



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

EBP

Embassy of Switzerland in Egypt
Office for International Cooperation



Potable Water Management Programme in Upper Egypt – Phase 2

PWMP Supply, Civil and Installation Works for Supply Network Rehabilitation
Bidding Documents, Part 2: Employer's Requirements
9 August 2023

Contract No.
Credit Proposal No.

PWMP-10
7F-08374



**برنامج إدارة
مياه الشرب
في صعيد مصر**

Project Team

EBP Schweiz AG (EBP), Lead
North South Exchange Consultants (NSCE), Consultant
United Consultants (UC), Sub-Consultant

EBP Schweiz AG
Mühlebachstrasse 11
8032 Zürich
Switzerland
Telephone +41 44 395 16 16
info@ebp.ch
www.ebp.ch/en

Print: 14. August 2023
PWMP-10_Employers Requirements_230809 EN.docx
Project number: 222346.00

Table of content

1.	Introduction	5
1.1	Background	5
1.2	Overview PWMP	5
1.3	PWMP Objectives and Content	6

2.	Project Overview PWMP-10	7
2.1	Location	7
2.2	Services Required	10
2.3	Interfaces and Coordination	11
2.4	Project Organization	13
2.5	Time Schedule	14
2.6	Legal Requirements	14

3.	Technical Specifications	15
----	--------------------------	----

4.	Drawings	15
----	----------	----

5.	Bill of Quantities (BoQ)	15
----	--------------------------	----

1. Introduction

1.1 Background

The Potable Water Management Programme (PWMP) in Upper Egypt, planned for implementation from 2018 to 2027, intends to improve service provision of potable water, with a focus on Upper Egypt Governorates and the Water and Wastewater Companies (WWCs) serving these governorates. PWMP Phase 2 (from 2022 to 2025) is focusing on poor neighborhoods in Aswan. PWMP is funded by the Swiss government and implemented by a Swiss-Egyptian team in close collaboration with the Aswan Water Supply Company (AWSC) and the target communities.

1.2 Overview PWMP

PWMP Phase 2 will focus on the Aswan Water and Sanitation Company and poor neighborhoods in the city of Aswan (i.e. El Sail area, with optional expansion to El Zaydab Qebly and Ezab Kima area), close to the neighborhood of Khor Awada which was targeted with PWMP Phase 1 from 2019 to 2022, and to El Nasriya which was in the focus of a previous single-phase project from 2012 to 2016.

To ensure reliable potable water service provision by Aswan Water and Sanitation Company (AWSC) as well as to provide equal access to a potable water supply system for inhabitants in the target area in El Sail and Zaydab Bahary (with optional expansion to El Zaydab Qeply and Ezab Kima area) the current potable water distribution network shall be replaced and separated into DMAs. Additionally, a main feeder pipeline shall be constructed to increase the amount of potable water in the areas of El Sail, El Zaydab and Ezab Kima.

