TERMS OF REFERENCE

SHORT TERM INTERNATIONAL EXPERT FOR

ESTABLISMENT OF BULK WATER SUPPLY UNIT IN GAZA

1. BACKGROUND INFORMATION

1.1 Water Resource Development

Water resource development is constrained by the political and economic context of West Bank and Gaza. Development of water resources in the Palestine is bound by Article 40 of the Israeli-Palestinian Interim Agreement on The West Bank and The Gaza Strip (Oslo Accord)[1]. Article 40 (1995) is framed with assumptions including that interim water development will be managed through a coordinated Palestinian-Israeli process and that water issues would be further delineated under the Permanent Status Negotiations. However, the lack of an ongoing political dialogue or agreed and effective mechanisms for cooperation, together with on-going restrictions on movement and access[2], has limited Palestinian ability to develop new water resources even as the population grows and the quality of existing water resources declines. Given current sector inefficiencies related to the inability of the Palestinians from drilling wells and developing their own water resources as it is linked to the approvals from the Joint Water Committee, PWA is increasingly dependent on bulk water purchases from Mekorot. PWA purchases may soon reach some 130 MCM annually. Israel deducts the cost of water from the taxes it collects on behalf of the Palestinian Authority. In 2016, Israel deducted $94 million for unpaid Mekorot water bills (net lending) and for sewage treatment. Gaza's purchases from Mekorot are now about 10 MCM/year and expected to double.

The key source of water supply available in Gaza is groundwater from the coastal aquifer, which relies on rainfall for recharge. In the last five years, average annual rainfall in Gaza has decreased by 20-30 percent, and the average recharge volume has dropped by 10-20 percent. The increased demand and over- abstraction of ground water (by an estimated 180 MCM a year) has led to increased salinity of the aquifer, making it an ecological catastrophe. Most of the 260 municipal wells have salt and nitrate levels above the World Health Organization (WHO) guidelines. Water quality measurements in 2018 indicated that the salinity of ground water entering the municipal network was in the range of 800-3,000 mg/liter of total dissolved solids (TDS)[1]. The 10 MCM per year currently supplied from Israel is mixed with groundwater, however the mixed water is still not fit for human consumption. As a result, and although 95 percent of the population is connected to the piped network, access to improved drinking water is just one percent compared to universal access 20 years ago. The result is that 97 percent of the drinking water consumed in Gaza is supplied, mainly via tanker, by small-scale private providers or non-governmental organizations (NGOs).

To address the chronic poor ground water quality in Gaza and the increase in domestic demand (which is projected to reach around 145 MCM by 2030), PWA, with support from donors, has proposed to increase supply from sea water desalination. Gaza Central Desalination Program (GCDP) was designed in partnership with international institutions, including the European Commission (EC), the European Investment Bank (EIB), the Union for the Mediterranean (UfM), the Islamic Development Bank (IsDB), and the World Bank (WB). Core elements of the GCDP include the construction and operation of a seawater reverse osmosis desalination plant of 55 MCM capacity powered by renewable energy (solar and wind); and the associated works that include the construction of a north-south water carrier, including storage reservoirs to convey and blend the desalinated water with primarily groundwater sources.

Currently, all water supplied for domestic use in the middle and southern governorates of Gaza - a total of 39.7 MCM per year in 2017 - comes from: (i) Gaza's coastal aquifer (33.1 MCM/year); (ii) imports from Israel (5 MCM/year) for project areas and (iii) very small individual domestic desalination plants (1.75 MCM/year). Some 90 percent of this water is supplied at high saline levels because of improper and ineffective mixing within the transmission pipelines. The crisis in water quantity and quality in the southern and middle governorates of Gaza in the short to medium term will be addressed through an agreement with Mekorot to provide additional supply of 5 MCM per year for the south and middle governorates of Gaza. Furthermore, two short-term low-volume (STLVs) desalination plants were recently completed and can supply nearly 5 MCM of desalinated water per year. The Associated Work will provide the infrastructure for utilizing the additional quantities of desalinated

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[1] https://www.nad.ps/en/publication-resources/agreements/israeli-palestinian-interim-agreement-west-bank-and-gaza-strip

[2http://peacemaker.un.org/sites/peacemaker.un.org/files/IsraelOPt_AgreedDocumentsOnMovementAccessGaza2005.pdf]

1 WHO standards in relation to TDS levels are as follows: excellent, less than 300 mg/liter; good, between 300 to 600 mg/liter; fair, 600 and 900mg/liter; poor, between 900 and 1,200 mg/liter; and unacceptable, greater than 1,200 mg/liter

water and blending them appropriately with brackish ground water to achieve WHO guidelines for potable water for subsequent delivery to the population through the existing water distribution network

1.2 Water Sector Reform

On Dec 14th 2009 the Cabinet of Ministers of the Palestinian National Authority endorsed an "Action Plan for Reform" (from here on referred to as "the Action Plan") towards the definition and implementation of a comprehensive program of institutional and legislative reform in the Palestinian water sector ("the Sector Reform"). As the central body in the sector, the Palestinian Water Authority (PWA) has the mandate to lead the reform process. The overall reform included the reorganization of the water sector and the institutions within, capacity building, and the developing of strategies and policies.

The reform objectives have been defined as follows, with regards to:

1. Institutions; the Sector Reform will establish strong (capable) and sustainable institutions within a legal framework that clearly defines their roles, responsibilities and the interface (relationship) between them.

2. Infrastructure needs; the Sector Reform will improve water supply and sanitation strategies, policies, investment programs, project designs, and the implementation of projects, in an effort to substantially accelerate infrastructure development.

3. Service provision; the Sector Reform aims to accelerate equitable access to a quality service, while providing improved efficiency and cost-recovery of effectively regulated water operators.

4. Water resources management; the Sector Reform will help to build the institutional knowledge, policies, and monitoring and enforcement capacities, as part of an effort to achieve a more sustainable water resources management strategy.

5. Water consumers; the Sector Reform will aim at improving water demand management and public health awareness in line with the development of water conservation, environmental and public health policies.

1.3 New Water Law

The President of State of Palestine issued a decree endorsing the new Water Law on 14 June 2014. The issuance of the new law establishes for a new phase for the water and wastewater sector, its governance and management, as the law states that the Water Authority will be under the responsibility of the Cabinet which goes in line with the basic law for having the authorities under the Cabinet umbrella. In addition the law splits policy from regulatory functions, which was previously carried out by PWA since its establishment. The new water law grants the establishment of Water Sector Regulatory Council. The Water Sector Regulatory Council has been established by the Cabinet and has a Board of Directors derived from the public sector, private sector and civil society. Its mandate makes it responsible for water prices and monitoring the performance of Water and Wastewater Service Providers.

