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# QUARTERLY PROGRESS REPORT OCTOBER – DECEMBER 2009

EGYPT WATER AND WASTEWATER SECTOR SUPPORT PROGRAM

January 13, 2010

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**EGYPT WATER AND WASTEWATER SECTOR SUPPORT PROGRAM**

**Contract No. EPP-I-00-04-00020-00, Order No. 3**

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The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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## **Acronyms and Abbreviations**

CIP	Capital Investment Planning
COP	Chief of Party
DCOP	Deputy Chief of Party
GIS	Geographic Information System
GOE	Government of Egypt
GTZ	Gesellschaft für Technische Zusammenarbeit
HCWW	Holding Company for Water and Wastewater
HRD	Human Resources Development
ISSIP	Integrated Sanitation and Sewerage Infrastructure Project
IT	Information Technology
MARS	Monitoring and Analysis Reporting System
MHUUD	Ministry of Housing, Utilities, and Urban Development
MIS	Management Information System
NOPWASD	National Organization for Potable Water and Sanitary Drainage
O&M	Operations and Maintenance
OJT	On-the-Job Training
PMP	Performance Monitoring Plan
PMU	Project Management Unit
PPP	Public-Private Partnership
TOT	Training of Trainers
UFW	Unaccounted-for-Water
USAID	United States Agency for International Development
WPRR	Water Policy and Regulatory Reform Project
WWC	Water/Wastewater Company
WWSS	Water and Wastewater Sector Support Program
WTP	Water Treatment Plant
WWSPR	Water and Wastewater Sector Policy Reform Project
Y2WP	Year 2 Workplan

## EXECUTIVE SUMMARY

This Quarterly Progress Report (QPR) details activities and accomplishments of the USAID-funded Egypt Water and Wastewater Sector Support (WWSS) Program from October 1, 2009 to December 31, 2009. This report discusses activities undertaken by WWSS staff during the quarter, program management and administration activities, and upcoming activities to be implemented in the following quarter.

Considerable program activity has taken place during Quarter 4 of 2009. Our activities continue to be active over four component areas. Our first component area involves our activities with HCWW. As in previous quarters, the project had a robust interaction with HCWW this quarter, and has made considerable progress against our workplan.

Our second component area, our “Cross-Cutting” activities component, involves activities targeting one or more subsidiary company in a particular functional area of operations. In the pages that follow, we report upon seven ongoing cross-cutting functional areas:

- Business Planning
- Performance Management and Improvement
- Financial Management
- Operations & Maintenance (O&M)
- Capital Investment Planning / Program Management (CIP/PM)
- Human Resources Development (HRD)
- Information Technology (IT)

Our third component area, “Subsidiary Specific Activities,” involves activities undertaken with a particular utility or group of utilities. As mandated by our scope of work, our program activities were ongoing in 12 governorates this quarter: Aswan, Luxor, Qena, Assiut, Sohag, Minya, Beni Suef, Giza, Cairo, Matrouh, Menufiya, and Daqahliya.

Finally, our fourth component area involves tasks related to project development and coordination.

In the report that follows, in a departure from its predecessors, our reporting follows this “organizational arrangement” closely. Thus the Quarterly Report that follows is split into four chapters, each reporting on activities from one of the component areas described above. Some program activities have relevance in more than one component area. In these cases, we have included references to these multiple listings in the text. In most cases, we have described a particular activity or initiative in detail only once. In the case of O&M planning and budget assistance, for example, we have described the full range of activities ongoing in the O&M chapter, Section 2.4 in the report that follows, and made brief reference to these same O&M activities in each of the governorate specific sections that follow, in the appropriate part of the report’s Section 3.

Another development in this Quarterly Report is the insertion of a discussion of “Impact, Constraints, and Opportunities” following the discussion of program activities in each of our cross-cutting areas. In these Sections, we hope go beyond the “what” and the “when,” and capture the “why,” “to what end” and “what happens from here” aspects of program activities, including a frank discussion of areas in which the project has faced difficulties, and some of our approaches for overcoming these.

There are two events of significance over the past reporting period that warrant special mention here. The first is the arrival of new project COP Ghassan Nakad. Ghassan, a long-time Chemonics staff member with deep experience in Egypt and the Middle East, has a long history of engagement with Egypt, with USAID, and with HCWW and many of its subsidiaries. The second is the recently completed Year 2 Work Plan (often referred to in the report that follows as Y2WP). The workplan planning process that this involved was a productive opportunity to reexamine tasks and objectives, and reconsider program accomplishments and work that remains ahead. A summary activity timeline, including activities undertaken during program year 1, and activities being planned during program year 2, broken down by counterpart agency, is included as Annex A.

Finally, a note about the period reported on in this report. This report documents activities undertaken between October and December 2009, and as a result covers some tasks initiated under the first year plan, active from November 2008 through October 2009. References to tasks as they appear in the Year 2 Workplan are included, where appropriate, along with the description of appropriate program activity.

## INTRODUCTION

Funded by USAID, the Water and Wastewater Sector Support (WWSS) program provides technical services and related resources to the Holding Company for Water and Wastewater (HCWW) and selected water and wastewater subsidiaries to: (1) strengthen their capability to implement recent Government of Egypt (GOE) initiatives aimed at improving the operational performance of the sector; (2) attract private investment through aggressive policy, legal, and regulatory reforms, to operate more efficiently; and (3) be responsive to the new regulatory requirements. The project builds upon the achievements of, and is implemented in close coordination with, other USAID- and donor-supported initiatives in the sector.

The overall objectives of WWSS are to support the GOE to develop and implement programs that:

- Increase financial and commercial viability of existing water and wastewater companies;
- Establish new regional water and wastewater subsidiaries;
- Develop and implement a capital investment planning and program/project monitoring and management mechanism; and
- Build the capacity of staff, increase managerial, technical and operational efficiency, improve the quality of services, and expand access to water and sanitation.

In order to achieve its objectives, WWSS tasks impact multiple results areas, thus, requiring different combinations of skills which are determined by the technical requirements of not only each task but also the particular needs of HCWW and subsidiaries. The WWSS project management strategy is oriented to achieving contract results, while also allowing for maximum flexibility to meet the needs of USAID, HCWW and its subsidiaries as they evolve. The team uses a highly collaborative approach with USAID, counterparts, and other donor-funded projects to facilitate communications and leverage resources. The COP, with support from the project management unit at the Chemonics home office, tracks WWSS activities against approved work plans and performance measures as agreed in the project Performance Monitoring Plan.

WWSS strategy is built on the following four pillars:

***Business plan as a central management and accountability tool.*** In a corporate environment, the business plan is the defining relationship between the company, its markets/customers, its owners, and its financing sources. It represents a road map for investment and financial results, as well as qualitative organizational changes that guide corporate activities. It is also a tool for periodic management accountability, which helps provide buy-in and commitment by management and staff. Building on the corporate planning process introduced under the Secondary Cities Project, and in cooperation with ongoing *Gesellschaft fur Technische Zusammenarbeit* (GTZ) business planning with HCWW, WWSS uses the business plan as the organizing framework for planning, focusing on performance improvement, raising service standards, and increasing revenues for O&M and infrastructure rehabilitation. The business plan also directs capital investment programs, based on priorities identified in the governorate-level master plans. The document, developed by the subsidiaries with assistance from WWSS, will

clearly link performance objectives to financial targets, service quality improvements, and organizational changes sought by the boards. Staff incentives will be contingent on successful implementation of the business plan and individual contributions as stipulated in staff performance evaluations, which we will develop in cooperation with HCWW and utility management.

***Flexibility and prioritization of interventions.*** WWSS remains customer-driven, flexible, and responsive to address urgent priorities as the sector evolves. To that end, WWSS analyzes and selects interventions based on their impact for meeting service standards and improving cost recovery. The Board of Directors meetings with USAID, HCWW, and senior Chemonics' leadership along with the monthly meeting of the HCWW-WWSS Joint Working Group (JWG) allow the program to be responsive, results-oriented, and have the maximum impact on meeting service standards and financial sustainability.

***Leveraging partners' expertise and the resources of other technical assistance providers.*** The most sustainable technical assistance will come from employees of HCWW and its healthiest subsidiaries. In this spirit, rather than undertaking interventions independently, we look at WWSS, HCWW and its operating companies as part of a unified team for improving utility performance. The Holding Company and its subsidiaries play an active role in the WWSS annual work-planning process, and the program seeks HCWW staff to help implement tasks. This not only helps maximize the use of counterpart talents, it also serves as on-the-job training (OJT) and a model for future interaction between HCWW and its subsidiaries, until the subsidiaries rely less on central-level support. Equally important is maximizing the benefit from work carried out by other bilateral and multilateral development institutions. As such, WWSS proactively coordinates with other donor-funded projects in order to achieve results for the sector as a whole and to avoid redundancies in technical assistance.

***Elevating human resource development and organizational change to strategic levels.*** With the corporatization and asset transfer of governorate utilities to local HCWW subsidiaries, many challenges remain and new ones emerge. Although management structures are now in place, many subsidiaries still suffer from insufficient resources to attract and retain qualified staff. To address these concerns, it is essential that the partners start looking at human resource development (HRD) as an objective on par with infrastructure development and expansion, requiring investments in time and resources of an equal priority. These investments should be coupled with a paradigm shift in the way HR departments are viewed, with a focus on human resource development – from recruitment to performance evaluation, career planning, development, incentives, and opportunities for mobility.



## **1. COMPONENT 1: CENTRAL ACTIVITIES: SUPPORT TO HCWW**

Under Component 1, WWSS works with HCWW to assure efficient implementation of technology, training, procedures, and management of programs with the subsidiary companies. To accommodate the Company's needs and ensure responsiveness as new long-term strategies evolve, Component 1 focuses on specific HCWW interventions and collaboration with HCWW on other projects. WWSS is providing assistance with HCWW business planning efforts, staff development, defining reporting structures and management communications between subsidiaries and HCWW, and developing guidelines, rules, regulations, procedures, incentives and structures for the sector as a whole. The WWSS support for business planning at the central and local levels creates the essential baseline for strategy formulation, implementation, and sustainability into the future. References are provided, where possible, to the appropriate tasks in the Year 2 Workplan.

### **Work Progress:**

#### **HC 1: Joint Working Group (JWG)**

The JWG comprises monthly meeting at HCWW between senior staff from HCWW and senior program staff discussing achievements of the program, the involvement of HCWW, and issues related to ongoing and upcoming activities. Before JWG meetings, separate meetings are often held between functional staff from the program and appropriate staff from HCWW in order to coordinate input. During this reporting period, two such meetings were held.

In addition, several meetings were held with counterparts from HCWW concerning Y2 workplan for O&M tasks. An initial meeting was held on November 11, with Dr. Hossam el Kashef, WWSS project coordinator, Osama Abdul Rahman, O&M contact from HCWW, and four additional senior O&M engineers. During this meeting we outlined project accomplishments from year 1, and explained our workplan for year 2, including ensuring sustainability of service delivery, ensuring water quality, establishing new systems for O&M, increasing capacity of the staff, helping subsidiaries toward financial viability, energy rationalization, and computerized maintenance management system. Our HCWW counterparts provided positive feedback, and arranged for a follow up meeting on November 16 with Dr. Ahmed Mourad, and other senior staff. Our proposed year 2 activities were approved, with a few minor adjustments. Additional details on project O&M tasks, including those involving HCWW, are included in Section 2.4.

#### **HC 11: Donor Coordination**

During this period, the project updated the "Donor Matrix" which tracks projects administered by international donors in the water and sanitation sector in Egypt. We updated the matrix with information received from various sources, and continue to make updates on an ongoing basis. In addition, we adjusted the format of the matrix so that it can be viewed easily online or in a printed out version. Information from the matrix has been inputted into a GIS database, allowing for matrix data to be presented in map formats. One worksheet from the matrix, in addition to two GIS maps created using Matrix data, are included in Annex B.

During this reporting period, we continued to liaise with other donor organizations, specifically GTZ and Dutch International Cooperation. Monthly meetings between our organizations focused leveraging mutual resources, particularly in the training area, sharing lessons learned and project documents, and planning joint activities.

We continue to work toward a “donors summit,” to be held during Q1 of 2010, which will bring together appropriate donors, including technical assistance teams, along with high level decision-makers from organization involved in the water and wastewater sector in Egypt, in order to coordinate ongoing activities and discuss programmatic needs and priorities of HCWW. We held a meeting on December 7, 2009 at HCWW with HCWW Vice-Chairman Mamdouh Raslan to discuss such a gathering in early 2010. Meeting notes were distributed summarizing the main points discussed during the meeting. These meeting notes, including the draft agenda proposed for the summit, are included as Annex C.

#### **CC 4: Study tours for senior HCWW staff**

During this reporting period, preparations were made for senior HCWW staff to attend two conferences in the US. The first involves HCWW Chairman Abdelkawi Khalifa and Vice-Chairman Mamdouh Raslan attending the Utility Management Conference 2010 in San Francisco, CA; and meeting with USAID/Washington, EPA, AWWA in Denver, CO, and touring some of Denver Water’s plants. The second involves a program for select executives to attend a water and wastewater facilities tour to the U.S. East Coast in April 2010. Additional details on these activities are found in Section 2.6.

#### **HC 12: Sponsor HCWW human resources management diploma candidates**

WWSS is sponsoring five mid-level human resource development staff members from HCWW for a two-term postgraduate diploma program at AUC’s Institute for Management Development. The program aims to introduce advanced approaches to strategic human resources management through six courses conducted in three-hour lectures once per week, with a total of 54 hours per term. AUC is an accredited institution of higher learning, widely known for the quality of its educational curricula, faculty members and administration. During this reporting period, the project contacted AUC, received program information about the course, sent this on to HCWW, and is awaiting nominations of HCWW staff to be enrolled in the next course.

#### **CC 7: Monitoring and Analysis Reporting System (MARS) re-engineering**

During this reporting period, progress was made in revamping the MARS statistical data system through which data is shared and updated among all regional utilities. Details are provided in Section 2.2.

#### **HC 5: ICT master plan**

WWSS program staff held a meeting on November 18<sup>th</sup> with Dr. Zaki Taha from HCWW in order to discuss ICT master planning activities. Additional details on this meeting and program ICT master planning activities involving HCWW are included in Section 2.7.

#### **PDC 5: Procurement plan**

A consolidated list and budget for the program's procurement needs was prepared, including items to be procured for our activities with HCWW and the subsidiaries with which we work. This procurement list includes details about the item and quantity to be procured, the organization and department for which it will be used, its justification in terms of project SOW, and its planned impact on the implementing unit. This procurement list and justification was shared with HCWW and USAID, and is included in Annex D.

#### **HC 4: Support to Public Awareness Unit**

During this reporting period, we provided assistance and support to HCWW in its efforts to ensure a clear and well-documented relationship between the HCWW and its subsidiaries, enhance and improve overall corporate performance, and produce greater efficiencies and cost reductions through outsourcing non-core services. Activities under this task during this reporting period included providing support to the public awareness unit in the issuing of the HCWW newsletter; holding a seminar in the Faculty of Engineering at Cairo University to encourage students to select the water and waste water sector as a priority area for their studies; and supporting the public awareness unit of HCWW in the preparation of its report submitted to MHUUD reflecting HCWW activities during 2009. Additional details on project Performance Management tasks, including those involving HCWW, are included in Section 2.2.

#### **HC 5: Microsoft database engine (MS-SQL) assistance to HCWW**

WWSS provided technical assistance to HCWW and subsidiaries focusing on installing and operating the Microsoft database engine MS-SQL for creating the financial plan database, and creating multiple users who can access the database. This request for TA has initiated by HCWW, on account of problems faced with subsidiaries regarding data coordination. In order to finalize this task, we are currently developing a booklet about user procedures, common problems faced, and proposed solutions. In addition, we have suggested implementing several training courses for subsidiaries on using the database. Additional details on program IT tasks, including those involving HCWW, are included in Section 2.7.

#### **CC 11: Financial Manuals for HCWW and subsidiary companies**

Two accounting manuals were prepared for HCWW for coordination with subsidiary companies. Two manuals were developed: 1) A Financial Accounting Manual, which was submitted to HCWW, and was modified in light of remarks and comments received from Dr. Hisham Afifi, Head of HCWW Financial, Commercial, and Administrative Sector, which are being reviewed and incorporated; and 2) A Cost Accounting Manual, which is currently being reviewed by HCWW.

#### **SOH 6, AST 8, GIZ 7: Assistance to HCWW in the design of utility Customer Service Centers**

WWSS provided assistance to HCWW in the architectural and layout design of Customer Service Centers being developed in Sohag, Assiut, Giza, and Menufiya. Additional details on this activity are provided in Section 2.2.

#### **HC 10: Support the establishment of a HCWW PMU**

HCWW assigned three people to the Company's PMU. Two of these began following up on PRiSM activities, attended weekly meetings at MHUUD, and started working with WWCs to update PRiSM data. WWSS developed specifications for procurement for the PMU. Equipment procurement was approved by HCWW and USAID, and is included in the current procurement plan. Two meetings were held between WWSS/WPRR and HCWW PMU. During these meetings, PRiSM enhancement options were discussed, and a schedule was approved for developing software enhancements.