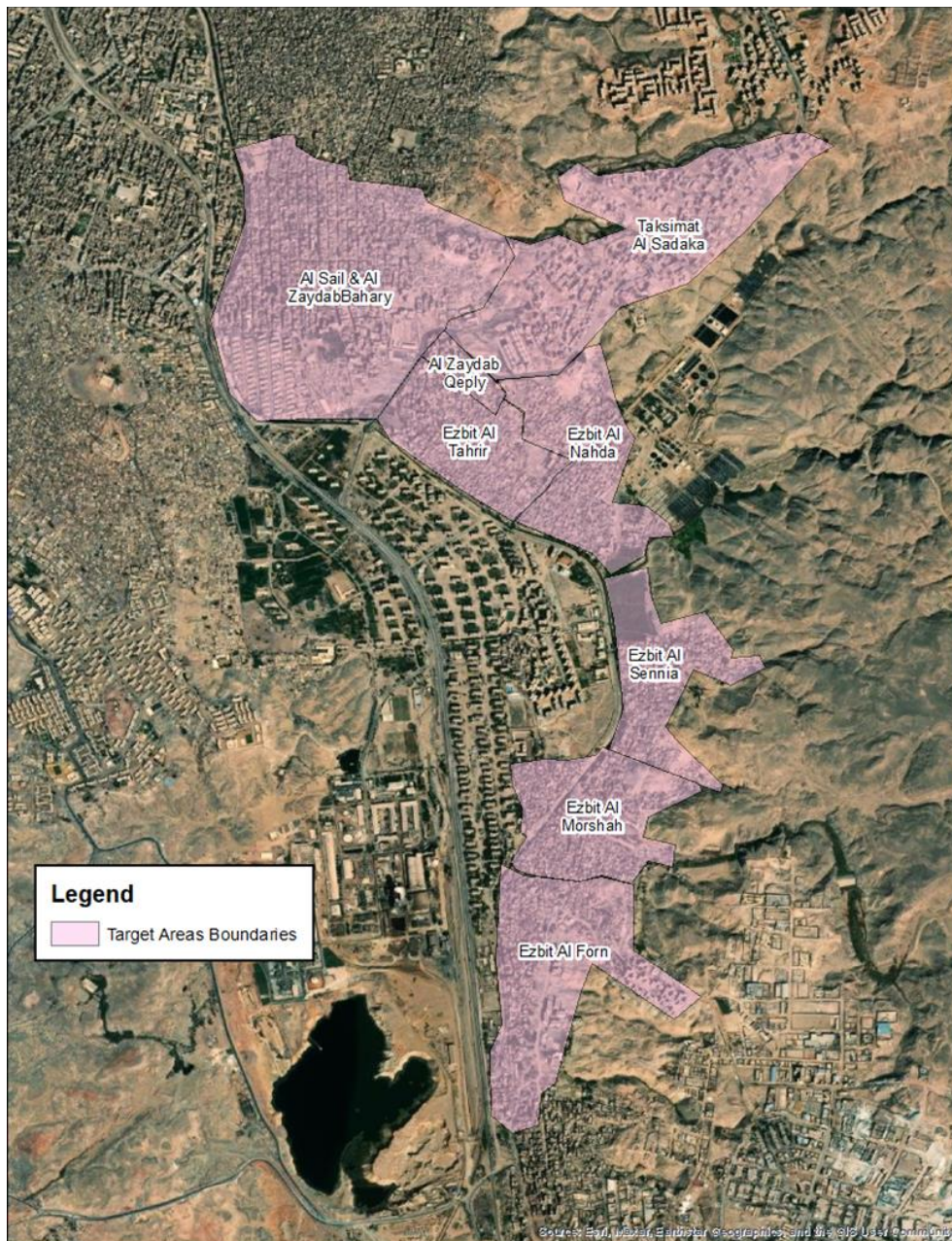


Figure 1: Neighborhoods in Aswan city, Al Sail and Zaydab Bahary are the priority target areas by PWMP Project Phase 2

1.3 PWMP Objectives and Content

The objective of the PWMP is to rehabilitate and extend the current drinking water infrastructure to serve Al Sail and Zaydab Bahary (priority areas), and as far as the budget allows El Zaydab Qeibly and Ezab Kima. The population shall be served to the target year of 2055 (design horizon).

The overall scope of the PWMP drinking water rehabilitation project is divided into two main infrastructures packages that will be tendered separately and include supply network rehabilitation (PWMP-10) and the construction of a transmission main (PWMP-11). Due to asphaltting works in the main street in the West of Al Sail, two water chambers are constructed urgently and have therefore been prioritized in a separate project PWMP-15 which

has been tendered already. The following table summarizes the three procurement packages und under PWMP:

Table 1: Procurement packages and the general description of their scope

Package	Description
PWMP-10: Supply Net-work	Supply, civil and installation works for the rehabilitation and extension of the supply network in the target areas, including house connections and decommissioning of the old network, supply and installation of water meters, etc. The project is divided into the following phases: Phase 1: Al-Sail DMA 1 (priority target area) Phase 2: Al Sail DMA 2 (priority target area) Phase 3: Al Sail DMA 3 (priority target area) Phase 4: Al-Tharir & Al Zaydab Qeply DMA Phase 5: Al Nahda DMA Phase 6: Al Soneya DMA Phase 7: Al Morashah DMA 1 Phase 8: Al Morashah DMA 2 Phase 9: Al Forn DMA
PWMP-11: Transmission Mains	Supply, civil and installation works for a new feeding pipeline of DN/OD 710/560/450mm (DN/ID 600/500/400mm) from the main water pipeline 900 mm from Shisha WTP to the existing transmission pipeline (DN/OD 630mm) in El-Samad Road nearby Al Sail area
PWMP-15: Water Cham-bers	Supply, civil and installation works for the construction of two water chambers including exploratory excavations to identify the required depth and the exact locations compatible with other infrastructure lines

2. Project Overview PWMP-10

2.1 Locations

The Project is in the target area of Al Sail, Zaydab Bahary, El Zaydab Qeibly and Ezab Kima. The phases of the Project are geographically separated into 9 district metered areas (DMA) according to Table 1.

