

Irrigation & Potable Water Lines for the New Capital

Client

CAPW - The Construction Authority for
Potable Water & Wastewater

Scope of Work

Preliminary Design & Basis of Design Report
Hydraulic Analysis (Profile, Balance &
Calculation)
Detailed Design
Tender Documents
Tender Action

Location

New Capital, Egypt

Types of Activities

Architectural
Civil Works
Electrical
Instrumentation
Mechanical
Structural

The project aims to convey potable water to the New Capital. The project is executed over three parts:

First Part: Construction of Water Line

From the storage tanks lift station to the strategic reservoir lift station as follows:

- A force main from the ground reservoir pump station to the strategic reservoir pump station with a length of approx. 16 km and a diameter of 1000 mm.
- Pump station building with required pump head (16 bar) along with ancillary buildings and necessary units.

- Strategic water reservoirs (total capacity: 100,000 m³) at the end of the pipeline at the New Capital services zone.
- From the strategic, water-reservoir pump station to Project 110
- A force main from the strategic water reservoir pump Station to the Project 110 supply point (length: approx. 3.6 km, diameter: 400 mm) to convey water quantities necessary for construction activities (approx. 15,000 m³/day).
- Pump station units in the strategic pump station for pumping required discharge flows to Project 110, along with associated electromechanical works.





Second Part: Potable Water from New Cairo Water Plant

Aiming to transfer potable water from New Cairo Water Plant to the Valleys Area in the New Capital and Project 110.

This part consists of two pipelines with a diameter of 1,000 mm for each, conveying 250,000 m³/day, and is divided into two groups:

- The first group consists of two pipelines with a pipe diameter of 1,000 mm each, and a length of approx. 22 km each with a capacity of 125,000 m³/day. The water is pumped into this line through a lifting station constructed at New Cairo Water Station and up to the site of the Strategic Reservoir Pumping Station with a capacity of 100,000 m³.

- The second group consists of one pipeline with diameters of 1,000 mm and lengths of approx. 11 km each with a capacity of 125,000 m³/day. The water is pumped in that line through a lift station constructed at New Cairo Water Station and up to the proposed site for the receiving of water reservoirs with a capacity of 125,000 m³.

Third Part: Completing Irrigation Lines' Works

This project comprises the following:

- A 1000 mm-diameter forcemain with a length of approx. 20 km.
- Developing the pump stations' electromechanical works with ancillary buildings and necessary support units, namely the diesel, panels, and fuel depot buildings.
- A water reservoir for receiving irrigation water (total capacity: 27,000 m³).