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QUARTERLY PROGRESS REPORT JULY – SEPTEMBER 2009

EGYPT WATER AND WASTEWATER SECTOR SUPPORT PROJECT

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ACRONYMS AND ABBREVIATIONS

COP	Chief of Party
DCOP	Deputy Chief of Party
GIS	Geographic Information System
GOE	Government of Egypt
GTZ	<i>Gesellschaft für Technische Zusammenarbeit</i>
HCWW	Holding Company for Water and Wastewater
HRD	Human Resource Development
IT	Information Technology
MARS	Monitoring and Analysis Reporting System
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
SCADA	Supervisory Control and Data Acquisition
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 Project
WTP	Water Treatment Plant
WWSPR	Water and Wastewater Sector Policy Reform Project

EXECUTIVE SUMMARY

This Quarterly Progress Report (QPR) details activities and accomplishments of the USAID-funded Egypt Water and Wastewater Sector Support (WWSS) Program from July 1, 2009 to September 30, 2009. This report discusses activities undertaken by WWSS staff during the quarter, project management and administration, and upcoming activities to be implemented in the following quarter.

In September 2009, the Chief of Party (COP) position transitioned to Ghassan Nakad from Bennett Parton, and the Deputy Chief of Party (DCOP) Mohamed Farid Sewelam left the project – a new DCOP is currently being recruited. Year 2 work planning began in earnest in September 2009 with the technical staff being divided into functional teams in order to conduct site visits and assessments of the seven subsidiaries not receiving WWSS assistance in Project Year 1. The Year-2 Work Plan is due date of October 15, 2009.

The second WWSS Board of Directors meeting was convened on September 2, 2009. A summary of WWSS achievements to date was followed by Holding Company for Water and Wastewater (HCWW) Chairman Dr. Abdel Kawi Khalifa's briefing, which included, notably, details on a visit by the Prime Minister of Egypt where he announced approval for an increase in funding for investments in the sector. Finally, new WWSS COP Ghassan Nakad shared his approach to the Year 2 Work Plan, which includes activities for each of the 12 subsidiaries in the WWSS scope of work, and he proposed an approach maximizing coordination with other donors, the HCWW, and USAID.

During the quarter, WWSS continued to work closely with the Holding Company for Water and Wastewater (HCWW) and the five subsidiaries selected for Year 1 interventions – namely, Giza, Menofeya, Sohag, Assiut, and Luxor Water/Wastewater Companies (WWCs) – as well as closely coordinating all efforts with other donor-funded projects in the sector. WWSS views its overall scope of work as a coordinated implementation of tasks designed to facilitate and support the development and implementation of business plans for each of its beneficiaries.

The WWSS-funded Jordan Water/Wastewater Utility Study Tour was successfully implemented July 25-30, 2009. The study tour offered the seven-person Egyptian delegation of senior HCWW management and select subsidiary chairmen a detailed, step-by-step view of the business-planning process and the opportunity to observe best practices in implementation at Jordan Water Company (Miyahuna), one of the best managed and operated water and wastewater utilities in the region. The impact of the Jordan Water/Wastewater Study Tour was felt immediately as planning discussions on twinning efforts are underway between North and South Sinai WWC and the Aqaba Water Company.

The initial WWSS-implemented business-planning workshops for the subsidiaries were completed in July, with senior and middle utility management defining their mission and vision, goals, customer needs, and staffing needs, and developing a comprehensive strategy consistent with these goals, targets, and needs. The project is providing ongoing assistance and on-the-job training, and monitoring the development and drafting process with the subsidiaries, which are all progressing in development of their draft business plans.

WWSS continued implementation of coordinated efforts targeting improved performance, financial, and operations and maintenance (O&M) management that will support the final business plans and WWCs' ultimate goal of becoming sustainable, customer-oriented subsidiaries with full cost recovery. Training on *Introduction to ARC-GIS (I)* and ArcView software were provided to the subsidiaries, and GIS maps were developed for the WWSS's Unaccounted-for Water (UFW) Pilot Program in Luxor and for Assiut WWC's master plan. Technical assistance was provided on developing and implementing the asset management and monitoring and analysis reporting (MARS) systems. WWSS developed and delivered a draft *Disconnection Policy* and draft *Financial/Accounting Manual* for

review and approval by the HCWW before being utilized by the WWCs, as well as producing SOP's for numerous O&M functions.

Under capital investment planning and program management efforts, WWSS provided assistance to Assiut, Sohag, Luxor, and Menofeya WWCs in their completion of draft master plans. The project provided the HCWW and Assuit, Sohag, Luxor, and Giza WWCs with organization charts, proposed staffing, and job descriptions, and helped obtain letters for the establishment of project management units (PMUs) in Assiut and Sohag. The Assiut, Sohag, Luxor, and Giza PMUs received training in PRiSM analysis and program management fundamentals, and a comprehensive four-day training course to 13 PMU members at Assiut, Luxor, and Sohag WWCs on project scheduling, cost control techniques, and the use of MS Project for scheduling and tracking progress was delivered. WWSS also evaluated PMU equipment requirements for the HCWW and five subsidiaries, and prepared a list of equipment procurements for the PMUs. Finally, WWSS delivered draft *Guidelines for Dispute Resolution Boards* and a draft *Construction Indicators Report* to the HCWW for review, and currently completing draft *Contractors' Prequalification and Selection Guidelines and Procedures* and *Standard Key Documents*.

WWSS continued implementing a large portion of the urgent training plans developed for the five subsidiaries and HCWW. The project delivered 12 formal training events, in addition to the Jordan Study, for the benefit of 99 participants this quarter. Specific to Component efforts, WWSS delivered *Presentation Skills* training to Assiut and Menofeya WWCs on September 8-10 and September 13-15, and *Middle Management Business-planning Workshop* (cross-cutting activity with Component 2) to Sohag WWC July 1-2.