Phases 1-3 (DMA 1-3) will be released with contract signing. The Contractor must receive written approval by the Project Manager (PWMP Consultant) prior to starting with a new phase. The release of new phases is subject to availability of funds. Based on the current financial projections the implementation of phases 1-5 appears feasible, but cannot be guaranteed to due recent uncertainties of material prices, inflation and currency exchange rates. The Contractor is not entitled to any compensation, if fewer than 5 phases are released.

Phases 1-3 are in the area of Al Sail and Al Zaydab Bahary (shown in Figure 2) and include the replacement of the outdated water supply network by a new supply network with the following characteristics:

— Total pipe length of about 30 km, including house connections

- Separated into 3 DMAs
- Supply and replacement of broken water meters
- Feeding points are from the new transmission main (PWMP-11) and from the existing transmission main

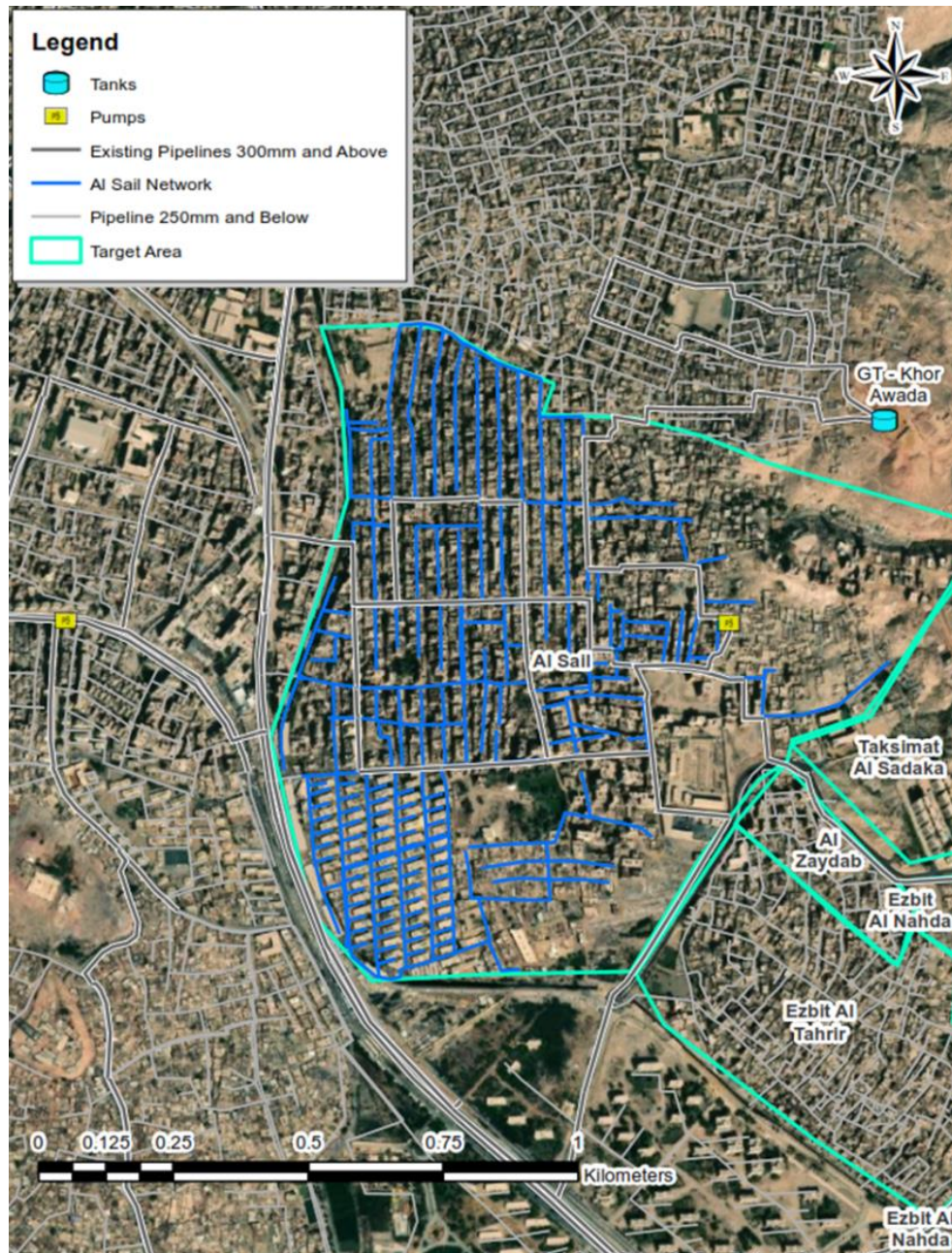


Figure 2: Approximate Project locations for phases 1-3, i.e. the replacement of the supply network in Al Sail and Zaydab Bahary (see detailed drawings in chapter 4 for more information)

Phases 4-9 are in El Zaydab Qebly and Ezab Kima (see Figure 3). The latter consists of 5 small settlements (Ezab) which are: Ezbit El Tahrer, Ezbit El Nahda, Ezbit El Sennia, Ezbit El Morasheh (East and West), and Ezbit El Forn. The objective is to replace the outdated water network by a new supply network with the following characteristics:

- Total pipe length of about 64 km, including house connections
- Separated into 6 DMAs
- Supply and replacement of broken water meters
- Feeding points from the new transmission main (PWMP-11)

