a health hazard to the nearby residents. The WASH Cluster will continue to monitor the situation, and will recommend microbiological monitoring of the spillage by the relevant agency within the Ministry of Health, and hygiene promotion advice for the affected residents.

WASH Cluster Team in Gaza, Monday 30th March 2009