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Lebanon Water and Wastewater Sector Support

QUARTERLY REPORT: JULY 2013 — SEPTEMBER 2013

October, 2013

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LWWSS PROGRAM QUARTERLY REPORT: JULY 2013 — SEPTEMBER 2013

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ACRONYMS

ACWUA	Arab Countries Water Utilities Association	HDSL	High-bit-rate Digital Subscriber Line
ADSL	Asymmetrical digital subscriber line	HPIP	High Priority Intervention Program
AFD	French Development Agency	HR	Human Resources
AWP	Annual Work Plan	H&S	Health and Safety
APP	Annual Work Plan	IAR	Initial Assessment Report
ATP	Annual Training Plan	IEE	Initial Environmental Evaluation
BMLWE	Beirut-Mount Lebanon Water Establishment	IFI	International Financial Institution
BOQ	Bill of Quantities	IRG	International Resource Group
BWE	Bekaa Water Establishment	IRM	Information Resources Management
CAS	Central Administration of Statistics	IT	Information Technology
CCN	Cooperating Country National	IWRM	Integrated Water Resource Management
CCTV	Closed Cable Television	KPI	Key Performance Indicator
CDG	Chairman and Director General	LWWSS	Lebanon Water and Wastewater Sector Support
CDM	Camp, Dresser and McKee Engineering	MIS	Management Information System
CDR	Council for Development and Reconstruction	MMS	Maintenance Management System
CRM	Customer Relations Management	MOEW	Ministry of Energy and Water
CIP	Capital Improvement Plan	MOF	Ministry of Finance
CO	USAID Contract Office	MOTGE	Mise en place des Outils Techniques de Gestion de l'Eau
COA	Chart of Accounts	NLWE	North Lebanon Water Establishment
CQCP	Construction Quality Control Plan	NRW	Non Revenue Water
CSR	Customer Service Representative	NWSS	National Water Sector Strategy
COP	Chief of Party	O&M	Operations and Maintenance
COTR	Contract Officer Technical Representative	PMP	Performance Monitoring Plan
DG	Director General	PSP	Private Sector Participation
DAI	Development Alternatives Inc.	PPM	Parts per million
DCOP	Deputy Chief of Party	PPP	Public Private Partnership
DEP	Design Engineering Partners	SCADA	System Control and Data Acquisition
EIB	European Investment Bank	SLWE	South Lebanon Water Establishment
EU	European Union	SMP	Subcontractor Management Plan
EA	Environmental Assessment	SOW	Scope of Work
EDL	Electricite du Liban (National Electricity Provider)	STTA	Short-Term Technical Assistance
EMMP	Environmental Monitoring and Mitigation Plan	TBC	To be confirmed
ERP	Enterprise Resource Planning	TOR	Terms of Reference
EOI	Expression of Interest	USAID	United States Agency for International Development
FAS	Financial & Accounting System	USG	United States Government
GA	Geographical Area	WE	Water Establishment
GIS	Geographical Information System	WET	World Engineering and Technology
GIZ	Gezellshaft fur Internationale Zusammenarbeit	WPS	Water Pumping Stations
GNSS	Global Navigational Satellite System	WWTP	Wastewater Treatment Plant
GOL	Government of Lebanon		
GTZ	German Technical Assistance		

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LWWSS Counterparts and Primary Contacts:

Beirut-Mount Lebanon Water Establishment (BMLWE)
Beka’a Valley Water Establishment (BWE)
North Lebanon Water Establishment (NLWE)
South Lebanon Water Establishment (SLWE)
Ministry of Energy and Water
MOEW Advisor to Minister (Wastewater)

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A. INTRODUCTION

The Lebanon Water and Wastewater Sector Support (LWWSS) Program is a \$34 million, 67-month (October 2009 - April 2015) program funded by USAID and implemented by Development Alternatives, Inc. (DAI). LWWSS provides technical assistance and related services to impact USAID/Lebanon's Assistance Objective (AO) 4 - "Improved water services for all in Lebanon" - and the corresponding Intermediate Results (IRs) - more efficient management of water resources, improved water infrastructure, and enhanced water governance.

LWWSS works in cooperation with the Ministry of Energy and Water (MOEW) to assist Lebanon's four Water Establishments (WEs) in strengthening their capacity to deliver high-quality and sustainable services. Ultimately, the LWWSS program aims to help the WEs advance towards financial and operational sustainability and overcome the many challenges they face, including staff shortages and an aging workforce, poor customer relations, low tariffs that fail to recover operating costs, lack of metering, excessive non-revenue water, and underinvestment in the water and wastewater infrastructure.

The areas of focus that LWWSS targets in working with the WEs include:

- Building management capacity within the WEs;
- Increasing financial management capacity and financial system integration;
- Procuring equipment to complement technical assistance and capacity building;
- Business planning to increase capital planning and benchmarking capacity;
- Funding urgent infrastructure works to enhance delivery or access and coverage;
- Developing a corporate culture, customer service orientation and public outreach programs.

Based on the initial LWWSS program objectives of building on previous USAID and other donor program progress and as a result of lessons learned during the first three years of the program, LWWSS has focused on implementing its Year-Four Work Plan within specific areas of Water Establishment (WE) operations. The LWWSS program has, therefore, tailored the individual WE work plans to apply the information gathered on each WE and to leverage the successes accomplished to date.

This Quarterly Report covers the period from July 2013 – September 2013 and provides quarterly highlights, component updates that provide technical perspective, and then details progress of project activities broken down by each Water Establishment and further by each component, as per the Year Four Work Plan. Each component consists of several activities, and progress of each is depicted in the accompanying Gantt charts and detailed in the narrative. Additionally, this quarterly report includes the preliminary PMP tables that report progress on year four of the project.

B. QUARTERLY ACTIVITY HIGHLIGHTS

USAID supplied and started installation of over 200 source meters in 185 locations of the SLWE departments



Above and below: LWWSS engineers inspecting installation

USAID's Lebanon Water and Wastewater Sector Support Program (LWWSS) started the installation of over 200 source meters in 185 locations in South Lebanon. In this regard, site works were initiated in preparation of the meters' installation, which started on June 21, 2013 at the Bent Jbeil and Tyre departments.

This activity comes as a result of a detailed investigation of the South Lebanon Water Establishment needs. It was conceived as a response to the WE's need for better non-revenue water management and reduction. Thus, metering source production will enable the water establishment to obtain accurate information on water production, better manage water supply, and plan long-term projects that connect and make use of the meters.



Below left: Flow meter

Below right: Meter manhole and cover



USAID builds the capacity of personnel at the BMLWE's Jeita pump station serving more than 186,000 water users



USAID initiated the Operations and Maintenance training for the Beirut and Mount Lebanon Water Establishment (BMLWE) on July 25, 2013. The training, targeting the pump station's nine operators, consisted of two sessions of two days each, and concluded on August 2, 2013.

This activity aims at improving skills and processes for pump station staff in operating and maintaining the pump station equipment which was provided by USAID for the Jeita pump station. The equipment, which includes 18 sets of pump and motor equipment, was installed by BMLWE at the beginning of the year 2013.



The training course consists of in-class and on-site training, covering all the basic aspects of operating and maintaining a pump station, including operating the mechanical and electrical equipment, facility management basics, pump maintenance, motor protection, and safety procedures.



This process will decrease accidents on site, avoid human errors, extend the life of BMLWE's equipment, and build the capacity of staff to ensure sustainability.

Above: Jeita O&M training sessions and on-site training.

USAID rehabilitates a major Pump Station for BMLWE, serving more than 186,000 citizens



Above: Jeita Pump Station after rehabilitation.

Below: BMLWE, USAID, and LWWSS representatives during site visit.



The United States Agency for International Development completed the rehabilitation of the Jeita Pump Station at the Beirut-Mount Lebanon Water Establishment (BMLWE). The rehabilitation was led and funded jointly by USAID's Lebanon Water and Wastewater Sector Support Program (LWWSS) and BMLWE, the former through design and supply of equipment and the latter through installation and commissioning.

The Jeita pump station is one of the country's most critical pump stations that serves coastal Metn (Greater Beirut) and some additional areas of the capital. Its rehabilitation will result in extended hours of water supply to more than 186,000 citizens due to an increase of up to 30 percent efficiency, a decrease in break-downs and down time, and a longer lifecycle for the equipment. To optimize the impact of the activity, the LWWSS program also trained the Jeita pump station operators, in the aim to decrease accidents on site, avoid human errors, and extend the life of BMLWE's equipment, thus ensuring sustainability of the pump station.



Above: Site visit group photo.

In that regard, a site visit was conducted at the Jeita pump station on August 28, 2013, in presence of the BMLWE Director General and officials, USAID representatives, as well as the LWWSS Chief of Party and team.

USAID builds the capacity of seven employees at the Financial and Accounting departments at NLWE in Internal Audit



USAID implemented a capacity building workshop for 7 employees from the Financial and Accounting departments at the North Lebanon Water Establishment (NLWE) on August 29, 2013. The training came as a culmination of USAID's Lebanon Water and Wastewater Sector Support Program (LWWSS) support to the NLWE in the development of internal audit procedures and a standard manual for internal audit within the WE.

Previously, the NLWE did not have an Internal Audit Manual, or specialized human resources to perform the required internal audit procedure. This limited control over the establishment's activities and prevented the management from obtaining internal feedback on control gaps and operational performance.

Through this activity, a thorough Internal Audit Manual was developed which covers all aspects of audit controls dictated by the by-laws and the legislation applicable to the WEs, in order to improve detective, corrective and preventative controls within the WE. This effort will also allow the WE to conduct an operational review of performance on a yearly basis, thereby providing the WE management with powerful tools to monitor the WE's performance and compliance. The training aimed at enhancing the NLWE key personnel's capacity to control the establishment's financial and administrative processes, identify and reduce inefficiencies, and increase its accountability.