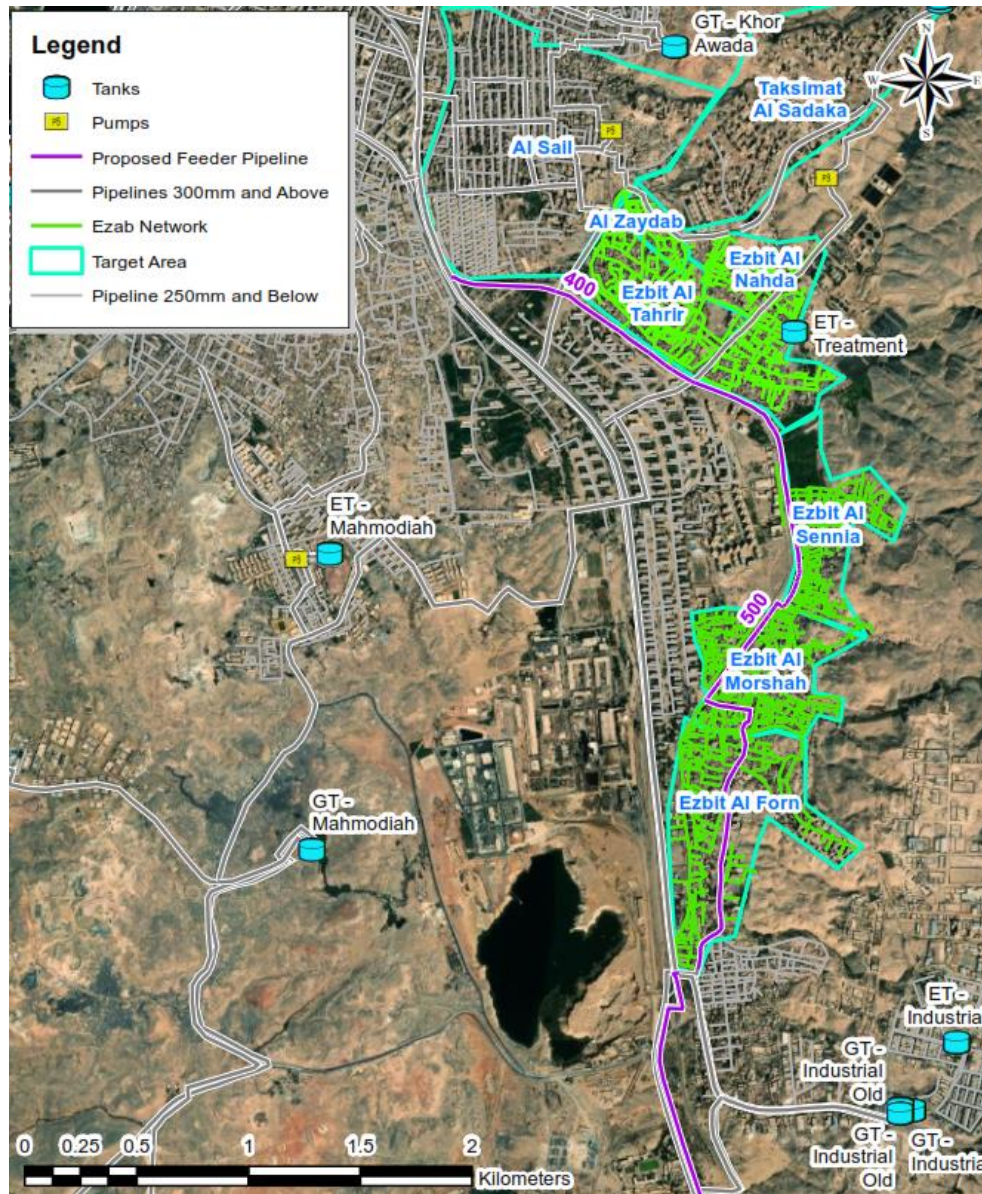


Figure 3: Project locations for phases 4-9, i.e. the replacement of the supply network in Al Zaydab Qebly and Ezab Kima (see detailed drawings in chapter 4 for more information)

Most of the pipe laying and related works will be with open trenches and only in exceptional circumstances horizontal directional drilling may be used.

The detailed instructions are given in the technical specifications (see chapter 0), the drawings (see chapter 4) and the Bill of Quantities (BoQ, see chapter 5).

2.2 Services Required

The services required under the Project are the supply, civil and installation works for the replacement of the water supply network including house connections and decommissioning of the old network. The Contractor has to check the household water meters (in coordination with the Consultant and AWSC) and replace broken water meters by supplying and installing new water meters as needed. In the course of the implementation period additional households will register their house connection at AWSC; all newly registered house connections will have to be connected by the Contractor during the implementation period. Furthermore, the Contractor has to provide and implement any additional investigations (topographic & geotechnical), design changes, workshop drawings, and as-built drawings / documentation as described in the technical specifications and detailed design in chapters 3, 4 and 5.

The Contractor must provide the following services amongst others:

- all written communication must be in English and Arabic
- project logistics, incl. professional oral and written translation as needed
- project management, incl. quality management (works, documents, health & safety, environment, etc.), financial management and project accounting