## 2. COMPONENT 2: CROSS-CUTTING ACTIVITIES

In order to continue to support WWCs fulfill their mandates, WWSS assists in creating solid technical, managerial and financial skills in participating subsidiary companies. The long-term objective envisions sustainable, customer-oriented water and wastewater management utilities with well-functioning professional service delivery, sound tariff policies, and full cost recovery. Interventions in the Cross-Cutting utility support component comprise business planning, performance management, O&M, Capital Investment Planning / Program Management, HRD, and IT activities.

Some of the activities reported on here have also been described elsewhere in this report. In such cases, we have included reference to the Section number where additional information is located. Following our description of the activities undertaken within each cross-cutting functional area, we have included a brief description of the **Impact** of program activities, and **Obstacles** encountered, and any noteworthy areas of **Opportunity** in project operations.

### Work Progress

#### 2.1. Business Planning

The Subsidiary Business Planning Program enabled five subsidiaries (Menufiya, Assiut, Giza, Luxor, and Sohag) to define their strategic framework including their mission and vision, goals, and objectives. An additional subsidiary, Qena, is also undertaking a parallel approach with assistance from GTZ. This framework focused on four areas of WWC activities; Operations, Customers, Finance and Staffing. WWSS has been providing technical assistance such as coaching and mentoring, and one-to-one training related to the development of the subsidiary business plans, as well as monitoring and supporting the business plan drafting process. Pursuant to the request of HCWW in October 2009, the business planning program has been expedited and widened to include 10 subsidiaries. At this time, two subsidiaries have completed their first draft plan (Menufiya and Assiut) and four others are progressing toward completing their draft business plans by April 2010 (see schedule below).



**Menufiya Business Planning meeting**

#### **CC 1: Overview of the Business Planning process:**

Each plan will include an introduction to the utility's, programs and program timeline, financial strategy and five-year financial projection plan, organizational structure and staffing plan, subsidiary master plan, capital investment plan, and required management information systems. WWSS will follow up on the implementation and updating of the plan in each of the selected companies.

The following table shows the business plan

progress status, and the estimated draft completion date, for the business plan in each of the ten selected subsidiaries.

<b>Subsidiary</b>	<b>Business Plan Draft Status</b>	<b>Expected Completion Date</b>
Menufiya	100%	December 2009
Assiut	100%	December 2009
Luxor	75%	January 2010-Pending completion of the financial plan
Giza	75%	January 2010- Pending completion of the financial plan
Sohag	40%	February 2010
Qena	5%	April 2010
Matrouh	0%	April 2010
Aswan	0%	June 2010
Beni Suef	0%	August 2010
Minya	0%	September 2010

The first draft of the Menufiya and Assiut business plans are now complete. The WWSS team held a meeting with Menufiya Subsidiary Chairman General Ayman Abdel-Kader to discuss the Company's Business Plan Draft that was completed. The Company is pleased with the draft document, and will distribute the draft to the appropriate sectors and departments for review prior to the overall senior managers' discussion/buy-in workshop that will be held on January 5<sup>th</sup>. The Qena, Luxor, Sohag and Giza business plans are underway.

### **Impact of the activities**

The business plan is a central management and accountability tool. In a corporate environment, the business plan is the defining relationship between the company, its markets/customers, its owners, and its financing sources. The business plan guides the subsidiary activities to help it achieve its objectives (service improvement, expansion, rehabilitation, improving staff capacity, enhancing O&M practices, etc.). It facilitates compliance with HCWW reporting requirements. Its main purpose is in attaining corporate objectives (service standards, delivery, expansion, cost recovery, pricing, etc.). The business plan will also serve as an accountability tool. It represents a road map for investment and financial results, as well as qualitative organizational changes that guide corporate activities. It is also a tool for periodic management accountability, against which the subsidiary boards measure the performance of the utility management, and HCWW assesses the performance of the local utility in relation to mutually agreed upon targets, which helps provide buy-in and commitment by management and staff. WWSS uses the business plan as the organizing framework for planning, focusing on performance improvement, raising service standards, and increasing revenues for O&M and infrastructure rehabilitation. The business plan also directs capital investment programs, based on priorities identified in the governorate-level master plans. The document, developed by the subsidiaries with assistance from WWSS, clearly links performance objectives to financial targets, service quality improvements, and organizational changes sought by the boards, and will serve as a "bridge" between the master plan and the immediate steps required to achieve it, prioritizing the most immediate tasks. Staff

incentives will be contingent on successful implementation of the business plan and individual contributions as stipulated in staff performance evaluations, which will be developed in cooperation with HCWW and utility management.

### **Obstacles encountered during implementation**

As we started the business planning process, we found some utilities lacking in financial planning readiness, and the skills required to make the most of the business planning process. For this reason, the WWCs in Luxor, Assiut, Giza and Sohag were not able to meet scheduled dates for the completion of the plan. In order to address this, as an immediate step, we coached and provided OJT to relevant staff, and on a more sustainable level we plan to launch a training program in financial forecasting in business planning for the rest of the five companies, scheduled for end of February.

### **Opportunities to be capitalized upon**

A rigorous business planning process is new to most of the utilities we work with. However, rather than doubting the relevance of the task, utilities across the board have embraced the business planning process, and we have real buy-in from utility Chairmen. Chairmen by and large have assigned bright, young coordinators for the task, who have the skills and enthusiasm to learn quickly and make the most of the task. These task coordinators maintain open and direct access to utility Chairmen, ensuring corporate support in and engagement with the process. We met very little reluctance to engage in the process. There is a great opportunity to create business planning units within the utilities, which will monitor, update and follow up on the business planning process on a sustainable basis, and this unit is already in place in Menufiya. These units will likely report directly to the Chairman, allowing the units to be functionally empowered.

## **2.2. Performance Management**

### **Support to Asset Management Unit**

The WWSS team is providing ongoing technical assistance in the operation of the asset management units programs at Giza, Luxor, Qena, Minya, and Matrouh. We have been supporting these units since they were created, and continue to provide support with respect to financial, technical, operations, planning, and management activities.

### **CC 7: Reengineering / upgrading of MARS**

The project provided technical assistance to the economic analysis units at the Giza, Luxor, Menufiya, Assiut, Minya, Matrouh, and Qena subsidiaries in MARS operations to assist them in the development of quarterly performance indicators. The WWSS program is re-evaluating the original MARS program, designed by CH2MHill, to overcome deficiencies and investigate sources of errors. MARS provides summary indicators for each WWC, but the reports generated are not consistent, and there are problems related to accuracy and reliability. The WWSS team looked into these problems, and identified three potential sources of errors: data collection, data entry, and software programming. An additional problem was identified, related to system

capacity to accommodate the large number of users who could potentially be logged on simultaneously. On account of these issues, HCWW has decided to re-engineer the program, and is seeking an external service provider to assist in system design and programming. We are not appraised of the status of that procurement. In addition, we recommended other improvements including the reduction of indicators tracked from 68 to 38. HCWW has not yet reacted to our proposal.

### **AST 7, GIZ 6, MEN 6: Establish and upgrade meter repair workshops**

The WWSS program is overseeing the construction and upgrading of WWC meter repair workshops to calibrate water consumption meters, and improve measurement of water sold to customers. During this quarter, we assisted in the construction of the workshop and introduced a meter replacement plan in Sohag; provided drafts of the required executive orders needed to begin the meter replacement process in Sohag and Assiut; and helped select the location of the water meter workshop in Menufiya, Assiut and Giza. Additional details can be found in the appropriate governorate-specific part of Section 3.

### **SOH 6, AST 8, GIZ 7: Establishment of Billing and Collection and/or Customer Service Centers**

In order to improve customer service and streamline the billing and collection process, the project is assisting in the establishment of Billing and Collection Centers and/or Customer Service Centers (CSC) at select subsidiaries. Additional details can be found in the appropriate governorate-specific part of Section 3. The following activities were completed during this reporting period:

- **Sohag WWC:** The project supported the Sohag WWC in enhancing the functionality of its billing software. The Sohag WWC is about to finish the main building, which will include the CSC and the Billing Center. The project provided the WWC architectural technical assistance to help the Center match HCWW CSC's branding.
- **Assiut WWC:** Assiut has a temporary billing system provided by HCWW. The system was implemented, and bills were issued in two pilot areas. TA was provided to the billing center to manage the billing process, and recommendations were made concerning required upgrades to the system to cover the whole company.
- **Giza WWC:** The project assessed and identified the proposed CSC locations at two possible sites in the Mohandiseen and Al Haram districts. The assessments showed technical difficulties due to location and rehabilitation of the existing building at Mohandiseen, and the Haram site was ultimately selected. Following the selection of the site, the project is assisting with architectural designs for the location. A draft design has been developed and discussed with HCWW.
- **Menufiya WWC:** Technical support was provided to establish a CSC model and meter workshop in the Abu Bakr el Siddik water pumping station. TA regarding architectural plans was provided in order for the CSC to match HCWW's CSC branding. The architectural plan will be introduced after completing the design for Giza.



### **SOH 9, AST 9, LUX 6, GIZ 8, MEN 7: Provide technical assistance and OJT for GIS units in select governorates**

GIS capabilities within the WWCs will allow them to track performance and monitor procedures over defined geographical areas, plan required maintenance and upgrading tasks with respect to plan and customer location, and create user friendly maps and drawings. During this reporting period, GIS technical assistance and OJT was provided in Luxor, Assiut, and Menufiya. GIS training in Assiut is shown in the accompanying photo. Additional details can be found in the appropriate governorate-specific parts of Section 3.



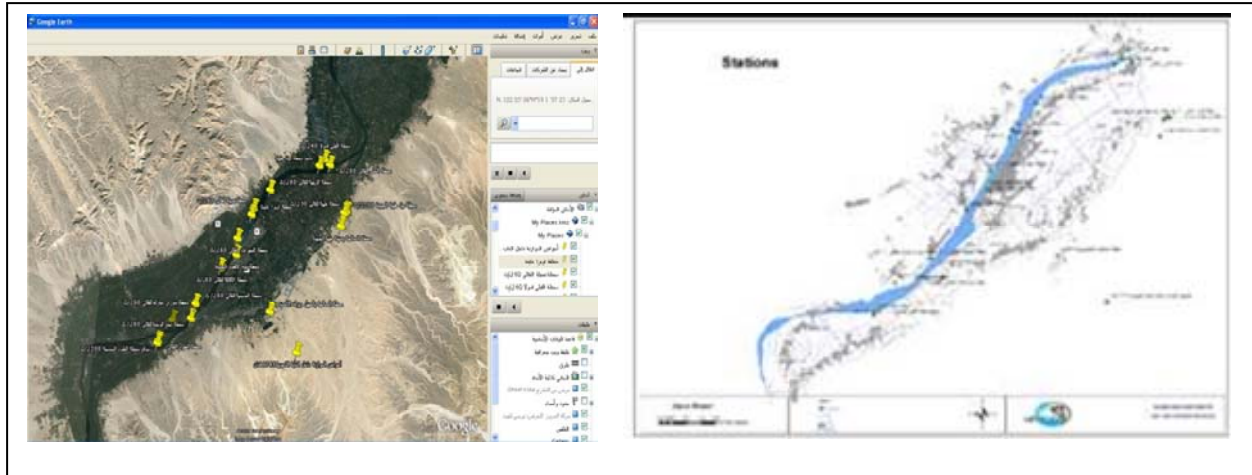
### **LUX 1: Reducing Unaccounted for Water (UFW)**

High UFW rates are a serious impediment to utilities' reducing operational costs and containing capital expenditures. The WWSS program developed a methodology for addressing the relatively high levels found in many of our partner utilities. A pilot program for this program is being implemented in Luxor, and based on this experience we are planning to implement the methodology in additional governorates, including Sohag, Assiut, Menufiya, and Giza. Additional details are located in Section 3.2.

### **Impact of the activities**

Our activities with respect to **UFW** will increase amount of sold water, and as a result assist with WWC cost recovery. It will result in increased rates of collection, and therefore revenue, thus increasing the opportunity for financial sustainability. A system with higher levels of metering is better able to plan demand and capacity. Well-metered systems enhance the success of billing systems, as the data that underlies the system will be more robust and well-developed. As WWCs aim for financial sustainability, an emphasis on the preparedness of the commercial side of the operation will be essential. And commercial strategies without a robust network of meters supporting them are bound to be under-effective.

Billing and collection activities will also be supported by our activities in the **GIS** area. GIS data helps utilities identify the location of customer locations, helps make data concerning the meter locations more comprehensive, and ensures that billing data reflects facts on the ground. With GIS, accurate locations of non-metered connections can be pinpointed, and as a result, new bills issued, thus reducing UFW, and increasing revenue. In addition, GIS data will help map accurately routes for meter readers, showing the exact locations of all connections. Currently, the route of meter readers is haphazard. This will systematize the meter reading process. Screenshots showing WTPs located within Google Earth, and located according to GPS points, are shown below:



Our activities in the **MARS** arena will help calculate performance indicators for each company. These indicators will reflect accurately the situation of the company, the success of its operations, allowing leadership to accurately review its operational and management situation, and make accurate comparisons regarding performance across utilities. It allows problems to be identified and rectified early, and for corrections to be made in ongoing operations. It will allow for greater accuracy in maintenance and HRD decisions, founded on accurate statistical forecasts. In addition, the reduction in the number of indicators tracked provides an opportunity to generate concise, useful indicators from the system.

Our activities in the **Customer Service / Collection and Billing Center** area will help utilities become more responsive to the needs of their customers. By making it easier for customers to pay their bills, increased collection rates are anticipated. Greater collection rates in turn contribute toward increased revenue and cost recovery. In addition, by soliciting feedback and complaints from customers, utilities have the opportunity to improve their ongoing operations.

### **Obstacles encountered during implementation**

While in general programs moved forward well when the WWSS team was on the ground at regional WWCs, at times it was difficult to sustain momentum by local utility staff once the WWSS team had returned to Cairo. In addition, the delays in the procurement process have delayed the acquisition of computing equipment required for some of these tasks, especially billing and customer service centers, and meter repair workshops.

The implementation of MARS was, in places, hindered by the lack of availability of adequate internet connections. In addition, the MARS system was not designed for a large number of users to be logged on simultaneously, thus resulting in slow performance within the system as a whole. Progress on the Giza Customer Service Center was delayed due to internal debates between the Giza WWC and HCWW about its proposed location.

### **Opportunities to be capitalized upon**

With the redesign of the MARS system, we have the opportunity to create an effective database system to track and monitor accurate statistical information from subsidiaries in real time, and

monitor a consistent set of indicators among all WWCs, allowing statistically significant comparisons to be made. In addition, throughout our portfolio of Performance Management activities, we are supported in our activities at the highest levels within WWCs, in particular the Chairmen of Assiut, Sohag and Menufiya. Such support will be valuable in ensuring the success of our ongoing activities.

### **2.3. Financial Management**

The WWSS Financial Team conducted several visits during this reporting period to WWCs in Sohag, Assiut, Giza, Menufiya, and Luxor. The Assiut and Sohag WWCs received the highest levels of support due to their recent establishment and the need to reinforce their operating systems and establish their financial management systems and procedures. During this reporting period, the following activities were ongoing:

#### **CC 12: Installing and training on the Unified Accounting System (UAS)**

During December we trained 17 staff members from Giza WWC from various financial departmental divisions on UAS. During this five-day training course, participants were trained on system basics and accounts processing procedures. This course will be followed-up by another three-day training course on closing accounts, accounts harmonization with records, and producing copies of financial statements. This activity will enhance the efficiency of financial staff in ensuring the validity of accounting procedures, develop sound accounting processes, and derive the financial data that assists in ascertaining the financial status of each company.

#### **CC 13: ADVAC Procurement and Installation**

The installation of the ADVAC accounting software is underway in 10 WWCs. Five of these subsidiaries (Assiut, Luxor, Sohag, Giza and Matrouh) were identified in the WWSS scope of work, and an additional five companies outside of our scope of work are being determined by HCWW and USAID in order to standardize accounting systems on a company-wide basis. ADVAC consists of the following four modules: General Ledger, Fixed Assets, Cost Accounting, and HR and Payroll. Following installation, the WWSS program will provide training on its use, followed by 24 months of on-site technical support by the vendor and regular follow up and assistance by our team.

#### **CC 11: Financial Manuals developed for HCWW for application at subsidiary companies**

Two manuals were developed by the project for HCWW for implementation at subsidiary companies, a Financial Accounting Manual and a Cost Accounting Manual. Additional details are included in Section 1.

#### **AST 5, LUX 4: Assistance with WWC Five-Year Financial Plans**

Activities were ongoing in this area with the WWCs of Luxor and Assiut. Details are provided in the appropriate governorate-specific parts of Section 3.