Above: Internal audit training sessions

USAID develops Budget and Cost Tariff Manuals and implements capacity building for the Beirut-Mount Lebanon Water Establishment Financial department



Above and below: Training sessions on Budget Manual.



Above: Training session on Cost Tariff Analysis.

USAID implemented a capacity building workshop for 10 employees from the Finance and Engineering departments at the Beirut-Mount Lebanon Water Establishment (BMLWE), in cost tariff analysis and budgeting, on August 22 and 27, 2013 respectively.

In previous efforts, USAID's Lebanon Water and Wastewater Sector Support Program (LWWSS) supported the adoption of an Enterprise Resource Planning (ERP) solution by the BMLWE. However, the BMLWE still lacked in updated financial procedures and systems. In fact, BMLWE currently lacks accurate, dynamic and up-to-date financial data within each establishment. Furthermore, its budget process follows a dated approach which results in inaccurate budgeting and limits the use of the budget as a planning tool, creating shortages during the year.

Thus, USAID's LWWSS program initiated the development of a Cost Tariff Analysis module and a Budget module, aiming to provide BMLWE with an analytical tool that supports financial and business planning, while strengthening the WE's capacity to improve their decision making process, to achieve cost recovery and better financial performance. Moreover, by connecting these tools to the newly developed ERP platform, BMLWE will be able to capitalize the ERP solution's output.

C. PROJECT PROGRESS BY WATER ESTABLISHMENT AND COMPONENT

Project activities are broken down by each water establishment and then further by each LWSS component, in conformance with the Year Four Work Plan. Each component consists of several activities, and progress of each is depicted in the Gantt charts and detailed in the narrative.

1. Bekaa Water Establishment (BWE)

Component 2: Capacity Building for Managerial, Technical and Operational Efficiency

Work Plan Activities

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
2.2	Building the WEs' Water Quality Management Capacity: Water Quality Testing Plan			
2.2.1	Conduct water quality baseline survey based on seasonal sampling of all sources, with on-the-job staff training	AUB	Activity Completed	July, 2013
2.2.2	Establish a region-specific and Libnor-compatible testing protocols and methodology	AUB	Activity Completed	December, 2012
2.2.3	Plan and conduct a comprehensive user training on all aspects of lab operation	AUB	Activity Completed	April, 2013
2.3	Capacity Building in Operation and Maintenance of Pump Stations			
2.3.1	Pump station operators basic O&M and H&S training (70+ staff)	CDM (BG, GT), LWWSS (MK) Kredo	Activity Completed	July, 2013
2.4	Public administration and Process Management Training			
2.4.2	Public administration and process management training aiming at increasing staff familiarity with WE systems and processes	- EMC (MC), DAI (MK) - Local supplier (TBD)	Training preparation initiated	September, 2013
2.5	Training on Network Maintenance and Repair			
2.5.1	Basic training on network maintenance, monitoring and repair, for existing and newly recruited network team personnel	- DAI (MK) - Kredo/TBD	Training delayed to Q1 Y5	December, 2013

BG-Bassem Ghayda; MK-May Koleilat; GT-Gulnard Ters; MC-Mike Chalah

Activity 2.2 - Building the WEs' Water Quality Management Capacity

This activity intends to develop a water quality management plan based on the reality of BWE's water pollution profile, water treatment and testing infrastructure, and human capacity. The plan is scalable

and encompasses setting testing standards and methodologies, water monitoring protocols, as well as reporting and management.

The activity was conducted in conjunction with the American University of Beirut (AUB). It started on October 1, 2011 and was set to end on April 30, 2013.

Further modifications were needed within certain deliverables. The current list of deliverables and completion dates are outlined below:

Deliverable 1 due in November 30, 2011: Review and document the management of the potable water supply by the Bekaa Water Establishment

Status: This deliverable and AUB's report associated with it was completed in year three.

Deliverable 2 due in October 31, 2012: Conduct a comprehensive baseline water quality surveillance of sources feeding distribution networks and piped water supplied by BWE across its service territory.

Status: AUB's third draft report was submitted to USAID in July 2013.

Deliverable 3 due in October 31, 2012: Develop a comprehensive potable water quality monitoring program.

Status: This deliverable was issued to DAI on October 31, 2012. DAI's review and comments were incorporated by AUB in December, 2012.

Deliverable 4 due June 1, 2012: Plan the location and specifications of laboratory units (locations, numbers and specifications) needed to implement potable water quality monitoring and prepare an inventory of required laboratory equipment and supplies.

Status: This deliverable by AUB was completed.

Deliverable 5 due in December 31, 2012: Design and implement a capacity building training program to enable the water establishment staff to conduct monitoring and quality assessment activities.

Status: The training on water quality for the Bekaa Water Establishment's Technicians concluded in April. After delivery of the training equipment (see activity 5.4), the BWE laboratory staff will test the equipment and prepare findings and queries to be addressed with the AUB water quality project team, who will then prepare a follow up training session if necessary.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	2 (FY11)				Y-3 (FY12)				Y-4 (FY13)																	
		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4									
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
2.2	Water Quality Testing Plan																										
	Activity introduced																										
	Subcontract placed with AUB as follows:																										
	Task 1: Review and document management of potable water																										
2.2.1	Task 2: Comprehensive water quality survey (2 seasons)																										
2.2.2	Task 3: Develop water quality monitoring program																										
	Task 4: Plan location and specification of lab units																										
2.2.3	Task 5: Capacity building program																										

Legend

- Time frame as planned
- Time frame indicated in Year Four Workplan
- Time frame detailed in Q2 report
- Time frame detailed in Q3 report
- Time frame detailed in Q4 report

Activity 2.3 – Building Operators’ Capacity in Operation and Maintenance of Pump Station Equipment

This activity is a replication of a year two activity that resulted in improved skills and processes for pump station staff in operating and maintaining pump station plant and equipment, as well as improved health and safety practices. This training results in fewer site accidents and equipment breakdown, as well as improved efficiency for pumping and energy consumption.

The O&M training provided by KREDO to the Bekaa Water Establishment ended in July 2013, as planned. The training Arabic summary report was submitted to the BWE Director General on September 12, 2013. It included recommendations on follow up and operational log sheets to be verified and duly used by the pumps’ supervisors. Certificates were awarded in a ceremony.

Each completed session consisted of four days. The first session targeting 10 operators was conducted between June 4 and 13 at the Lucy Station. The second session targeting 7 operators was conducted between June 18 and 27 at the Chamsine Station. The third session was conducted between the 2nd and 11th of July 2013.

In each session, the following topics are covered, with in-class and on-site training:

- Operating the mechanical and electrical equipment;
- Cleaning and maintaining the equipment;
- Electrical, hydraulic and chemical health and safety procedures;
- Facility management basics;
- Chlorinator reading and operating basics;
- First aid.

Safety tools including helmets, toolkits, and overalls were distributed to the attendees.

Year Five and the LWWSS team decided to implement a TNA independently of GIZ, which is expected to be completed in October 2013.

During September participants were nominated by the Director Generator to participate in the training. These are the newly hired personnel from the financial and accounting, procurement, stock and warehouse, payroll, human resources, and billing and collection departments. The final list will be confirmed in an official letter from the BWE DG.

The training will be conducted based on the existing materials used by the LWWSS program to date, the by-laws of BWE, and other materials available to the trainer at the time of information collection. Procurement for the training is expected to be completed during the first quarter of Year Five.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY12)			Y-4 (FY13)				Y-5 (FY14)							
		Q4			Q1		Q2		Q3		Q4					
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
2.4	Public Administration and Process Management Training															
	Activity introduced															
	Procurement of services															
	Course preparation															
	Course provision															

Legend

-  Time frame as planned
-  Time frame detailed in Q4 report

Activity 2.5 - Basic training on network maintenance, monitoring and repair, for existing and newly recruited network team personnel

This training will support the LWWSS program’s efforts in BWE, namely the infrastructure activities which include network replacement in the city of Zahle. It will also introduce best practice methods for detection and repair of water distribution breakdowns, which will directly contribute to a decrease in service disruptions, faults and operational damage of networks, a reduction in the risk of personal injury of operating staff, and financial and resource savings for the BWE.

In July, the training provider Mr. Mghabghab and the LWWSS Capacity Building Specialist held several meetings with the BWE DG in preparation of the training. Furthermore, the training provider conducted several site visits with the BWE delegated contact person Mr. Toni Abou Farah. Based on this, Mr Mghabghab will be preparing the training content and materials.

In August, the BWE Head of Distribution and Maintenance, Mr. Ismaeel, submitted a list of operators/participants to the training. KREDO’s training provider prepared the training agenda and material, which was submitted on August 29 for verification by the LWWSS Eng. Bassam Jaber and Eng. Walid AbouZeid.

In September, an official letter was sent to the BWE DG requesting the final written list of participants to the training sessions. Based on the comments of the LWWSS engineers, KREDO finalized the training material at the end of September.

In October, it is expected that the BWE DG will confirm the participants’ lists, venue, and training start date. Accordingly, training interviews would be conducted and training logistics will be prepared.

The training was not completed as scheduled in Year Four and is now planned for the first quarter of Year Five. The schedule of the training was amended to take into account the recruitment of new employees at the BWE, as well as due to the scheduling of other trainings during the last quarter of Year Four. The training will consist of two sessions of six days each, from October 22 throughout November 28.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY12)			Y-4 (FY13)					Y-5 (FY14)																
		Q4			Q1		Q2		Q3	Q4		Q1		Q2		Q3	Q4									
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
2.5	Training on Network Maintenance and Repair																									
	Activity introduced																									
	Staff interviews; training needs assessment																									
	Course preparation																									
	Training provision																									

Legend

- Time frame as planned
- Time frame indicated in Year Four Workplan
- Time frame detailed in Q2 report
- Time frame detailed in Q3 report
- Time frame detailed in Q4 report

Component 3: Increase Financial and Commercial Viability of Water Establishments

Work Plan Activity

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
3.2	Integrate the WEs Financial, Accounting, Customer Service and Business Process Systems: The Enterprise Resource Planning (ERP) Platform			
3.2.2	Implement software platform including Finance and Accounting System and Customer Relationship Management solution	EMC (MC), ABA EDM	Activity completed	October, 2012
3.2.3	Implement intranet system enabling web-browser based e-training, communication and business process tools	EMC (MC), ABA EDM	Activity completed	June, 2013
3.2.4	Conduct training, assist in transition phase and provide one/two year onsite support	EMC (MC), ABA EDM	Activity completed	December, 2013

MC-Mike Chalah

Activity 3.2 - Integrating the WE's Financial, Accounting, Customer Service and Business Process Systems

Through this activity BWE will have a centralized management information system that connects to all branches and handles all financial, administrative and customer-related processes, using a robust IT infrastructure with a well-trained team of employees. This will result in a substantial increase in the

efficiency of conducting business by the WE, in terms of financial performance and control, compliance, HR systems and processes, customer service and organizational collaboration.