- manage and supervise a minimum of three construction sites that are fully operational (fully staffed and equipped) at all times over the implementation period
- preparation for and attendance at all meetings incl. weekly construction meetings, monthly progress meetings and coordination meetings with other contractors, public information events and any other meetings required for the implementation of the Project
- coordination with all project partners, the public, other stakeholders such as electricity, telephone and gas companies, and other contractors
- health and safety measures, site clearance, and adequate disposal of waste and excess material (acc. pertinent laws)
- installation of project information panels at each the construction site (panel size (area) of approx. 2.5 m x 2.5 m)
- obtaining all necessary approvals by the Supervisor (PWMP Consultant) prior to execution of the works (including any changes, installation of trench protection, surveying works, pipe bedding, pipe laying, testing, backfilling & compaction in layers, reinforcement, formwork installation and removal, concreting)
- packing, shipping / transport and import of equipment incl. checking of readiness for shipping, custom clearance and reception control
- transportation, accommodation and catering of Contractor's staff and labor
- ensuring timely elaboration of documents required for permitting (e.g. environmental impact assessment, technical review of final design) as well

as coordination and timely requesting of all necessary permits including intensive contact / follow-up with the relevant stakeholders (Ministries, Governorate, etc.) in order to timely obtain all permits

- full project documentation (with regular data backups) and in the format required for AWSC to import in their network information system (NIS) / GIS system
- quick correction of any deficiencies and defects.