## **SOH 5, AST 6, MEN 5: Warehouse and Procurement Departments: Organizational Structure**

During this reporting period, the project provided TA concerning operations and the organizational structures of Warehouse and Procurement departments in the Assiut, Menufiya, Beni Suef and Sohag WWCs. Details are provided in the appropriate governorate-specific parts of Section 3

### **Impact of the activities**

Improved financial systems and procedures, including ADVAC, will enable WWCs to generate accurate financial and cost accounting statements, come up with accurate data concerning costs and expenditures, understand real costs for water and wastewater treatment, and streamline human resource management systems. This will help decision makers to analyze and make accurate projections regarding costs and revenues. In addition to being the least costly alternative, ADVAC is the simplest to operate, and is compatible with the needs and requirements of HCWW and its subsidiaries. The fact that it is locally developed and supported is another important factor.

### **Obstacles encountered during implementation**

Several governorate specific obstacles were encountered in these task areas. The action plan for developing financial statements at Sohag WWC for the first quarter of 2009, as agreed with the company Chairman, was not implemented because a lack of staff assigned to the program, which has delayed the implementation of the action plan as scheduled, the availability of only two computers within the Financial Sector, and a general lack of focus on the task. In Assiut, there were insufficient computers available to implement ADVAC. The Chairman has contacted the HCWW for ideas regarding obtaining the procurement of required equipment, either by HCWW or the WWC itself.

### **Opportunities to be capitalized upon**

In most cases, staff assigned to the Financial Sectors at WWCs is young, has graduated from university, and has good IT knowledge. Company Chairmen are supportive of installing financial systems, and have been able to drive enthusiasm for the uptake of financial systems down through their organizations.

## **2.4. Operations & Maintenance (O&M)**

### **GIZ 5, MEN 8, MIN 3: Energy use rationalization**

In order to rationalize energy use, capacitors (see accompanying photo) were installed in several utilities. The capacitors will allow each utility to monitor their power factor, determined by the relationship between current and voltage in a circuit. If this ratio is less than



0.9, then the subsidiary will pay a penalty to the local electrical utility. If the value is more than 0.9, then no penalty is incurred. We measured the power factor at the Menufiya, Giza and Minya utilities. In cases where the power factor is less than 0.9, we will install the capacitors. This pilot program can then be rolled out in other plants and in other governorates.

### **CC 8: Chemical use optimization**

Activities in this area were implemented at select plants in Minya, Giza and Menufiya. Chemical use optimization involves applying the proper dose of chemicals to treated water, no more or less than required. Two tests are used to determine chemical optimization: the jar test and the break point test. Additional details on the governorate specific tests are provided in the appropriate parts of Section 3.

### **CC 8: Conduct O&M planning and budgeting workshops**

During Year 1, the WWSS team conducted O&M planning and budgeting workshops with representatives from WWCs in Assiut, Sohag and Luxor. The final workshop of Year 1 was held from 13-15 December for the Menufiya and Giza WWCs at the Zenein training Center of the Giza WWC (see accompanying photo). Participants were given case studies regarding O&M planning and budgeting, and were given training on how to develop and make presentations, and how to transfer knowledge to the rest of O&M technical staff. Based on program feedback, the O&M team modified the workshop material and the power point presentation and sent these to HCWW. This workshop was attended by Dr. Hossam El Kashif, the WWSS project coordinator from HCWW.



Additionally, in attendance were three engineers from HCWW, 11 from Giza, and five from Menufiya. The HCWW representatives provided positive feedback and requested that the training be replicated with additional subsidiaries. Copies of the training material were delivered to HCWW and USAID.

In addition, a series of governorate specific tasks were undertaken regarding O&M planning and budgeting in Assiut, Sohag and Luxor. Details of this activity can be found in the appropriate parts of Section 3.

### **Program for Computerized Maintenance Management System (CMMS)**

We prepared an Arabic version of CMMS, and installed it at Giza WWC in the Gezirat el Dahab treatment plant. The program is now operational, and has produced the first work order for predictive and corrective maintenance. The program will enable and improve the automation of maintenance systems at the WTP. The program will continue to monitor this application, undertake any required follow up, and monitor its impact.

### **SOH 8, BEN 3, MIN 5: Better utilization of Central Labs**

Two central labs, in Beni Suef and Minya, established with USAID financing, were being under-utilized and needed refurbishment. WWSS assisted in this task by taking on a maintenance and

training contract for a one-year period with private contractors. AGITECH was contracted for testing for organic matter, and Melso was contracted for testing for heavy metals. Additional details can be found in the appropriate governorate specific parts of Section 2. In addition, the WWSS team is providing OJT for staff at WTPs in all WWCs. We have put in place a Quality Control/Quality Assurance (QA/QC) process to ensure that water tested meets Egyptian standards.

### **LUX 1: Water pipe network**

A questionnaire was developed and distributed among WWC network managers about existing drinking water network systems. This step was taken in order to create a database for the Measurements and Losses Sector to be able to clearly understand their water balance, and to select the areas in which they will activate reduction of water loss or service improvement activities. In addition, the WWSS team is developing a work order to identify the location of all valves, and to plot these geographically to improve maintenance of the system. These activities have already taken place at the Luxor WWC, and will be rolled out progressively among remaining WWCs.

### **AST 11, MIN 4: Standard Operating Procedures (SOPs) activities**

WWSS finished customization of SOPs prepared for the Sharkeya water treatment plant by JICA for implementation in the Nazlett Abdullah WTP in Assiut. For the Kedwan WTP in Minya, a parallel process is now underway. These activities will be followed up by technical assistance and OJT to ensure proper application. Regarding Wastewater treatment plants, we examined operational problems in the Abo Korkas plant in Minya, and the Arab Madabegh plant in Assiut. Additional details on these activities are included in Sections 3.4 and 3.6. These plants were selected because of the significant operational challenges facing them. Based on the assessment undertaken, the team prepared a draft report concerning the corrective actions to be taken.

### **Impact of the activities**

Through the **O&M planning and budgeting** process, utilities will be able to project estimated budgets, which will help with forecasting, financial planning and operational efficiency. Quality of service will be benefited, as equipment purchase and repair processes can be streamlined and made more efficient. Service interruptions related to breakdowns will be minimized because service and part replacement will be planned in advance. Savings will be realized from a decrease in emergency shutdowns. This impact will be felt immediately, but also sustainably into the future.

**Energy rationalization** activities will save WWCs money based on energy expenditures, thus decreasing the cost of operations, and increasing opportunities for financial viability. Each subsidiary pays a penalty whenever they allow their power factor to exceed a certain level. As the cost of energy is one-third of the cost of treating one cubic meter of water, this can represent significant savings. Similarly, our **chemical optimization program** will help companies 1) maintain consistent water quality, 2) rationalize expenditures, and thus contribute toward financial viability.

**Improved utilization of central labs** in Beni Suef and Minya will result in better and more consistent water quality. In addition, the initiation of replicable QA/QC procedures at all WTPs will ensure consistently quality operations throughout the area of operations of our partner subsidiaries. The adoption of **SOPs** results in better operational results from treatment plants, improved operability of equipment, an increased continuity of the functionality of equipment, and reduced costs resulting from equipment maintenance. We expect significant cost savings at WWCs to be realized through the reduction in unexpected plant shut-downs.

After implementation of **CMMS**, the ability of WWCs to carry out preventative maintenance will be improved. This will extend the life of equipment because of improved maintenance; it will assist with continuous service delivery, and reduced delays due to breakdowns; enable the company to better manage the use of its equipment, and schedule repairs in a way to minimize service stoppage; decrease overall maintenance costs because of efficiency of maintenance; and enable better utilization of staff. In addition, a more accurate understanding of **water pipe networks**, and the pinpointing of valve locations with GIS functionality, will enable network managers to better pinpoint problems, and pave the way for UFW activities.

### **Obstacles encountered during implementation**

In many WWCs, we have not had an empowered partner unit with which to work on O&M planning, budgeting and CMMS activities. This has created operational challenges, as well as concern about the sustainability of activities undertaken. Some steps have been taken to address this concern, particularly through our ongoing interaction with WWC Chairmen. In some cases, notably in Luxor, the head of the O&M sector is not empowered, and there is conflict between this position and regional managers. Our activities with respect to energy rationalization may be constrained eventually by a lack of funds for needed hardware: we have provided funding for Minya, Giza and Menufiya, but funding needs to be identified, by HCWW or by the utilities themselves, for other subsidiaries. Some WWCs need to add additional water treatment capacity: in Luxor, for example, three WTPs need to be added. Chemical optimization tasks are at times compromised by a lack of spare parts for equipment, and the lack of familiarity by some staff on some of the tests applied. Upcoming activities in our workplan will address this. In addition, technicians within labs need to have a clearly defined a role within WWC organizational charts. While we were able to customize the JICA SOPs for replication in water treatment plants, no SOPs existed for wastewater plants; accordingly, we are developing these.

### **Opportunities to be capitalized upon**

Our activities in the O&M area have gone a long way toward building local capacity and ensuring sustainability of systems' maintenance. In general, we have good support from HCWW, and WWC Chairmen are committed to our work. We now have a counterpart for O&M activities in Luxor which will streamline our work there. Similarly, we have very good relations with the coordinator from Giza, and new Chairmen in Luxor, Assiut and Sohag, who are very committed to project. Within the WWSS program, we have good in-house expertise in this functional area. Our recently finalized Y2 workplan creates very specific goals and activities, which gives us a solid platform upon which to plan ongoing work with our counterparts.

## **2.5. Capital Investment Planning / Program Management**

### **CC 15: Needs Assessment Visits**

Needs assessment visits were undertaken to Minya, Beni Suef, Aswan, Daqahliya and Matrouh to assess Capital Investment Planning/Program Management (CIP/PM) needs and to incorporate TA and capacity building activities into the Y2WP. Our team prepared and presented Y2WP activities related to CIP/PM. Further meetings were held to review Y2WP with HCWW officials.

### **IT Needs Assessments**

Program staff evaluated hardware and software requirements for the 12 utilities under the WWSS scope, compiled a list of procurement requirements, prepared budgetary estimates for these items, discussed each items' justification, and obtained USAID and HCWW approval for the procurement. Additional details regarding the procurement process are included in Section 1.

### **CC 15: Hired additional program staff**

The WWSS team screened, interviewed and hired new staff to enhance ongoing CIP/PM activities and to carry out our Y2WP agenda in this area. Two new engineers started work during November within the project. In addition, a new engineer started on the CIP planning manual based on the CIP planning outline that was prepared by program staff during Quarter 2 of 2009.

### **CC 14: PRiSM system support**

Program staff undertook a series of PRiSM meetings with sector staff, which included staff from both the WWSS and WPRR projects in addition to staff from HCWW PMU. During these meetings PRiSM enhancement needs were discussed as well as steps that should be taken by HCWW to revitalize the program, including the importance of ensuring data quality undertaking regular updates. These meetings were followed up with coordination activities with individual WWCs. Additional information on company specific activities are included in the appropriate parts of Section 3.

### **CC 15: Contractor Prequalification activities**

The project prepared "Prequalification of Contractors" criteria, which were submitted to and discussed with HCWW. The documents include criteria for prequalification of consulting engineering firms, and general conditions for contracts.

### **CC 15: Construction Management Workshop**



WWSS cooperated with WPRR and presented a workshop covering construction management (CM) fundamentals (see accompanying photo). In attendance were 44 participants from HCWW and over 40 participants from 12 subsidiaries. The workshop covered the following topics: CM through project life cycle, CM cornerstones, earned value analysis, and mitigating conflicts during construction. The training was



undertaken under the auspices of the Minister of Housing.

### **HC 11: World Bank liaison**

Two meetings were held with the World Bank representatives and HCWW. During the meetings, the Integrated Sanitation and Sewerage Infrastructure Project (ISSIP), phase 2, funded by the World Bank, was discussed, along with potential program coordination. We will have an additional coordination meeting with the World Bank in January to discuss project prioritization and coordination of priorities and activities based on local needs.

### **CC 1: Training related to Master Plan**

The project disseminated documents and provided OJT for WWCs in Assiut and Sohag for maximizing the benefits of the Master Planning process. In addition, the WWSS team helped the Sohag WWC organize a plan for the update of underground assets.

### **CC 15: Training on performance measurement**

The project disseminated documents and provided OJT to utilities in Assiut, Sohag and Matrouh on scheduling and cost updates, and deriving meaningful indicators to measure project performance. Utility staff are now better able to see and review scheduling tasks, and place task specification details within the scheduling process. It was agreed that all future bid documents will require a contractor's schedule to be set in place, along with a procedure for continuous updates as a prerequisite to accepting contractor's proposals.

### **Training on conflict and dispute resolution alternatives**

The WWSS program prepared and provided OJT to utilities in Assiut and Sohag on mitigating construction conflicts and assembling a dispute review alternatives process for projects. Over 30 people from the two utilities attended the OJT.

### **HC 11: National Organization for Potable Water and Sanitary Drainage (NOPWASD) Capital Investment Planning Meeting**

Program staff met with NOPWASD to brief them on project CIP tasks in Assiut and Sohag. During this meeting, we agreed to coordinate on CIP tasks.

### **Impact of the activities**

Through OJT sessions on maximizing the utilization of master plans, counterpart utilities in Assiut, Sohag and Luxor are in a better position to effectively utilize the master plan as a business tool, and as a platform for updating assets. The inclusion of GIS functionality will better allow these utilities to tailor appropriate activities for each markaz. Through OJT sessions on construction progress indicators and cost control tools, program management staff at the utilities of Assiut, Sohag and Matrouh have been empowered in task scheduling and cost control. The Construction Management Workshop will serve as a foundation for improved construction practices.

### **Obstacles encountered during implementation**

The utilities of Luxor and Aswan have not yet established PMU units. Our project will not be able to advance our activities with either of these two further unless these units are established.

### **Opportunities to be capitalized upon**

The adoption of standard key documents among the utilities provides a shared framework and platform for staff knowledge, operational efficiency, and quality of work and procurement procedures that will help to raise performance levels and improve consistency of service.

## **2.6. Human Resources Development**

### **CC 13: Implementation and Training on Payroll and HR components of ADVAC for five subsidiaries**

As part of the ADVAC package installed in Giza, Matrouh, Assiut, Sohag, and Luxor, the WWSS HRD team worked with WWC staff to install and provide training on the HRD components of the ADVAC system. The HR functionality of ADVAC includes payroll components. Additional information on these activities is provided in the appropriate parts of Section 3.

### **HC 12: Preparations for American University of Cairo's (AUC) Diploma program for HCWW HR staff**

The project is sponsoring five mid-level human resource development staff members from the HCWW for a two-term postgraduate diploma program at AUC's Institute for Management Development. Additional details are found in Section 1.

### **CC 4: Preparation for Utility Management Conference and Study Tour for HCWW Senior Executives**

Preparations were made for the participation of HCWW Chairman of the Board Abdelkawi Khalifa and Vice-Chairman Mamdouh Raslan in the Utility Management Conference 2010 to be held in San Francisco, CA, and additional sector meetings in Washington, DC and Denver, Colorado. The study tour is expected to take place from February 18-27, and will begin in Washington, DC where the two participants will meet with Chemonics International, USAID and the Environmental Protection Agency (EPA). After this, they will depart to San Francisco, CA to attend the Utility Management Conference 2010, which will be followed by a meeting at the American Water Works Association (AWWA) in Denver, and a visit to Denver Water, the local water utility.

### **CC 4: Preparation for Water and Wastewater Facilities tour, U.S. East Coast, April 2010**

Preparations are being made for the upcoming tour to select U.S. water and wastewater facilities for select HCWW executives. Letters of nomination for HCWW officials' participation were received from HCWW.

### **CC 2: Preparations for Advanced Seminar Series for Utility Executives in coordination with AUC**

WWSS is running a ten-module program targeting senior managers and decision-makers in the operating subsidiaries, specifically the second layer of leadership (sector heads and directors general) at these utilities. Project HRD staff signed the contract with AUC and conducted two joint visits to Cairo Water Company (12/30) and Menufiya WWC (12/17) to conduct a training needs assessment in order for AUC to design the program and to include appropriate case studies. The training course is expected to begin in the second quarter of 2010. Additional needs assessment meetings will be held in additional subsidiaries over the coming months. AUC met with HCWW senior executives (11/23) to discuss the program, objectives, and current performance of subsidiaries, and the key issues facing utilities. Regular meetings were held with AUC to discuss modules and training program throughout this period.

### **AST 9: GIS Training in Assiut**

GIS training was conducted by WWSS staff from 12/20-23 for Assiut WWC staff at Assiut University. Additional details are provided in Section 2.2.