INTRODUCTION

The Water and Wastewater Sector Support (WWSS) project is the \$17 million, USAID-funded program that provides technical services and related resources to the Holding Company for Water and Wastewater (HCWW) and selected water and wastewater subsidiaries: to strengthen their capability to implement recent Government of Egypt (GOE) initiatives aimed at improving the operational performance of the sector; to attract private investment through aggressive policy, legal, and regulatory reforms, to operate more efficiently; and to 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 projects 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 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 cut across all results; thus, requiring different combinations of skills which are determined by the technical requirements of not only each task but also the particular needs of the HCWW and subsidiaries. The WWSS project management strategy is oriented to achieving the contract results, while also allowing for maximum flexibility to meet the needs of USAID, and the HCWW and 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 three-person 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 the 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, the HCWW, and senior Chemonics' leadership allows WWSS 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 the HCWW and its healthiest subsidiaries. In this spirit, rather than undertaking interventions independently, we look at WWSS, the HCWW, and operating companies as part of a unified team for improving utility performance. The HCWW and subsidiaries play an active role in the WWSS annual work-planning process, and the project 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 the 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 are apparent. With few exceptions, necessary management structures are not in place; all 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 at par with other challenges facing the sector, requiring investment in time and resources of equal importance. These investments should be coupled with a paradigm shift in the way personnel departments are viewed, with a focus on human resource development – from recruitment to performance evaluation, career planning, development, incentives, and opportunities for mobility.

COMPONENT 1: SUPPORT TO THE HOLDING COMPANY

Under Component 1, WWSS works with the Holding Company for Water and Wastewater (HCWW) to assure efficient implementation of technology, training, procedures, and management of programs with the subsidiary companies. Recognizing the need to focus their strategy on the longer-term emphasis of water and wastewater management, HCWW is currently reviewing its organization's structure and developing a business plan that can focus its strategy on long-term growth.

Component 1 Results

- 1.1 Roles and Relationships of HCWW and Subsidiaries Improved
- 1.2 HCWW Performance Improved
- 1.3 Subsidiary Companies' Performance Improved
- 1.4 Outsourcing of Subsidiary Functions Considered
- 1.5 Ad-hoc Activities for HCWW

To accommodate HCWW's needs and ensure responsiveness as new long-term strategies evolve, Component 1 focuses on specific HCWW interventions and collaboration with HCWW and other projects. WWSS will provide assistance with the HCWW business plan efforts, HCWW staff development, defining reporting structures and management communications between subsidiaries and HCWW, and finally, 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.

A. Component 1 July-September 2009 Progress

Jordan Water/Wastewater Utility Study Tour: WWSS designed, funded, and conducted the six-day Jordan Water/Wastewater Utility Study Tour from July 25 to 30, 2009. The primary objective of the study tour was to offer the Egyptian delegation with a detailed, step-by-step view of the business-planning process and observe best practices in its implementation at Jordan Water Company (Miyahuna), one of the best managed and operated water and wastewater utilities in the region.

The study tour provided the participants a first-hand look at regional best practices in utility management and a full range of pilot strategic initiatives that are being implemented in the Jordanian water and wastewater sector.

Egyptian Delegation Visits Miyahuna on WWSS Jordan Water/Wastewater Utility Study Tour



Right to left: HCWW Director of Planning and Follow-up Hossam El-Kashif, Red Sea Chairman Nageh Ibrahim, North & South Sinai Chairman Ibrahim Gabr, Miyahuna CEO Zakaria Tarawneh, Assiut WWC Chairman Ibrahim Amsha, Menofeya WWC Chairman Ayman Hussein, Sohag WWC Chairman Aly Habashy Hassan Alv. and Technical Advisor HCWW Technical Office Mohamed Mahmoud

The participants gained an in-depth understanding of Miyahuna's business-planning process, including the lessons learned from plan development and implementation, and how to implement a plan to achieve improvement of overall utility services in Jordan. The participants also received detailed information on Jordan's Operator Certification Program, which has significantly enhanced the capacity of utility operators to throughout the country.

In addition to business planning, a wide range of utility management and technical topics were presented by Miyahuna, including non-revenue water pilot programs, district metering zoning, customer service, billing/collection, IT and GIS implementation, staffing, incentive and retention plans, in-house and outsourced training, public outreach/awareness, in-house communications, and operations and maintenance best practices.

An extensive schedule of site visits offered the opportunity to observe the practical application of many of the topics presented by Miyahuna. The Egyptian delegation visited Miyahuna's Zay Water System facilities, including King Abdulla Canal and Intake Station in the Jordan Valley, Abu Zeigan Station, Sbeihi and El-Salt Pump Stations, and Zay Water Treatment Plant, visitors' center, and supervisory control and data acquisition (SCADA) system room. Additional site-visits included the Water Authority of Jordan's Central Labs in Bayader Wadi El-Sir, the Zara Mai'n Water Treatment Plant at the Dead Sea, and the Madaba Water Directorate.

The participants included Chairmen from Sohag, Menofeya, Assiut, Red Sea, and North and South Sinai WWCs, and the HCWW Director of Planning and Follow-up and Technical Office Technical Advisor. The Egyptian delegation was led by the WWSS Human Resources Development Team Leader and Utility Management Team Leader.

Overall, the Egyptian participants were extremely impressed with the wealth of information presented by Miyahuna and the implementation of management and operations practices that they observed in Jordan. As collected in the WWSS post-Study Tour assessment, the participants were particularly impressed with Miyahuna's:

- **Customer Services:** Egypt should seek to tailor their customer service systems to those observed in Jordan.
- **Billing and Collection:** linking the system to GIS for track billing routes and coordinating billing and collection functions.
- **IT:** advanced IT systems for finance, human resources, operations and maintenance, inventory, and customer service.
- **GIS:** GIS Mobile being efficiently utilized to inform operations and maintenance personnel of damage to infrastructure needing repair or replacement.
- **Human Resources and Training:** impressive hiring, selection, and placement process, matching staff qualifications and experience with positions, and a comprehensive in-country/off-shore training plan.
- **Professional Development/Career Planning:** unique professional development system to build employee capabilities and skills on an ongoing basis.
- **Public Awareness/Media Relations:** After being exposed to Jordan public awareness program, participants took into consideration establishing a separate department for public

awareness to be an entity of its own and took the public awareness printouts of the Miyahuna to be a guideline to apply it on their subsidiaries.