Enterprise Resource Planning System Progress

In July and August 2013, the LWWSS Financial Specialist and EDM conducted site visits to the BWE to conduct an introduction and an overview training for 5 employees recently hired for the BWE financial department working on Navision modules (FAS, CRM, Billing and Collection, and Documentation and Registration). The LWWSS Financial Specialist and EDM also supported the users working on Navision in resolving pending issues.

The CRM and documentation modules did not go live in July due to the shortage in users and PCs needed to run the two modules. In August the DG has took charge of buying 12 PCs for the financial, inventory, and laboratory departments, in order to facilitate the users work and allow the system to be utilized. Also, the LWWSS Financial Specialist and ABA met with the DG to discuss solutions for the poor cooperation between old and new employees, which constitutes the main hindrance for the use of the ERP system. As an outcome of the meeting, it was agreed that the LWWSS financial specialist will be conducting weekly audits for all modules and inform the DG about progress and challenges.

During September, the LWWSS Financial Specialist and EDM conducted site visits to the BWE to perform audits. The following modules processes were audited: Procurement, Budget, Inventory, Accounting, Human resources, Payroll, and Billing and Collection.

As a consequence, the LWWSS financial specialist is providing support to the users in updating the data between the manual books, access files and Navision, as well as cleaning the data. Also, the team generated specific financial reports as requested by the DG.

In mid-September, DAI received CO consent to increase the ceiling of EDM's contract in order to continue providing on-site support to the BWE. The LWWSS program with EDM will continue to provide support until end of December 2013.

Challenges

Due to shortage of funds in the EDM contract and in order to continue activities until end of September as planned, a request was sent to CO in July to approve increasing the ceiling of EDM's contract by ~\$20,000. The shortage of funds is a result of unexpected expenditures, as mentioned in the June monthly report, caused, among other thing, by delays experienced while implementing the ERP in BMLWE, where implementation was due to end in March but continued until May. In the meantime, it was agreed that Mike Chalah with EDM support respond only to specific or urgent needs. To make up for the lost support time over July and August, it was decided to also extend the period from September to December 2013.

Another challenge remains that existing staff at BWE working on the ERP system have so far not been cooperative with the newly hired staff. The LWWSS team raised the issue with the DG, as mentioned in a previous report, and it was agreed that the LWWSS financial specialist will inform the DG about the ERP progress on a weekly basis for a closer follow up.

deliverables. The main reason for the delay was the difficulties they encountered in gathering information from the different public administrations. These are summarized as follows:

- Out of the 104 municipalities contacted, only 3 provided a copy of their sewer network.
- Only a limited number of sewer plans could be secured from local subcontractors.
- BWE staff members were reluctant to accompany KREDO to many site visit locations, due to the prevailing security situation.
- Inconsistencies and discrepancies are noted in regard to the different information gathered from the BWE sources.
- The schematic representations of the water systems are almost completely missing.

A response was prepared and sent to Kredo on September 30, 2013, and a meeting will be arranged between LWWSS and KREDO in October.

LWWSS anticipates the implementation period of this activity will last 16 months (December 1, 2012 – March 31, 2014), possibly allowing for an extension of several months due to the afore-mentioned difficulties in the field.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	2 (FY11)				Y-3 (FY12)				Y-4 (FY13)				Y-5 (FY14)										
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3											
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
4.4	Water Supply and Wastewater Master Plan																							
	Activity introduced*																							
	Define scope of works; Procure the master planning services																							
	Develop Master Plan																							

Legend

- Time frame as planned
- Time frame indicated in Year Four Workplan

Component 5: Procurement of Technical Equipment to Strengthen WEs

Work Plan Activities

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
5.4	Upgrading the Water Analysis Laboratories			
5.4.1	Upgrade the water testing laboratories with infrastructure and equipment	AUB Local suppliers	- Urgent equipment provided Y1-Y3 - Comprehensive equipment supplied as per AUB specs (Y4)	September, 2013
5.4.2	Establish service agreements, and conduct user training programs for the above activities	AUB LWWSS (MK)	- Activity in progress	September, 2013

MK-May Koleilat

Activity 5.4 – Upgrading Water Analysis Laboratories

This activity builds on a previous stage of urgent laboratory equipment procurement conducted by the LWWSS program during September, 2011 for the BWE laboratories, whereby essential equipment was provided to enable the basic water testing operations to proceed, as well as user training on equipment operation, and a short general training on water testing (which took place at the premises of AUB).

Lab Equipment

Further to the clearance of all equipment and consumables from Beirut International Airport by the subcontractor Multilab by end of June 2013, an inspection visit was carried out on July 5, 2013 to Multilab office to inspect the instruments, reagents and consumables. All equipment and consumables were found to be in good conditions except a few consumables items with a short expiry date. The supplier Multilab confirmed that consumables items with short expiry date will be replaced with longer expiring date accordingly.

On September 6, all equipment and consumables were delivered to the newly rehabilitated laboratory in Zahle. As per the subcontractor confirmation all consumables with short expiry dates have been replaced. A training is expected to be provided on the supplied laboratory equipment by the vendor in mid-October 2013.



Lab equipment and consumables

Lab Rehabilitation

In July, rehabilitation works continued at the Zahle laboratory, with supervision by LWWSS' engineers. Aluminum doors and windows, a counter top, and AC units were installed at the chemical and microbiological lab. In addition, plumbing works were completed, and painting works are ongoing.

Sanabel provided a revised offer at a lower price by end of June for the additional works to be carried out for the rehabilitation of the laboratory, as requested by the Director General Maroun Moussallem. The additional works will include: supply of faucets and accessories, installation of steel protection for the chemical lab door to prevent water leakage, supply and installation of steel protection for the three

existing windows in the microbiological lab room, replacement of the bathroom window with a new aluminum window, and the supply of a booster pump that will ensure adequate water distribution to the labs.

Accordingly, the purchase order was modified to include an increase in the budget and an extension of the period of performance by 4 weeks.

Furthermore, and based on the DG request to waterproof the lab roof, LWWSS prepared technical specifications for the work to be carried out as well as requirements for the materials to be used. Local waterproofing contracting vendors were contacted by mid-July to provide a best offer proposal to carry out the waterproofing for the Zahle lab roof. An evaluation committee was formed to evaluate the received proposals.

In August, all rehabilitation works at the Zahle laboratory were completed, with supervision by CDM Smith engineers. A site inspection visit to the lab was conducted by the LWWSS team, in presence of the Director General and a representative from USAID.



Microbiological Lab



Chemical Lab



BWE DG with the LWWSS team during the Zahle Laboratory inspection

The procurement process for the waterproofing work of the laboratory roof was finalized by end of August 2013. Est. Georges Arsouni was awarded the contract.

Following the award of the waterproofing work of the Zahle laboratory to Est. George Arsouni, a kick off meeting was held on September 2, 2013 at the DAI Office in presence of the supervising engineer. The subcontractor started work on Sept. 3 and finalized all works by mid-September as scheduled. The waterproofing work is guaranteed for 10 years.



Waterproofing works

3- Maalaka I - Maalaka II pipelines

4- Haouch Al Oumara I - Haouch Al Oumara II pipelines

To date, the water lines have been rehabilitated in the following sectors through the subcontract with NICOLAS SROUJI Establishment for Contracting: Midan I and II, El Rassieh I, II, III and IV, Mar Elias, Maalaka I and II, and Haouch el Oumara I and II. Rehabilitation works are still progressing in the sectors of Karak El Fourzol I, II, and III. In addition, the house connections were completed in Midan I and II, and El Rassieh I, II, and III, and are being implemented in El Rassieh IV. The LWSS Infrastructure Project Manager and Engineer are supervising the works through their twice per week site visits. In addition, an inspection site visit was conducted to one of the construction sites on August 27, in presence of the BWE DG, LWSS team, and USAID representative.





LWWSS engineering team inspecting the work



USAID sign and delineation of work zone



Site cleanup



Supervision of works

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	2 (FY11)		Y-3 (FY12)				Y-4 (FY13)				Y-5 (FY14)													
		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3									
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
6.1	Decreasing Water Losses and Upgrading Existing Networks in Zahle																								
	Projects introduced																								
	Hiring project personnel; conducting technical investigation																								
	Drafting engineering SOW, appointing engineering subcontractor																								
	Engineering design stage and preparation of bid package																								
	Procurement and contract signature with infrastructure subcontractor																								
	Site implementation stage																								
	Completion of both projects																								

Legend
 Time frame as planned
 Time frame detailed in Q2 report

2. Beirut-Mount Lebanon Water Establishment (BMLWE)

Component 2: Capacity Building for Managerial, Technical and Operational Efficiency

There were no component two activities with BMLWE in the Year Four work plan.