The Water Law includes directives to transform the West Bank Water Department (WBWD) into a National Water Company (NWC) which will be owned by the State of Palestine. For this reason the Law states PWA need to develop a temporary Bylaw to facilitate this transitional period (transfer the West Bank Water Department into a company) and provide a mechanism to transfer the assets to the National Company. The Law also states that the company legal status will not change except by a Law. The National Water Company is responsible for supplying Bulk Water and any tasks as assigned by the Water Authority. The National Water Company will have Board of Directors formed by the Cabinet based on recommendations from the Head of the Palestinian Water Authority. The BoD is the supreme authority for the adoption of decisions in the company, and it is entrusted with the implementation of the Company's policies and overseeing the management of its operations for the advancement of the policy approved by PWA .

The new law gives PWA the mandate, supported by a bylaw endorsed by the Cabinet, for establishment of Regional Water Utilities and Water User Associations.

The Law includes articles protecting water resources and defined protection zones. In addition, to monitoring water resources and provides the head of PWA the mandate to provide judicial policy. It also contains articles which allows for sanctions for the infringement of Water resources.

1.4 Current and future organization of Water Sector

The current organization and relationships between the main administrative bodies involved in the sector are briefly presented in Figure 1. The "National Water Company" has not been fully established yet. It is supposed to integrate the current West Bank Water Department (WBWD) in charge of managing and operating the bulk water supply system in the West Bank.

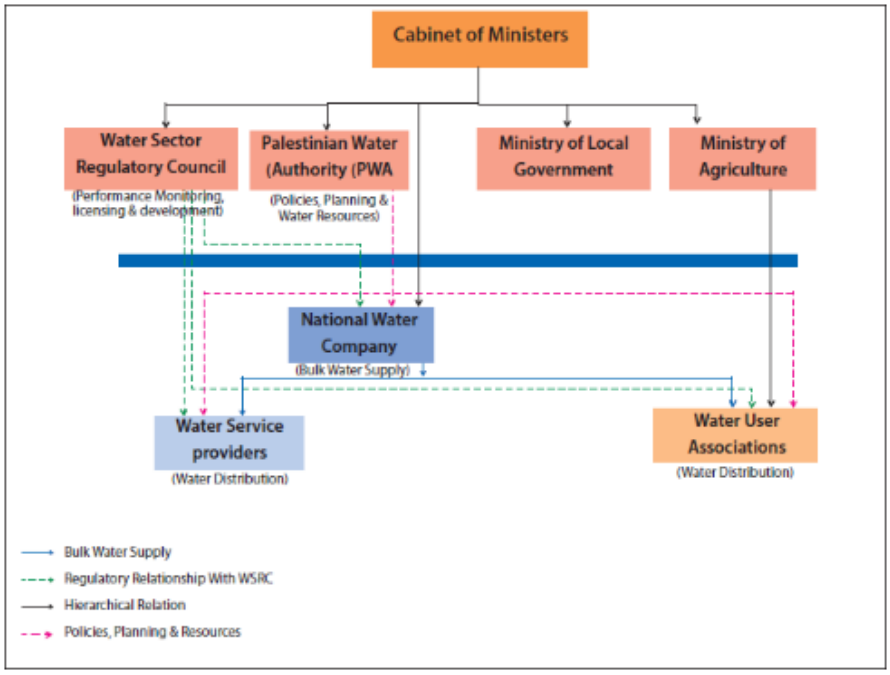


Figure 1 Water sector framework (source: PWA, cited in [WSRC, 2017])

The reorganization of the water service providers is also part of the Water Sector Reform. It was especially addressed in a study aiming at proposing a roadmap for the creation of Regional Water Utilities (RWU). The latest report of this study [FCG, 2018] recommended a stepwise approach to reduce the number of service providers from almost 300 in 2018 down to 3 RWUs in the West Bank and 1 in Gaza in 2032 (Figure 2).

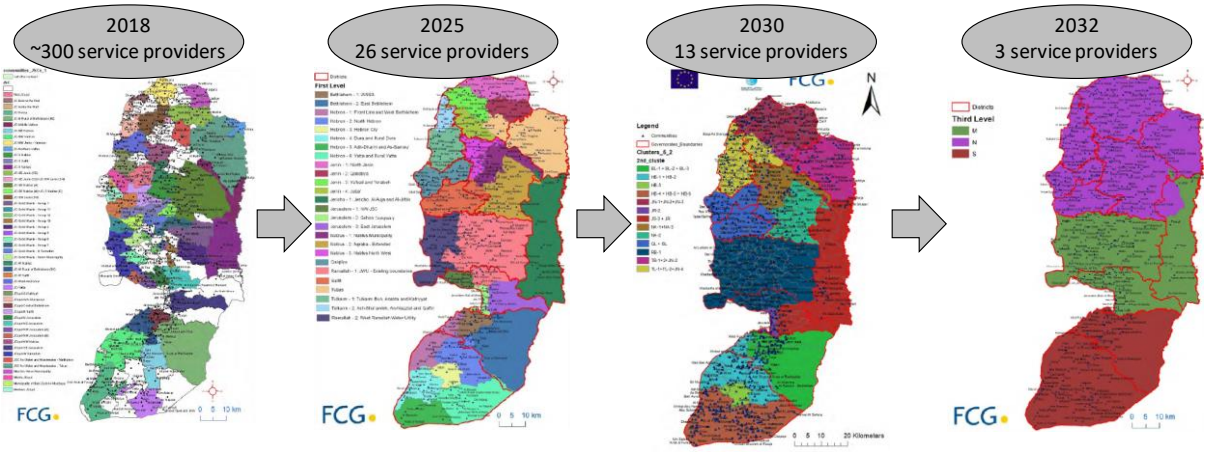


Figure 2 Proposed reorganization of the water service providers in the West Bank as per [FCG, 2018]

1.5 The West Bank Water Department (WBWD)

The West Bank Water Department (WBWD) comes under the umbrella of PWA and acts as principal bulk water provider to municipalities, village councils and some existing utilities or service providers, big businesses and irrigators of the West Bank.

The WBWD activities are governed by the Palestinian Government Administrative Regulation. WBWD employees are appointed on permanent or contracted contract and are regulated by the Civil Service Law No. 4 of 1998.

In March 2017, the PWA developed a road map for establishing the NWC from the existing West Bank Water Department. In November 2020, the Government approved the Reform Plan of the Water Sector, and issues decisions related to the establishment and registration of the National Water Company and formulation of its Board of Director.

The West Bank Water Department (WBWD) purchases and distributes bulk water to all the main service providers in the West Bank. The main water sources are: (i) Mekorot; (ii) Gihon; and (iii) PWA wells .

