



NRW Reduction Project

NRW reduction is a (5) years Project funded by USAID with total funding of \$ (30) million. The project which is implemented by Jordan Water Company-Miyahuna started in 2015 will lead to better distribution system management generally, extend Jordan's limited water resources, and improve Miyahuna's operating efficiency and financial viability.

The project focuses on the following aspects:

1. Procurement of leak detection and network maintenance equipment.
2. Comprehensive rehabilitation of selected water distribution zones to achieve a much reduced level of NRW.
3. Rapid improvements for selected distribution zones via district isolation, disconnecting redundant pipes, leak detection and repair and pressure management.
4. Replacement of customer meters with meters that maintain their accuracy under variable water supply conditions.

ACTIVITIES

Major Project activities that comprise the “comprehensive program” in selected distribution zones (DZs) within Miyahuna's water distribution network include:

- Zone and district isolation
- Computer-based water supply modeling for selected DZs to assess network deficiencies.
- Quantification of NRW before and after implementation of NRW-reduction activities
- Installation of replacement and reinforcement pipes
- Leak detection
- Repair of visible and non-visible leaks
- Disconnection of redundant mains

- Pressure control
- Meter replacement (both bulk meters and customer meters)
- Illegal use reduction
- Customer database and GIS updating
- NRW calculations

The subject zones will be drawn from the following:

- Abu Alanda (15 districts)
- Qweismeh (12 districts)
- Yadoudeh (8 districts)
- Marj El Hamam West (13 districts)
- Upper Wadi El Seer (13 districts)
- Tareq (5 districts)
- Marka (6 districts)
- Sahab (10 districts)

EXPECTED RESULTS

The results of the project are expected to include:

- Reduction of non-revenue water to an acceptable level in the DZs that benefit from the comprehensive program;
- Quantification of the marginal impact of each non-revenue water cause and its associated remediation cost;
- Implementation and monitoring of advanced technologies in test districts, such as the installation of bulk meters, modulating pressure reducing valves and pressure gauges installed at critical points, communication of network data to the Supervisory Control And Data Acquisition system, installation of permanent leak detection equipment, etc;
- Using the test districts for in-depth studies related to demand, accuracy of customer meters, leakage levels under various supply conditions, etc;
- Preparing performance based model tender documents for future private sector investment in non-revenue water reduction in other distribution zones;
- Correction of the customer database regarding location of each customer in the correct zone and district;

PROJECT SNAPSHOT

Duration: 2015-2020

Total Funding: \$30 million

Geographic Coverage: Amman

Implemented by: Miyahuna

Focus: Non-revenue water via infrastructure and equipment upgrades

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MIYAHUNA

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- Quantification of non-revenue water at the DZ and district level in order to better manage NRW and prioritize future investments;
- Better network control generally.
- Build the capacity and strengthening of Miyahuna staff to FARA contracting vehicle.

The overall results of the project will feed into the National Non-Revenue Water Program that is currently under implementation or will be implemented by the Ministry of Water and Irrigation in other Governorates after applying detailed evaluation and assessment along with lessons learnt.