### **CC 5: Preparing HR Management and Development training**

A training course was held on HR management and development from 21-23 December in Assiut. 35 participants attended, drawn from WWCs in Beni Suef, Minya, Menufiya, Giza, Luxor, Sohag, and Assiut, in addition to two representatives from HCWW. The purpose of the training was how to prepare HR management plans. The project designed the training curriculum, and implemented the training course, including case studies focusing on: 1) developing an assessment tool to evaluate current HR practices, 2) reviewing and revisiting current organizational charts of the HR division, 3) preparing summaries of the HR department, 4) drafting job descriptions for HR staff members, and 5) outlining an HR plan for each of the WWC HR units.

### **CC 12: Unified Accounting System training, Giza**

This ongoing program training module was undertaken during this quarter in Giza (12/15-17) for 17 total participants from the financial department at Giza WWC. Training was held at the Giza WWC training center in Zenain. Additional details can be found in Section 2.3.

### **CC 8: O&M planning and budgeting workshop for Giza and Menufiya**

An O&M planning and budgeting workshop was held for staff from Giza and Menufiya WWCs, from 12/13-15. Training was held in Giza, attended by a total of 20 participants from both WWCs.

### **CC 3: Monthly Leadership forum**

WWSS works with HCWW to co-sponsor colloquia and small conferences at which various subject matter experts present papers, and analyze and discuss specific topics on water and wastewater utility management and technical issues. The topics covered are selected in consultation with HCWW depending on interest. During this quarter, we prepared to conduct two leadership forums, one concerning how to deal with the media, and the other on interpreting financial statements by non financial people. These were forwarded for approval to HCWW, and we are awaiting approval for the rescheduling of these programs.

## **CC 5: Technical assistance for Assiut, Sohag and Luxor regarding payroll and HR systems**

A technical assistance visit was conducted to the WWCs of Assiut, Sohag and Luxor for the purpose of building capabilities of HR staff and providing training on systems implementation. Although the systems and procedures designed during these trips were superseded by the implementation of ADVAC, the visits benefited participants nonetheless by introducing them to the concepts of human resources management and payroll administration.

### **PDC2: Developed the quarterly training plan**

WWSS prepared a detailed quarterly training plan. This plan outlines courses, dates, locations, participant numbers and descriptions, and required resources for each training activity. This process contributed to the program's overall Y2WP planning process.

### **GIZ 2: Giza staffing plan assessment**

Giza's five-year staffing plan was assessed. Based on our assessment, we provided recommendations, and will send these to Giza WWC for review and implementation.

### **TA to Cairo Water Company regarding organizational structure**

Based on Cairo WC's request, we provided TA to help the Company restructure its organizational chart, and create job descriptions for the staff. This activity is ongoing.

### **Impact of the activities**

With the implementation of the ADVAC system, the capacity of HR professionals will be enhanced to produce appropriate reports related to personnel, automate and track payroll systems, and track essential HR functions within WWCs. The study tours planned will provide a productive environment for sharing experiences and lessons learned with American leaders in the field, as well as a platform for hearing about and sharing emerging best practices and other innovations with leaders in the same field. Training programs within Egypt will help select professionals from HCWW and WWCs deepen their understanding of various aspects of utility management, and introduce new concepts and practices to improve day-to-day operations at the headquarters and operating levels. Training programs in technical areas, including GIS, O&M planning and budgeting and UAS will allow select utilities to improve performance, and develop staff expertise in these areas. Ongoing HRD training will build the capacities of HRD departments. Following the entire program, it is expected that empowered HRD departments will be developed, able to nurture and support the personnel needs of effectively operating companies.

### **Obstacles encountered during implementation**

Constraints are faced with respect to HR department staffing at various WWCs, including the number or qualifications of HR staff. Some governorates don't have appropriate staff or heads of the HR sector in place. We have requested that appropriate staff be identified and hired, but so far key vacancies remain. The director position is critical to building a strong HR team. We have offered our assistance in recruiting the appropriate staff. In general, we found that, in many cases, WWC Chairmen need to have a more comprehensive understanding of the HR process, and understand more clearly the distinction between personnel management and HRD.

Many staff members in place at WWCs have come from a personnel background, and require further orientation and training in order to fully understand the roles and responsibilities of a fully-fledged HRD department.

### **Opportunities to be capitalized upon**

WWC HR staff are in general willing and dedicated partners in our efforts, and are eager to develop their skills and build the capabilities of themselves and their departments.

## **2.7. Information Technology**

In addition to ongoing field support in GIS operations, and the installation of ADVAC software, we continued to support the MARS system, and provide other assistance in the areas of automated billing and collections. We are also working closely with HCWW on the software and hardware procurements for WWCs.

### **MARS discussions with HCWW**

At the Holding Company itself, our work focused on IT master planning and re-engineering MARS. HCWW is eager to enhance MARS functionalities, and improve the accuracy of MARS outputs. HCWW will oversee MARS data quality, and establish a MARS mirror site as a backup system. We discussed with HCWW the possibility of creating a taskforce group, including members from HCWW and its subsidiaries, to follow-up with MARS activities. Ultimately, it has been decided to re-engineer MARS re-engineer, and for the resulting architecture environment to be web-based.

### **IT Procurement**

A list of IT related equipment for installation at HCWW and select WWCs was prepared, along with a justification for items to be procured. Additional details are described in Section 1. The procurement list is attached as Annex D.

### **HC 5: IT Master Plan**

Program staff helped HCWW follow up with IT master planning activities. Additional details are mentioned in Section 1.

### **HC 5: Microsoft database engine (MS-SQL) assistance to HCWW**

Technical assistance to HCWW and subsidiaries was provided on installing and operating the Microsoft database engine (MS-SQL). Additional details on this task are included in Section 1.

### **Impact of the activities**

IT activities during this reporting period have helped subsidiaries and HCWW enhance their monitoring systems, particularly through MARS. MARS helps WWCs and HCWW: increase data validity and data security, integrate data with the financial systems through ADVAC, integrate operations and planning with GIS functionality, integrate operations with asset management software, and upgrade system fundamentals with decision support systems (DSS).

WWSS staff worked with counterparts at HCWW to ensure that local capacity to manage and trouble shoot were developed within WWCs.

**Obstacles encountered during implementation**

Delays were encountered with respect to IT activities on account of the delay in the procurement of required IT equipment.

**Opportunities to be capitalized upon**

HCWW is in the process of restructuring its IT department. The WWSS program maintains good relationships with HCWW generally and within the IT sector in particular, and as a result we have an opportunity to weigh in on the framework for this important unit as it emerges.

### **3. COMPONENT 3: SUBSIDIARY SPECIFIC ACTIVITIES**

#### **Work Progress**

#### **Upper Egypt utilities**

##### **3.1. Aswan**

###### **Media relations workshop**

A workshop was held for Aswan, Assiut, Qena, Luxor, Sohag, and Red Sea Subsidiaries in Aswan in order to build skills in dealing with the media. Our involvement included preparing handouts and orientation documentation for the subsidiaries' Chairmen.

###### **ASW 1, ASW 2: Program Management Activities**

The program team visited Aswan during November to discuss program management activities. Aswan still does not have a PMU, and was requested to form one. We will seek HCWW assistance in this regard, but no additional visits are planned to Aswan without a commitment on this issue.

###### **IT support**

During this reporting period, TA was provided to establish an asset management system for hardware (computers, printers, etc.), PRiSM was installed, and operations assistance provided.

##### **3.2. Luxor**

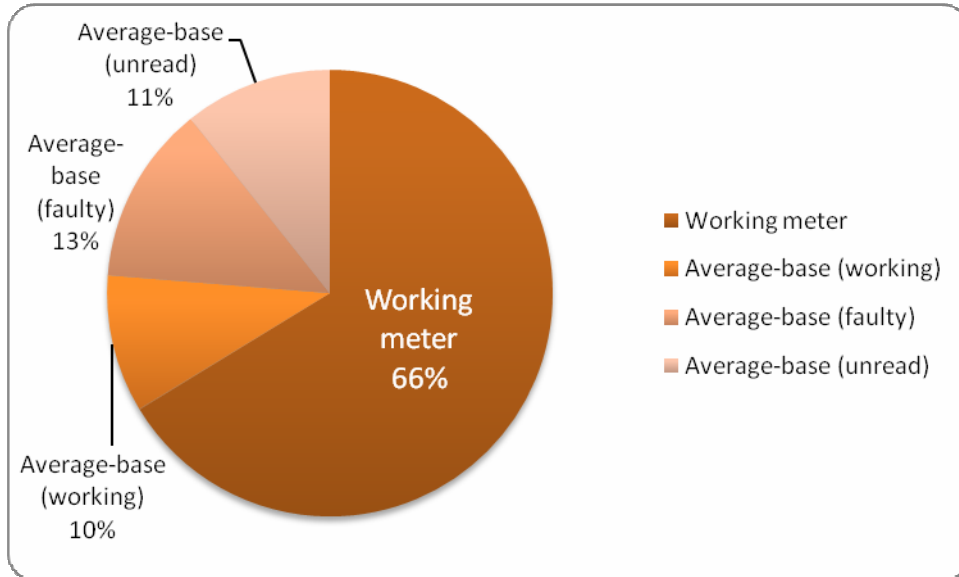
###### **LUX 1: Develop and implement unaccounted for water (UFW) pilot program:**

Our methodology for reducing UFW in Luxor involved working with the WWC Chairman to issue two orders. The first instructs staff to replace all dysfunctional water meters with new ones, install meters in non-metered connections, establish a unit to manage this task, and correct or modify data in the billing system. The second instructs staff to locate and investigate illegal connections, and rectify the issue by either creating billing identities for that customer, or terminating access. These two orders were driven forward in Luxor by WWSS staff, and our team accompanied Luxor staff as they carry out these tasks within the pilot area.

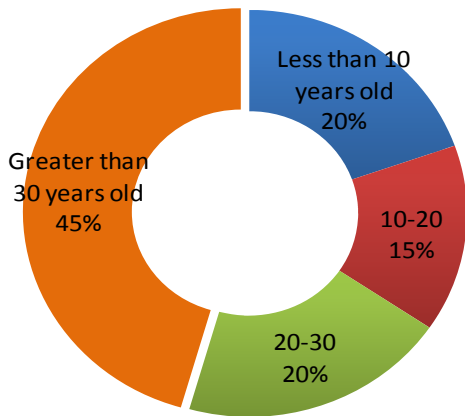
In addition to providing technical assistance on commercial and technical aspects of UFW, our team is advising utilities about the establishment of departments to specifically handle water and commercial losses. A study was carried on water consumption meters to identify their accuracy. For this purpose a random sample of 50 meters was selected and calibrated using the calibration devices at the Luxor water meter workshop. The result of this study indicated that nearly 25% of

meters are not accurate even after maintenance and repair (see selected statistics below<sup>1</sup>). Accordingly a decision was taken by HCWW to replace the out-of-order meters in the pilot area in Luxor. The Company Chairman ordered a team to take responsibility for the replacement of meters, and to ensure the accuracy of Company records regarding billed and unbilled water connections.

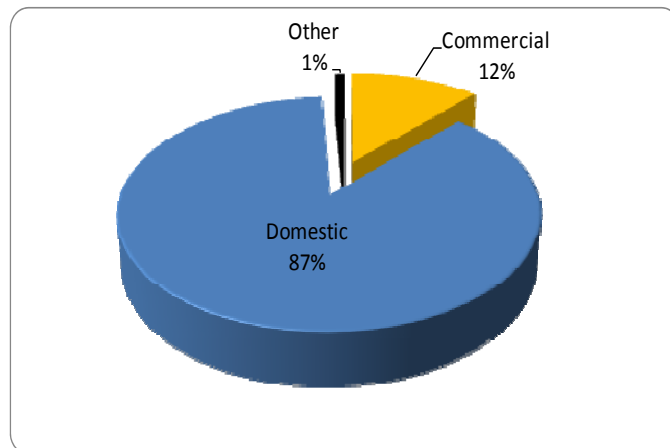
**Pilot area meter status:**



**Pilot area: ages of meters**



**Pilot area: type of connection**



<sup>1</sup> In these graphs, “average-base” refers to connections billed not according to the meter reading, because 1) the meter was unreadable, 2) the meter was faulty, or 3) the meter was working, but minimum flow conditions were not met.



In Sohag and Assiut, similar orders to the ones promulgated in Luxor have been prepared, and are currently awaiting signatures by the WWC Chairmen. In addition, we assisted companies in the development of specifications and bid documents for the purchase of leak detection equipment.

### **LUX 6: Luxor GIS support**

During this reporting period, the project finalized the preliminary plan for GIS activities, determined measurement points, and included a GIS layer in the UFW program in Luxor, described above. The project convened a meeting with officials of the Measurement and Loss Control and GIS divisions, and developed a long-term action plan for surveying and leak detection activities in Luxor, including updating data on GIS charts. Contracts are currently being concluded to install measurement devices. In addition, the project conducted OJT on operating leak detection equipment at Luxor WWC (shown in photo below). Additional information on GIS training that took place is provided in Section 2.2.

### **LUX 5: O&M activities**

#### ***Creation of a unit for cleaning and disinfection of storage tanks***

The WWC helped establish this unit, which has two main objectives: 1) cleaning, washing and disinfection of water treatment storage tanks for Luxor WWC; and 2) the same activities for private fee-paying clients, especially hotels. The WWC received the necessary approvals to initiate this activity. Companies using this service receive a certificate that their tank was cleaned by the WWC.



#### ***Assist in the ongoing development of O&M planning and budgeting***

WWSS staff pushed forward relevant Luxor WWC staff to develop O&M plans and budgets by providing technical assistance, OJT, and by developing step-by-step procedures for developing the O&M plan and budget. The team delivered a refresher workshop for Luxor technical staff, and conducted OJT for engineers and technicians. Details on the overall O&M planning and budgeting process ongoing within the project are included in Section 2.4.

#### ***Update USAID-supported O&M management system***

The program resumed operation of the previously-suspended PMC2000 program, and assisted WWC staff in solving emerging problems, and agreed with the Company Chairman on appointing a coordinator for technical follow up on the program. Current studies are underway to include other plants in the program.

### **LUX7, LUX 8: Program Management Activities**

The project's program management team visited Luxor twice during this quarter. During these visits, the team provided OJT on the master planning process, identified and solved problems concerning PRiSM, and agreed to coordinate between Luxor and Qena regarding the addition of the two new markaz which were added to Luxor after the presidential decree for establishing the

Governorate of Luxor. Luxor has not yet developed its PMU. The WWC does not feel the urgency to do so because of the lack of ongoing projects. The Chairman promised to initiate the PMU before our next visit. WWSS will only visit Luxor after receiving the Chairman's decree of the new unit.

### **LUX 5, LUX 6: IT activities**

Program staff operated a VPN connection between Luxor and HCWW and allocated staff for running the MARS application.

### **LUX 2: Assist in the development of the Luxor WWC Business Plan**

WWSS business planning staff conducted two field trips to Luxor. During these meetings, WWSS shared with the Financial Department the Menufiya Financial Plan that was developed, to use as a reference for the development of their own business plan, and met with the new Chairman, Engineer Khaled Nasr, to discuss the progress of, and obstacles to, their business plan. Additional activities regarding business planning activities are described in Section 2.1.

### **LUX 4: Financial activities**

During this quarter, the WWSS financial team: assisted in data gathering and in developing the information required for the Business Plan; provided estimated cost data for the pilot UFW, handed over a version of the five-year Financial Forecasting Module, using the module developed for Menufiya as a template, and explained the role and benefits of installing ADVAC to the Company Chairman, and to the heads of the financial and commercial divisions, and summarized the application's data requirements.

## **3.3. Qena**

### **MARS Implementation**

The program provided technical assistance to the economic analysis unit at the Qena WWC in MARS operationalization. Additional details in Section 2.2.

### **Support to Asset Management Unit**

The WWSS team is providing ongoing technical assistance in the operation of the asset management unit programs at Qena WWC. Additional details in Section 2.2.

### **QEN 1: Business Planning coordination with GTZ**

The project team is coordinating with our counterparts in GTZ concerning the Qena business planning process, details in Sections 2.1 and 4.

## **3.4. Assiut**

### **AST 14: Assiut Program Management Activities**

During this quarter, the Program Management team visited Assiut twice, during which we provided OJT on contract management through a review of appropriate documents and case studies, and identified and evaluated PRiSM implementation problems, and helped staff address these. We also disseminated new forms to, and provided OJT for, 25 staff members on how to document progress and coordinate status of project scheduling and financial information with PRiSM management.

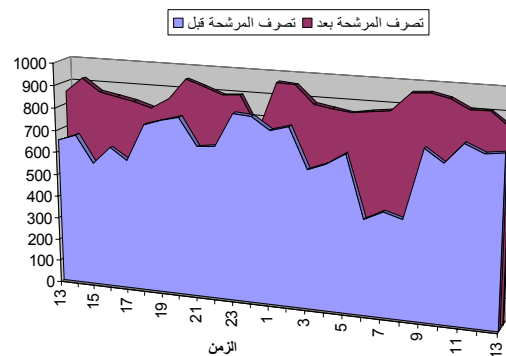
### **AST 2, AST 3: HR Management and Development training**

Support was provided to the Assiut HRD division on HR management and development, details are provided in Section 2.6.