The current water supply to the West Bank mainly comes from groundwater and springs (60 %) and the water purchased from Israel (40 %) as presented in Table 1. As of today, the distribution of bulk water to Palestinian communities cannot be satisfactorily controlled by the Palestinians themselves due to the entangled Palestinian and Israeli water networks within the West Bank (Figure 3).

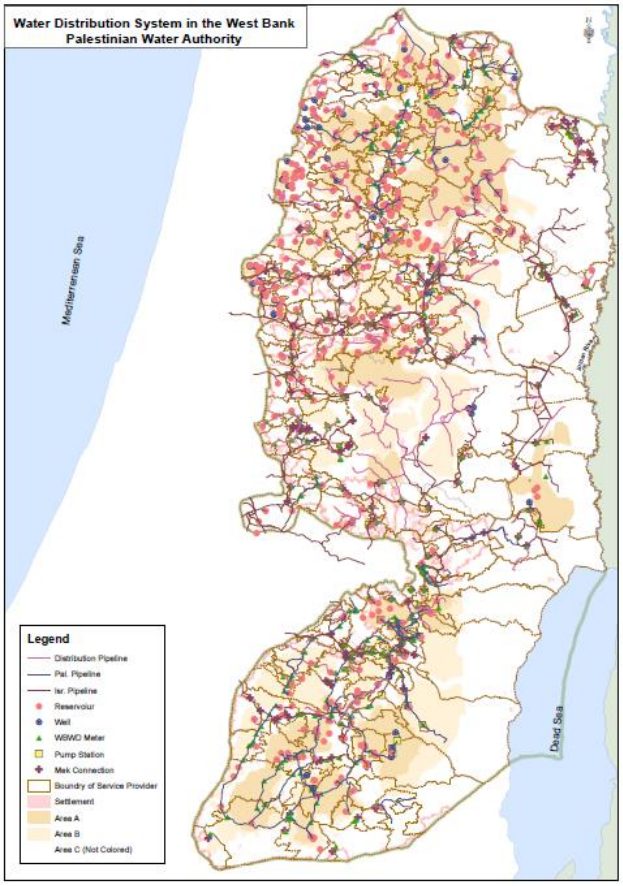


Figure 3 Water distribution system in the West Bank (PWA data)

Water source	Volume (MCM) (available)	Volume utilized for bulk System (MCM)
Groundwater and Springs	122	60[2]
Purchased water from Israel	73	68[3]

Table 1 Volumes of various water sources in 2018 for the West Bank [PWA, 2018]

The WBWD purchases water from the Israeli side (Mekorot) through 175 connection points (for a water quantity of around 73 MCM/year) which adds to the water abstracted from 10 wells owned by the PWA and few private wells. The amount of water abstracted and purchased from private wells is around 55 MCM/year.

Currently, the WBWD is distributing water through 600 km of pipelines with diameters ranging from 2" to 36" supplying water to 199 service providers (in additional to individual connection) through 500 water meters which represents (87%) of the total service providers.

1.6 Bulk Water Supply in Gaza

The water situation in Gaza is very acute. water supplied through the municipal networks is undrinkable and almost everyone relies for drinking water on water from expensive and unregulated small-scale private providers. The main source of water in Gaza is groundwater from the coastal aquifer, which relies on rainfall for recharge. The increased demand and over-abstraction of ground water (by an estimated 180 Million Cubic Meters (MCM) a year) has led to increased salinity of the aquifer, making it an ecological catastrophe. Currently, fresh water purchased from Israel (10 MCM a year) is improperly mixed with highly saline groundwater. The mixed water is not fit for human consumption and is not distributed equitably. As a result, and although 95 percent of the population is connected to the piped network, access to drinking water is just

[2] Part of the Ground water is used for agriculture use (62 MCM)

[3] Part of purchased water is used for agriculture in Kardala and Bardala

1 percent, compared to universal access 20 years ago. The result is that 97 percent of the drinking water consumed in Gaza is supplied, mainly via tanker, by small-scale private providers or Non-Governmental Organizations .

Currently, there are huge effort to address chronic poor water quality in Gaza , and it is expected to have significant increase in domestic demand in the medium term, which is projected to reach around 145 MCM a year by 2030. The Gaza Central Desalination Program (GCDP) covers all Gaza and comprises two main components: (i) construction of a desalination plant with initial capacity to produce 55 MCM a year of desalinated water that can be doubled in the future; and (ii) construction of a north-south water carrier, including storage reservoirs to convey and properly blend the desalinated water with groundwater sources to achieve water supply meeting WHO standards for potable water.

Implementing the GCDP will take several years, leaving the water situation in Gaza, and particularly in the southern and middle governorates, in urgent need of improvement. In this context, the international community supported the construction of two Short-Term Low-Volume (STLV) desalination plants which produce 4.7 MCM per year as interim measures to alleviate the needs for fresh water. In addition, PWA has negotiated the purchase of an additional 5 MCM per year of fresh water for the middle and southern governorates of Gaza from Israel (Mekorot) for a total of 10 MCM.

Currently, there is no bulk water supply entity in Gaza to manage and operate the existing bulk infrastructure and the new infrastructure under construction or to be constructed in the coming few years.

As part of the reform proposes, there is an urgent need to establish a small unit to manage bulk water supply operations in Gaza laying a sound foundation for the future establishment of the NWC branch in Gaza. The Bulk Water Supply Unit (National Water Company- Gaza branch) will take responsibility for: (i) the operation and maintenance of the STLVs; (ii) the monitoring and management of bulk water purchased from Israel; (iii) the management and operation of groundwater wells in middle and south Gaza; (iv) the blending of these bulk water sources for distribution and onward sale to the water services providers (municipalities and Coastal Municipalities Water Utility); and the Recovery wells and Irrigation Booster Station.

2. PROJECT DESCRIPTION AND COMPONENTS

2.1 Background

Gaza Central Desalination Program: Associated Works Phase I Project is a part of a coordinated international effort to address chronic poor water quality in Gaza and the significant increase in domestic demand expected in the medium term, which is projected to reach around 145 MCM a year by 2030. PWA, in partnership with the European Commission (EC), the European Investment Bank (EIB), the Union for the Mediterranean (UfM), the Islamic Development Bank (ISDB) and the World Bank, formulated the Gaza Central Desalination Program (GCDP). The GCDP covers all Gaza and comprises two main components: (i) construction of a desalination plant with initial capacity to produce 55 MCM a year of desalinated water that can be doubled in the future; and (ii) construction of a north-south water carrier, including storage reservoirs to convey and properly blend the desalinated water with groundwater sources to achieve water supply meeting WHO standards for potable water. Finally, as part of the "Associated Works" component, the European Union (EU) is also financing a non-revenue water (NRW) reduction program in major municipalities of the Gaza strip to maximize use of the blended water.