On September 12, WWSS held a post-Study Tour meeting with representatives from USAID and the HCWW to discuss best practices in Egypt's water and wastewater utilities and Study Tour outcomes and lessons learned as provided by Miyahuna and the participating subsidiary chairmen. Notably, the potentiality for twinning relationships between Miyahuna and some Egyptian water/wastewater subsidiaries was discussed at length. At the writing of this report, preliminary planning discussions on twinning efforts were already underway between North and South Sinai WWC and the Aqaba Water Company.

Increasing Public Awareness of Water Quality Issues: WWSS provided technical assistance this quarter to HCWW public awareness staff for the development and finalization of the first two HCWW Newsletters and other HCWW publicity materials, including a brochure and posters. WWSS completed development of the HCWW customer satisfaction survey RFP, which was announced in September. The project is also providing technical assistance to the HCWW in the establishment of a department within the Faculty of Engineering at Cairo University devoted to water studies.

New Management Systems and Tools for HCWW: WWSS developed and published new versions of the MARS and asset management systems based on the project's analysis of new requirements. The project also provided help-desk support on the MARS system and assisted in modifying performance indicators for the subsidiaries.

Human Resources Development for the HCWW: The project provided urgent assistance in organizing a presentation-skills training course for the HCWW Human Resource and Training Departments. Two courses were conducted at the HCWW Training Center on September 8-15.

COMPONENT 2: UTILITY MANAGEMENT

In order to create new organizations and to reform existing ones to take on the responsibilities of their mandates, WWSS assists in creating solid technical, managerial and financial skills in participating subsidiary companies. The long-term objective envisions sustainable, customer-oriented Subsidiaries with well-functioning professional service delivery, sound tariff policies and full cost recovery through revenue generation from customers. Interventions in the Utility Management component comprise performance management, utility finance, and operations and maintenance activities.

Component 2 Targets

2.1 Subsidiary Companies in Selected Governorates Established and Functioning Using Modern Systems

2.2 New Subsidiary Companies in Selected Governorates Efficiently Managed

2.3 Assist HCWW to Develop World-Class Operations and Maintenance at Each New Subsidiary

A. Component 2 July-September 2009 Progress

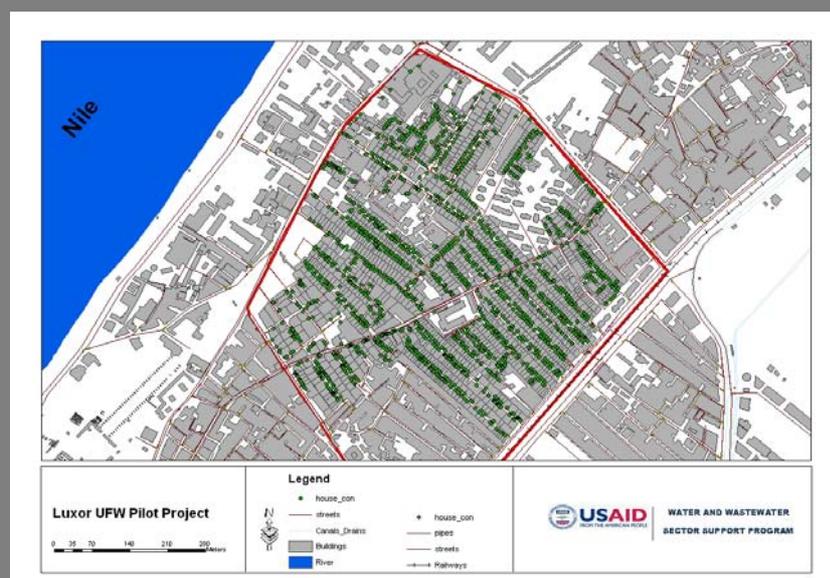
Business Plans for Subsidiaries: Initiated in June 2009 and completed at the beginning of the Q3, WWSS business-planning workshops for senior and middle management were conducted with Assiut, Sohag, Luxor, Menofeya, and Giza WWCs. The workshops, designed and delivered by WWSS Utility Management Specialist Ghaleb Akari, with assistance of the Utility Management Team, provided forums for subsidiary chairmen and management to identify issues and develop strategies to meet their particular needs. The exercise has allowed the subsidiaries to begin defining their mission and vision, goals, customer needs, and staffing needs, and developing a comprehensive strategy consistent with these goals, targets, and needs. WWSS is providing ongoing technical assistance and on-the-job training related to the development of the subsidiary business plans, as well as monitoring the drafting process. At the writing of this QPR, all five subsidiaries selected for Year 1 assistance were progressing toward completing draft business plans.

Disconnection Policy and Luxor

Unaccounted-for Water Pilot

Program: During Q3, WWSS developed and delivered to the HCWW a draft *Disconnection Policy* to be implemented by subsidiaries upon HCWW approval. During development of the draft policy, WWSS provided technical assistance in implementing the proposed “cut service” procedures for illegal connections in the Unaccounted-for Water (UFW) Pilot Program area to test

GIS Map of UFW Pilot Project in Luxor



their effectiveness. (The GIS map to the right shows 2,095 house connections, 108 valves, and 1,702 buildings covering 80% of the Luxor UFW Pilot area.)

In 2008, WWSS revived Luxor WWC's leak detection unit and trained the existing staff on the equipment it had received from the USAID-funded Secondary Cities Project. By providing intensive year-1 training on the leak detection, WWSS has been able to design a pilot program that not only utilizes the already existing assets of Luxor WWC, helps solve a serious issue affecting its financial solvency, and maximizes donor funding, but will also create a replicable program for use throughout the sector. Based on the initial success of WWSS leak detection efforts, the HCWW provided funds to four additional subsidiaries for the purchase of leak detection equipment. At the end of Q3, WWSS developed leak detection equipment specifications and related tendering documents, and began the bidding procedures for Menofeya WWC in cooperation with Sohag WWC.