2.3 Interfaces and Coordination

In the following figure the perimeter of PWMP-10 (boundary target area) is shown:

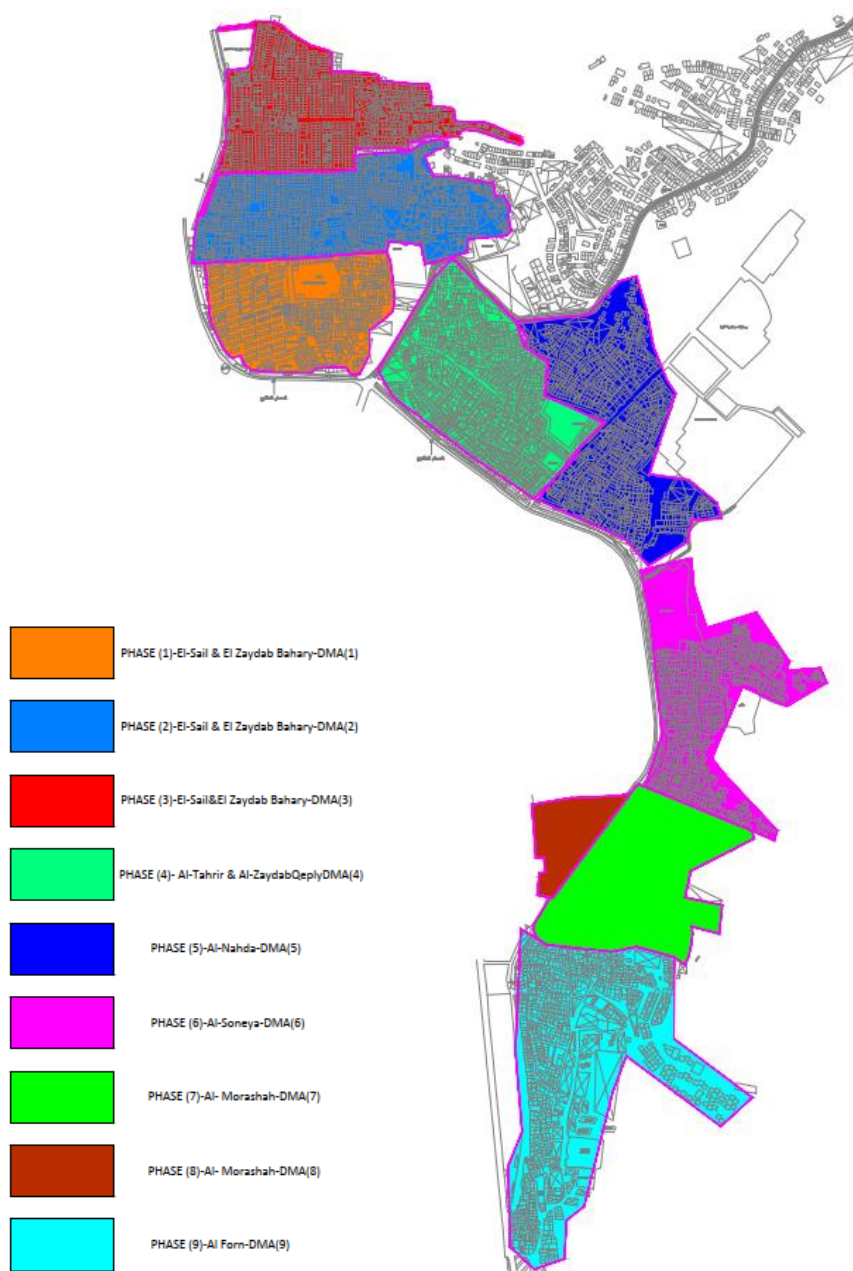


Figure 4: Overview of the target area of PWMP-10. The different colors represent different DMAs / phases.

The detailed interfaces are shown in the design (e.g. drawing no. P10-C-GN-00). The coordination of the works with the other contractors and with AWSC is in the responsibility of the Contractor. Any potential conflicts and the proposed countermeasures must be notified immediately to the Supervision (PWMP Consultant / Engineer) and discussed during the coordination meetings that will take place in addition to weekly construction meetings.

The complete outside house connections must be replaced, i.e. until the pipe enters the building. The Contractor must make an inventory of the required fittings for the house connections. The Contractor must supply and install the new house connections. The Contractor must prepare a testing, commissioning (new network) and decommissioning (old network) concept for approval by Supervision (PWMP Consultant / Engineer). Only after the new network is operational the Contractor shall connect the new house connection and take the old house connection out of operation. The Contractor must protect the new house connections from damage / vandalism until the reconnection can be completed.