Securing the required funding for implementing the GCDP will take several years, leaving the water situation in Gaza, and particularly in the southern and middle governorates, in urgent need of improvement. In this context, the international community supported the construction of two Short-Term Low-Volume (STLV) desalination plants which produce 4.7 MCM per year as interim measures to alleviate the needs for fresh water. In addition, PWA has negotiated the purchase of an additional 5 MCM per year of fresh water for the middle and southern governorates of Gaza from (Mekorot) for a total of 10 MCM per year . The proposed project, through blending these new high-quality water sources with 15.3 MCM per year from existing saline groundwater, will supply bulk water to all 16 municipalities in the project area (with an estimated 870,000 people) with at least 90 liters per capita per day (lcd) meeting WHO standards for potable water.

The project will also contribute towards enhancing soundness of the sector institutional set up. The proposed operation includes institutional strengthening activities aimed at the establishment of a small unit to manage bulk water supply operations in Gaza laying a sound foundation for the future establishment of the NWC, which is mandated by the Water Law to manage and operate bulk water throughout the West Bank and Gaza.

2.2 Project Components

Component 1: Improved Supply of Bulk Water to the southern and middle governorates of Gaza

Component 1 comprises four packages to implement an integrated system of water carriers and reservoirs to convey and blend water from three different sources to achieve the desired salinity. Packages 1.1 and 1.2 are financed by a parallel grant from the Kuwait Fund for Arab Economic Development (KFAED).

a) Package 1.1: Southern Main Carrier System will enhance the capacity for blending, storage and bulk supply of drinking water to Rafah and Khan Younis Governorates. This package is being tendered; implementation is expected to be completed by mid-2023.
b) Package 1.2: Additional Water Supply Network Improvement Works for Middle Gaza and Khan Younis Governorates will increase the capacity to effectively utilize the 10 MCM/year of fresh water purchased from Israel at Bani Said and Bani Suhaila connection points. Implementation started in June 2019 and is expected to be completed by December 2020.
c) Package 1.3: Reconfiguration of the water distribution system in the Southern Gaza Governorates and Package 1.4: Reconfiguration of the water distribution system in Middle Gaza Governorate will reconfigure the municipal primary distribution networks where they connect with the new bulk water system to enable them to receive and effectively distribute the blended bulk water. These two packages will be funded jointly from the Trust Fund for Gaza and the West Bank (TFGWB) and Partnership for Infrastructure Development Multi-Donor Trust Fund (PID MDTF). The detailed design and tender documents for both packages were prepared in late 2017 and need to be revised. Tendering is planned in the first quarter of 2020 with activity implementation period of 30 months and 18 months, respectively.

Component 2: Capacity Building and Performance Improvement of Selected Institutions

This component is designed primarily to create adequate capacity to ensure operations and maintenance of the STLVs during project implementation and subsequently during the O&M of the integrated bulk water supply system supported by the project. This component will also support the design of a National Service Provider Improvement Program (NSPIP) to improve service delivery in the West Bank and Gaza, and reduce the need for sector subsidies, as well as to prepare priority bulk water investments in the West Bank. This component will be jointly funded from TFGWB and PID MDTF.

a) Sub-component 2.1: Establishment of a unit to operate bulk water supply in Gaza will fund the design and implementation of an action plan establishing a unit that would over the implementation period of this project take on gradual responsibility for: (i) operation and maintenance of the STLVs; (ii) monitoring and management of bulk water purchases from Israel; (iii) management and operation of groundwater wells in the middle and southern Gaza governorates to be utilized for blending; (iv) blending of these bulk water sources for distribution and onward sale to municipalities (the SPs); and (v) billing and collection (on behalf of PWA) for bulk water sales to municipalities. In line with PWA's long-term plan to create the NWC, this unit will eventually scale up its role and responsibilities to be the Gaza nucleus of the NWC envisaged in the 2014 Water Law. As part of the establishment of the Bulk Water Supply Unit opportunities for female employment will be explored and enhanced to utilize the untapped resource that highly educated and skilled women represent.[4] This sub-component will also fund a study of private water vendors' livelihoods and potential mitigation measures.
b) Sub-component 2.2: Design of a National Service Provider Improvement Program will fund the design of a national program to improve the operational and financial performance of service providers across the WB&G.
c) Sub-component 2.3: Priority investment planning for bulk water supply in the West Bank will finance: (i) updating the water sector policy and strategy; (ii) preparing an integrated bulk water master plan for the West Bank, which will identify and prioritize investments to set up a bulk water supply and conveyance system for the West Bank; and (iii) preparing detailed designs and ESIAs for the identified priority investments related to distribution of water.

Component 3: Project Management and Implementation Support

This component is designed to support effective implementation of the project and provide funds to ensure continued operations of vital water assets in Gaza

[4] This will include support to the PWA Gender Unit.

3. ESTABLISHMENT OF THE BWSU

According to Sub-component 2.1 of the Gaza Central Desalination Program, a new Bulk Water Supply Unit – BWSU will be established to operate bulk water supply in Gaza. According to PWA's orientation, the new unit should be established with a minimal organizational structure, in order to be able to start operating as a bulk water supplier.

The initial organizational structure should allow the BWSU to perform the following services:

- perform all activities related to
  - Corporate management:
  - Customer relations management
  - Operations management
  - Infrastructure planning and development
  - Financial management
  - Administration and HRM management
- Water Provision to customer through :
  - purchase water from third parties
  - promote its own production of water
  - promote the blending of waters from different sources
  - store, distribute and sell bulk water
- control the quality of the water supplied
- operate and maintain the related infrastructure
- perform all the administrative, commercial and financial activities related to the services to be provided
- Customer relation management including :
  - Customer accounts and customer contracts
  - Customer satisfaction surveys, complaint handling, incl. call center
  - New meter connection, replacement
  - Meter reading (Meter charging), Billing and collection, Debt collection

The organizational structure will also be responsible for planning and implementing the development and expansion of the unit in order to keep up with the demands arising from the increase in the provision of its services in its operation jurisdiction. This includes planning and implementing the expected increase in its organizational structure, in order to cover all the functions demanded by the service provider (the customers) as well as the increase in its staff, facilities and related resources.

The initial tasks foreseen for the new Unit include the negotiations with the several municipalities that will be served, for BWSU to assume the supply of their consumed water. Negotiations may include the eventual transfer of assets, as well as agreeing on the prices for the supplied water. The amounts collected through the sale of water should be covering the at the beginning the O&M costs resulting from the provision of services in addition to the part of the investment cost , with gradual increase towards achieving the full cost recovery.