Improved Performance Management: The project developed the *Introduction to ARC-GIS (I) Training* materials, delivered this training to Luxor WWC, and provided ARC-GIS ArcView software to Luxor, Sohag, Menofeya, Giza, and Assiut WWCs. WWSS created GIS water and wastewater maps for Assiut WWC master plan and additional maps for the WWSS-designed UFW Pilot Program in Luxor (shown above). Ongoing GIS technical assistance is being provided at all five subsidiaries.

During the period, WWSS provided technical assistance in developing and implementing the asset management and MARS systems. WWSS installed and ensured operation of asset management system at Menofeya and Assiut WWCs and provided technical assistance for the Economic Analysis Departments at both subsidiaries. In addition, the project provided technical assistance and on-the-job training at Giza WWC with implementation of the MARS Technical Module and Quality Control Water Network Module. To identify subsidiary-specific needs related to MARS, the WWSS MIS and Performance Monitoring Specialist developed a questionnaire and subsequently customized MARS solutions to each subsidiary throughout the period. Security for both the asset management and MARS systems was also enhanced during the period.

WWSS evaluated new software applications for finance, procurement, and supply-chain functions for the subsidiaries from a business perspective. Related to this task, WWSS developed a new software system used for coding materials according to unified coding system provided by HCWW; the software will be used to collect inventory data at each storage facility. Additional subsidiary-specific technical assistance was provided as follows:

- ***Luxor WWC:*** WWSS provided an excel sheet to Luxor WWC to be used for vendor selection and the issuing of purchase orders.
- ***Assiut WWC:*** WWSS provided technical assistance and practical support to Assiut WWC's IT Department to develop a new computer application for procurement, inventory, and finance functions, and to create new software for the material-coding process, called the "Fast Coding Program."
- ***Sohag WWC:*** WWSS purchased web-hosting for Sohag WWC.

Under tasks targeting improved billing and collection functions, WWSS completed training course materials for meter and collection management and customer service center management. WWSS also presented to HCWW with a model customer service center building design. Additional subsidiary-specific assistance included:

- ***Assiut WWC:*** WWSS implemented a cross visit for Assiut WWC billing staff to Sohag WWC's billing center in order to identify the best temporary billing system for Assiut. WWSS provided technical assistance to Assiut WWC's billing center in issuing the first bill

for July/August water-cycle on September 1, using temporary software supplied by the HCWW and enhanced by WWSS to cover payments. WWSS also completed the rehabilitation of the Assiut WWC billing center and prepared a network solution.

- **Sohag WWC:** WWSS developed a design for a new water bill for Sohag WWC, as well as providing technical assistance to its billing center on managing arrears.

During Q3, WWSS completed 2009-2010 Awareness Plans and monthly action plans for the Assiut, Giza, Menofeya, Sohag, and Luxor WWCs, as well as four newsletters for Assiut, Giza, Menofeya, and Luxor WWCs. In accordance with the subsidiary awareness plans, promotional materials were also produced for all five subsidiaries. At the end of the period, WWSS was providing assistance to Giza and Menofeya WWCs on implementation of the customer awareness plan.

Improved Financial Management: WWSS tasks related to improving financial management of all subsidiaries included delivering the proposed draft *Financial/Accounting Manual* for use by the subsidiaries to the HCWW for its review on August 4. Development of draft manuals for procurement and warehousing were also nearing completion at the end of the period. The project also developed specifications for IT hardware procurements for subsidiary Finance, Warehousing, and Procurement Departments, and prepared draft organization charts for the subsidiary Warehousing Departments and job descriptions for both the Warehousing and Procurement Departments.

At the end of the period, WWSS discussed a preliminary action plan with the Director of Laboratories and Director of Technical Affairs Sector at Sohag WWC for improving methods of storage, handling, and management of chemical materials to achieve rationalization of consumption and enhanced work efficiency. As well, the project finalized technical testing on a proposed open-source, readymade enterprise resource planning (ERP) package, covering financial, procurement, and warehouse functions, and followed up on translation of the application interface.

Additional subsidiary-specific technical assistance and training was provided as follows:

- **Giza WWC:** In cooperation with HCWW Economical Analysis Department and Giza WWC top management and senior staff, the project assisted in establishing an Economical Analysis Department at Giza WWC. A department head and five staff members were assigned and trained. The five-year financial planning system was installed, and two days of classroom training was conducted for the department on how to work on the system, what information is required, and how to gather needed information from other company sectors.
- **Luxor WWC:** WWSS provided technical assistance to Luxor WWC Warehouse Accounting Department on how to conduct material coding, using “HCWW Material Kind Coding.”
- **Sohag WWC:** WWSS evaluated two of three sectors in Sohag WWC in terms of inventory and status of warehouses, materials, and display.

WWSS delivered formal training covering *Unified Accounting System (Phase I)* to Sohag WWC on 4-9 and 26-30 July for a total of 44 participants and to Menofeya WWC on 26-30 July and August 2-6, for a total of 42 participants. Participants indicated the implementation was successful, and based on their comment, WWSS is planning further UAS training in the coming year.

Improved Operations and Maintenance Management: During the quarter, WWSS pushed forward O&M-related tasks, by providing technical assistance, formal training, and on-the-job training, and by developing detailed work instructions for various functions across the five subsidiaries. At the end of the period, preparation of the WWSS-developed O&M manual continued, with ongoing revisions

seeking to best meet actual implementation at the subsidiaries, including modifications to O&M processes covering horizontal pumps and surface water treatment, among others.

WWSS developed detailed work instructions both for specific technical processes/systems and for overall O&M for individual facilities, including Sohag WWC's Kashef Wastewater Pump Station, Cola Wastewater Treatment Plant, and Needa Water Treatment Plant (WTP), for Giza WWC's Imbaba WTP, and for Menofeya WWC's Shebin El-Koom WTP. Instructions were developed for the preparation of chemicals, physical analysis, clarifying and filter operations, standard sampling, and raw and treated pumps. Technical assistance and training during the period covered applying these and other operational instructions (see box to the right for examples of details work instructions supported by WWSS).