Component 3: Increase Financial and Commercial Viability of Water Establishments

Work Plan Activities

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
3.1	Upgrade Finance and Accounting Standards and Methods			
3.1.5	Develop procedures and a standard manual for yearly budgeting within the WE, and conduct applied training to key departments.	- EMC (MC), - ABA	- Procedures defined, manual produced, training conducted.	September, 2013
3.1.7	Develop module, procedures and provide training on the Cost Tariff Model for Strategic Planning and Budgeting	- EMC (MC), ABA	- Module installed, connected to ERP - Procedures defined, training conducted	September, 2013
3.2	Integrate the WEs Financial, Accounting, Customer Service and Business Process Systems			
3.2.2	Implement software platform including Finance and Accounting System and Customer Relationship Management solution	EMC (MC), ABA EDM	- Activity completed	October, 2012
3.2.3	Implement intranet system enabling web-browser based e-training, communication and business process tools	EMC (MC), ABA EDM	- Activity completed	March, 2013
3.2.4	Conduct training, assist in transition phase and provide one/two year on-site support	EMC (MC), ABA EDM	- Activity completed	September, 2013

MC-Mike Chalah, ABA-Allied Business Advisors

3.1.5 - Develop procedures and a standard manual for yearly budgeting within the WE, and conduct applied training to key departments

This activity will introduce a new culture in BMLWE that will improve the use of budgeting as a planning and control tool, and will provide BMLWE key staff (finance department, engineering department and top management) with a step by step guide on how to plan, prepare and implement the budget to improve planning and operations.

In July, Mr. Chalah and LWWSS' program subcontractor ABA continued their work on the application forms of the budget manual that is based on BMLWE's five-year business plan. These templates serve to enhance the compatibility of the manual with the BMLWE systems, therefore making it easier to be trained on and applied.

The manual includes the following nine sections:

- Introduction
- Budget Preparation
- Budget Execution
- Budget Transfer
- Policies and Procedures
- Closing Annual Budget
- Forecast Budgeting and Planning
- Budget Control
- Attachments

In August, the LWWSS financial specialist and the LWWSS' program subcontractor ABA prepared the Budget Manual Training content and implemented the training on August 27, 2013. The training was attended by 10 employees from the Financial and Engineering departments at BMLWE.

The training introduced the participants to all stages of budget preparation and execution and its link with all departments, in addition to the Ministry of Finance policies and procedures.

It aimed to:

- Improve participants' knowledge of the BMLWE Budget Preparation;
- Introduce the participants to the importance of the budget objectives;
- Explain all stages of the preparation and execution of the budget and its link with all departments;
- Enhance the skills of participants in policies and procedures of the budget;
- Enhance the skills of staff in using the application forms of the budget.

Further to the Budget Manual training held in August, ABA and the LWWSS financial specialist gathered the participants' comments and finalized all necessary amendments to the manual. The final version of the manual will be officially delivered to BMLWE beginning October 2013. The LWWSS team reached an agreement with the BMLWE staff to start using the manual and forms in the year 2014. Furthermore, the LWWSS Program will support the preparation of the 2015 budget according to the new procedures as per the budget manual, since the budget for year 2014 was already prepared by the financial department at the BMLWE. This support will be provided in the third and fourth quarter of Year Five when the budget is being prepared.

Timeline

WP Item	Work Plan Activity Title Activity Stages	(FY	Y-4 (FY'13)					Y-5 (FY'14)				Y-6						
		Q1	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2						
		O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
3.1.5	Develop procedures and a standard manual for yearly budgeting																	
	Investigate, and define key best practices in budgeting																	
	Draft budgeting manual and establish linkages with ERP solution																	
	Issue final manual and conduct training and follow-up																	
	Support in implementation of manual for 2014 budget (new Y5 task)																	

 Time frame per Y4 Work Plan
 Time frame per Y5 Work Plan
 Actual completion in Y4

3.1.7 - Develop module, procedures and provide training on the Cost Tariff Analysis Module for Strategic Planning and Budgeting

The Cost Tariff Analysis Module activity will provide BMLWE with an analytical tool that supports financial and business planning and enables the decision maker to adjust their strategies for the future in accordance with the foreseen costs and revenues of the WE. It complements the budgeting efforts to strengthen the WE's capacity to improve their decision making process, and to achieve cost recovery and better financial performance.

In July, Mr. Chalah and the LWWSS' program subcontractor ABA finalized the application forms of the cost tariff analysis module which is composed of the following nine sections with Excel sheet templates that will be linked to the ERP:

1. Assumptions
2. Scenarios
3. Consolidated results
4. Cost Recovery
5. Income Statements
6. Variable expenses
7. Main fixed expenses
8. Project expenses
9. General expenses

In August, the LWWSS financial specialist and the LWWSS' program subcontractor ABA prepared the Cost Tariff Module Training content and implemented the training on August 22, 2013. The training was attended by 8 employees from the Financial and Engineering departments at BMLWE.

The training introduced the participants to cost recovery at service and branch levels, water balance, analysis of tariffs and strategy, capital investments, as well as cost and revenue analysis.

It aimed to:

- Improve participants' knowledge of the BMLWE analytical reporting;
- Introduce the participants to the importance of the Cost tariff model objectives;
- Explain all stages of the utilization of the cost tariff model and the link in the process between all the departments (Revenues, Expenses, Fixed Assets, etc);
- Enhance the skills of participants in reporting by region and types.

Further to the Cost Tariff manual training held in August, ABA and the LWWSS financial specialist gathered the participants' comments and finalized the necessary amendments to the manual. The final version of the manual will be officially delivered to BMLWE beginning October 2013.

Based on discussions held with the BMLWE DG in September, the trained staff at the financial department will work on the Cost Tariff module separately in a first phase to become familiar with the analytical tools. The implementation of the model will be followed up during Year Five, whereby the LWWSS Program will support the inputting of previous years' data into the module to test it. The LWWSS Program will also support the live implementation of the module during Year Five. The Cost Tariff Analysis module can then be integrated with the ERP after the BMLWE staff would have become familiar with its applications.

Timeline

Legend

- Time frame as planned
- Time frame detailed in Q4 report

Wok Plan Activity Title; Activity Stages	(FY Y-3 (FY12))				Y-4 (FY13)				Y-5 (FY14)										
	Q1	Q3	Q4		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4							
	O	N	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
Develop module and training on the Cost Tariff Analysis Module																			
Activity introduced																			
Conduct data collection from finalized modules of the ERP																			
Conduct modeling, update model and connect to ERP platform																			
Develop user manual, train and follow-up																			
Model implementation follow up																			

Activity 3.2 - Integrating the WE's Financial, Accounting, Customer Service and Business Process Systems

Through this activity, BMLWE will have a centralized management information system that connects to all branches and handles all financial, administrative and customer-related processes, using a robust IT infrastructure with a well-trained team of employees. This will result in a substantial increase in the efficiency of conducting business by the WE, in terms of financial performance and control, compliance, HR systems and processes, customer service and increased inter-departmental efficiency.

Enterprise Resource Planning System Progress

In August, DAI submitted all deliverables related to the ERP at the BMLWE to the DG Mr. Joseph Nseir, with a copy to USAID. Based on informal discussions with the DG, project sign-off was expected in early September. Despite several meetings with the DG to finalize the letter, it was still not received by end of September.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-2 (FY11)					Y-3 (FY12)					Y-4 (FY13)													
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4											
		S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
3.2 The Enterprise Resource Planning (ERP) Platform																									
Activity introduced																									
Initial assessment																									
Implementing accounting prerequisites																									
Implementing prerequisite training (finance, accounting, etc)																									
Pilot processes applied and tested																									
IT infrastructure survey																									
Procurement of IT infrastructure																									
Process mapping completed, software specifications drafted																									
Procurement of software design and implementation																									
System implementation, adoption, user training, and migration																									
Provide on site support for a period of 12 months																									

Legend

- Time frame as planned
- Time frame indicated in Year Four Workplan

Component 4: Capital Investment Planning and Program/Project Management

There are no component four activities with BMLWE in the Year-Four work plan.

Component 5: Procurement of Technical Equipment to Strengthen WEs

Work Plan Activity

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
5.2	Upgrading Pumping and Energy Efficiency			
5.2.5	Establish service agreements, and conduct user training programs for the equipment provided in the Jeita pump station	- CDM (BG, GT), DAI (MK) - Local subcontractors (Geobaco)	- Activity completed	September, 2013

BG-Bassem Ghayda; GT-Gulnard Ters; MK-May Koleilat

Activity 5.2 - Upgrading Pumping and Energy Efficiency

This activity will result in a full rehabilitation of one of the country’s most critical pump stations that serves coastal Metn (Greater Beirut) and some additional areas of the capital. Jeita’s continuous operation is crucial to the livelihood of over a 100,000 Lebanese, especially the lower-income population who frequently incur increasing costs of having to purchase water during shortage periods.

Jeita Pump Station Equipment Replacement

The pump station rehabilitation was completed as reported in the February 2013 monthly report. An inspection site visit was conducted on August 28, in presence in presence of the BMLWE Director General and officials, USAID representatives, as well as the LWWSS Chief of Party and team. (see *Quarterly Highlights, Section B*).

Operations and Maintenance training

In July, preparations were underway for the Jeita O&M training. It was agreed with BMLWE that two training session will be conducted in order not to disrupt the normal workflow of the stations. Five operators attended the first training session held on July 25 and 26, 2013. The second session with the remaining four operators was held on August 1 and 2, 2013. Certificates of attendance were distributed in a separate ceremony.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	(FY)	Y-2 (FY'11)					Y-3 (FY'12)					Y-4 (FY'13)											
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4										
		S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J
5.2	Rehabilitating the Jeita Pump Station																							
	Activity introduced																							
	Investigation, Survey and data gathering		■	■	■	■	■																	
	Bidding documents and specifications			■	■	■	■	■	■															
	Procurement and orders placed					■	■	■	■	■														
	Manufacturing and delivery of pumps									■	■	■	■											
	Procurement, manufacturing and delivery of valves									■	■	■	■											
	Procurement, manufacturing and delivery of electrical panels									■	■	■	■											
	Procurement, manufacturing and delivery of fittings									■	■	■	■											
	Oversight on installation (by BMLWE), training on O&M of equipment													■	■	■	■	■	■	■	■	■	■	■
	Additional O&M training for PS operators																							■

Legend
 Time frame as planned

Component 6: Small- to Medium-Scale Infrastructure Water and Wastewater Projects

There are no component six activities with BMLWE in the year-four work plan.