### **Activating the water loss department at Assiut WWC**

Training for Measurement and Loss Control department employees was delivered on the use of measurement instruments to gauge production at all WTPs, analyze the data, and address problems identified. As a result of our assistance, staff managed to reduce production losses to around 6% down from 24% (see accompanying graph).

مقارنة بين أداء ظلميات عنبر المياه المرشحة قبل وبعد تنفيذ التوصيات بالنسبة للتصرف



### **AST 10: Assist in the development of O&M plan and budget for Assiut**

Details on the overall O&M planning and budgeting process are described in Section 2.4. In Assiut, the project delivered a refresher course for senior Company staff, and provided OJT training workshops for engineers assigned to developing the O&M plan and budget.

### **AST 10: Other O&M activities**

Our staff assisted the technical tender evaluation committee in the review of proposals related to purchasing leak detection equipment and handheld measuring devices, required for the Measurement and Loss control department, which WWSS helped to establish at the Company. In preparation for the Luxor UFW activity, we worked with the Company GIS team to prepare an action plan for selecting a target area for the program. Work on this task will start as soon as leak detection equipment and handheld measuring devices required are received by the Company.

### **AST 11: Replicate implementation of JICA developed SOPs in two plants**

Working closely with Assiut WWC staff, our O&M advisors are customizing SOPs prepared for a Sharkeya water treatment plant by JICA for implementation in plants two plants in Assiut. Two plants were used as case studies: the Nazlet Abdallah Plant and the New Assiut Plant. Additional details on this activity are found in Section 2.2.

### **AST 1: Assist in the development of the Assiut WWC Business Plan**

The first Assiut WWC business plan draft was completed. Our team conducted multiple field trips to Assiut during November and December in support of this task. The draft will be distributed to division and department heads for review and comments in early January. Consequently, a workshop will be conducted on January 14 to discuss the plan and reach consensus and buy-in from Company senior and middle management.

#### **AST 7: Establish and Upgrade Meter Repair Workshops**

Activities in support of Assiut's meter repair workshop were undertaken during this reporting period. Details are provided in Section 2.2.



#### **AST 8: Establish Billing and Collection and Customer Service Centers**

During this reporting period, progress was made in establishing a Customer Service Center and Billing Center in Assiut. Details on this activity are provided in Section 2.2. The accompanying photo shows the refurbished billing center.

#### **AST 9: OJT Training in support of GIS unit**

During this reporting period, technical and OJT training was provided on GIS issues for Assiut WWC. Additional details on this activity are provided in Section 2.2

#### **AST 5, AST 6: Financial Management activities**

During this reporting period, the WWSS Financial team developed and submitted a draft proposal for the organizational structure of the Financial Division, assisted in the development of a five-year financial forecast, developed organizational restructuring recommendations for the Warehouses and Procurement Departments, and advised on staff re-allocation. In addition, we helped form a committee to inventory and code warehoused items, and provided a plan for upgrading the warehousing unit and applying inventory control management.

### **3.5. Sohag**

#### **SOH 2: HR Management and Development Training and ADVAC Support**

The project provided support to Sohag's HRD department, including assistance in implementing the HR components of the ADVAC system. Details are provided in Section 2.6.

#### **SOH 4: Assist in the development of O&M planning and budgeting**

This quarter, the WWSS team developed a refresher course for all district directors and Division Heads; developed onsite training workshops for staff members responsible for O&M plans and

budgets at selected WTPs; and provided data for a survey of WTPs. Additional details regarding the project's overall activities in O&M planning and budgeting are found in Section 2.4.

### **SOH 10: Program Management Activities**

The WWSS Program Management team visited Sohag twice this quarter, during which we provided OJT on utilizing and updating the master plan, identified PRiSM problems and made recommendations, particularly with respect to connectivity solutions, coordinated new procedures and forms for documenting work progress and coordinating project status through PRiSM, and provided OJT on the flow of activities and the coordination of responsibilities between the PMU and Master Plan unit.

### **SOH 4, SOH 5: Financial Sector Management activities**

During this reporting period, the WWSS Financial team worked with the Cost Accounting Department to assign and train two accountants and draft a cost centers manual, provided the Company with an Excel-based model to help prepare financial statements, and developed and submitted the proposed organizational structure for the Financial Division to the Chairman. In addition, we notified Company officials of the requirements for installing and operating the ADVAC accounting software, and assisted in the development of the five-year financial forecast. On the request of Company Chairman Eng. Ali Ezzat, we assessed needs and performance within the Contracts and Procurement and Warehouse Departments, and developed an action plan to survey inventory and combine the warehouses under a central management.

### **SOH 9: IT Support**

During this reporting period, IT technical assistance was provided to help Sohag in enhancing and upgrading its billing system. The TA included procedures enhancement, business review, reports design, and data security. Additional details on these, and other IT activities, are found in Section 2.7.

### **SOH 1: Assist in the development of the Business Plan**

WWSS support business planning activities in the Sohag WWC this quarter; their plan is approximately 40% complete. Our team will resume working with the Sohag team in late January, with the target date for completing the first draft set for the end of February. Additional details on this, and other business planning activity, are found in Section 2.1.

### **Establish and Upgrade Meter Repair Workshops**

Activities in support of Sohag's meter repair workshop were undertaken during this reporting period. Details are provided in Section 2.2. Training for this activity is shown in the accompanying photo.



### **SOH 6: Establish Billing and Collection and Customer Service Centers**

During this reporting period, progress was made in establishing a Customer Service Center at Sohag WWC. Details on this activity are provided in Section 2.2

## **Middle Egypt utilities**

### **3.6. Minya**

#### **MIN 3: Rationalization of the Consumption of Electrical Power**

The project made progress in implementing the electric power rationalizing task this quarter. During the implementation of this task, a workshop was held on the rationalization of the consumption of electrical power for 17 technical staff of the Company. The training was attended by four engineers from HCWW which will support follow-up activities. Additional information is contained in Section 2.4.

#### **MIN 4: Replicate implementation of JICA developed SOPs in two plants**

The project is customizing SOPs prepared for the Sharkeya water treatment plant by JICA for implementation in additional water and wastewater treatment plants. Additional details on this activity are found in Section 2.2. In Minya, two plants received SOP assistance: the Kedwan and Abou Korkas plants. Our findings and recommendations will be forwarded to the WWC and the Holding Company by the end of January 2010.

#### **MIN 3: Upgrade Utilization of the Central Lab: Best Use of Chemicals**

The team visited the Central Lab to evaluate the state of equipment and staff training needs. The need to develop contracts for laboratory equipment maintenance and training was identified. We concluded one year maintenance contracts with two companies, GC (Agilent) and AA (Thermo) to provide maintenance and training services for two chemists on operating equipment, sample and result analyses, and periodic maintenance. Our team recommended the steps required, and the overall need, to facilitate ISO 17025 certification within the lab. The team developed recommendations regarding the necessity of developing an organizational structure for the laboratories, and job descriptions.

### **3.7. Beni Suef**

#### **BEN 3: Improved use of Central Lab**

The project conducted a field visit to the Central Lab to evaluate the state of equipment and staff training needs. We recommended the establishment of a quality control department for QA/QC and monitoring accuracy of laboratory work and analyses. The team recommended a series of steps to facilitate ISO certification, and relevant procedures have been started. Draft SOPs were developed, and methodologies were discussed to upgrade lab procedures. Training needs of lab staff were identified.

#### **BEN 2: Financial Management activities**

During this reporting period, the WWSS financial team provided general training and Egyptian accounting standards training courses for new accountants, and assisted with the upgrading of the Procurements and Warehouses Departments, including updating suppliers and contractors records, and modifying the document routing process from and to the Procurement and Warehouses department.

### **3.8. Giza**

#### **GIZ 7, GIZ 11: Performance Management**

The program prepared Customer Service Center prototypes, and the architectural design process was started for the CSC at Giza WWC. The first draft of the design was completed and discussed with HCWW's Public Awareness unit. The second draft will be completed in early January, and the final design will be completed soon after.

#### **GIZ 2: HR activities**

This quarter, the program's HR team assessed Giza's five year, provided ADVAC implementation support, and provided HR management and development training. Additional details are found in Section 2.6.

#### **GIZ 6: Establish and Upgrade Meter Repair Workshops**

Activities in support of Giza's meter repair workshop were undertaken during this reporting period. Details are provided in Section 2.2.

#### **GIZ 11: Program for Computerized Maintenance Management System (CMMS)**

The WWSS team installed an Arabic version of the CMMS program, and provided support for its use at the Gezirat el Dahab treatment plant. The program is now operational, and has produced the first work order for predictive and corrective maintenance. The program will enable and improve the automation of maintenance systems at the WTP.

#### **GIZ 1: Assist in the development of WWC Business Plan**

Giza's business planning activities have been progressing well with close collaboration of Mr. Abd El Latef Mohamed, the WWC business planning coordinator. The Company completed 75% of the plan; however, the absence of progress within the financial component continues to be an obstacle to completing the business planning process, which may cause delays in the completion of the first draft.

#### **GIZ 6: O&M activities**

The WWSS team provided the technical specifications and documentation related to the procurement of leak detection equipment and handheld measuring devices required for Measurements and Losses Department at the Company, which WWSS is helping establish.

### **Industrial Waste Program**

The Giza WWC requested assistance from WWSS for monitoring and measuring chemical effluent present in wastewater treatment plants. It had become apparent that factories were dumping industrial waste illegally into the sewage system, thus affecting the quality of treatment at wastewater treatment plants. With our assistance, the WWC contacted the factories in question, and installed measurement devices at their discharge point into the wastewater system to determine if their effluent is within acceptable limits. In addition, the WWSS team provided technical assistance for staff on reporting violations and assessing penalties for the factories' transgressions.

### **GIZ 3: Financial Management activities**

During this reporting period, the WWSS financial team assisted in identifying the data required for developing the Business Plan, and scheduled training sessions on the Unified Accounting System for financial staff.

## **3.9. Cairo**

### **TA to Cairo for Organizational structure**

Pursuant to the request of the Chairman of the Cairo Water Company, we are presently helping the utility in planning a new organization chart along with position descriptions. Additional details are found in Section 2.6.

### **CAI 1: O&M planning and budgeting**

Under our year 2 workplan, we are preparing for conducting additional O&M planning and budgeting workshops for Cairo WC in June 2010. Additional details are found in Section 4.

## **Lower Egypt utilities**

## **3.10. Matrouh**

### **MAT 3: Program Management Activities**

During this quarter, WWSS held a meeting with the WWC Chairman, and agreed on the establishment of a PMU within the WWC. We provided our proposed organizational chart, job descriptions, and requirements for the unit. In addition, OJT was provided to six engineers from the construction department on scheduling and fundamentals of project control techniques. A copy of the "Construction Indicators Guidelines" prepared by WWSS was provided to the team. Furthermore, our program team agreed with the Matrouh planning department to provide GIS maps for each markaz showing existing and under-construction facilities.

### **MAT 2: Performance Improvement Activities**

Two visits were undertaken by program Performance Improvement staff to Matrouh WWC this quarter. During these visits, we helped establish the Asset Management Unit, and secured Board



of Directors' approval for the unit; and introduced MARS to the WWC, including installation, staff training, and beginning to enter data. The financial department has dedicated one accountant to enter the financial data related to MARS.

### **MAT 2: Financial Management Activities**

One visit took place to Matrouh during this reporting period by project Financial staff. During this quarter, the program team met with the Matrouh financial team that will implement the ADVAC system, agreed with the Matrouh team on the data to be entered into the system, and handed over templates of spreadsheets and tables that will be used. The IT infrastructure requirements to run the ADVAC system were determined, and some of these components were procured. Ten computers were handed over in order to run ADVAC. Practical training on installing ADVAC will start in January 2010. In addition, the WWSS team made recommendations regarding recording of fixed assets in order to assist the Company in developing a cost center manual.

## **3.11. Menufiya**

### **MEN 6: Upgrade Meter Repair Workshops**

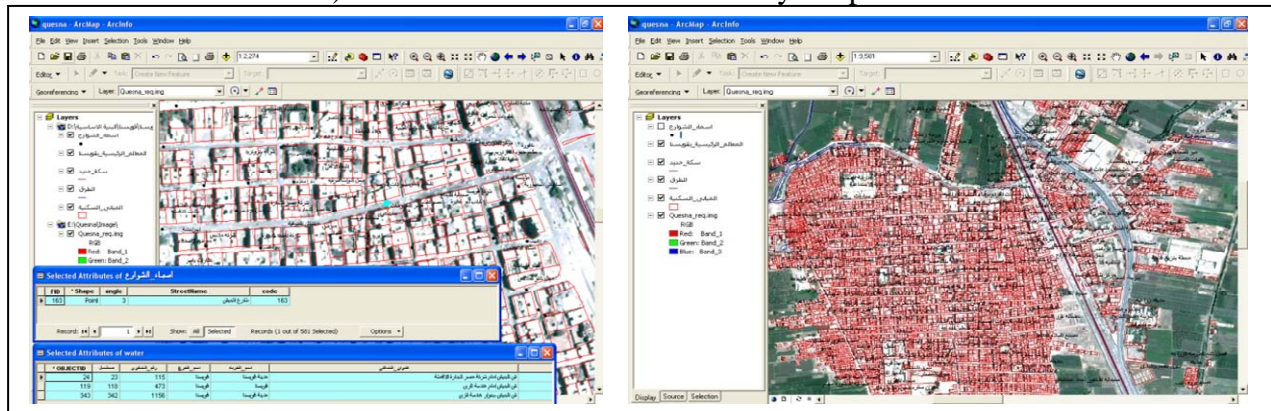
Activities in support of Menufiya's meter repair workshop were undertaken during this reporting period. Details are provided in Section 2.2.

### **Establish billing/collection and customer service centers**

We worked toward the establishment of a Customer Service Center at Menufiya WWC. Details on this activity are provided in Section 2.2

### **MEN 7: OJT Training in support of GIS unit**

Technical and OJT training was provided on GIS issues for Menufiya WWC, including the integration of GIS into master planning activities. OJT was provided to the GIS unit on overlaying satellite images and coordinates with GIS maps, and linking GIS functionality with the 125 phone hotline number in order create reports and appropriate graphics (selected screenshots shown below). Additional details on this activity are provided in Section 2.2.



## **MEN 8: Energy Use Rationalization**

The power factor at the Menufiya WWC was measured, and a capacitor will be installed to ensure the appropriate power factor is maintained, thus preventing fines from the electric utility. Additional details in Section 2.4.

## **O&M Activities**

WWSS convened a meeting with the Company Chairman, and presented him and his team the workplan for the program's second year. A one day visit by the O&M team was undertaken to evaluate selection of a treatment plant for electrical and chemical rationalization through installation of energy efficiency devices. At the request of the Menufiya WWC, our staff visited the Ashmoon plant, and identified and monitored a technical problem related to flocculate escape from the clarifier heading to the filters. Training was provided on filter washing procedures, and the removal of the silt layer deposited over the filter sand. The team installed and operated an alarm device to detect high water levels within ground reservoirs in order to prevent reservoir losses, and assisted the technical tender settlement committee in the evaluation of bids for detection equipment and handheld measuring devices required for the Measurements and Losses Department, which WWSS is helping to establish.

## **MEN 6: Performance Improvement activities**

WWSS Performance Improvement staff visited Menufiya twice this quarter. The following activities took place:

- **Establishment of Asset Management Unit:** Five WWC staff members from the technical office were assigned to the Asset Management Unit. Staff was provided with templates to inventory assets, and training on assessing the technical condition of physical assets.
- **Follow up on MARS:** The WWSS team followed up with the economic analysis and financial units on MARS data entry. The WWSS specialist noted that QC data from the laboratory are not in place and there is a need to provide laboratories with an internet connection to access and input into the MARS database.
- **Metering and Customer Service Center:** WWSS staff helped select the locations of the two centers, and it was agreed that internal architecture design will be provided by the project (see location photos below).



**Proposed CSC site in Abu Bakr el Seddek water plant: WWSS team site inspection**

### **MEN 8: Chemical Use Optimization**

An overview of the project's activities in the field of Chemical Use Optimization is provided in Section 2.4. In Menufiya, a site visit was paid to Shebin El-Kom water plant to study the execution of the chemical use improvement program there. The WWSS team found that the lab equipment is suitable for conducting the tests required for the study. Data was collected from this plant, and we discussed with lab staff their procedures regarding control of chemical doses.

### **CC 5, MEN 2: HRD Activities**

Menufiya WWC participated in training activities related to the preparation of human resource management and development plans, as well as a workshop on planning and budgeting. Additional details in Section 2.6.

### **MEN 7: IT Activities**

During this reporting period, the project delivered and installed ArcGIS and ArcView in Menufiya, provided satellite images for one markaz, and delivered OJT to GIS staff on using satellite image as an overlay over GIS maps.