The Contractor must check the household water meters (in coordination with the Consultant and AWSC) and replace broken water meters. The Contractor will be paid on a unit basis for the actual number of supplied and installed water meters up to the maximum number specified in the BoQ.

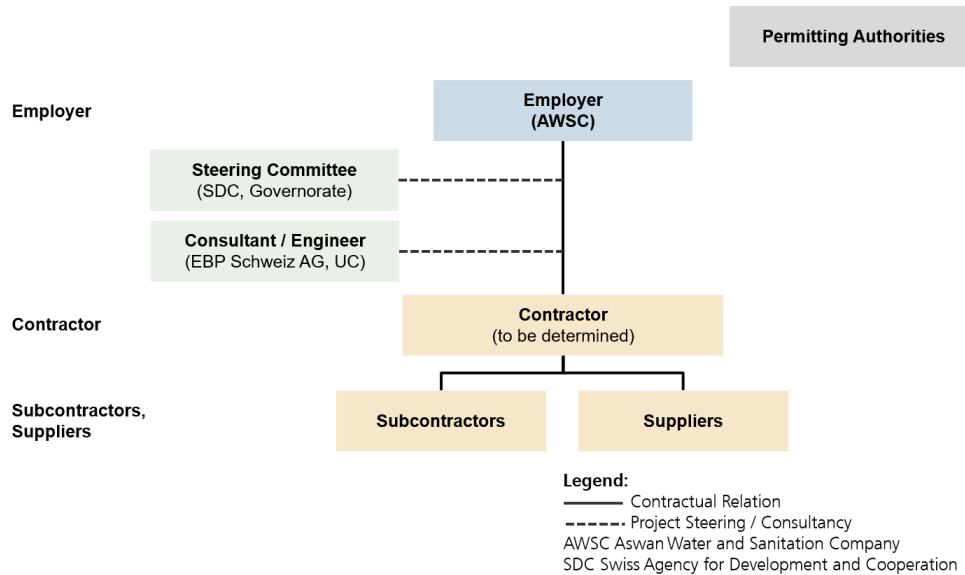
The Contractor must study the water / sewage / electricity / gas / etc. lines intersecting with the project lines and work the necessary protections to avoid any conflicts between the Project and these lines. Therefore, the Contractor shall submit the drawings with any required modifications to the Employer (AWSC) and Supervision (PWMP Consultant / Engineer) for review and approval before implementation.

All information provided in the Bidding Documents shall not be used without critical review by the Contractor. This includes all geotechnical recommendations that are informative, i.e. the Bidder / Contractor is responsible to assess the geotechnical data and decide and propose an appropriate solution. Any reservations shall be explicitly expressed in the Bid and the proposed changes shall be discussed / justified in the Bid (use Form K, List of Deviations, Section IV). After contract signing no compensation is provided for information that was available during bidding, unless reservations were made in Form K (List of Deviations, Section IV) of the Bidding documents.

The Contractor will have to verify and complete as deemed necessary all the information in the Bidding Documents for the detailed design and prior to start of the works. All related cost for the verification and completion must be included in the Bid / Contract Price.

2.4 Project Organization

In the figure below, the organization for the implementation of the Project is given.



Aswan Water and Sanitation Company (AWSC) is the Employer (also client, owner, beneficiary) and is signing the Contract with the Contractor. AWSC is supported by the PWMP Consultant / Engineer (EBP, UC) in supervising the Contractor and in informing the Steering Committee. The PWMP Consultant acts as Project Manager in accordance with the Contract and is responsible for supervision of the Contractor's works, Contract administration and the administration of the funds and disbursements.

The Project will be implemented by one Contractor, who forms a team by associating with sub-contractors and suppliers as deemed necessary. Joint-Ventures and Associations are not permitted. The Contractor may participate in any capacity whatsoever in only one bid. All sub-contractors and suppliers must be specified (in Bid and Contract) and can only be replaced after approval by the Project Manager. The Contractor must ensure to have all required specialists (geology, statics, surveying, workshop drawings and as-built drawings, etc.) in his team for the implementation of all facilities and the provision of all services required under the Contract.