Component 7: Corporate Culture, Customer Service Orientation, and Public Outreach

Work Plan Activity

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
7.6	Consumer-Targeted Awareness Programs			
7.6.3	Outreach material promoting public awareness and education on water conservation	- LWWSS (NB) - Local subcontractor (Byblos Printing)	- Activity completed	March, 2013

NB- Nathalie Bavitch

Activity 7.6 - Outreach material promoting public awareness and education on water conservation

This activity continued to promote public awareness on water conservation and water use efficiency to help decrease overuse and thereby enable more people to have access to water supply at home. The activity includes developing, printing and distributing water conservation education forms to water subscribers WE-wide.

This activity was completed in March 2013.

3. North Lebanon Water Establishment (NLWE)

Component 2: Capacity Building for Managerial, Technical and Operational Efficiency

Work Plan Activity

Item	Activity Description	Program Resource	Outcome by End of	Target Date
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		Program Resource	Year Four	
2.3	Build Pump Stations Operators Capacity in Operation and Maintenance			
2.3.2	Pump station operators advanced training in O&M	- DAI (MK) - KREDO	- Activity started	Dec, 2012

MK-May Koleilat

Activity 2.3 – Building Operators’ Capacity in Operation and Maintenance of Pump Station Equipment

This activity is a follow-on to the Year Two activity that resulted in improved skills and processes for pump station staff in operating and maintaining pump station plant and equipment, as well as improved health and safety practices. This training will result in fewer site accidents and equipment breakdown, a decrease in operating and repair costs for NLWE, as well as improved efficiency for pumping and energy consumption.

This activity was completed in November 2012.

Component 3: Increase Financial and Commercial Viability of Water Establishments

Work Plan Activities

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
3.1	Upgrade Finance and Accounting Standards and Methods			
3.1.2	Training in Public Accounting, Finance, Procurement, Auditing	EMC (MC)*, LWWSS (MK)	Training completed Follow-up in place	April, 2013
3.1.6	Develop procedures and a standard manual for internal audit within the WE, and conduct applied training to key departments.	EMC (MC), ABA	Procedures defined, manual produced, training conducted.	September, 2013

MC-Mike Chalah; MK-May Koleilat; ABA-Allied Business Advisors

3.1.2 - Training in Public Accounting, Finance, Procurement, Auditing

The purpose of this sub-activity is to build the capacity of the WE staff to fully adopt accrual accounting standards while meeting the government of Lebanon’s requirements and regulations. This will potentially double the efficiency of NLWE’s existing accounting systems (PIMS) by linking the accrual based accounting methods to the cash accounting methods within the PIMS system, reducing data entry time by half, minimizing human error, and increasing accuracy and flexibility within the system.

This activity was completed in April 2013.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY'12)								Y-4 (FY'13)															
		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4							
		S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
3.1.2	Training in Public Accounting, Finance, Procurement, Auditing																								
	Activity introduced																								
	Staff interviews, training needs assessment																								
	Training in Public Accounting, Finance, Procurement, Auditing																								
	Define cost centers, create/update chart of accounts, and procedures																								
	Develop RFP and procedures for asset and inventory identification and valuation																								

Legend

- Time frame as planned
- Time frame indicated in Year Four Workplan
- Time frame detailed in Q2 report

3.1.6 - Develop procedures and a standard manual for internal audit within the WE, and conduct applied training to key departments

This activity will substantially enhance capacity within the WE to control the establishment's financial and administrative processes, identify and reduce inefficiencies, increase accountability within it, provide the WE senior management as well as the GOL's auditor's with feedback on WE performance.

In July, the LWWSS' program Finance Specialist Mr Chalah and the LWWSS' program subcontractor ABA finalized the draft internal audit manual, including the following sections:

1. Introduction and Departmental level mission statement
2. Internal Audit Agreement
3. Ethics
4. Team Training
5. Financial Management and Internal Controls
6. Strategy and Planning
7. Methodology
8. Quality Control
9. Policies and Procedures

In addition, applications forms including processes were developed by ABA and reviewed by the LWWSS financial specialist.

In August, the LWWSS financial specialist and the LWWSS' program subcontractor ABA prepared the Internal Audit Training content and implemented the training on August 29, 2013. The training was attended by 7 employees from the financial department at NLWE.

The training introduced the participants to policies and procedures for internal financial audit, and enhanced their skills in using the internal audit reports in the development of the internal control systems.

It aimed to:

- Improve participant's knowledge of the NLWE Internal Audit;
- Introduce participants to the importance of the Internal Audit objectives;
- Explain all stages of the policies and procedures of the Internal Audit;
- Enhance the skills of participants in budget and closing working documents;
- Enhance the skills of participants in income statement working documents;
- Enhance the skills of participants in Balance Sheet working documents

In addition to the Internal Audit Training implemented end of August, the Internal Audit manual was finalized based on participants' comments and delivered to the NLWE in September. The NLWE financial department will start using the internal audit manual gradually during Year Five. As such, the LWWSS team will be providing support during all phases of the implementation in addition to providing the relevant departments additional forms and templates. Implementation is expected to start at the end of the second quarter.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY12)				Y-4 (FY13)							
		Q1		Q2		Q3		Q4					
		O	N	D	J	F	M	A	M	J	J	A	S
3.1.6	Develop procedures and a standard manual for internal audit												
	Activity introduced												
	Review NLWE requirements and define key best practices												
	Draft audit manual, review and issue to NLWE												
	Conduct training, incorporate any revisions, and issue final copy												

Legend

- Time frame as planned
- Time frame detailed in Q4 report

Component 4: Capital Investment Planning and Program/Project Management

There are no component four activities with the NLWE in the Year Four work plan.

Component 5: Procurement of Technical Equipment to Strengthen WEs

Work Plan Activities

Item	Activity Description	Program Resource	Deliverable by End of Year Four	Target Date
5.2	Upgrading Pumping and Energy Efficiency			
5.2.3	Test and design the replacement nine submersible pumps and associated works	- CDM (BG, GT) -Local subcontractor (TBD)	Tests completed and design produced	June, 2013
5.2.4	Supply and install the replacement nine submersible pumps and associated works	- CDM (BG, GT, EH) - Local subcontractor (TBD)	Procurement stage; contract placed	September, 2013
5.2.5	Establish service agreements, and conduct user training programs for the above activities	- CDM (BG, GT, EH) -Local subcontractor (TBD)		September 2014
5.3	Increasing Supply Hours to Areas Facing Supply Shortage			
5.3.1	Supply and install up to 9 back-up generators for key NLWE stations	- CDM (BG, GT) -Local subcontractor (ELARD)	- Manufacturing and shipping done; - Installation substantially complete	September, 2013
5.3.2	Establish service agreements and conduct user training program for these generators	- CDM (BG, GT), DAI (MK) - Local subcontractor (ELARD)	- Activity commenced	September, 2013

BG-Bassem Ghayda; GT-Gulnard Ters; MK-May Koleilat

Activity 5.2 - Upgrading Pumping and Energy Efficiency

This activity will include a supply of submersible pumps, power management panels, protection, power cables, gauges and sensors, as well as necessary electrical, mechanical and safety protection installations.

As per the Year Four work plan, the LWWSS program will be installing nine pumps in the following stations:

- a- Department of Tripoli:
 - Abou Halqa spring Pumping Station (one pump)
 - Manar tank Pumping Station (one pump)
- b- Department of Qobayyat:
 - Kfartoun Pumping Station (one pump)
- c- Department of Batroun:
 - Kfarhelda - Der Bella Pumping station (one pump)
 - Kfarhelda - Mar Yaacoub Pumping Station (one pump)
- d- Department of Halba:
 - Al Ouyoun Pumping Station (four pumps)

ELARD's assessment of the Al Ouyoun wells, which started in late January, was completed in July 2013, instead of the planned deadline of March 2013, due to:

- The prevailing security situation in the North and restricted access to the sites;
- The change in the period of the subcontract by three additional weeks, in May 2013, to include additional pump and aquifer tests, based on the findings of the CCTV survey and testing performed at wells N1 and O3. This test information would allow determining optimum yields for each well with interference from all wells pumping in the well field.

In August, the report was reviewed and the subcontractor resubmitted a final version on August 27 based on the comments provided by the LWWSS engineers.

The report concluded that two out of the four assessed wells were inadequate for pumping water, because their optimum yield is at or close to zero. The report also recommended the two other wells recommended pumping rate, pump setting elevation, and water surface drawdown elevation.

A letter was prepared by the LWWSS Program and sent to the NLWE DG on September 19, to share the assessment results and recommendation to supply seven instead of the originally proposed nine pumps. Furthermore, the LWWSS Project Engineer met with the NLWE Chief of Exploitation, Mr Gaby Nasr, on September 24, to discuss the pump replacement activity updates and the assessment results. Further to the meeting, the NLWE responded with a letter requesting that the 2 pumps which will not be installed be provided as spare inventory. LWWSS was agreeable to this request as it is technically viable and the budget is accounted for.

Accordingly, the LWWSS Program will be preparing the Scope of Work, Specifications, Drawings and Bill of Quantities in order to launch the procurement process which is expected to start in the first quarter of Year Five.

Timeline

- Koura Department - Bqerqacha pump station: Genset 400 KVA
- Koura Department - Bechmezzine pump station: Genset 200 KVA

Furthermore, testing and commissioning was implemented for the following stations generator sets:

- Koura Department –Nakhle pump station: Sept 13, 2013
- Koura Department –Bqerqacha pump station: Sept 13, 2013
- Tripoli Department- Airouniyeh pump station: Sept 18, 2013
- Koura Department –Bechmezzine pump station: Sept 26, 2013
- Tripoli Department- Hab water treatment plant: Sept 27, 2013

A meeting was held on September 24 between the LWWSS engineers and the technical department at NLWE, whereby the NLWE were informed of the testing and a schedule was agreed upon for the remainder of the sites to be commissioned by end of October 2013.