### **MEN 1: Assistance in the preparation of the WWC Business Plan**

With the full cooperation of the senior management and staff, the Company produced the first draft of its Business Plan in late December, a first among HCWW's 23 subsidiaries. A business planning unit was established to update and monitor the progress of the business plan. The WWS team conducted 8 field trips to the WWC during this quarter to support and monitor progress, and the Chairman visited the WWSS offices on December 29 to put the final touches on the draft. The Company will distribute copies of the draft plan to all divisions and departments for review and comments, and a workshop will be held in early January to discuss, review and secure consensus of the plan and its programs. We will follow up and monitor the process and provide TA as needed to ensure timely implementation and success of the plan. Additional data on the business planning process can be found in Section 2.1.

### **MEN 4, MEN 5: Financial Management activities**

During this reporting period, the WWSS Financial team adopted necessary procedures to develop the five-year financial forecast in terms of its objectives, information, and data required by various sectors, and designed modules to be used in collecting data from various divisions. These modules were finalized by the Company's financial division, with OJT and assistance from the project, and were incorporated into the Company's work plan. In addition, we visited Menufiya warehouses and evaluated conditions in order to make recommendations regarding the efficiency of inventory control and procurement procedures.

### **MEN 1: O&M planning and budgeting**

A workshop for five participants from Menufiya WWC on O&M planning and budgeting was conducted this quarter, followed by the development of action plans for the preparation of the Company's O&M annual plans and budgets. Additional details are found in Section 2.4

### **3.12. Daqahliya**

#### **DAQ 1: Capital Investment Planning / Program Management Needs Assessment Visit**

A needs assessment visit was undertaken to Daqahliya by the WWSS team to identify WWC needs, and incorporate TA and building capacity activities into the program Year 2 workplan. Additional details are found in Section 2.5.

## **COMPONENT 4: PROJECT DEVELOPMENT AND COORDINATION ACTIVITIES**

### **Work Progress**

#### **PDC 3: Year-2 Work Planning**

WWSS views annual work planning as a highly participatory process, both among the project teams and in collaboration with HCWW, subsidiaries, USAID, and other donor-funded projects in the water and sanitation sector. Work began on the program's second annual plan in mid-October 2009. During this quarter, ending December 31, the project finalized its workplan, shared it with USAID and HCWW, and incorporated comments received from the client and the joint working groups.

The Year 2 workplan structure reflects the project's revised strategy and organization in order to suit ongoing program activities, without any changes to the WWSS objectives outlined in our contractual scope of work. Our new three-pronged strategy, as highlighted in the introduction of this report, is divided into three focus areas:

- (1) Central-level activities emphasizing support to HCWW initiatives and activities,
- (2) Cross-cutting activities, covering tasks to be implemented among all operating subsidiaries, and
- (3) Subsidiary-specific activities, based on the needs of WWCs identified using our assessments performed in September 2009.

This section covers tasks relating primarily to project development and coordination.

#### **HC 11: Coordination with Stakeholders**

WWSS has an ongoing commitment to coordinating closely with other sector participants. During this reporting period, the project held regular meetings with counterpart organizations in the water and wastewater sector, in particular with other development projects. Last December, a meeting was held between project staff and HCWW Vice Chairman Mamdouh Raslan to plan a donor conference for early 2010. Details of this meeting and its outcomes are located in Annex C. To this end, we updated the Matrix, reflecting updates and corrections received to the list of donor-funded water and wastewater programs active in Egypt. A selection of page views from the Matrix is included as Appendix B in this document.

*Coordination with GTZ* in Qena was initiated by meeting with Mr. David Banner, Project Manager, on December 14. He briefed the WWSS team on the progress that has been achieved so far with their strategic planning component for the Qena WWC. It was agreed to integrate their strategic document within the Strategic Framework of Qena's Business Plan that WWSS will assist the company to develop. GTZ document will be submitted to WWSS by the end of January 2010.

Two meetings were held with the *World Bank representatives and HCWW*. During the meetings, the Integrated Sanitation and Sewerage Infrastructure Program (ISSIP), phase 2, funded by the

World Bank, was discussed, along with potential program coordination. We will have a coordination meeting with the World Bank in January to discuss project prioritization. We have agreed to set in place a process to coordinate the priorities for project implementation based on local needs.

Several meetings were held with *GTZ and Dutch Cooperation* to discuss ongoing program activities, share information and resources, particularly in the training area. The three programs agreed to hold joint monthly meetings and will be putting forth a proposal to present their respective UFW experiences along with that of Cairo WC to HCWW and its cooperating subsidiaries.

#### **PDC 5: Finalize and implement WWSS procurement plan**

The project completed its first procurement plan. The procurement justification document is found in Annex D. The procurement, which will take place in the US and locally, is currently underway. Additional details are included in Section 1.

#### **PDC 4: Intranet**

In order to share information among project staff, including documents, reports, schedules, and lessons learned, and with select staff from partner organizations, including USAID, HCWW and subsidiaries, a project intranet site is being planned. During this reporting period, the framework for the site was prepared, bids were solicited, and the website development company was selected (Ebb and Tide). The site will provide a shared work space for project staff, through which they can collaborate on tasks, easily access shared documents and reports, and monitor and coordinate program activities. The site will be launched on or about February 2010.

#### **Subsidiary Fact Sheets**

During this reporting period, a process was set in place whereby two-page “fact sheets” will be prepared for each of the subsidiaries with which the program works. This task is underway. The sheet has been designed, the indices to be monitored have been selected, and we are currently working with WWCs and with the MARS database in order to populate the data in each of the WWC fact sheets. The fact sheet, the donor matrix database, along with our performance monitoring system will be posted on our intranet website.

## 5. UPCOMING ACTIVITIES FOR THE NEXT QUARTER

### Component 1: HCWW activities

Activities planned for Q1 2010 with HCWW include the following:

- Support the HCWW public awareness unit in issuing its newsletter and in the preparation of presentations and other promotional material for conferences and seminars.
- Development and enhancement of the HCWW website
- Continued facilitation work with the Joint Working Group
- Cooperation with GTZ on the elaboration of the HCWW business plan
- Undertake assessments for IT Master Plan, develop recommendations, and present to HCWW senior management
- Conduct study of financing options for the implementation of rural sanitation plans
- Assist in the establishment of HCWW PMU
- Continue donor coordination activities
- Continue study tour activities
- Plan for HCWW-hosted donors' conference
- Launch corporate communications strategy

### Component 2 and 3: Cross-Cutting and Subsidiary Specific activities

Activities planned for Q1 2010 with respect to cross-cutting and subsidiary specific activities include the following:

#### Business Planning:

Luxor, Giza and Sohag WWC business plans will be completed; Matrouh and Aswan's will be initiated. Additional details with respect to schedule are included in Section 2.1. Project business planning staff will undertake a training program for financial forecasting, scheduled for the end of February.

#### Performance Management:

- Final design of Giza CSC and draft of Menufiya CSC to be completed.
- Reengineering of MARS and development of a new database
- Continuation of the replacement of faulty water meters program at Luxor, Sohag, and Assiut WWCs. In addition, a similar process will be initiated at Menufiya and Giza
- Installation of water meter calibration devices and training of the workshop staff in the completed workshop buildings
- Follow up on the procurement plan of subsidiaries
- Link hotline 125 at Luxor with GIS functionality
- Bidding process of Assiut CSC to be completed.
- Continue work and expand on UFW activities.

#### Financial Management:

- Conduct study of financing options for implementation of rural sanitation strategy

- Finalize handover of finance and accounting, and cost accounting manuals; and provide OJT in selected utilities on their use
- Continue UAS training program
- Work with Sohag, Assiut, Luxor, Giza, and Menufiya WWCs to strengthen their Finance Departments
- Work with Giza WWC to finalize financial plan
- Assist with warehouse management plans in selected utilities
- Install ADVAC accounting system in select utilities

#### **Operations & Maintenance:**

- Assist in the ongoing development of WWC O&M planning and budgeting in Giza and Menufiya
- Conduct O&M planning and budgeting workshops to cover the remaining subsidiaries

#### **Capital Investment Planning / Program Management:**

- Ongoing PRiSM support
- Support PMUs at select WWCs

#### **Human Resources Development:**

- Assist in drafting HCWW position descriptions
- Continue working with HRD related aspects of ADVAC system
- Continue preparations for joint AUC/WWSS Advanced Seminar Series for utility executives
- Prepare for and administer two study tours for senior HCWW staff
- Provide HRD training, and TA on five-year staffing plans for HCWW and select WWCs
- Assist in launching and supporting Sohag, Assiut, and Menufiya HRD units
- Develop HRD plan as part of business planning process at select WWCs
- Complete Luxor WWC and Cairo WC staffing plans
- Propose new organizational structure for Beni Suef HRD Section

#### **Information Technology:**

- Deliver ADVAC training with an emphasis on system administration functions (re-installation, security and data recovery)
- Initiate the drafting of IT master plan RFP
- Provide training for subsidiaries about Microsoft database engine MS-SQL
- Hold meetings with selected subsidiaries to discuss the future of MARS system
- Assist the Menufiya WWC to establish an interim billing system
- GIS training in Menufiya
- Finalize procurement process for HCWW and WWCs, and deliver equipment

#### **Upcoming Activities: Beyond Scope of Work**

- **Performance Management Training:** for Customer Service Center and Billing Center Staff



- **Expansion of UFW Activities:** Applying UFW methodology at Sohag and Assiut, in response to methodology spearheaded at Luxor.
- **Business Planning process:** Expanding the number of partner governorates in business planning activities.
- Expansion of **energy rationalization** activity to five additional WWCs
- Expansion of work on **chemical use optimization** to five additional WWCs

## 6. ANNEXES

### Annex A – Activity Matrix by Counterpart Agency

WWSS Contract Tasks and Deliverables		HCWW	Sohag	Assiut	Luxor	Giza	Menufiya	Beni Suef	Minia	Aswan	Qena	Matrouh	Cairo	Daqahliya	
Strategic/Business Planning	Assessment of existing conditions report covering all institutional and technical areas in selected governorates	--	(Y1)	(Y1)	(Y1)	--	--	--	--	--	--	--	--	--	
	A clear and documented description of the roles of and business relationships between the HCWW and its subsidiaries	Y3	--	--	--	--	--	--	--	--	--	--	--	--	
	A study of outsourcing options and recommendations	Y4	--	--	--	--	--	--	--	--	--	--	--	--	
	Corporatization procedures and recommendations	--	Y4	Y4	Y4	Y3	Y4	Y3	Y3	Y3	--	Y3	--	--	
	Develop business plans	Q1-3	Q2	Q2	Q2	Q2	Q2	Q2	Y3	Y3	Y3	Q4	Q4	Y3	--
Human Resource Management/Development	Long-term training plans for HCWW and subsidiaries	Q3	Q2	Q2	Q2	Q2	Q2	Y3	Y3	Y3	Q4	Q4	Y3	--	
	Training of HCWW and subsidiaries senior and middle managers	Q1-4	(Y1) Q1-4	(Y1) Q1-4	(Y1) Q1-4	(Y1) Q1-4	(Y1) Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	--
	Improved staffing systems	Q1-3	Q2	Q2	Q2	(Y1) Q1	Q3	Q2	Q2	Y3	--	Y3	--	--	
	A performance-based incentive system linked to continuous education efforts and the company's performance targets	Y3	Y3	Y3	Y3	Y3	Y3	Y3	Y3	Y4	--	Y4	--	--	
	Human resources development plans	Q3	Q2	Q2	Q2	Q2	Q2	Y3	Y3	Y3	Q4	Q4	Y3	--	
	Market-based compensation plans	Q3	Q2	Q2	Q2	Q2	Q2	Y3	Y3	Y3	Q4	Q4	Y3	--	
	Assistance in HCWW negotiations on staff rationalization in new subsidiaries	Y3	--	--	--	--	--	--	--	--	--	--	--	--	--
	Establish a training center	Y3	--	Q3	--	--	--	--	--	--	--	--	--	--	--
	Four study tours to world class water and wastewater facilities in the United States conducted	(Y1) Q2-Q3	(Y1) Q1-4	(Y1) Q1-4	--	--	(Y1) Q1-4	--	--	--	--	--	--	Q2-Q3	--
	Participation in four international conferences, workshops, or exhibitions in the US	Q2	--	--	--	--	--	--	--	--	--	--	--	--	--
	Plans for continuing participation in study tours and international events developed and adopted	Q1	--	--	--	--	--	--	--	--	--	--	--	--	--
Develop modern systems and procedures including organizational and management systems	Q4	(Y1) Q4	(Y1) Q4	(Y1)	Y3	Q4	Y3	Y3	Y3	Y3	--	Y3	--	--	
Financial Management	Improved financial planning, management, and accounting techniques and systems for subsidiaries	Q2-Q4	Q1-Q4	(Y1) Q1-Q4	(Y1) Q1-Q4	Q1-Q4	(Y1) Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	Q1-Q4	--	
	Provide training in financial management for the HCWW and subsidiary company staff	Q4	(Y1) Q1-4	(Y1) Q1-4	(Y1) Q1-4	(Y1) Q1-4	(Y1) Q1-4	Y3	Y3	Y3	--	Y3	--	--	
	Long-term tariff plans for achieving cost recovery	Y3	--	--	--	--	--	--	--	--	--	--	--	--	
Performance Management	Develop modern systems and procedures including MIS, GIS, target setting and monitoring and evaluation	Q1-4	(Y1) Q1-4	(Y1) Q1-4	(Y1) Q1-4	(Y1) Q1-4	(Y1) Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	--	
	Computerized metering, billing, and collection systems	--	Q3	Q3	Q3	--	--	--	--	Y3	--	Q1	--	--	
	Public awareness plans for HCWW and Subsidiaries	Q1-2	(Y1)	(Y1)	(Y1)	(Y1)	(Y1)	Y3	Y3	Y3	Y3	Y3	Y3	--	
	Recommendations for service standards that could be used as the basis for reviewing performance of companies	--	--	--	--	--	--	--	--	--	--	--	--	--	
	Service disconnection policy developed and approved	--	--	--	--	--	--	--	--	--	--	--	--	--	
	Provide training in technical management for the HCWW and subsidiary company staff, including including GIS and MIS	--	Q3-Q4	Q1-Q2	(Y1) Q1-Q2	Q1-Q2	Q1-Q2	Y3	Y3	Y3	--	Y3	--	--	
Operations and Maintenance	Develop modern systems and procedures including SCADA; leak detection; asset valuation and management; storage and inventory control; and procurement	--	Q2	Q2	Q4	Q3	Q3	Q2-3	Q3	Y3	--	Q3	Q4	--	
	Measures for cost reduction, such as chemical and electricity rationalization, developed	--	Y3	Y3	Y3	Q1	Q1	Y3	Q1	Y3	Y3	Y3	--	--	
	Operations and maintenance procedures and long-term preventative maintenance procedures developed	--	Q2	Q2	Y3	Q3	Y3	Q1-2	Q3	Y3	Y3	Y3	--	--	
	Provide training in technical management for the HCWW and subsidiary company staff, including SCADA systems, leak detection, mapping, and asset management	Q1-3	(Y1) Q1-3	(Y1) Q1-3	(Y1) Q1-3	(Y1) Q1-3	(Y1) Q1-3	Q1-3	Q1-3	Q1-3	Q1-3	Q1-3	Q1-3	Q1-3	--

Capital Investment Planning and Program Management	Recommendations for finalizing the master planning process and ensuring regular updates	(Y1)	--	--	--	--	--	--	--	Q1	--	--	--	--
	Capital investment planning and budgeting manuals	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2
	Resource plans identifying medium and long-term equipment and services needs, and potential contractors, consultants, and suppliers database	Y3	Y3	Y3	Y3	Y3	Y3	Y4	Y4	Y3	Y4	Y4	--	Y3
	Maintain the existing PRISM program	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4	Q1-4
	Establish and equip Program Management Units at the HCWW and selected subsidiary companies	Q1	Q1	Q2	Q2	Q2	Q2	--	--	Q2	--	--	--	--
	Training of HCWW and subsidiaries' staff on all aspects of planning and program, project, and construction management	--	Q2-3	Q2-3	Q2-3	Q2-3	Q2-3	Y3	Y3	Q1-4	Q2-3	Q1-3	Q2	Q2
	Facilitation of senior-level discussions at the HCWW to identify objectives for data use for decision-making	Y3	--	--	--	--	--	--	--	--	--	--	--	--
	Assistance to companies to prioritize projects and introduce the concept of funding planning including cash flow requirements	(Y1)	Y4	Y4	Y4	Y4	Y4	Y4	Y4	Y4	Y4	Y4	Y4	Y4
	Operation and maintenance planning methodology, including: start-up; warranty requirements; turnover procedures; maintenance contracts; service contracts; etc.	Y3	Y3	Y3	Y3	Y3	Y3	Y3	Y3	Y3	Y3	Y3	Y3	Y3
	Contractors prequalification and selection guidelines and procedures	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2
	Procedures for establishing dispute resolution boards and operation guidelines	(Y1)	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2
	Site identification and acquisition planning procedures	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3
	Standardized key documents for all steps of procurement, implementation, and evaluation developed and adopted by HCWW and subsidiaries	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2
	Meaningful and measurable indicators established to measure actual progress of construction	(Y1)	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2
	Develop modern systems and procedures including capital investment planning; program management; and project management	--	Q3	Q3	Q3	Q2	Q2	Y3	Y3	Y3	Q3	Q2	--	Y3
	Performance of all program management responsibilities for the first two years of the contract for three subsidiaries	--	--	Q1-4	--	Q1-4	--	--	--	--	Q1-4	--	--	--
Using local qualified firms, provision of construction management assistance to three of the selected subsidiaries during the first two years of the program and assistance to selected subsidiaries in undertaking or outsourcing this responsibility thereafter	--	--	Q4	--	--	--	--	--	--	--	Q4	--	Q4	

NOTE: Activities completed in project Year 1 are so noted with a (Y1) in the appropriate cell. Activities planned for Year 2 are illustrated by quarter (e.g., Q1, Q2, etc). Quarters are defined according to the work plan year (November - October). Activities planned for project years 3 and 4 are noted as such (Y3, Y4).

