

Master Plan for East Cairo Potable Water Transmission Mains

Client

Construction Authority for Potable Water & Wastewater

Location

East Cairo Cities & Urban Communities, including the Administrative Capital

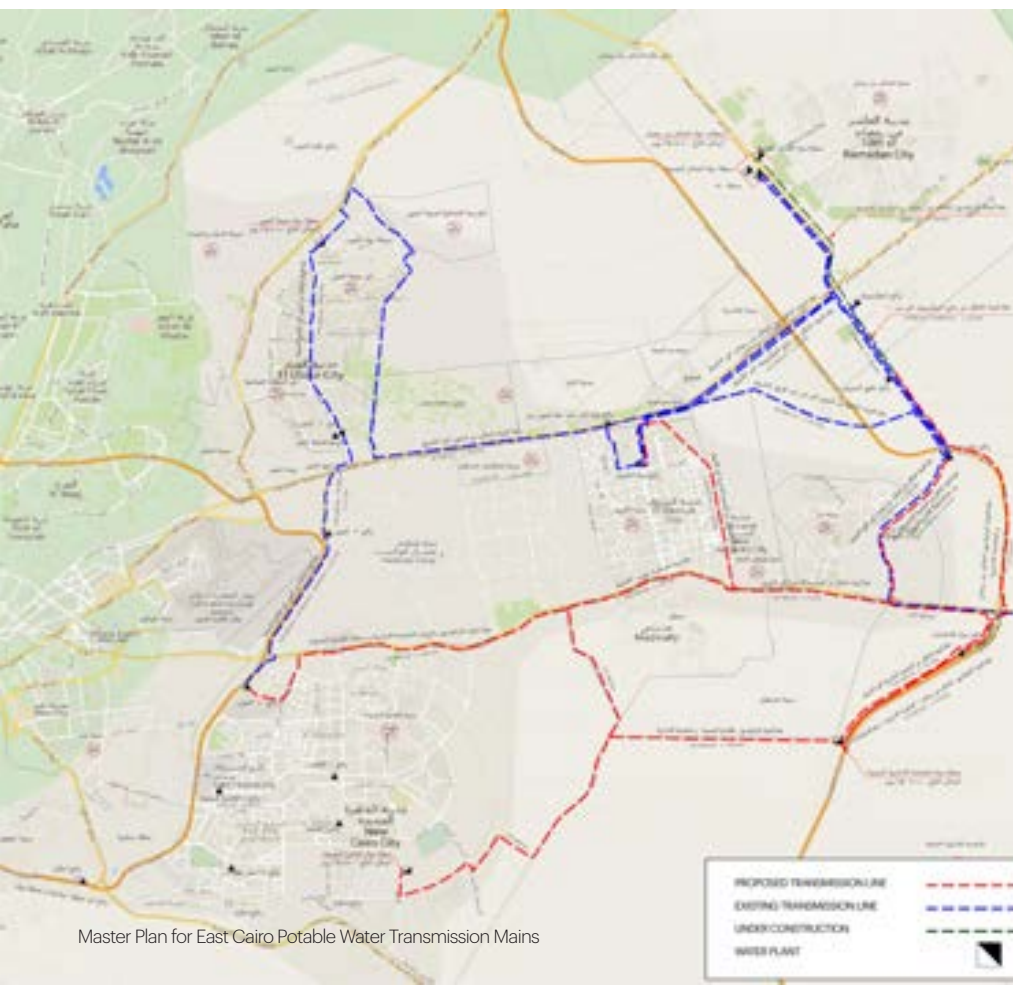
The project aims at developing a master plan over a -6 month period for the transmission mains necessary to provide East Cairo cities and urban communities, including the prospective Administrative Capital, with potable water. The area of the study is bounded to the south by the Cairo-Sokhna Road; to the north by Ismailia Canal; to the east by 10th of Ramadan City, Badr City, and the Provincial Ring Road; and to the west by the Ring Road. Master planning also covers the intake area of the New Cairo water treatment plants on the banks of the River Nile in Tura, as well as the proposed pipeline routes extending from the intake to the proposed water treatment plant in the Administrative Capital.

The scope of consultancy services relating to the study comprises the following elements:

- Data collection and verification for the water treatment plants, main and secondary distribution networks, transmission mains, and tanks, in collaboration with the council of each city, the New Urban Communities Authority, and the Greater Cairo Water Company.
- Recent GIS maps showing pipeline diameters up to

600 mm for the cities covered by the master plan: New Cairo, Administrative Capital, Al-Obour 10th of Ramadan, Al-Shorouk, Badr, and Al-Mostakbal.

- Population studies for the cities covered by the study (about 10 million inhabitants).
- Identifying current and expected water demand for the stages of the study, and specifying the target year.
- Developing the network's hydraulic model for East Cairo cities and urban communities for possible integration with the system of digital maps and GIS programs at a later stage. The hydraulic model shall be developed following the provision of the latest versions of maps by the Cairo Utility Data Center through the Construction Authority for Potable Water & Wastewater.
- Full description of required works and suggestions of implementation. This includes the identification of development elements based on the results of the integrated hydraulic analysis of the networks and their accessories (pump stations, tanks, etc...).
- Structural master plan for the main lines to illustrate the method of feeding the cities with potable water. This structural master plan is based on a master



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plan for transmission lines and treatment plants leading to the transmission mains feeding the cities. It is also based on the hydraulic analysis of these transmission mains.

- General description of treatment plants and transmission mains including the identification of pump capacities necessary for pumping the required quantities.
- Proposed primary routes of mains and their alternatives, as well as the locations of proposed treatment plants and transmission mains in accordance with the master plan.
- Proposed primary routes and their alternatives for the mains likely to connect a number of treatment plants together, in accordance with the routes available for East Cairo the cities and urban communities.
- Final report of the master plan, as well as a cost estimation of proposed works up to the target year.
- Identification of high-priority projects and their cost estimates.