WWSS also delivered the following formal training courses:

- **Water Treatment-Chlorination** – Assiut WWC, on July 12-16, for a total of 15 participants / Sohag WWC, on July 5-9, for a total of 12 participants.
- **Planning and Budgeting** – Assiut, Sohag, and Luxor WWCs, on July 28-29 for a total of 15 participants.

Related tasks completed during Q3 include:

- Identifying chemical and lab equipment needs at Sohag WWC with emphasis on matching procurement needs to application of SOPs.
- Developing an action plan for disposal of scrap and obsolete materials after the annual inventory process for Luxor WWC.
- Collecting electricity cost information for Assiut WWC and discussed calculation methods and optimum economic methods with the Assiut electricity company.
- Installing 859 new water meters at the Luxor UFW Pilot Project area.
- Developing two pilot project studies involving warehouse development in Menof City, Menofeya; this activity will help develop and improve the supply chain at Menofeya WWC.
- Providing assistance to Assiut WWC in defining roles, responsibilities, and job descriptions for its Wastewater Technical Support Department, as well as conducting a site visit to discuss problems at its wastewater network and recommend solutions; specific technical assistance was given on implementation of solutions for cleaning the sump at El-Bank El-Dawly Pump Station and on the high level of water observed in manholes, among others.

Detailed Work Instructions Supported by WWSS Technical Assistance and Training in Q3

- Water sampling
- Using water balance programs
- Sensor installation, calibration, and on-site signal-loss determination
- Metering equipment set-up
- Pipe thickness measuring
- Data-transfer from measuring devices to computers
- Recordkeeping/monitoring systems implementation
- Water treatment/chlorination
- O&M planning/budgeting
- Filter operation/washing procedures
- Best practices in equipment utilization and identification of spare parts/repair needs
- Usage of sludge discharge valves in controlling clarifiers operation

COMPONENT 3: PROGRAM MANAGEMENT

Presently, master planning activities are ongoing in many Governorate subsidiaries. One of the central roles for WWSS' Program Management Component Team is to review and guide those master planning efforts in assurance of appropriate emphasis and correct implementation of investment planning and program management tools.

The annual budgeting process is a subcomponent of the Program Management Component's intervention strategy. In the future, subsidiary companies will be expected to meet their financing needs and future service demands through their proper income streams, unattached from the current subsidy regime of the central Egyptian Government toward the utilities. As such, careful, clear, and sustainable plans must be in place at the Governorate level to assure financial planning and budgeting are in step with concurrent changes at the central Holding Company level.

Capital investment planning and program management will form essential components of the subsidiary companies' performance into the future. A long-term objective of the Program Management Component is to ensure the success of these programs past the end of the WWSS project itself. To do so, our PM Team is collaborating with the Water and Wastewater Sector Policy Reform (WWSRP) Project to refresh the PRiSM program of the preceding project, while implementing a training schedule for employees.

The Program Management team will create more streamlined and efficient procedures in a number of program aspects for the subsidiary companies and HCWW. Project Management Units will be established for all ongoing projects; establishing clear procurement guidelines and indicators for all program activities will be important aspects of the financial and technical capacity of the organizations.

A. Component 3 July-September 2009 Progress

In Year 1, WWSS conducted in-depth studies of documentation required for development of master plans by the five selected subsidiaries, and by August 2009, draft master plans for Assiut, Sohag, Luxor, and Menofeya WWCs were completed and awaiting approvals from HCWW. One challenge in finalizing the subsidiary master plans is ensuring they reflect the requirements of the National Master Plan, which has not yet been approved by the HCWW. The National Master Plan was developed by HCWW consultants and delivered in June 2009. WWSS received a copy of the National Master Plan in July 2009, and despite a continuing review process at the HCWW, the project issued an interim report on maximizing the benefits of the National Master Plan, which will serve as the basis for a formal project deliverable.

WWSS began development of manuals for capital planning – a discussion draft is due for delivery in December 2009. As part of the development process, WWSS collaborated with Water Policy and Regulatory Reform (WPRR) project, HCWW, and National Organization for Potable Water and Sanitary Drainage (NOPWASD) to develop priority criteria for the selection of wastewater projects in outlying areas, and worked with the Assiut and Sohag WWCs to obtain data on the status of wastewater operations in villages, based on the priority criteria.

Component 3 Targets

3.1 Capital Investment Planning and Program Management in the HCWW and Selected Subsidiaries Improved

3.2 Annual Budgeting Process Tied to Master Planning Process Implemented

3.3 Program Management Functions in the HCWW and Subsidiaries Equipped, Staffed, and Improved

3.4 HCWW Capacity to Monitor and Manage Capital Investment Planning and the Project Cycle Strengthened and Sustained

WWSS provided the HCWW and Assuit, Sohag, Luxor, and Giza WWCs with organization charts, proposed staffing, and job descriptions for their Planning and Follow-up Units, as well as obtaining letters for the establishment of PMUs in Assiut and Sohag. The Assiut, Sohag, Luxor, and Giza PMUs received training in PRiSM analysis and program management fundamentals (WPRR is currently maintaining PRiSM and providing updates, as well as following up with PRiSM data entry activities). WWSS delivered a comprehensive four-day training course to 13 PMU members at Assiut, Luxor, and Sohag WWCs on project scheduling, cost control techniques, and the use of MS Project for scheduling and tracking progress, along with on-the-job training to Assiut on the evaluation of technical offers and the review of conceptual reports for wastewater systems from consultants. WWSS also evaluated PMU equipment requirements for the HCWW and five subsidiaries, and prepared a list of procurement needs for the PMUs.