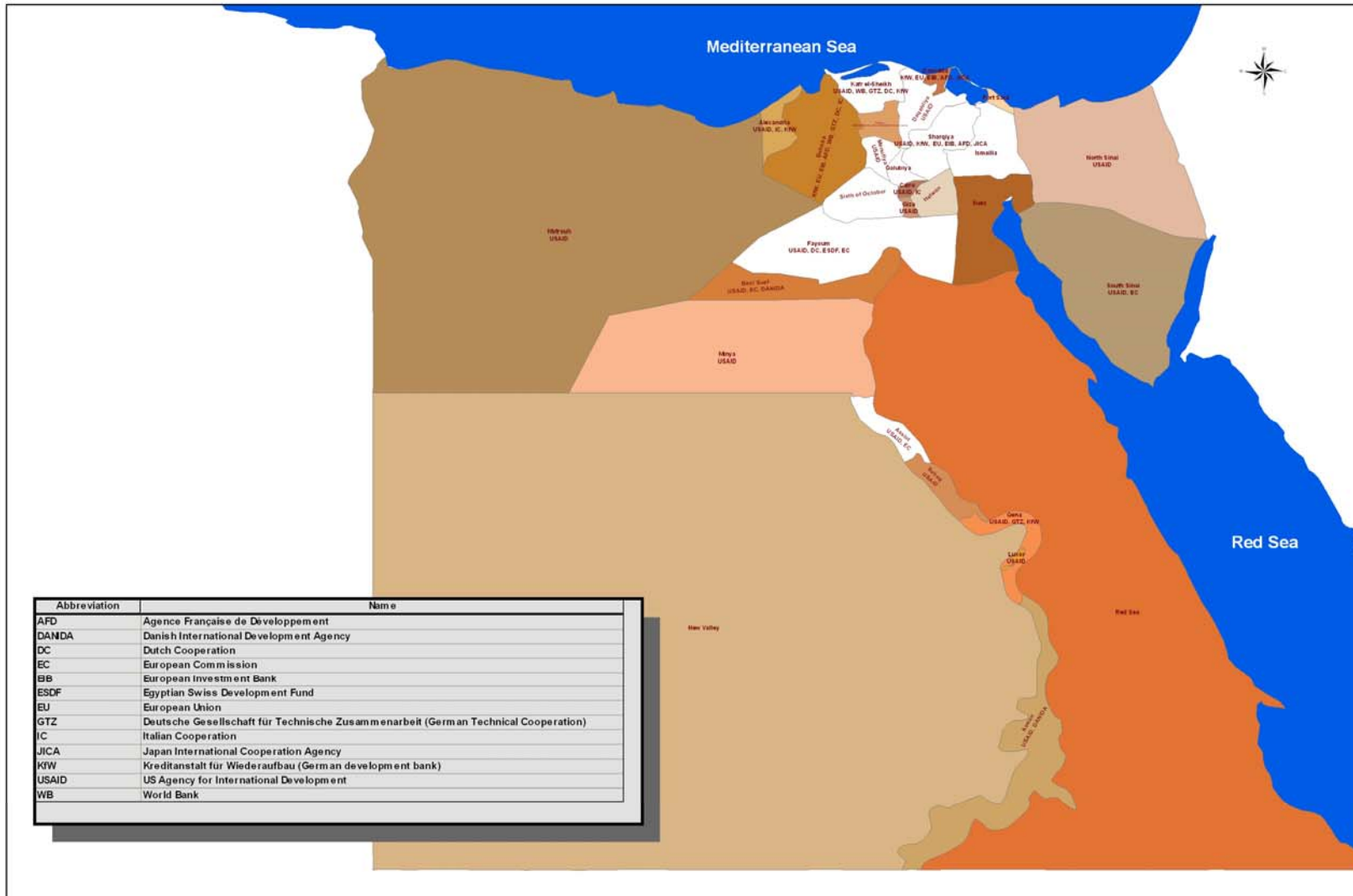
## Annex B – Selected Sheets from Matrix

Project Name	Funding Agencies Involved 1. primary, 2. secondary	Principal Activities/ Counterpart Organizations	HCWW	EWRA	MHUUD	Alexandria	Assiut	Aswan	Beni Suef	Cairo	Dakhla	Fayoum	Gharbela	Giza	Kafr el-Sheikh	Luxor City	Matruh	Menufa	Minya	North Sinai	Qena	Sharqia	Sohag	South Sinai
Middle Egypt D/B Projects: Ongoing	USAID	Engineering Construction							Construct Beni Suef City W and WW WTPs; Intake Construction.			Construct Kohafa WTP							Construct Kedwan and Sultan WTPs, Beni Ismat sewer system, and Minya water distribution system, wastewater pump stations and force mains					
Egyptian Utilities Management 2006- Ongoing	USAID	Engineering Construction							Develop WW collection systems in 2 villages in Beni Suef Governorate; Expand WW treatment plant in 1 village			Develop WW collection systems in 2 villages.							Develop WW collection systems in 2 villages; Provide slow sand filter WTPs in 3 villages.					
Water Policy and Regulatory Reform (WPRR) 2008-2012	USAID	Institutional, Policy	Delivery of training courses to selected Governorate Comptones	Deliver training, strengthen policy, legal and reg. framework; Improve quality of service; Provide TA in policy, legal and reg. reform; and Support development and implementation of key reforms and capacity building in government institutions.	Deliver training, strengthen policy, legal and reg. framework; Improve quality of service; Provide TA in policy, legal and reg. reform; and Support development and implementation of key reforms and capacity building in government institutions.																			
Water and Wastewater Sector Policy Reform (WWSR) 2003-2005 Phase 1; 2005-2009 Phase 2	USAID	Institutional, Policy, Regulatory		Tariff rate analysis, regulation manual, and advisory service for personnel, financial, rate guidelines	Work with Ministry committee on drafting new Water Law	Develop 5-year staffing plan for WWCs	Develop 5-year staffing plan for WWCs	Develop 5-year staffing plan for WWCs	Conduct technical training courses for WWCs	Undertake feasibility study for BOT water plant project in New Cairo; Develop 5-year staffing plan for WWCs.		Conduct technical training courses for WWCs, and Develop 5-year staffing plan for WWCs			Conduct technical training courses for WWC			Develop 5-year staffing plan	Develop 5-year staffing plan for WWCs			Conduct technical training courses for WWCs, and Develop 5-year staffing plan for WWCs		Develop 5-year staffing plan for WWCs
Egypt Water and Wastewater Sector Support (WSS) Institutional 12/2008 - 12/2011	USAID (additional component of same project managed by GTZ in other governorates).	Institutional	Financial and commercial viability of existing subsidiary companies; Establish new subsidiaries; Capital investment planning and program mgt. capabilities; Build capacity of managerial and technical staff; and improve quality of, and access to, water.	Collaborate and coordinate with, as needed; Respond to information requests/ programmatic support, as appropriate.	Collaborate and coordinate with, as needed; Respond to information requests/ programmatic support, as appropriate.	Improve internal capacities at WWC; Develop training and OJT unit; Support warehouse, procurement, meter repair; Replicate 2 SOP units; Provide TA for const. project.	Provide recommendations on how to integrate Planning Unit and PMU; and Establish local PMU by providing PRISM access and related training.	Improve internal procedures and capacities (propose new org structure for HR and develop inventory mgt. procedures), and improve utilization of central lab.	Identify optimal computerized inventory control and mgt. system; Help implement software; Support study tours, budgeting workshops; and MARS and PRISM integration.	Help provide construction management assistance; Roll out cross-cutting capital investment planning and program management activities.		Improve internal capacities at WWC; Develop training center and OJT unit; Audit energy and chemical use; establish circuit- rider program, and meter repair workshop.			Improve internal procedures and capacities at WWC; Develop training center and OJT unit; Launch IFM pilot program, and provide OJT for GIS unit.	Assist business plan; initialize asset mgt. IT system; assistance in const. mgt., hand-held units for billing and collection; and OJT on O&M software.	Improve internal capacities; Develop training and OJT unit; Audit energy and chemical use; establish warehouse mgt. program and meter repair workshop.	Propose new org structure for HR unit; develop procedures, audit energy and chemicals use, establish SOPs, and improve utilization of central lab.	Cross-cutting capacity building activities, including study tours, MARS and PRISM support, O&M planning and budget workshops and dist. of key manuals and best practices.	Develop business plan for local WWC; Provide training and technical assistance on issues including capital planning and PRISM use; and provide additional program mgt. functions.			Improve internal procedures and capacities; Develop training center and OJT unit; Improve lab utilization.	Provide cross-building capacity building activities, including study tours, MARS and PRISM support, O&M planning and budgeting workshops, and dissemination of key manuals and best practices.

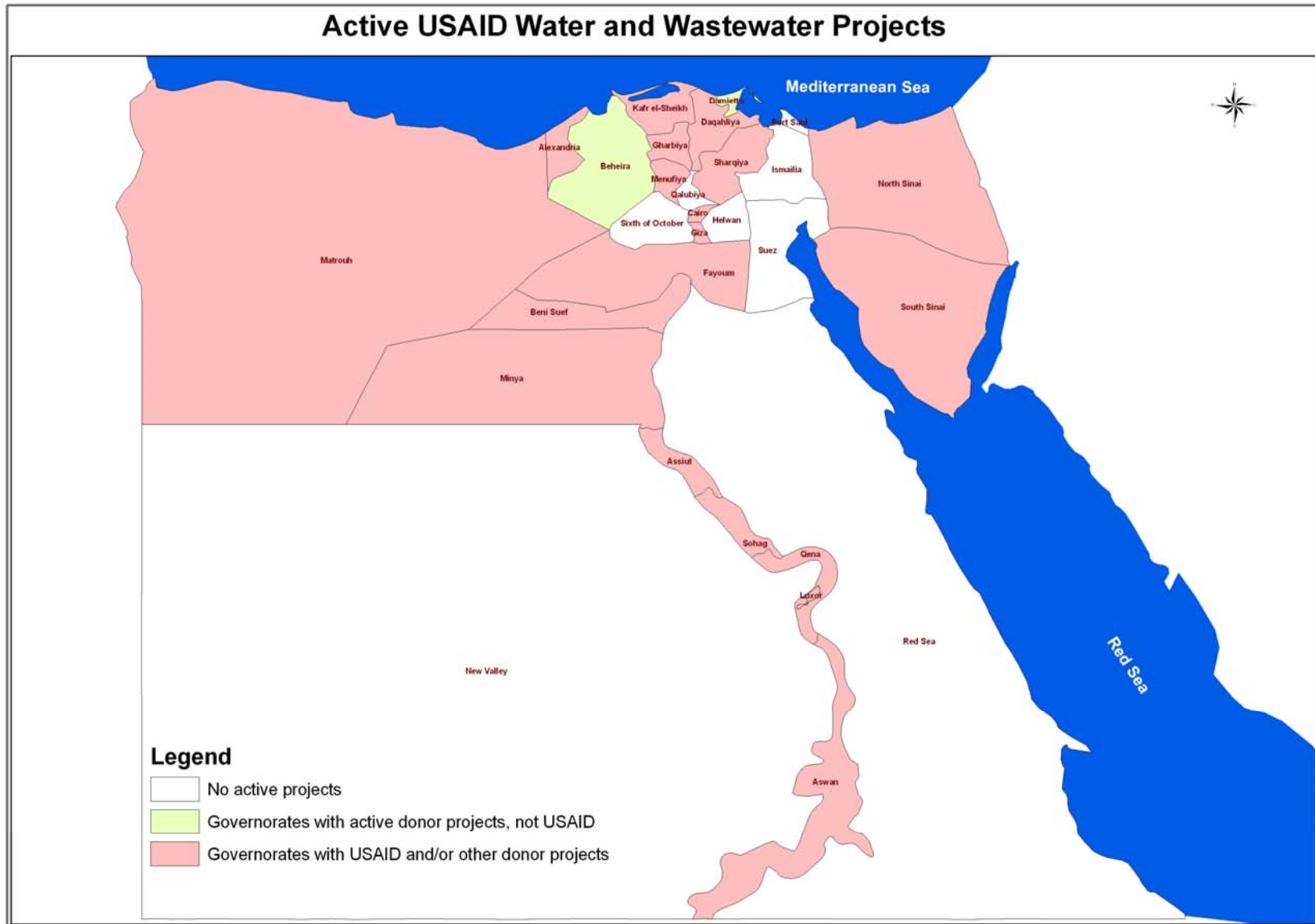
**Note:** The Matrix is an information tool that can be viewed either on-screen as an MS Excel file, or printed out. It contains a “Master List” database worksheet, and seven accompanying worksheets showing active projects by various donors. When printed out, due to the amount of information included, it is best viewed on A3 paper.

GIS screenshot from matrix, showing active water and wastewater donor funded program in Egypt:

### Active Donor Funded Water and Wastewater Projects in Egypt



GIS screenshot from matrix, showing governorates with active USAID programs in water and wastewater sector in Egypt:



## **Annex C – Sector Donor Conference HCWW Meeting**

A meeting was held on December 7, 2009 at HCWW between WWSS and HCWW staff. The following is a summary of the discussions.

### **Purpose of the Conference**

To arrange for a meeting between HCWW and the donor agencies active in the water and sanitation sector in Egypt in order to work on a unified strategy and coordinate technical assistance, training and capital investment activities. The gathering aims also to familiarize donors with ongoing activities in the sector, and improve cooperation among donor activities thereby avoiding duplication of effort. It will also provide an opportunity for HCWW to present its needs and promote a “demand-driven” sector assistance strategy, and for donor agencies to tailor their own vision, priorities, and assistance strategies most effectively to the needs of HCWW and its operating subsidiaries.

### **Outcome and Timeframe**

An initial donor conference will be arranged sometime before the end of January 2010. During this meeting, the vision of HCWW and donor agencies would be presented. Subsequent meetings would discuss specific commitments, programs, donor cooperation and coordination, including possibly joint activities and/or division of labor. Ideally, these gatherings should conclude at the end of a three month period, having developed a common vision and strategy for the sector, along with the development of new programs, and a realignment of ongoing activities, in order to achieve mutually agreed upon outcomes.

### **Participants**

The conference would bring together senior HCWW officials, consultants and advisors involved in ongoing donor-funded programs, as well as representatives and decision-makers from the various donor agencies active in the sector.

### **Tentative agenda**

The conference will focus on HCWW sector agenda and donors’ activities. It will start by:

- 1. A presentation of sector vision and long term-strategy of the Holding Company: Where does HCWW intend to be 25 years from now? How does it intend to get there? What are the overall needs and priorities at the institutional level in terms of infrastructure development in water and sanitation? What are the constraints and opportunities facing the sector on the national and sub-national levels? And how do all these tie in with donor objectives and priorities?*
- 2. Donors’ assessment of the sector, their long-range vision, and current programmatic priorities: Donors’ strategies and programs and their relationship to GOE’s sector vision and ongoing efforts, and hurdles facing technical assistance work. How are donors addressing GOE needs and priorities through ongoing (or forthcoming) projects/programs?*

This will be followed by a round-table discussion during which participants attempt to reach a common understanding of current sector needs and priorities, and specific activities required over

the short- and long-terms in order to help HCWW achieve its vision and corporate objectives as far as performance standards, service delivery, financing capital investments, and pricing of water and wastewater services. The group will try to come to a consensus regarding to what extent donor agendas can be directed to address these needs, and how donor assistance can be better coordinated to ensure effectiveness of assistance.