Once implemented and operational, from a simple, minimal, initial organizational structure, it will be up to BWSU itself to develop the tools and procedures necessary for the full exercise of its competencies. This will include tariff setup studies; operation and maintenance procedures; operation; maintenance and commercial data management; provision of support to the municipal service providers to establish their own retail water tariffs, etc.

The initial structure to be proposed to BWSU should include the minimum operating functions necessary to allow the start of its activities, which will involve the operational management of the infrastructure for the regular and safe supply of water to its customers, but also to implement the developments necessary to meet the expected increasing role of the Unit in the region.

3.1 INITIAL ORGANIZATIONAL SET UP

The consultant must propose an organizational structure for the start of operation of the unit. This structure will be implemented gradually, according to the pace that the new unit will assume the bulk water supply infrastructure in the region. The structure should seek the minimum cost for its operation, but also be able to meet, with efficiency and sustainability, all the services provided by the unit. In this sense, the

proposed structure should give emphasis on modern customer orientated integrated data management, including all the information generated in the various areas of the unit. Integrated data management should allow the continuous assessment of the results produced in the different areas of the unit, in the basis of established targets and related performance indicators. GIS data bank should be used for the integration of all physical, operational, maintenance and commercial data managed by the unit.

Financial sustainability through appropriate billing and collection from the customers in addition setting appropriate prices is considered and important element in the commercial services within the initial organization set up.

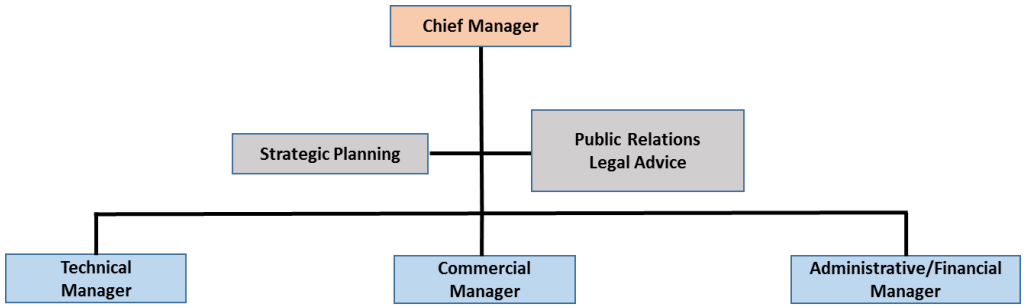
As the unit will gradually increase its services provision, strategic planning must foresee the future demands that the unit will face and plan the necessary actions for its attendance.

Operation and maintenance of the bulk water supply infrastructure should be envisaged with emphasis on the extensive use of automation and data integration technologies, with the operational management of the system through a centralized operation center, using SCADA, telemetry and remote control technologies.

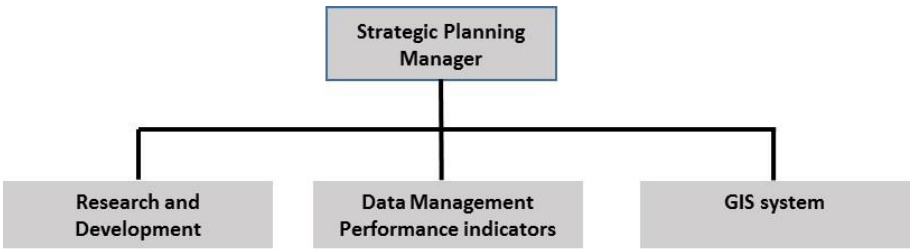
Maintenance of the infrastructure should be managed according to pre-programmed preventive maintenance systems.

A proposal for the initial organizational setup for the BWSU is presented below. This proposal can be used as a guide for the initial discussions with PWA.

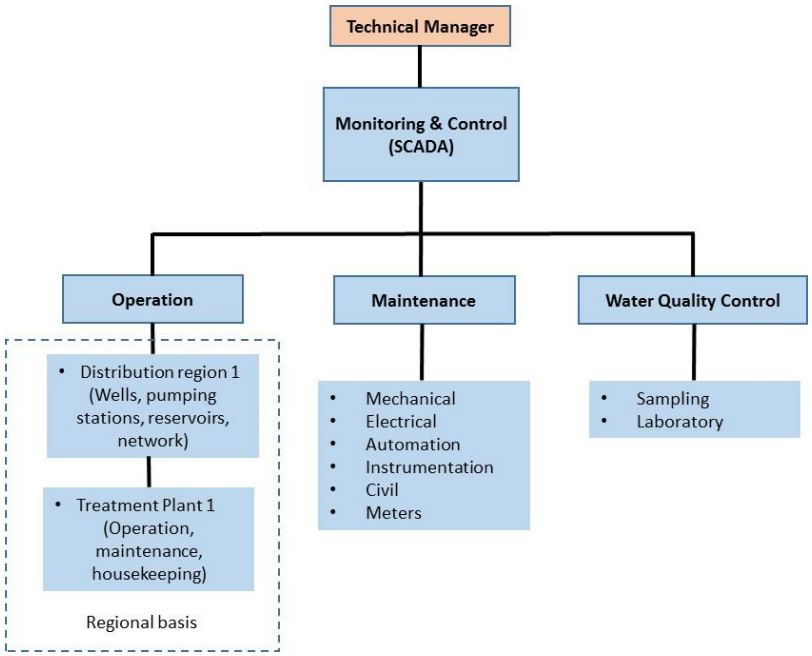
3.1.1 Top Management level



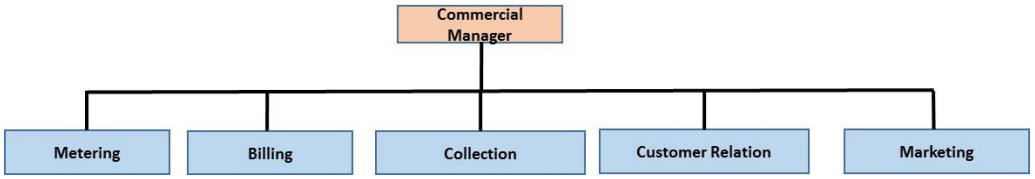
3.2 Strategic Development level



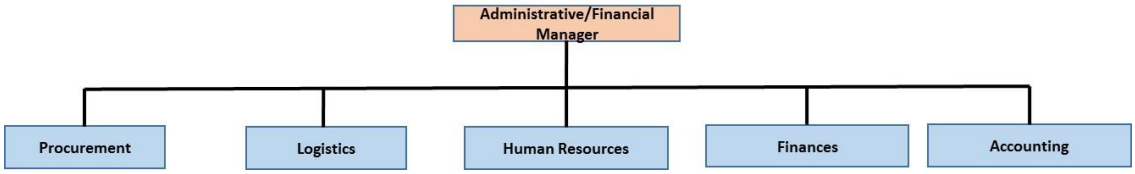
3.3 Operational level – Technical Area



3.4 Operational level – Commercial Area



3.5 Operational level – Administrative/Financial Area



4. THE CONSULTANCY

4.1 Objectives

The overall objective of the Consultancy Service is to establish the basis for an initial organizational structure for the Bulk Water Supply Unit, which can gradually develop itself to become financially sustainable and able to provide bulk water to its client in the most efficient manner, with end goal of establishing the National Water Company, with autonomous status in Gaza.