Four important WWSS-developed Program Management Component deliverables are nearing completion, with anticipated delivery before the end of 2009 depending on HCWW review and approval. WWSS delivered draft *Guidelines for Dispute Resolution Boards* and a draft *Construction Indicators Report* to the HCWW for review on September 17. The *Guidelines for Dispute Resolution Boards* will provide the HCWW and subsidiaries with procedures and guidelines for establishing a dispute review board, including a model agreement, and discusses the common causes for disputes in construction, what owners and engineers should consider to avoid disputes, and the conventional methods for resolving conflicts. The *Construction Indicators Report* reviews the well-established indicators in the construction industry, including the review of concepts, such as earned value analysis, cost performance indicator (CPI), schedule performance indicator (SPI), estimate to complete (ETC), actual cost of work performed (ACWP), budgeted cost of work schedule (BCWS), and budget cost of work performed (BCWP). The report defines all key terms, and provides examples and exercises, and supports the above-mentioned MS Project training on scheduling and tracking progress. The project is also nearing completion on development of the draft *Contractors' Prequalification and Selection Guidelines and Procedures* and *Standard Key Documents*, for which the Contract and Prequalification documents were completed this period and coordination meetings were held with HCWW.

COMPONENT 4: HUMAN RESOURCES DEVELOPMENT

Human Resources Development is perhaps the most critical overarching activity sector in the WWSS project. Without the human capabilities at a local and central level, most if not all project objectives would be severely impeded. Overstaffing, low pay rates, no incentive structures, and a lack of trained staff has led to ineffective workforces in the past in the water and wastewater sector in Egypt.

Component 4 Targets

4.1 Comprehensive Human Resources Development Plans in HCWW and Selected Subsidiaries Adopted

4.2 World-Class HCWW Training Institution Established

4.3 HCWW and Selected Subsidiary Participation in International Events and Study Tours Planned

The long-term objective of the HRD Component, then, is to facilitate the adoption of a more competitive human resource approach in the sector, to attract, develop, and retain qualified personnel, including the next generation of leaders in the water sector.

In addition, HRD must also seek improved skills at each subsidiary. It must clearly define not just the education of each staff member but experience requirements and succession plans. Structures must be developed to enhance the skills of each staff member, match these skills with organizational needs and provide for a career path to encourage staff to maintain and enhance performance.

The HRD Component activities are cross-cutting to other project sectors. These activities include critical analyses of skills gaps at all sector levels, formulation or revision of job descriptions to more accurately identify duties, and identify performance improvement results that should be targeted at both HCWW and Subsidiary levels. HRD plans will be vital components to the future sustainability of the selected subsidiary companies and HCWW.

A. Component 4 July-September 2009 Progress

During the quarter, WWSS continued implementing a large portion of the urgent training plans developed for the five subsidiaries and HCWW through formal training events, as well as providing on-the-job training and conducting one study tour. The project delivered 12 formal training events, in addition to the Jordan Study, for the benefit of 99 participants this quarter. Details on training conducted this quarter are reported above under the appropriate subsections related to Components 1, 2, and 3. To date, WWSS has conducted a 31 capacity-building events for 725 participants, while applying the WWSS-designed training evaluation system during implementation. (See Annex A WWSS Training To Date for further information.)

Specific to Component 4 Targets, the following training was conducted:

- **Presentation Skills** – Assiut and Menofeya WWCs, on September 8-10 and September 13-15, for a total of seven participants.
- **Middle Management Business-planning Workshop** (cross-cutting activity with Component 2) – Sohag WWC, July 1-2, for a total of 55 participants.
- **Jordan Water/Wastewater Utility Study Tour** (cross-cutting activity with Component 1) – July 26-30, for a total of seven participants.

The project introduced the concept of comprehensive human resource development plans as part of the business-planning processes underway at the five subsidiaries. WWSS provided assistance in developing/modifying the organizational structures of the human resources/training departments at the

HCWW and the five WWCs, which included developing purpose statements, function definitions, job descriptions, and staffing requirements. At the end of the period, WWSS drafted its procurement plan for human resources development needs at the HCWW and across the subsidiaries.

Based on the WWSPR database used for identifying, leveling, and positioning employees in order to tie jobs and pay scales to a performance-based system (currently installed at Sohag, Luxor, and Assiut WWCs), WWSS delivered ongoing technical assistance in collecting and validating employee information. WWSS is currently pricing a comprehensive human resources management system to be procured and implemented at the HCWW and subsidiaries. It will cover all human resource practices, including appraisal/evaluation systems that would be tied to a larger incentive plan for each company as a whole.

WWSS assessed the status of and practices employed at the Human Resources Departments of Menofeya, Sohag, and Assiut WWCs. Subsidiary-specific technical assistance and on-the-job training included:

- ***Sohag WWC:*** developing recruitment and selection process for hiring new staff.
- ***Assiut WWC:*** outlining human resources development plan.
- ***Giza WWC:*** developing staffing plan.

PROJECT MANAGEMENT AND ADMINISTRATION

A. Year-2 Work Planning

WWSS views annual work planning as a highly participatory process, both among the project teams and in collaboration with the HCWW, subsidiaries, USAID, and other donor-funded projects in the sector. Annual work-planning is reactive to results already achieved, yet flexible and responsive to conditions on the ground. The WWSS Third Quarter-2009 ended with intensive internal brainstorming sessions among the WWSS team leaders and coordination meetings with HCWW, USAID, subcontractors CH2M HILL and Chemonics Egypt, and other donors.

Project Year 2 work planning began in August-September 2009 with the technical staff being divided into functional teams in order to conduct site visits and assessments of the seven subsidiaries not receiving WWSS assistance in Project Year 1. Using an assessment tool developed by a short-term consultant from CH2M HILL, the teams discussed the strengths and opportunities at each subsidiary in the areas of business planning, human resources management/development, finance, performance management, IT, O&M, and capital investment planning and program/project management. Each assessment team presented their results and recommendations to the WWSS team, which initiated the brainstorming sessions for the year 2 work plan. The participatory process continued through the writing stage, which was coordinated by the PMU director and involved the technical team members, the Monitoring and Reporting Coordinator, and the Chief of Party. The year 2 work plan will be submitted to USAID for review and comment on October 15, 2009, as discussed.