### **Establishing a Cooperation Platform**

Obviously no definitive common strategy can be expected at the conclusion of this first gathering. Nonetheless, participants should be prepared to agree on a protocol of cooperation, which should lead over a three-month period to a common sector strategy in congruence with the long-term vision and aims of the Holding Company. This may include:

- The establishment of a permanent inter-donor coordination group chaired by HCWW, with representatives from various donors empowered to sign off on a common strategy and to commit their respective resources to programs aiming to achieve a common strategy, and
- A mechanism (e.g., a permanent steering committee) to ensure close collaboration on one or more programs or through the carving out of separate projects that would complement other initiatives by HCWW or other donor agencies.

### **Conference Prerequisites**

- Clear understanding of who is active where, in what sector, through which project, etc. This could be achieved by overlaying the donors' matrix redesigned by WWSS with GIS maps, highlighting ongoing programs by themes, sponsors, or other indicators. This matrix should be circulated prior to the conference among donors to ensure its accuracy.
- HCWW prepare and disseminate its long-term vision and strategic objectives, along with a list of its priority needs over the next five years. WWSS staff will work closely with the staff of the Holding Company to prepare this document.

### **Next Steps**

- Review, edit as needed, and circulate these meeting notes among HCWW officials, and develop consensus on the conference and its intended outcomes.
- Hold further brainstorming meetings, to which experts and other participants from within HCWW and the donor community may be invited
- Prepare a draft timetable leading to the conference.

### **Useful Background Documents**

- *Water and Wastewater sector: Improving Performance of Service Providers* (final draft), World Bank, November 19, 2009
- *Egypt – National water and Wastewater Sector Development and Strategy*, GTZ, November 25, 2009
- *Water and Sanitation Donors' Matrix, USAID/Water and Wastewater sector Support Program*, 2<sup>nd</sup> Draft, December 2009
- *Egypt National Rural Sanitation Strategy*, Holding Company for Water and Wastewater, September 2008



## Annex D – Procurement Justification

Procurement List								
Item	PM	HRD	F	PMU	Quantity	Unit Cost (US\$)	Subtotal	Source: Local/US
A0 plotter				4	4	\$8,200	\$32,800	TBD
ADVAC Financial System			10		10	\$9,091	\$90,909	TBD
Arc GIS ArcInfo ver. 9.3.1 or latest version - floating license				4	4	\$12,364	\$49,455	TBD
Arc View ver. 9.3.1 or latest version - single use license				4	4	\$1,273	\$5,091	TBD
AutoCAD LT2010 2D				8	8	\$127	\$1,018	TBD
Bench drilling machine	4				4	\$500	\$2,000	Local
Bench grinding machine	4				4	\$600	\$2,400	Local
Binding machine		4			4	\$357	\$1,429	Local
Calibration device	8				8	\$20,500	\$164,000	US
Data projector		4			4	\$1,071	\$4,286	TBD
Digital camera		8			8	\$446	\$3,571	TBD
Expedition 6.4 or latest version				1	1	\$1,455	\$1,455	TBD
External hard disk		4			4	\$89	\$357	Local
Fax machine		4			4	\$357	\$1,429	TBD
Hand-held device (meter reading)	150				150	\$1,000	\$150,000	TBD
Laser printer (A4)	10		20	10	40	\$370	\$14,800	Local
Line printer	8				8	\$909	\$7,273	TBD
Listening stick	15				15	\$179	\$2,685	US
Measuring wheel	3				3	\$357	\$1,071	US
Microsoft Office Project 2007				20	20	\$545	\$10,909	TBD
Network printer (A3)	4	8	10	7	29	\$1,000	\$29,000	TBD
Photocopier		4		6	10	\$8,929	\$89,286	Local
Portable ultrasonic flow meter	5				5	\$10,000	\$50,000	US
Pressure logger	7				7	\$2,321	\$16,247	US
Primavera P6 Professional Project Management				2	2	\$3,273	\$6,545	TBD
Scanner		4		6	10	\$536	\$5,357	Local
Server (Blade Server)	2				2	\$9,091	\$18,182	TBD
Set of hand tools	25				25	\$90	\$2,250	Local
Sewer Cad (max pipes unlimited)				6	6	\$15,200	\$91,200	TBD
Video camera		4			4	\$893	\$3,571	TBD
Water Cad (max pipes unlimited)				6	6	\$15,200	\$91,200	TBD
Work benches	16				16	\$90	\$1,440	Local
<b>Total Procurement:</b>							<b>\$951,215</b>	

**Procurement Justification**

Company	Ordering Unit	Equipment Required	Quantity	Justification	Remarks
HCWW	PMU	Scanner	1	Scanning documents	Under the project SOW, item C.3.b.3, Task 2 Item 2 aims to: "assist the HCWW and subsidiaries to establish a program management unit at the selected subsidiaries and HCWW (HCPMU). This includes provision of software, hardware, manuals, and organization chart.
		Network Printer	2	Printing documents for the PMU unit	
		Plotter A0 and A1	1	For printing GIS drawings and Primavera Schedules	
		Primavera P6 or Latest Version	1	For scheduling projects and reviewing schedule submittals	
		Expedition latest version	1	Project document control tool	
		Microsoft Project Latest Version	2	Scheduling medium size projects	
		Auto Cad Light	2	Drafting and viewing contractors drawings	
		Small Size Xerox Machine	1	Making copies of documents, schedules, etc.	
Luxor	O&M +PM	Set of hand tools	5	To be used in the assembling and dismantling of meters, which will support the measuring of water flow and water pressure. This will also enable the location of water leakage. This activity will be implemented in Luxor under a pilot UFW program. Hand-he	Task. No. LUX 1 in Y2WP
		Portable ultrasonic flow meter	5		
		Pressure Logger	7		
		Measuring wheel	3		
		Hand-held meter reading device	50		
	HRD	Digital camera	2	Training facilities are being installed at the subsidiary levels to enable staff to develop their skills at the local level.	In fulfillment of SOW task C.3.b.4 and associated tasks in Y2WP.
		Video camera	1		
		Data projector	1		
		Network printer	2		
		External hard disk	1		
		Photocopier	1		
		Scanner	1		
		Fax machine	1		
	Binding machine	1			
	Financial	Laser printer	2	Equipment required to upgrade Financial Department capabilities in General Ledger, Fixed Asset, Cost Accounts, and Payroll systems.	In fulfillment of SOW task C.3.b.1 and associated tasks in Y2WP.
		Network printer	1		
		ADVAC Financial System	1		
	PMU	Scanner	1	Scanning documents	Under the project SOW, item C.3.b.3, Task 2 Item 2 aims to: "assist the HCWW and subsidiaries to establish a program management unit at the selected subsidiaries and HCWW (HCPMU). This includes provision of software, hardware, manuals, and organization chart.
		Network Printer	1	Printing documents for the PMU unit	
		Local Printer	2	For printing GIS drawings and Primavera Schedules	
Microsoft Project Latest Version		2	For scheduling projects and reviewing schedule submittals		
Water Cad Latest Version		1	Project document control tool		
Sewer Cad Latest Version		1	Scheduling medium size projects		
Auto Cad Light		1	Drafting and viewing contractors drawings		
Small Size Xerox Machine		1	Making copies of documents, schedules, etc.		

Sohag	PM	Calibration device	2	To outfit the established meter workshop which will be used in meter calibration and maintenance. This will lead to accurate measuring of the water sold to customers. Other office equipment required to help the company increase collection and cost reco	Will be implemented in Y3WP
		Bench drilling Machine	1		
		Bench Grinding Machine	1		
		Set of Hand tools	5		
		Work Benches	4		
		Hand-held meter reading device	50		
		Server	1		
		Line printer	4		
		Network printer	2		
	Laser printer	6			
	HRD	Digital camera	2	Training facilities are being installed at the subsidiary levels to enable staff to develop their skills at the local level.	In fulfillment of SOW task C.3.b.4 and associated tasks in Y2WP.
		Video camera	1		
Data projector		1			
Network printer		2			
External hard disk		1			
Photocopier		1			
Scanner		1			
Fax machine		1			
Binding machine	1				
Financial	Laser printer	4	Equipment and software required to upgrade Financial Department capabilities in General Ledger, Fixed Asset, Cost Accounts, and Payroll systems.	In fulfillment of SOW task C.3.b.1 and associated tasks in Y2WP.	
	Network printer	2			
	ADVAC Financial System	1			
PMU	Scanner	1	Scanning documents	Under the project SOW, item C.3.b.3, Task 2 Item 2 aims to: "assist the HCWW and subsidiaries to establish a program management unit at the selected subsidiaries and HCWW (HCPMU). This includes provision of software, hardware, manuals, organization chart,	
	Network printer	1	Printing Documents for the PMU unit		
	Laser printer	2	Printing Documents for the PMU unit		
	Plotter A0 and A1	1	For printing GIS drawings and Primavera Schedules		
	Microsoft Project Latest Version	2	For scheduling projects and reviewing schedule submittals		
	Arc View	1	GIS Applications to view GIS drawings		
	Arc Info	1	To update GIS drawings		
	Water Cad Latest Version	1	To analyze water network and identify needed interventions		
	Sewer Cad Latest Version	1	To analyze sewer network and identify needed interventions		
	Auto Cad Light	1	Drafting and viewing contractors drawings		
Small Size Xerox Machine	1	Making copies of documents, schedules, etc.			

Assiut	PM	Calibration device	2	To outfit the established meter workshop which will be used in meter calibration and maintenance. This will lead to accurate measuring of the water sold to customers. Other office equipment required to help the company increase collection and cost recovery	Task. No. AST 7 in Y2WP
		Bench drilling machine	1		
		Bench grinding machine	1		
		Set of hand tools	5		
		Work Benches	4		
		Hand-held meter reading device	50		
		Server	1		
		Line printer	4		
		Network Printer	2		
	Laser printer	4			
	HRD	Digital camera	2	Training facilities are being installed at the subsidiary levels to enable staff to develop their skills at the local level.	In fulfillment of SOW task C.3.b.4 and associated tasks in Y2WP.
		Video camera	1		
Data projector		1			
Network printer		2			
External hard disk		1			
Photocopier		1			
Scanner		1			
Fax machine	1				
Binding machine	1				
Financial	Laser printer	4	Equipment and software required to upgrade Financial Department capabilities in General Ledger, Fixed Asset, Cost Accounts, and Payroll systems.	In fulfillment of SOW task C.3.b.1 and associated tasks in Y2WP.	
	Network printer	2			
	ADVAC Financial System	1			
PMU	Scanner	1	Scanning documents	Under the project SOW, item C.3.b.3, Task 2 Item 2 aims to: "assist the HCWW and subsidiaries to establish a program management unit at the selected subsidiaries and HCWW (HCPMU). This includes provision of software, hardware, manuals, and organization chart.	
	Network Printer	1	Printing Documents for the PMU unit		
	Local Printer	2	Printing Documents for the PMU unit		
	Plotter A0 and A1	1	For plotting GIS drawings and Primavera Schedules		
	Microsoft Project Latest Version	2	For scheduling projects and reviewing schedule submittals		
	Arc View	1	GIS Applications to view GIS drawings		
	Arc Info	1	To update GIS drawings		
	Water Cad Latest Version	1	To analyze water network and identify needed interventions		
	Sewer Cad Latest Version	1	To analyze sewer network and identify needed interventions		
	Auto Cad Light	1	Drafting and viewing contractors drawings		
Small Size Xerox Machine	1	Making copies of documents, schedules, etc.			
Giza	O&M	Calibration device	2	To outfit the established meter workshop which will be used in	Task. No. GIZ 6 in Y2WP
		Bench drilling Machine	1		
		Bench Grinding Machine	1		
		Set of Hand tools	5		
		Work Benches	4		
	Financial	Laser printer	4	Equipment and software required to upgrade Financial Department capabilities in General Ledger, Fixed Asset, Cost Accounts, and Payroll systems.	In fulfillment of SOW task C.3.b.1 and associated tasks in Y2WP.
		Network printer	2		
		ADVAC Financial System	1		
	PRM	Scanner	1	Scanning documents	Under the project SOW, item C.3.b.3, Task 2 Item 2 aims to: "assist the HCWW and subsidiaries to establish a program management unit at the selected subsidiaries and HCWW (HCPMU). This includes provision of software, hardware, manuals, and organization chart.
		Network Printer	1	Printing Documents for the PMU unit	
		Local Printer	2	Printing Documents for the PMU unit	
		Plotter A0 and A1	1	For plotting GIS drawings and Primavera Schedules	
Microsoft Project Latest Version		2	For scheduling projects and reviewing schedule submittals		
Water Cad Latest Version		1	To analyze water network and identify needed interventions		
Sewer Cad Latest Version		1	To analyze sewer network and identify needed interventions		
Auto Cad Light	1	Drafting and viewing contractors drawings			
Small Size Xerox Machine	1	Making copies of documents, schedules, etc.			

Menufiya	PM	Calibration device	2	To outfit the established meter workshop which will be used in meter calibration and maintenance. This will lead to accurate measuring of the water sold to customers.	Task. No. MEN 5 in Y2WP
		Bench drilling Machine	1		
		Bench Grinding Machine	1		
		Set of hand tools	5		
		Work Benches	4		
	HRD	Digital camera	2	Training facilities are being installed at the subsidiary levels to enable staff to develop their skills at the local level.	In fulfillment of SOW tasks C.3.b.4 and associated tasks in Y2WP.
		Video camera	1		
		Data projector	1		
		Network printer	2		
		External hard disk	1		
Photocopier		1			
Scanner		1			
Financial	Fax machine	1			
	Binding machine	1			
Daqahliya	Financial	Laser printer	4	Equipment and software required to upgrade Financial Department capabilities in General Ledger, Fixed Asset, Cost Accounts, and Payroll systems.	In fulfillment of SOW task C.3.b.1 and associated tasks in Y2WP.
		Network printer	2		
	PRM	Scanner	1	Scanning documents	Under the project SOW, item C.3.b.3, Task 2 Item 2 aims to: "assist the HCWW and subsidiaries to establish a program management unit at the selected subsidiaries and HCWW (HCPMU). This includes provision of software, hardware, manuals, and organization chart.
		Network Printer	1	Printing Documents for the PMU unit	
		Local Printer	2	Printing Documents for the PMU unit	
		Microsoft Project Latest Version	2	For scheduling projects and reviewing schedule submittals	
		Water Cad Latest Version	1	To analyze water network and identify needed interventions	
		Sewer Cad Latest Version	1	To analyze sewer network and identify needed interventions	
		Auto Cad Light	1	Drafting and viewing contractors drawings	
		Small Size Xerox Machine	1	Making copies of documents, schedules...etc	
Financial	Laser printer	2	Equipment and software required to upgrade Financial Department capabilities in General Ledger, Fixed Asset, Cost Accounts, and Payroll systems.	In fulfillment of SOW task C.3.b.1 and associated tasks in Y2WP.	
	Network printer	1			
	ADVAC Financial System	1			
PRM	Microsoft Project Latest Version	2	For scheduling projects and reviewing schedule submittals	Under the project SOW, item C.3.b.3, Task 2 Item 2 aims to: "assist the HCWW and subsidiaries to establish a program management unit at the selected subsidiaries and HCWW (HCPMU). This includes provision of software, hardware, manuals, and organization chart.	
	Arc View	1	GIS Applications to view GIS drawings		
	Arc Info	1	To update GIS drawings		
	Water Cad Latest Version	1	To analyze water network and identify needed interventions		
	Sewer Cad Latest Version	1	To analyze sewer network and identify needed interventions		
	Auto Cad Light	1	Drafting and viewing contractors drawings		
PRM	Microsoft Project Latest Version	1	For scheduling projects and reviewing schedule submittals	Only program management software required.	
Aswan	PRM	Microsoft Project Latest Version	1	For scheduling projects and reviewing schedule submittals	Under the project SOW, item C.3.b.3, Task 2 Item 2 aims to: "assist the HCWW and subsidiaries to establish a program management unit at the selected subsidiaries and HCWW (HCPMU). This includes provision of software, hardware, manuals, and organization chart.
		Arc View	1	GIS Applications to view GIS drawings	
		Arc Info	1	To update GIS drawings	
Matrouh	Financial	ADVAC Financial System	1	Software required to upgrade Financial Department capabilities in General Ledger, Fixed Asset, Cost Accounts, and Payroll systems.	In fulfillment of SOW task C.3.b.1 and associated tasks in Y2WP.
Qena	PRM	Microsoft Project Latest Version	1	For scheduling projects and reviewing schedule submittals	Only program management software and training on water and sewer Cad required.
Cairo Water	PRM	Microsoft Project Latest Version	1	For scheduling projects and reviewing schedule submittals	Only program management software required.
Beni Suf	PRM	Microsoft Project Latest Version	1	For scheduling projects and reviewing schedule submittals	Only program management software required.
Minya	PRM	Microsoft Project Latest Version	1	For scheduling projects and reviewing schedule submittals	Only program management software required.
5 governorates TBD	Financial	ADVAC Financial System	5	Software required to upgrade Financial Department capabilities in General Ledger, Fixed Asset, Cost Accounts, and Payroll systems.	In fulfillment of SOW task C.3.b.1 and associated tasks in Y2WP. Selected 5 governorates TBD