Specific objective to be attained as part of the assignment is to support PWA in the establishment of a new Bulk Water Supply Unit (BWSU) in Gaza to manage, operate and maintain all bulk water supply assets in the project areas, and to progressively ensure that bulk water costs (at least the O&M costs) are recovered from municipal service providers.

Based on the initial proposal hereby presented, the consultancy must detail the organizational structure necessary to allow the new Bulk Water Supply Unit to start its activities, including the technical and administrative structure necessary for the management of the Bulk Water Supply Systems, as well as the human resources, facilities and equipment necessary for its operation, including the infrastructure associated with it.

The initial organizational structure should be detailed in close coordination with PWA, which will establish the main guidelines for its implementation pace.

4.2 Assumptions and risks

Assumption underlying the project

- The local socio-political situation allows for the different stages to take place as envisaged and planed.
- The political level provides the needed support and decisions to consultant ensuring cooperation of the different stakeholders.
- The PWA, LGU's and other PA institutional stakeholders will pro-actively participate and contribute to achieve the goal of the assignment.
- Adequate and timely funding to meet reasonable budgeting.

Risks

- The political situation between Palestine and Israel may impact the project.
- Possible resistance and in-cooperative attitude from some Municipalities in the central and southern Gaza governorates which may affect signing the MoU's, or taking action needed to attain the sustainability (enforce increases in water tariff). In addition to unwillingness of customers to pay for the services
- Enabling Resources needed by the unit to be in place .

4.3 Tasks of the Consultancy and Products to be delivered

The Consultancy should be developed by an International Expert in order to support the establishment of the initial organizational structure for the BWSU, which should deliver the following products:

(1) Assessment Report & Action Plan

- Analyze existing studies, reports, and data analysis conducted by the Palestinian Water Authority, including but not limited to:
  - Road Map to Rehabilitate the WBWD and Establish the NWC[5]
  - Water Security Mapping for Gaza[6]
  - Recent Government Decrees (Nov 2020) related to the establishment of the National Water Company[7]
  - Reform Plan (2020) that was adapted by the Government (Annex I).
- As needed, gather additional data in full coordination with PWA.
- Consolidate existing and new analysis and research in an assessment Report relating to governance, technical, financial and economic perspectives with the objective of establishing the BWSU in full coordination with PWA.
- Conduct a prospective diagnosis to survey the size and characteristics of the infrastructure that will be assumed by the new unit, seeking to establish the schedule for transferring its management to BWSU. The diagnosis must take into account the assets to be operated by BWSU, according to Annex 2.

(2) Develop Initial Organization Structure for BWSU

The International Expert will support and work in close cooperation with PWA/PMSU and WBWD /NWC in the preparation and consolidation of the initial organizational structure for the BWSU, based on the draft Organizational Structure proposal presented in this TOR. The initial structure should allow the operation of the BWSU according to the objectives expected for its early years of operation. The organizational structure should be designed to minimize the initial costs for running the unit and should only contemplate the functions required to meet its short-term objectives.

[5] To be submitted by PWA upon signing the Contract

[6] To be submitted by PWA upon signing the Contract

[7] To be submitted by PWA upon signing the Contract

The scope of work will include:

- Consolidate the BWSU initial Organization Structure :
    - Carrying out a series of interviews with PWA-WBWD/NWC, relevant staff to develop the organizational structure
    - Develop effective and simple organizational structure enabling successful work of all considering the WBWD/NWC structure. The exclusive responsibility of the assumed structure is:
        - Provide high-quality bulk potable water to the customers in an efficient and reliable manner;
        - Provide a high level of bulk water customer service, transparency and quality of reporting and monitoring, and efficiency management.
        - Support achieving financial and operational efficiencies.
    - Develop an implementation schedule for the proposed structure, starting with a minimum staff core to start its activities, foreseeing a gradual increase in functions and staff according to the pace that the unit will assume the infrastructure for water supply in the region.
    - The consolidated initial organization structure proposal shall be presented in a workshop to PMSU/PWA staff, and discussed with Head of PWA\Chairman of the National Water Company Board of Director, then finalized considering all comments and feedback as deemed necessary.

(3) Develop the Guideline for the Initial Organization Structure for BWSU

It is foreseen that BWSU will be the seed for the future establishment of the National Water Company at Palestine. Therefore the consultancy should prepare the related Guideline to allow BWSU to operate as on commercial basis, under the policies established by PWA.

According to the Organizational Structure proposed for the Unit, the Consultant should detail the Unit Guideline, in accordance with the policies and guidelines established by PWA and related legal requirements established by the Palestinian state.

- Developing the BWSU Guideline :
    - Carrying out a series of interviews with PWA-WBWD/NWC, relevant staff to develop the Guideline.
    - The draft initial Guideline shall be presented in a workshop to PMSU/PWA staff, and discussed with Head of PWA\Chairman of the National Water Company Board of Director, then finalized considering all comments and feedback as deemed necessary.

It is foreseen that the BWSU will initially start operating as part of PWA own structure, with a view to, in the future, becoming part of the National Water Company.

(4) Develop the Internal Rules for the Initial Organization Structure for BWSU

In accordance with the functions provided in the proposed Organizational Structure for the BWSU, the Unit's Internal Regulations must be drawn up, with the duties, obligations and responsibilities of each body provided for the various functional levels of the organization.

Its objective is to define the attributions of the set of Organizational Units that make up its Organic Structure, in order to guarantee its integrated and harmonious functioning, establishing the general criteria for the distribution of responsibility and delegation of authority under the aegis of the Bylaws.

- Developing the Internal Rules for the BWSU :
    - Carrying out a series of interviews with PWA-WBWD/NWC, relevant staff to develop the Internal Rules
    - The draft initial Internal Rules shall be presented in a workshop to PMSU/PWA staff, and discussed with Head of PWA\Chairman of the National Water Company Board of Director, then finalized considering all comments and feedback as deemed necessary.