B. Organizational Changes

The WWSS organizational structure is designed to allow for maximum flexibility to meet the needs of the HCWW and subsidiaries, while ensuring accountability for results. The COP directly supervises the work of the technical managers and program/administrative support units. To accomplish the tasks set out in the work plan, the technical managers utilize short-term technical assistance and ensure specified results for each assignment are achieved. In September 2009, COP Bennett Parton resigned from the project, and Ghassan Nakad was presented to and approved by USAID as the new COP, starting October 1. Additionally, the DCOP Mohamed Farid Sewelam left the project, and a new DCOP is currently being recruited. Additional adjustments to the WWSS organizational structure will be proposed in the year-2 work plan.

C. Coordination with Stakeholders

To provide strategic direction for the project, WWSS replicates the successful model of the board of directors used on the USAID-funded Secondary Cities Program. The BOD meets quarterly to receive progress reports from the COP and field team, and makes recommendations on the project's strategic direction. The BOD comprises the USAID COTR, HCWW Chairman Dr. Abd el Kawi Khalifa and Deputy Chairmen Mamdouh Raslan and Said Naser, Chemonics Senior Vice President Eric Reading, CH2MHILL representative Doug Griffes, and Chemonics Egypt CEO Mohammed Ashmawi. The BOD ensures that WWSS benefits from the experience of prior institutional development programs in Egypt and worldwide.

On September 2, 2009, the second WWSS Board of Directors meeting was held. The meeting opened with Eric Reading, Chairman of the BOD, introducing Ghassan Nakad as the incoming WWSS COP, and thanking Bennett Parton for his service as the preceding COP with a gift. Bennett Parton gave his presentation including a summary of achievements to date and lessons learned for the way forward. He focused on the need for tools at the subsidiary level to collect, maintain, and report accurate data, noting that business planning and performance-based management would continue to be a challenge without accurate financial data. HCWW Chairman Dr. Abdel Kawi Khalifa gave a summary of the

previous day's events at the HCWW, which included a visit to the HCWW by the Egyptian Prime Minister and various Ministers. During this visit, the Prime Minister approved an increase to the funding for investments in the sector. Incoming COP Ghassan Nakad shared his initial approach to creating the WWSS Year-2 Work Plan, which will include activities for each of the 12 subsidiaries in the project contract SOW. He also proposed an approach that would maximize coordination with other donors, and also with the HCWW and USAID, so that the final project work plan will be a shared document between the three organizations.

D. Performance Monitoring

The second draft of the WWSS Performance Monitoring Plan (PMP) was submitted to USAID on August 12, 2009. The PMP is the main instrument for monitoring project performance, project planning, and overall project management. The PMP outlines contract results and performance indicators for each result, provides a detailed definition and justification for each indicator, indicates the method/tools for obtaining data, shows the frequency of data collection, and presents plans for the review/reporting of results. The PMP ties project success directly to that of the subsidiaries, and reinforces the prudent targeting of interventions with the most impact. It creates an incentive for creative and flexible results-driven approaches – e.g., outsourcing and public-private partnerships.

As described in detail in the WWSS PMP, our activities are measured against achievement of the following Project Intermediate Result (PIRs) and Key Result Areas (KRAs), displayed in the graphic results framework in Annex B:

- PIR 1: Management and operational efficiency of targeted institutions increased
- KRA 1.1: Operations and maintenance planning, systems, and procedures improved
- KRA 1.2: Financial planning, systems, and procedures improved
- KRA 1.3: Performance management planning, systems, and procedures

- PIR 2: Capital investment planning and program management improved
- KRA 2.1: Capital investment planning strengthened
- KRA 2.2: Program management strengthened

- Cross-cutting KRA 4: Capacity of staff in targeted institutions increased

At the request of USAID, the WWSS team worked closely with the WPRR project team in September to align the two projects' PMPs, which included finalization of the results framework, and the resulting review and adjustment of indicators, data collection, and reporting mechanisms and responsibilities (see Annex B). A single final PMP covering the two projects will be submitted to USAID early in Q4.

E. Financial Information

General Financial Summary		
Current Obligated Funding	\$6,000,000	250,000 EGP
Total Contract Amount (base period)	\$16,621,611	943,500 EGP
Expenditures for April through June 2009	\$1,143,654	0 EGP
Expenditures for July through September 2009 (September figures are estimated)	\$1,128,529	36,070.48 EGP
Cumulative Expenditures through September 2009 (September figures are estimated)	\$3,221,787	36,070.48 EGP
Remaining Unexpended Balance – Obligated Funds	\$2,778,213	213,930 EGP
Remaining Unexpended Balance – Contract Total	\$13,399,824	907,430 EGP

UPCOMING ACTIVITIES FOR THE NEXT QUARTER

In preparation for year 2 activities, WWSS carefully reviewed its scope of work in relation to the needs of the HCWW and its subsidiaries. WWSS conducted an assessment of each of the 12 subsidiaries, with the intention of *developing subsidiary-specific work plans, tailored to their needs and requirements*. These work plans will focus, in varying degrees, on the following areas:

- Business planning, starting with the definition of medium- and long-term objectives, and the means of achieving them, realistically, given their stages of development and the resource constraints facing them.
- Organizational structuring, including staffing, roles and responsibilities, and development of departmental action plans.
- Financial management, with particular emphasis on improving data quality, and timely recording and reporting.
- Operations and maintenance, covering technical skills, as well as planning, budgeting, and resources management.
- Capital investment planning, program management, and infrastructure project development and management.
- Cost recovery, including tariff design and pricing of water and wastewater services.
- Information technology and management information systems.
- Performance standards.
- Service delivery, along with customer service and relations.
- Public outreach and education in such areas as water conservation, environmental health, tariff and service pricing, among others.

Not all subsidiaries will receive the same extent of technical assistance, nor will this assistance occur simultaneously across the group. Newly established utilities are likely to receive the lion's share of our assistance initially, without neglecting the immediate needs of the other affiliates targeted in our contract. Consequently, some of our activities, initiated in the year 2 work plan may extend into the following year, and their timing will be decided in close consultation with HCWW.