A letter will be sent early October to the NLWE DG in order to coordinate handover of the gensets. Furthermore, a training on Operations and Maintenance is planned for the operators of the pump stations, and expected to be held during the first quarter of Year Five.



Genset at Hab



Genset at Beshemzzine



LWWSS Engineer and Edan Group during testing



Electrical box

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-2 (FY'11)		Y-3 (FY'12)				Y-4 (FY'13)				Y-5 (FY'14)				Y-6									
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3							
		M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
5.3	Increasing Supply Hours to Areas Facing Supply Shortage																								
	Activity introduced																								
	Survey and data gathering																								
	Bidding documents and specifications																								
	Procurement																								
	Activity rescheduled based on findings regarding NLWE's data quality																								
	Complete assessment and design for generators																								
	Confirm costing and start procurement process																								
	Place procurement orders for manufacturing and installation																								
	Implementation: supply/installation of generators and training operators																								
	Servicing and warranties																								

Legend
 Time frame as planned
 Time frame indicated in Year Four Workplan
 Time frame detailed in Q4 report

Component 6: Small- to Medium-Scale Infrastructure Work

Work Plan Activities

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
6.2	Expanding Service Provision to Non-Served Areas			
6.2.1	Beit Mellat, Akkar, North Lebanon: Design metered house connections to up to 12 villages	LWWSS (WA) Local Engineering Firm (Kerdo)	- Design completed	October, 2013
6.2.2	Beit Mellat, Akkar, North Lebanon: Implement house connections to up to 12 villages	Local Engineering Firm (Kredo) Local subcontractor (TBD)	- Procurement completed; Subcontractor appointed	January, 2014

WA- Walid AbouZeid-Infrastructure PM

Activity 6.2 - Rehabilitation and construction of a water supply network in Beit Mellat region, Akkar, for the NLWE.

This activity will connect households to enhanced water supply, leverage substantial existing investments and commitments from NLWE, and demonstrably improve service coverage in some areas of Akkar.

The activity experienced delays by KREDO in submitting the Final Investigation and Preliminary Design Reports. The investigation activities were interrupted by the adverse security situation, materializing in closing the road north of Tripoli for many days (detailed in Annex 6 of the Investigation report submitted on August 22, 2013).

On July 25, the LWWSS program engineering team and KREDO carried out a site visit to Bebnine to inspect the work of the consultant and to urge him to accelerate the investigation in order to adhere to the agreed time schedule. While there, they also paid a courtesy visit to the mayor.

Additional field work was required by the consultant KREDO in order to present satisfactory investigation and design reports. In fact, based on LWWSS' team recommendations a more thorough field investigation of the existing network was required. For instance, the inspected number of manholes (36) was not found to be representative of the anticipated 204 manholes. As a consequence, 45 additional buried manholes were uncovered and inspected by KREDO's team between June and August 2013. In addition, the LWWSS team advised KREDO to investigate more thoroughly the buried water lines. Finally, KREDO reported in their August progress report a delay of around 18 days due to the unstable security situation in the region which disrupted field work.

KREDO had submitted a draft investigation report in June 2013 and after receiving LWWSS engineering team comments submitted a revised version on August 2, 2013 together with a draft preliminary design report, and then a final investigation report on August 22, 2013. On August 19, a meeting was held with KREDO to discuss their second submission. During the meeting, it was agreed to set a joint meeting with NLWE on August 22 in the presence of the new LWWSS COP in order to discuss KREDO's findings. The meeting was postponed due to a security incident which occurred in Tripoli one day before.

The meeting was instead held on September 12 at the NLWE offices in the presence of the DG Mr. Jamal Krayem and his technical staff, KREDO, and the LWWSS Program Engineering team. The aim of the meeting was to present and discuss the reports, which included a preliminary cost estimate of the required works especially that the said estimate exceeded the foreseen budget of 3.17 M\$. Further to the discussion, it was agreed that the Tender Documents, which will be prepared by KREDO, will include one mandatory part and two optional parts, as follows:

- The mandatory part which covers the rehabilitation of the existing 26 Km network together with the extension network of 27 Km (about 85% of Bebnine), which includes the supply and installation of the water meter boxes.
- The first optional part will cover the remaining 15% of the network.
- The second optional part will cover the supply to NLWE of 4500 water meters with their accessories to be installed by NLWE in the future upon subscription of the consumers..

Accordingly, KREDO finalized the Preliminary Design Report and submitted it on September 30, 2013. The report will be reviewed by the LWWSS Program Engineering team. The design period will extend into Year Five until October 2013.

One of the main challenges of this activity remains the delay in getting NLWE feedback and sign off in all stages of the website development, which has caused a delay in finalizing the activity.

In September, and as no official sign off on the website was received from the NLWE DG, a meeting was held in order to request sign off. During the meeting, the NLWE DG informed the LWWSS team that a committee will be formed in order to conduct a final review of the website content. The DG also requested the LWWSS Program assistance in the translation of the NLWE regulations, to be added to the website before its launch. Accordingly, the LWWSS team assisted in translating the NLWE internal and financial regulations to English, and sent the text to the NLWE Communications Department on September 24. It is expected that the sign off and go-live of the website will be completed in the early part of Year Five.

One of the main challenges of this activity remains the delay in getting NLWE feedback and sign off in all stages of the website development, which has caused a delay in finalizing the activity.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY'12)				Y-4 (FY'13)														
		Q3		Q4		Q1		Q2		Q3		Q4		Q1						
		M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N
7.3	Designing and Implementing WE Corporate Website																			
	Activity introduced																			
	Website design and implementation																			
	Prepare for website activity launch																			
	Appoint website design supplier																			
	Implement website and go live																			

Legend

-  Time frame as planned
-  Time frame indicated in Year Four Workplan
-  Time frame detailed in Q3 report
-  Time frame detailed in Q4 report

Activity 7.6 - Outreach material promoting public awareness and education on water conservation

This activity continued to promote public awareness on water conservation and water use efficiency to help decrease overuse and thereby enable more people to have access to water supply at home. The activity includes developing, printing and distributing water conservation education forms to water subscribers WE-wide.

This activity was completed in March 2013.

4. South Lebanon Water Establishment (SLWE)

Component 2: Capacity Building for Managerial, Technical and Operational Efficiency

Work Plan Activities

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
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2.1	Establishing and Building the Capacity of Metering Teams			
2.1.1	Assist in identifying metering teams and assess training needs	- CDM (BG, GT, IN) - DAI (MK) - ValuAdd	- Activity conducted	September, 2013
2.1.2	Provide management team and field team training on metering	- CDM (BG, GT, IN) - DAI (MK)	- Activity conducted	September, 2013
2.1.3	Provide technical assistance (studies, training, study tours) and/or technological tools for water demand management	- DAI (TBD) - ValuAdd	- Activity conducted	September, 2013
2.3	Build Pump Stations Operators Capacity in Operation and Maintenance			
2.3.1	Pump station operators basic O&M and H&S training	- DAI (MK) - Kreda	- Activity conducted	September, 2013

BG-Bassem Ghayda; GT-Gulnard Ters; IN – Ihab Nasr; MK-May Koleilat

Activity 2.1 – Establishing and Building the Capacity of Metering Teams

This activity yields tremendous benefit to SLWE, and advances its capacity to monitor water production per site, and establish a culture of water demand management within the WE, which enables the WE to better control operating costs, manage water production, decrease losses, and advance towards achieving water balance.

As per the Year Four work plan, the source metering installation activity will include training on water meter operation and maintenance for the pump station personnel to maximize the impact of this activity. This activity was planned to commence when field progress has been achieved on the source metering procurement activity (activity 5.1). This activity is a follow on to the source metering installation activity.

In August, a meeting was held between the LWWSS training specialist and the subcontractor Modon Group at their office in Saida to discuss training preparations. It was agreed that after obtaining the training agenda, the LWWSS team will coordinate with SLWE to agree on final dates accordingly and obtain a list of nominated participants. Modon Group prepared the training material and shared with LWWSS in September.

In September, the SLWE sent the final list of participants to the metering training. Also, Modon Group finalized the training material and agenda. Consequently, the three planned training sessions were held between September 23 and 25. The 3 days training consisted of six consecutive sessions conducted at the SLWE branches: Saida, Jezzine, Marjeyoun-Habaya, Al Nabatieh, Al Zahrani, Tyr, and Bent Jbeil. The training aimed to build the capacity of a metering team consisting of 82 operators from 48 pump stations in Mechanical Flow Meter, Solar ultrasonic Flow meter, and Pressure gauge reading and record keeping procedures.



In class training



Flow meters



Practical training on meter reading



Practical training on meter reading

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	(FY	Y-3 (FY'12)				Y-4 (FY'13)							
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
		A	S	O	N	D	J	F	M	A	M	J	J	A
2.1	Establishing and Building the Capacity of Metering Teams													
	Activity introduced*													
	Assist in identifying metering teams and assess training needs													
	Provide management and field team with training on metering													
	Propose provision of tools for demand management													

Legend

Time frame as planned

Activity 2.3 – Capacity Building in Operation and Maintenance of Pump Stations

This activity will result in improved skills and practice for the pump station operation staff in SLWE, as well as improved health and safety practices.

As per the Year Four work plan, a capacity building of pump station operators in the areas of operation, maintenance, health and safety was planned. The proposed training course was prepared in a template format by the LWWSS engineering training team. It was ready for customization to meet the need of SLWE. It consists of three to five days of in-class and on-site training, covering all the basic aspects of operating and maintaining a pump station, including:

- Operating the mechanical and electrical equipment;
- Cleaning and maintaining the equipment;
- Electrical, hydraulic and chemical health and safety procedures;
- Facility management basics;
- Chlorinator reading and operating basics;
- First aid.