(5) Develop the BWSU staff job description

The professional specialty of the professionals needed to fill all the functions provided in the proposed initial structure for BWSU must be developed, covering all the required technical and support personnel at all the proposed management levels. The staffing plan proposal must

be accompanied by the respective remuneration expectation for each foreseen professional, according to their professional formation and required experience, in order to enable the estimate of the unit's monthly personnel cost.

- Develop the:
    - Designing or adapting an agreed format for the draft JDs covering standard items such as reporting, supervisory responsibilities, objectives, key result areas, key tasks, control information etc., taking into account any existing material and Palestinian public sector norms.
    - The International Expert shall ensure that contradictions, overlaps etc. do not occur in the JDs,
    - The International Expert shall organize a mid-assignment workshop to present draft Job description and a workshop at the end of the assignment to present the agreed final JDs

      Note: The establishment of BWSU should consider creating an enabling environment for women through equal work opportunities, employment incentives such as flex work and addressing the deficiencies.

(6) Develop the criteria for selection and hiring of the professionals provided for the initial organizational structure of BWSU

The International Expert must develop the professional profile and experience requirements for the process of hiring the professionals to compose the staff of BWSU, as well as a proposal for the curriculum evaluation criteria to be adopted in the selection and choice of professionals.

(7) Develop the initial physical structure required for BWSU

The International Expert must present a proposal for the initial physical structure of the Unit, covering all its management and execution levels, including the needs in terms of offices, workshops, garages, operational units, service stations , etc. The proposal must include the required area and the basic characteristics of the properties, according to the characteristics foreseen for the exercise of the activities foreseen to each property, as well as contemplating the staff associated with it. An estimate of the cost for the acquisition or annual rental of the planned properties must be presented , as well as the costs related to their operation, including expenses with office consumables, cleaning and maintenance, surveillance, provision of water, wastewater collection, energy, communication, city taxes, etc. The International Expert to present recommendations for outsourcing based on the investment cost and expected operation costs where applicable.

(8) Develop the initial office equipment demand needed to equip the planned physical structure

All the furniture necessary for the operation of the Unit's physical facilities , including related office equipment, must be listed. The proposal must contemplate the number and basic characteristics of furniture and equipment, according to the characteristics foreseen for the exercise of related activities. A cost estimate should be provided for the purchase of the planned office furniture and equipment.

(9) Develop the initial IT hardware and software to equip the BWSU

The International Expert shall submit a proposal of the computer equipment necessary for the functioning of the Unit, including computers, monitors, printers, plotters, modems and other cable and Wifi equipment for data communications. The equipment configuration must include the software considered necessary for the organization to function, including, in addition to text software, spreadsheets, network management, etc., software for technical drawings, database and GIS systems, billing and collection, human resource management asset management. A cost estimate for the annual purchase or lease of the planned software should be presented. When possible, preference should be given to using free software, and software's available at the WBWD that is efficient upon the International Expert investigation and recommendations.

(10) Develop the initial passenger and cargo vehicles necessary to equip the BWSU

The International Expert should submit a proposal for the passenger and cargo transport vehicles necessary for the operation of the Unit. The survey must include the vehicles necessary for the operation of the operational units operated by BWSU. The vehicle configuration must present its basic operating characteristics and required capacities. A cost estimate for the acquisition and annual rental of the planned vehicles must be presented, including the cost of expenses related to each year of use.

(11) Estimate of the annual cost of operating the initial BWSU structure

In order to estimate the annual budget necessary to rub the initial structure of BWSU, the International Expert must present a consolidated estimate of all acquisition and operating costs related to the operation of BWSU in its first three years of operation.

4.4 Reporting and Products

The International Expert will prepare, produce and submit the following Products:

	PRODUCT	2021					
		6	7	8	9	10	11
1	**Assessment Report & Action Plan**						
2	**Develop Initial Organization Structure for BWSU**						
3	**Develop the Guideline for the Initial Organization Structure for BWSU**						
4	**Develop the Internal Rules for the Initial Organization Structure for BWSU**						
5	**Develop the BWSU staff job description**						
6	**Develop the criteria for selection and hiring of the professionals required for the initial organizational structure of BWSU**						
7	**Develop the initial physical structure required for BWSU**						
8	**Develop the initial office equipment demand needed to equip the planned physical structure**						
9	**Develop the initial IT hardware and software to equip the BWSU**						
10	**Develop the initial passenger and cargo vehicles necessary to equip the BWSU**						
11	**Estimate of the annual cost of operating the initial BWSU structure**						

- The International Expert, in close coordination with PWA shall conduct quality reviews to obtain feedback on all draft versions of deliverables as appropriate.
- The International Expert s shall make presentations a workshop to relevant stakeholders on each deliverable, taking the role of the facilitator in what has to be a bottom-up and participatory process.
- All reports shall be submitted to PWA, in electronic format as MS Word document (latest version) and printed in the relevant number of copies. Models and workflow, process and data diagrams shall be submitted electronically in their appropriate dynamic application files. The deliverables shall include electronic and three (3) hard copies, in MS Word format, of the Reports.
- All report and data compiled or prepared by the International Expert in the performance of this contract, as well as, any outcome of the implementation of the contact, shall be absolutely property if the PWA unless otherwise specified

4.5 Services and Facilities to be Made Available

- The PWA shall: (i) provide the International Expert with timely access to all available information, pertinent data and previous studies, if any, useful to the assignment; and (ii) liaise with other agencies to ensure that the International Expert has access to all information required as may be allowed under Palestinian laws, and (iii) a meeting room upon prior notice in the West Bank and Gaza, that will be provided free of any costs to the Consultant (if needed)
- The International Expert will: (i) be responsible for providing all necessary facilities and logistical support for its assignment.

4.6 Management Arrangements and Relevant Stakeholders

The International Expert will be technically, contractually and administratively responsible for the preparation and implementation of the assignment to the PWA. PWA will appoint a Focal Coordinator for this assignment.

Relevant stakeholders for consultation includes (but not limited to) Prime Minster Office, BoD of the NWC, PWA, WSRC, CMWU in clear modality to be defined by the Consultant in the Inception report. Key output produced under this assignment shall be validated by the Head of PWA and the Chairman BoD of the NWC.

4.7 Contracts Type and Payments Schedule

The contract is lump Sum. The payments schedule (Reference to Item "Tasks of the Consultancy and Products to be delivered " of the ToR) is:

Payment No	Outputs Delivered and acceptable to PWA
First payment: 10% of Contract value	Submission of Report 01, acceptable to PWA
Second payment: 45% of the contract price	Submission of Reports 02 and 03, 04, and 05 acceptable to PWA
Third payment: 30% of the contract price	Submission of Reports 06, 07,08, and 09 acceptable to PWA
Forth payment: 15% of the contract price	Submission of Reports 10 and 11, acceptable to PWA

4.8 Logistic, Timing and Level of Effort

Location : The International Expert will be based in Gaza.