At the central level, those activities specifically targeting HCWW and sector-wide interventions will be decided in close cooperation with the HCWW, subject to HCWW final review and concurrence. WWSS will also assist, on an as-needed basis, ongoing work related to the HCWW business plan and organizational restructuring, information technology, human resources management and development, and other tasks deemed important to the HCWW mission and corporate objectives.

In the capacity-building arena, WWSS will propose professional development programs for mid-level subsidiary staff, along with interdisciplinary seminars for subsidiary executives. The advanced seminar series, which will be structured into six one-week modules over a six-month period, is designed to provide broad exposure and complementary skills to senior managers, to help improve intra-utility communication and coordination, and to prepare them for higher managerial responsibilities. WWSS also will cover the legal and regulatory framework of the sector, as well as the role of the HCWW and its relationship with its subsidiaries and other institutions in the sector.

WWSS will then move into technical skills, covering the following topics:

- Organizational development and human resources planning
- Financial management
- Operation and maintenance
- Procurement (including outsourcing)
- Construction management and supervision

- Customer service and relations with consumers
- Billing and collection
- Unaccounted-for water
- Public outreach and education
- Regulatory compliance and intergovernmental relations

In delivering the seminars, WWSS will make extensive use of existing material developed under this and other USAID-funded activities, as well as training programs sponsored by GTZ and Dutch Economic Cooperation. WWSS will also make use of available facilities at the HCWW and the subsidiaries, complementing these with updated curricula specifically developed for this series. Finally, WWSS will work closely with the HCWW to develop a sector-wide training program, and to establish the required training infrastructure to facilitate the implementation of the program.

Refer to the WWSS Year-2 Work Plan for detailed descriptions of activities.

ANNEXES

Annex A: WWSS Capacity Building Events To Date

	Title	Type	Duration	Assiut			Sohag			Luxor			Giza			Menofeya			Total Participants							
				Dates	Participants		Dates	Participants		Dates	Participants		Dates	Participants		Dates	Participants		M	F	Tot					
					M	F		Tot	M		F	Tot		M	F		Tot	M				F	Tot			
Financial	Unified Accounting System Phase I	Training	5 days	14-19 Mar 09	7	9	16	4-9 Jul 09	12	10	22	26-30 Apr 09	13	9	22			0	26-30 Jul 09	18	4	22	50	32	82	
				4-9 Apr 09	13	9	22	26-30 Jul 09	10	12	22			0			0	2-6 Aug 09	11	9	20	34	30	64		
	Unified Accounting System Phase II	Training	3 days	13-15 Jun 09	6	8	14			0			0			0			0			0	6	8	14	
				16-18 Jun 09	9	11	20			0			0			0			0			0	9	11	20	
	TOTAL				35	37	72		22	22	44		13	9	22		0	0	0		29	13	42	99	81	180
O & M	Water Treatment - Chlorination	Training	5 days	31 May-4 Jun 09	15	2	17			0						0			0			0	15	2	17	
			5 days	12-16 Jul 09	14	1	15	5-9 Jul 09	12	0	12												26	1	27	
	Water Balancing & Leak Detection Control	Orientation	2 days	17-18 May 09	12	5	17	19 May 09	29	12	41	11 May 09	20		20	2 Jun 09	22	3	25	21 Jun 09	12		12	95	20	115
	Planning and Budgeting	Training	2 days / Luxor	28-29 Jul 09	3	2	5	28-29 Jul 09	3	2	5	28-29 Jul 09	3	2	5								9	6	15	
	TOTAL				44	10	54		44	14	58		23	2	25		22	3	25		12	0	12	145	29	174
Commercial	GIS	Training	5 days			0			0	16-20 Aug 09	2	3	5			0			0			0	2	3	5	
	TOTAL					0			0		2	3	5			0			0			0	2	3	5	
PM	PRISM	Training	2 days / Assiut	8-9 Jun 09	2	4	6	8-9 Jun 09		6	6	8-9 Jun 09	2		2			0			0	4	10	14		
	Planning and Scheduling	Training	4 days / Luxor	27-30 Jul 09	1	4	5	27-30 Jul 09	1	3	4	27-30 Jul 09	1	3	4								3	10	13	
	TOTAL				3	8	11		1	9	10		3	3	6		0	0	0		0	0	0	7	20	27

	Title	Type	Duration	Assiut			Sohag			Luxor			Giza			Menofeya			Total Participants						
				Dates	Participants		Dates	Participants		Dates	Participants		Dates	Participants		Dates	Participants		Dates	Participants		M	F	Tot	
					M	F		Tot	M		F	Tot		M	F		Tot	M		F	Tot				
HRD Management	Staffing Plan	Orientation	1 day			0			0			0	13 May 09	18	5	23			0	18	5	23			
	Presentation Skills (participants from other subsidiaries were included)	Training	3 days	8-10 Sep 09	2	2											8-10 Sep 09	1		1	20	4	24		
				13-15 Sep 09	2	2				13-15 Sep 09	1	1	2				13-15 Sep 09	2		2	15	11	26		
	Senior Management Business Planning Workshop	Workshop	2 days / Cairo	21-22 May 09	4	1	5	21-22 May 09	5		5	21-22 May 09	5		5	21-22 May 09	4	1	5	21-22 May 09	5		5	23	2
Middle Management Business Planning Workshop	Workshop	2 days	17-18 Jun 09	12	11	23	1-2 Jul 09	41	14	55	10-11 Jun 09	24	7	31	24-25 Jun 09	15	5	20	29-30 Jun 09	27	5	32	119	42	161
TOTAL				16	16	32		46	14	60		30	8	38		37	11	48		35	5	40	164	64	259
Study Tours	Amman/Jordon	Workshop	5 days	26-30 Jul 09	7 Participants from Assiut, Sohag, Red Sea, North & South Sinai, and Menofeya WWCs, and HCWW																	7	0	7	
TOTAL				98	71	169		113	59	172		71	25	96		77	19	96		76	18	94	477	217	725

Annex B: USAID Combined Results Framework for Egypt Water Sector Programs

