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Report on Damages of Water and Sanitation sector in Gaza city Prepared Thursday, January 22, 2009

▪ Eastern main road

The main trunk line of 10" diameter which supplies potable water around 60,000 people in the east of Gaza was hit. It is a fairly new line executed by one of the INGOs. Another new trunk line (Ductile Iron 800 mm diameter) which has been installed recently through the World Bank fund, has also been damaged. The upper part of a main manhole (i.e. a Reinforced concrete slab sized 2.4m x 1.8m) on the same line has been destroyed. Furthermore, the electrical network in the region has been largely destroyed. Water wells are currently operating by generators.



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Report on Damages of Water and Sanitation sector in Gaza Middle Area

Prepared January 29, 2009

- Gaza Middle Area – Al-Bureij:

Al-Bureij Camp has witnessed a couple of air strikes to a number of homes and mosques, so none of the infra structure there was affected. The only damages that have occurred were to civilians properties.

Under the CSP, ANERA had constructed, furnished and equipped a clinic in Al-Bureij. This clinic has been damaged during the air strike on Al-Farooq mosque which is located next to the clinic.

The damages included broken doors and windows, multiple cracks in the walls and the ceiling, a big hole in the staircase, destruction of the boundary wall in different locations, a huge amount of the mosque debris has flown and landed on the roof and the surrounding yard, damages in water tanks and solar heater, and damages in the pharmacy air conditioning outer unit.

In spite of all these damages the clinic interior is in relatively good shape and the clinic has managed to operate regularly providing excellent service to Al-Bureij residents in these difficult times.



A side view of the clinic and the destroyed mosque in the background

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Debris from the nearby mosque on the clinic's roof,
the damaged staircase and water tanks



Damages to the clinic's aluminum windows

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Report on Damages of Water and Sanitation sector in Gaza Middle Area

Prepared January 26, 2009

- Gaza Middle Area - Al-Mughraga:

The village of Al Mughraga has sustained damages in many ways; the municipality building, private homes, roads, the water and sewage networks, electrical and telephone networks have been severely damaged. Among the damages that were identified is a main 4" UPVC water pipe line that feeds the northern east area of the village with water.

The municipality started pumping water to provide residents with little amounts of water where possible. During the CSP & VSP ANERA with funds from USAID had constructed a water well, an elevated water tank, and a pre-school, in addition to an agricultural road there.

All of the above-mentioned projects have been damaged. The water tank has been shelled and damaged. The water well control room was also damaged. The municipality managed to make some repairs to the control panel with spare parts that they received from CMWU. The sunshades covering the water well and surrounding the water tank were also damaged. The Pre-school building has been partially damaged in the form of broken glass and some minor windows and doors damages.

At the time of the visit, UNRWA and Red Cross crews were working on providing relief assistance.



Damages in water tank

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Damages in water well control room



Damages in private properties and roads

**Report on Damages of Water and Sanitation sector in Gaza city
Prepared January 20, 2009**

▪ **Crossing of Beirut St. with Sena'a St.**

Main sewage manhole 6 m deep was destroyed and currently is being repaired by the Municipality of Gaza (MoG).



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- **Crossing of Sena'a St. with Tunis St.**

A main sewage pressure line of 14" was damaged and is being repaired by Municipality of Gaza. Large part of the sewage network which connected to the manhole was also destroyed.



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- **Sheikh Egleen Area:**

A trunk sewage line of 36" was damaged which is currently resulting in huge floods of sewage in people lands. 20,000 m³ (i.e. wastewater produced from 1/3 of Gaza city) of raw sewage is flooding and made its way directly in people's farms and homes on its way to the sea (a path 2 km long).



▪ **Gaza Wastewater Treatment Plant (GWWTP)**

- The embankment of Anaerobic Tank # 3 was shelled causing a huge gap (about 20 m long and 6 m high). This resulted in a huge flood (approx. 32,000 m³) of raw sewage to the neighborhood.
- The electronic board of the bio towers' pumping station was shelled which caused a total stoppage of a complete stage of sewage treatment in the plant.
- The radiator of the main generator was also damaged. It was temporarily fixed to keep the generator and hence the sewage treatment plant operational. This generator was supplied by USAID under the EWAS I program.
- Lab equipment and the administration building were largely damaged.



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The cost of the whole damage to WWTP is roughly estimated to be \$200,000. Damages have in addition resulted in a big reduction in the plant's efficiency to about 50% (it was previously at 90%). The current BOD of effluent directed to the sea is 250 mg/l which is far beyond the acceptable rate. This situation has created a huge environmental and health disaster in the area.

Report on Damages of Water and Sanitation sector and Other Infrastructure in Gaza city Prepared January 21, 2009

▪ **Gaza city Slaughter House**

The following was destroyed:

- Slaughter house's maintenance workshop
- Warehouse
- Cooling store was significantly damaged
- Slaughtering hall (partial damages)
- Laboratory
- 20 water tanks
- Main electrical transformer

▪ **Water well R270 (produces 60 m³/hr) (adjacent to the slaughter house)**

The well room and the generator have been destroyed. Damages to the mechanical parts are still to be evaluated after test operation. The main electrical transformer was destroyed and the whole area is without electricity. The well provides water to around 15,000 people in Hadabah area.

▪ **Khalaf Street**

The main sewage line of 12" was destroyed causing large sewage floods in the surrounding residential area. It is currently being repaired by MoG teams. It serves Maggousi buildings and part of Jabalia area.



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Report on Damages of Water and Sanitation sector in Gaza Middle Area Prepared January 22, 2009

- Wadi Gaza:

The village of Wadi Gaza has witnessed severe destruction almost in everything there: homes, roads, water network, electrical and telephone networks etc...

About 60% of the homes and farms have totally been destroyed, while others were damaged to a lesser extent. In addition, the only school in Wadi Gaza has been severely damaged.

The municipality started pumping water to provide the residents with whatever amounts of available water while providing tankered water to areas where the damage has been most severe.

Under the CSP & VSP Programs funded by USAID, ANERA has constructed a cultural center, a water well, and a water tank in addition to carrying out small repairs to roads. Some of the above facilities have been slightly damaged (as is shown in the pictures).

Today, UNRWA was distributing bottled water and some food packages in the village.



Damage to the Water Tank

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Damages to the Cultural Center



Damages to the only school in Wadi Gaza



Damage to the water cyclone at the water well

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Report on Damages of Water and Sanitation sector in Gaza Middle Area Prepared January 28, 2009

Gaza Middle Area – Wadi As-Salqa:

The eastern part of the village of Wadi As-Salqa was severely damaged, where tens of homes have been completely destroyed during the Israeli military operations in that area. The damages included the destruction of the water network, electrical and telephone networks and a partial destruction of the main road that connects that area with Kisoufeem road (part of this road was constructed by ANERA under the VSP program).

Under the VSP Program funded by USAID, ANERA had constructed a water well, a water tank, in addition to 3 agricultural roads including the above mentioned road.

The Israelis tanks reached the well location and destroyed the surrounding boundary wall, the generator room and the storage room which has the colorization unit. Also, the generator batteries are missing. The well is not operating at the present and the people in the area depend on getting water through tankers only. The main line from the well to the water network will have to be checked once the well is operational again. A couple of shots were noticed in the water tank but are believed to be external only.



Damages to water tank & well

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Damages to the generator and storage rooms



Damages in private properties and roads in the area