Start data & period of implementation: The intended start date of this contract is early June 2021 and the period of implementation will be 06 months from the contract awarding date. Home-based working days requires prior approval from the Contracting Authority

Level of effort is: 90 working days.

4.9 Qualifications of the International Expert

- The International Expert shall be specialized in the Water Utility Development, and have been working in related field since 15 years.
- The International Expert shall have relevant experience in the field of the assignment.
- The International Expert should have a proven track record of previous experience implementing similar assignments in the same or related field and should have successfully completed at least one similar assignment in the last 5 years.
- Proven and well-developed skill in communication (both oral and written).
- He/she shall be proficient in English. Knowledge of Arabic would be an asset.
- Experience of working in developing countries (in Middle East) context would be an asset.
- The International Expert must be independent and free from conflict of interest in the responsibilities they take on.

Annex I: Action Plan for the Establishment of National Water Company

Objective	Activity	2020				2021				2022				2023			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Develop legislative framework for rehabilitation of WBWD	Develop Regulation for developing and rehabilitating WBWD and transferring into the National Water Company and approve by the Cabinet.																
Develop better governance	Prepare agreements on debt rescheduling and the commitment to pay monthly bill and quantities of water supplied																
Meeting needs of WBWD customers (amount of Water supplied)	Develop relationship between the WBWD and service providers concerning quantity of water supplied																
	Prepare a master plan for the water distribution at bulk level																
	Preparation of a master plan for water harvesting																
	Design investment priorities based on the master plan																
	Mobilize necessary funding and implement projects to develop Bulk water infrastructure																
Develop WBWD and establish the National Water Company	Developing Asset Management and laying the foundations for Asset valuation																
	Optimize the technical framework																
Establishment and registration of the company	Issuing a Decree to establish and register the NWC																
Formulate BoD	Forming BoD for the National Water Company																
Develop Legislative framework for the establishment of the National Water Company	Develop Internal Regulations of the National Water Company																
	Develop financial and administrative Regulation for the National Water Company																
Developing a branch of the National Water	Establishing a water supply unit at bulk water level in Gaza Strip																

Company in Gaza Strip	Preparing a study on the mechanism for establishing a water company branch in Gaza Strip, taking into financial, political and institutional considerations																
	Implementation of the results of the study related to the establishment of the National Water Company																
Structuring the National Water Company and transferring assets	Appointing an executive director for the company																
	Developing new organizational structure and job description																
	Transferring assets and liabilities and registering them in the name of the company																
	Staff transfer and filling vacancies																

Annex 2 - Assets to be operated by BWSU

Bulk Water Supply	Operation			Governorates			AWP/WB fund	AWP/Kuwait Fund	AWP/KFW fund	Transfer of Operation Schedule						
	Current	Future	Total	Rafah	Khan Younis	Middle				2020 Baseline	2021	2022	2023	2024	2025	2026
Southern carrier and transmission D.I lines(Ø1200mm-Ø150mm)		PWA Bulk Unit	65 Kms	35	30			CP1a: Southern Carrier Rafah and KY								
Rafah and Khan Younis wells and reservoir connections (HDPE Pipes)	SP	PWA Bulk Unit	30.5 Kms	12.7	17.8		CP3: Reconfiguration 68 Km, Upstream 30.5 Km, one new reservoirs , rehab 16 reservoirs, rehab 51 wells									
Middle wells and reservoir connections (HDPE Pipes)	SP	PWA Bulk Unit	16.6 Kms			16.6 (5.5 Optional)	CP4a: Reconfiguration 15.3 Km, Upstream 12.4 Km, rehab 7 reservoirs, rehab 25 wells									
Upgrade existing Reservoirs - Rafah & KY	SPs	PWA Bulk Unit	20	7	13		CP3: Reconfiguration 68 Km, Upstream 30.5 Km, one new reservoirs , rehab 16 reservoirs, rehab 51 wells	AWSNI Improvement works in Middle and KY(Improve connection to Mekorot 5MCM + 5 MCM Bani Said and Bani Suhaila with 5.9kms D.I pipes Ø600mm. 4 new reservoirs 10,500 m3. upgrade 4 reservoirs)								
Upgrade existing Reservoirs - Middle	SPs	PWA Bulk Unit	7			7	CP4a: Reconfiguration 15.3 Km, Upstream 12.4 Km, rehab 7 reservoirs, rehab 25 wells									
Mekorot Connection	CMWU	PWA Bulk Unit	2		1	1		AWSNI Improvement works in Middle and KY(Improve connection to Mekorot 5MCM + 5 MCM Bani Said and Bani Suhaila with 5.9kms D.I pipes Ø600mm. 4 new reservoirs 10,500 m3. upgrade 4 reservoirs)								
Upgrade existing Wells - Rafah & KY	SP	PWA Bulk Unit	51	18	33		CP3: Reconfiguration 68 Km, Upstream 30.5 Km, one new reservoir 7000m3 , rehab 16 reservoirs, rehab 51 wells									
Upgrade existing wells- Middle	SP	PWA Bulk Unit	25			25	CP4a: Reconfiguration 15.3 Km, Upstream 12.4 Km, rehab 7 reservoirs, rehab 25 wells									
New Reservoirs		PWA Bulk Unit	9	3	3	3	CP3: Reconfiguration 68 Km, Upstream 30.5 Km, one new reservoir 7000m3 , rehab 16 reservoirs, rehab 51 wells	AWSNI Improvement works in Middle and KY. 4 new reservoirs 10,500 m3 CP1b: Southern Carrier Rafah and KY, 4 new reservoirs 16000 m3								
STLV	CMWU	PWA Bulk Unit	2			2	total capacity of 9.5MCM/Y									
Future GCDP		PWA Bulk Unit	1			1										
Main Pumping Station		PWA Bulk Unit	1		1			CP1b: Southern Carrier Rafah and KY								
Booster Pumping Station(Rafah)		PWA Bulk Unit	1	1				CP1b: Southern Carrier Rafah and KY								
			Municipalities													
Municipal SP			15	3	7	5										
Reconfiguration Rafah and Khan Younis	SP	SP	68 Kms	26 (5.0 optional)	42 (7.3 optional)		CP3: Reconfiguration 68 Km, Upstream 30.5 Km, one new reservoir 7000m3 , rehab 16 reservoirs, rehab 51 wells									
Reconfiguration Middle	SP	SP	15.3 Kms			15.3 (2.35 optimal)	CP4a: Reconfiguration 15.3 Km, Upstream 12.4 Km, rehab 7 reservoirs, rehab 25 wells									