In July, several visits were conducted by KREDO and the LWWSS Capacity Building Specialist, in order to collect information about the pumps in preparation of the training content and material, as well as to select training venues.

In August, the SLWE sent the final list nominating 60 attendees to the training. Due to the large number of trainees, four Operation and Maintenance training sessions had to be planned with around 15 participants per class. As such, the four-day sessions conducted at a rate of two days per week started in August. The first session was conducted on August 20, 22, 27, and 29, 2013 with 16 attending participants.

In September, the second and third session were conducted on September 3, 5, 10, 12, and 17, 19, 24, 26, 2013, attended by respectively 13 and 12 participants. One remaining session will be completed in October, 2013.





Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	(FY	Y-4 (FY'13)					
		Q4	Q1	Q2	Q3	Q4		
		A S	O N	D J	F M	A M	J J	A S
2.3	Capacity Building in O&M of Pump Stations							
	Activity introduced	■						
	Staff interviews			■	■			
	Course preparation			■	■	■		
	Conduct training			■	■	■	■	
	Evaluation and follow-up						■	■

Legend

- Time frame as planned
- Time frame detailed in Q2 report

Component 3: Increase Financial and Commercial Viability of Water Establishments

Work Plan Activities

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
3.1	Upgrade Finance and Accounting Standards and Methods			
3.1.1	Build the WE capacity in consolidating and issuing end of year reports	EMC (MC), ABA	- Activity completed	May, 2014
3.1.2	Training in Public Accounting, Finance, Procurement, Auditing as needed	EMC (MC), ABA	- Activity completed	February, 2015
3.1.3	Define cost centers, update chart of accounts, and accounting coding procedures	EMC (MC), ABA	- Activity completed	December, 2013
3.1.4	Update procedures for asset and inventory identification, coding and valuation	EMC (MC), ABA	- Activity completed	December, 2013
3.1.5	Develop procedures and a standard manual for yearly budgeting within the WE, and conduct applied training to key departments.	EMC (MC), ABA	- Activity completed	February, 2015
3.2	Integrate the WEs Financial, Accounting, Customer Service and Business Process Systems			
3.2.1	Conduct business process mapping	EMC (MC), ABA, TBD	- Activity completed	December, 2013
3.2.2	Implement software platform including Finance and Accounting System and Customer Relationship Management solution	EMC (MC), ABA, TBD	- Activity completed	March, 2014
3.2.3	Implement intranet system enabling web-browser based e-training, communication and business process tools	EMC (MC), ABA, TBD	- Activity completed	March, 2014
3.2.4	Conduct training, assist in transition phase and provide one/two year on-site support	EMC (MC), ABA, TBD	- Activity completed	February, 2015

MC-Mike Chalah

Activity 3.2 - Integrating the WE's Financial, Accounting, Customer Service and Business Process Systems: The Enterprise Resource Planning (ERP) Platform

This activity will provide the SLWE with a centralized management information system that connects to all branches and handles all financial, administrative and customer-related processes, using a robust IT infrastructure with a well-trained team of employees. This will result in a substantial increase in the efficiency of conducting business by the WE in terms of financial performance and control, compliance, HR systems and processes, customer service and organizational collaboration.

The implementation of this activity will be done through a local subcontractor implementing a comprehensive Microsoft solution (Navision, CRM, Sharepoint). The system will be operational and training completed by March 2014, with ongoing training, transition, financial reports production and support expected to last through February 2015.

The implementation of the ERP in SLWE will include the following modules: Finance, Purchasing/Inventory, Human Resources and Payroll, Billing and Collection, CRM, and Documentation and Registration.

The services also include software updates, as well as full on-site and off-site service support for a period of one year. This activity is of primary importance to SLWE, and is included as a prerequisite for other high level reforms and initiatives within the WE’s business plan.

The consultant ABA finalized the review of the RFP for procurement of the program by end of September 2013. Accordingly, the LWSS Program will launch the procurement process for the supply, development and implementation of the Enterprise Resources Planning for the SLWE in early October 2013.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	(FY	Y-4 (FY13)					Y-5 (FY14)					Y-			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
		A S	O N	D J	F M	A M	J J	A S	O N	D J	F M	A M	J J	A S	O N	D J
3.2	The Enterprise Resource Planning (ERP) Platform															
	Activity introduced															
	Procurement of subcontractor															
	Initial assessment															
	Implementing accounting prerequisites															
	Implementing prerequisite training (finance, accounting, etc)															
	Pilot processes applied and tested															
	IT infrastructure survey															
	Procurement of IT infrastructure															
	Process mapping completed, software specifications drafted															
	Procurement of software design and implementation															
	System implementation, adoption, user training, and migration															
	Provide on site support for a period of 12 months															

Legend
 Time frame as planned

Component 4: Capital Investment Planning and Program/Project Management

Work Plan Activities

Item	Activity Description	Program Resource	Deliverable by End of Year Four	Timeframe
4.2	Implement Asset Survey, Inventory and Valuation			
4.2.4	GIS training for pump-station managers/operators	- EMC (MC), DAI (MK) - Cadres	- Activity completed	September, 2013

MC-Mike Chalah; MK-May Koleilat

Activity 4.2 - Implementing Asset Inventory and Valuation

This activity involved implementing a comprehensive survey of the SLWE stations to create an asset listing and valuation, as well as identify the status and specifications of existing equipment. Its main objectives are to organize and integrate the data collected into GIS, to develop customized tools to manage and maintain these data in a systematic and user-friendly interface, and to provide users with a basic training on GIS. Following the tools development and installation at the SLWE, it was decided that

training in GIS application for personnel from the seven SLWE branches is needed to ensure sustainability of the data and keep it up to date.

After the implementation of the software at SLWE branches and starting the training, SLWE requested an enhancement feature to be added to the software, which is not in the original SOW. This entailed including a history log that will capture the history of every change made in the system, giving the possibility to review old and new values, date of change, and which user made the change. A meeting was held to discuss this on the 31 July with Mr. Ramzi Ramadan, Head of Projects and Studies Department at the SLWE office in Saida, in the presence of the consultant Mr. Wassim Katerji and the LWWSS personnel. The following was agreed upon:

- The implementation of the requested additional function will be postponed to the next fiscal year, allowing for a period of at least six month to pass, then assessing the readiness of the users in the branches before determining whether to implement it or not;
- In the meantime, any editing or input of new data will be restricted to the main office in Saida, and a read-only version will be installed in the branches; this will avoid errors by the new users;
- Trainings for the two remaining branches will be implemented on August 2nd and 3rd for Bent Jbeil and Marjeayoun, Hasbaya respectively.

Also during the visit, the latest GIS version was uploaded in the Studies Department and in the Saida branch.

Following the meeting with Mr Ramzi Ramadan, the consultant Mr. Katerji installed the Data and GIS tools updated version in the remaining two branches, Bent Jbeil and Marjeayoun, and trained a total of 7 of their staff on August 2 and 3, 2013. Mr. Katerji will submit the activity report in early October.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	3 (FY12)		Y-4 (FY'13)												
		Q4		Q1	Q2	Q3	Q4									
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
4.2	Implementing Asset Inventory and Valuation															
	Activity introduced															
	Data migration from Access to arcGIS															
	Tools development and deployment in main branch															
	Deployment and training for pump station managers/ operators in the 7 branches															
	Go-live and post-installation support															

Legend

-  Time frame as planned
-  Time frame detailed in Q2 report
-  Time frame detailed in Q3 report
-  Time frame detailed in Q4 report

Component 5: Procurement of Technical Equipment to Strengthen WEs

Work Plan Activities

Item	Activity Description	Program Resource	Deliverable by End of Year Four	Target Date
5.1	Identifying Water Production and Contributing to Water Demand Management			

5.1.1	Supply and install up to 218 production meters, fittings and protection box/manhole (all non-metered sources in WE)	- CDM (BG, GT) - Modon Group	- Activity substantially complete	September, 2013
5.1.2	Establish service agreements, conduct training and complete meter reading	- CDM (BG, GT) - Modon Group	- Activity started	September, 2013
5.4	Upgrading Water Analysis Laboratories			
5.4.3	Supply the lab with consumables	- DAI (EH), Numelab, Multilab	- Activity completed	April, 2013
5.4.4	Conduct user training program on the atomic absorption instrument	- DAI (MK)	- Activity completed	September, 2013
5.6	Increase IT Infrastructure Efficiency			
5.6.2	Upgrade server installation and power supply infrastructure at head office and selected branches	-Local subcontractor (EDM)	- Activity completed	September, 2013

BG-Bassem Ghayda; GT-Gulnard Ters; IN – Ihab Nasr

Activity 5.1 - Identifying Water Production

This activity will enable the water establishment to obtain highly accurate information on water production throughout the SLWE territory. The information will serve the SLWE by providing increased accuracy on actual drinking water provision patterns, service areas and flows. It will enable the WE management to better design and manage water supply throughout the regions, arrange for remedies, and plan for long-term projects.

In July, the protective concrete manholes were completed at all sites, and the subcontractor Modon continued installation of flow meters with related valves and fittings at the following sites:

- Bent Jbeil department
- Sour department
- Nabatiyeh department
- Zahrany department

In August, the subcontractor Modon Group continued installation of flow meters with related valves and fittings at the following sites:

- Saida department
- Jezzine department
- Hasbaya- Marjeayoun department

The LWWSS program engineers carried on with their site inspections, as well as their weekly coordination meetings with the SLWE DG and Head of Departments. In addition, the source metering reading template was submitted by Modon Group, and the as built drawings submission is ongoing.

In September, the LWWSS Program subcontractor finished installation of flow meters at the SLWE sources, with supervision by the LWWSS Program Engineers. The LWWSS Program Engineers are in the process inspecting each installation, and summarizing results to be reported in October 2013.