2.5 Time Schedule

The time schedule for the implementation of the Project is shown in the following figure.

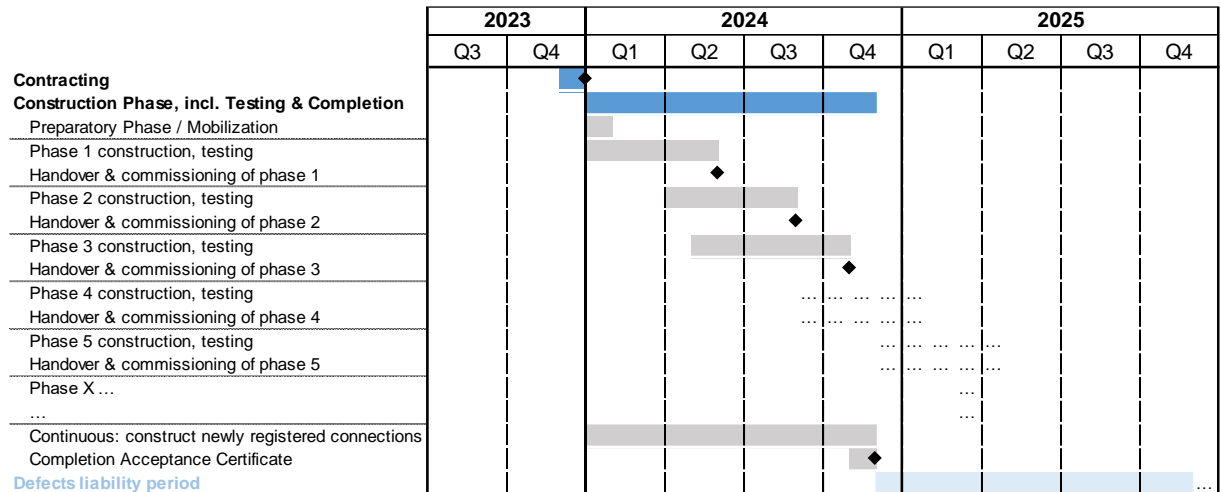


Figure 5: Implementation Schedule for the Project

The Intended Completion Date for the whole of the Works including the phases 1-3 shall be no later than 31 October 2024 (Contract, clause 1.1). For each additional released Phase (4-9), the Intended Completion Date will be extended by not more than 3 months. The Contract specifies Intended Completion Dates (handover & commissioning) for each phase and corresponding delay penalties if the Contractor fails to timely implement the Works within each phase.

The Contractor must prepare a detailed time schedule (“Program for the Works” in accordance with the Contract, clause 25) as part of the bid that will have to be discussed on weekly construction meetings with the Supervision. The time schedule must contain completion milestones (such as for excavation, delivery of goods, civil construction, installation works, any water cuts, testing, finishing, and handover inspection).

Only after the new network is operational, the Contractor shall connect the new house connections and take the old house connections out of operation. A Handover Certificate may be requested after completion of each phase / DMA. A final Certificate of Completion according to Contract clause 52 will be issued after all works and the house connections for newly registered households are completed and handed over to AWSC.

The Project Manager may suspend the construction activities immediately, if the construction site is not compliant with the requirements under the Contract, e.g. non-compliance health and safety standards, absence of key personnel such as the site managers, lack of most recent approved design documentation / drawings on site, etc. Any delays resulting from such suspension are entirely in the responsibility of the Contractor and are not subject to any compensation under the Contract.

2.6 Legal Requirements

All services, facilities and works provided under the Project must fully comply with the applicable Egyptian regulations, norms and standards. If there are no or no sufficiently specific Egyptian regulations, norms and standards, the applicable EU regulations, norms and standards shall be applied as guidelines, including ISO norms. The Bidder / Contractor is responsible to study, to make himself familiar, and to apply as deemed necessary the applicable regulatory framework and standards. This also applies to health and safety requirements. The international transports of goods and equipment must comply with the pertinent regulation and standards of the countries on the transport route. Deviations from the applicable regulations, norms and standards must be explicitly stated and justified in the Bid.

3. Technical Specifications

See separate documents

4. Drawings

See separate documents

5. Bill of Quantities (BoQ)

The Bidder must complete the entire BoQ.

See separate documents