The activity continues post-installation and includes a year-long meter reading service and on-the-job training by the supplier, in addition to warranty and service of supplied equipment. A follow-up for this activity continues under activity 2.1, above. It is estimated that the maintenance, warranty, and meter reading for a period of one year per completed site will extend until September 2014.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-1 (FY10)				Y-2 (FY11)				Y-3 (FY12)				Y-4 (FY13)													
		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4									
		J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
5.1 Identifying Water Production																											
Activity introduced																											
Specification Stage																											
Bidding documents consolidated																											
Procurement started																											
Complete specifications; Start procurement																											
Place subcontract for supply and installation																											
Place orders; Start installation on site																											
Conduct meter reading																											

Legend

-  Time frame as planned
-  Time frame detailed in Q4 report

Activity 5.4 – Upgrading Water Analysis Laboratories

This activity answers an urgent need of the WE and contributes to informing the WE about the health risks generated by poor water quality in SLWE. The impacts will include better capacity for the WE to conduct sampling and testing, reporting it regularly to the WE management, the MOEW and other parties (municipalities, ministry of public health, donors). Most importantly, it will enable the WE to have regular systems and processes (including software) that allow it to understand and eventually improve delivered water quality, and to reach out to the population transparently about the water quality testing results. The service period for the laboratory equipment began in April 2012 and continued through March 2013.

During August and September, the Head of the SLWE laboratory Mrs. Chidiac was still implementing the water analysis tests on the Atomic Absorption instrument, and collecting data in order to identify specific needs for training. These needs will be shared with the LWWSS program in view of preparing a training plan for the SLWE Lab personnel on the AA instrument.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-4 (FY13)								Y-5 (FY14)																
		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4										
		O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
5.4 Upgrading Water Analysis Laboratories																										
Activity introduced																										
Finalize procurement and award contract to supply lab consumables																										
Deliver lab consumables																										
Conduct testing on the atomic absorption instrument																										

Legend

-  Time frame as planned
-  Time frame detailed in Q2 report
-  Time frame detailed in Q3 report
-  Time frame detailed in Q4 report

Activity 5.6 – Increasing Information Systems Infrastructure Efficiency

This activity will expand processing capacity, to meet the need of the ongoing upgrades of the JD-Edwards software. Enhanced IT equipment will also empower the newly recruited teams within the WE to maximize their efficiency, process tasks faster, with fewer errors or failures. This will result in better

Component 7: Corporate Culture, Customer Service Orientation, and Public Outreach

Work Plan Activity

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
7.6	Consumer-Targeted Awareness Programs			
7.6.3	Outreach material promoting public awareness and education on water conservation	- LWWSS (NB) - Local subcontractor (Byblos Printing)	- Activity completed	March, 2013

NB- Nathalie Bavitch

Activity 7.6 - Outreach material promoting public awareness and education on water conservation

This activity continued to promote public awareness on water conservation and water use efficiency to help decrease overuse and thereby enable more people to have access to water supply at home. The activity includes developing, printing and distributing water conservation education forms to water subscribers WE-wide.

This activity was completed in March 2013.

5. Study Tours and Conferences

The study tour was completed in May 2013. The LWWSS Capacity Building Specialist is following up with the WEs' regarding their feedback on their participation in the study tour and the preparation of the tour report.

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
4.3	Build Decision-Makers' Managerial Capacity in Water Utility Management			
4.3.1	Water utility management: conferences, workshops, specialist training and study tours	LWWSS (MK)	- Activities planned and undertaken	September, 2013

MK – May Koleilat

D. COLLABORATION WITH DONORS AND GOL OFFICIALS

Donor coordination is an essential part of LWWSS project planning and execution in order to (1) avoid unnecessary duplication, (2) identify specific areas of coordination and (3) identify areas where LWWSS can collaborate with other donors on specific projects or programs. The list of meetings and special events with the GOL and other donors below provides a clear picture of this important program activity.

Meeting with Donor, GOL Official, or Special Event	Date	Attendees	Brief Synopsis of Meeting
US AID Mission	July 18, 2013	All COPs and DCOPs	Discussion on assistance to host communities
SLWE	Aug. 23, 2013	Sam Coxson, Bill Parente, Rana Maalouf, Bassam Jaber, Ahmad Nizam	Meeting in Ahmad Nizam office and introduction of Bill Parente, LWWSS new COP.
COR meeting in DAI Office	Aug. 26, 2013	Sam Coxson, Bill Parente, Sana Saliba, Rana Maalouf and Nathalie Bavitch	Project progress meeting; introduction of the new COP
BWE	Aug. 27, 2013	Maroun Msallem, Bill Parente, Sam Coxson, Bassam Jaber	Meeting in Maroun Msallem's office and introduction of Bill Parente, LWWSS new COP; Site visit on construction sites, Luncheon to honor Sam Coxson's service to the WE
BMLWE	Aug. 28, 2013	Josef Nseir, Ghada Rida, Amar Zgheib, Sam Coxson, Bill Parente, Bassem Ghayda, Bassam Jaber, Rana Maalouf, Nathalie Bavitch	Walk through inspection of Jeita Pump Station and discussion of follow on capital improvements
GIZ	Sept. 4, 2013	Manfred Scheu, Amal Chammas, Younes Hasib, Imad Khazen, Mitri Jreiche, Rana Maalouf, Bassam Jaber, Bill Parente	Introductory meeting and briefing on status of GIZ program, update from LWWSS to GIZ.

European Union	Sept. 5, 2013	Rana Maalouf, Bassam Jaber, Nathalie Bavitch, Bill Parente, and many reps from various agencies.	34th Water Coordination Meeting for donor agencies and projects, chaired by Manfred Scheu of GIZ.
WISE AE Project	Sept. 6, 2013	Brent Hauser, Bill Parente	Introduction meeting for new LWWSS COP to become familiar with CDM's AE oversight program for WISE.
Bekaa Water Establishment	Sept. 17, 2013	Bill Parente, Rana Maalouf, Nathalie Bavitch, Maroun Moussallem, and numerous NGO and agency reps.	To discuss the impact of Syrian refugees on host communities in Bekaa Region, and possible interventions. Next meeting Oct. 22
USAID/Lebanon	Sept. 24, 2013	Sana Saliba, Rana Maalouf, Nathalie Bavitch, Bill Parente	Discussion of project issues.

E. CONTRACT DELIVERABLES

- The June monthly report and third quarter report were submitted to the COR in July 2013.
- The July monthly report was submitted to the COR in August 2013.
- The August monthly report and Year Five Annual Work plan were submitted to the COR for review in September 2013.

F. CHALLENGES, PROBLEMS, ISSUES

Resolved Challenge: Operation and Maintenance of the Chlorination Systems in the BWE

Following on the LWWSS assistance to the BWE in drafting a scope of work for the O&M services and the supply of consumable for the Chlorination Systems in November 2012, the BWE outsourced this activity beginning September 2013. As such, this will secure the continuous use and sustainability of this equipment.

Lack of WE staff availability

The lack in availability of staff has always been a challenge within most WEs. Across all its components, the LWWSS program is focusing on assisting the WEs with appropriate employee placement and establishing training programs. For example, in years Four and Five, the LWWSS program will assist BWE in allocating adequate roles and responsibilities of the 71 newly recruited staff and provide some of them with specialist training, to enable optimal use of resources.

Resolved Challenge: Enterprise Resource Planning (ERP) Risks in BMLWE

Work on this activity was completed in May 2013. The risk was ensuring the sustainability and usage of the system beyond our program. During this quarter, BMLWE was in the process of contracting a company to take over ongoing support and maintenance of the ERP after the installation and training by LWWSS. This shows that it is committed to maintaining and using the system in the future.

Access to work sites based on security situation

Another challenge is the security situation in many areas of the country including the North Governorate, Saida, and the Bekaa, which is restricting the movement and on-site work in some activities. Details about impact are reported under each individual activity.

G. STTA DURING QUARTER

During this quarter the following personnel worked on LWWSS as STTA.

Person and Subcontractor	Period of STTA	STTA Activity
Shannon Dugan, DAI	August 21-29	<ul style="list-style-type: none"> • Support COP during the transition period between the demobilization of the previous COP and the new COP. • Assist with Strategic and financial planning for the final contract year. • Assist with operational and management issues.
Ahmad Al Azzam, ABA	August 18 –	<ul style="list-style-type: none"> • Present the new design for

	September 3	<ul style="list-style-type: none"> Cost/Tariff Model with BMLWE. Present Budget Manual for BMLWE. Follow up FAS Implementation at BWE. Present Internal Audit Manual for NLWE.
John Crippen, Project Technical Engineer, CDM Smith	July 21-July 27	<ul style="list-style-type: none"> Technical supervision and quality monitoring of: <ul style="list-style-type: none"> <input type="checkbox"/> NLWE Pump Replacement & Well Investigation <input type="checkbox"/> SLWE Source Metering flow meter installations progress <input type="checkbox"/> NLWE Pump Station Generators project construction <input type="checkbox"/> South Lebanon Pump Station Rehabilitation construction progress
Raed Ghantous, Project Manager, CDM Smith	August 23—September 5, 2013	<ul style="list-style-type: none"> Meet and coordinate with SLWE and DAI pertaining to the upcoming construction activities of the rehabilitation work for the two major pump stations in the South of Lebanon (Ouadi Jilo and Batoulay). Monitoring and Technical guidance to implementation.

H. MAJOR ACTIVITIES PLANNED FOR NEXT QUARTER

Beka'a Water Establishment

- Preparation of Public Administration Training (Component 2)
- Preparation of Network Maintenance training (Component 2)
- Continuation of ERP support to BWE (Component 3)
- Water Supply and Sewerage Master Plan: Meeting with Kredo and Philip Giantris to assess the progress of Kredo (Component 4)
- Training by Multilab on equipment delivered to rehabilitated Zahle laboratory (Component 5)
- Continuation of the Zahle network rehabilitation works: Completion of the House Connections in the whole project area. (Component 6)

Beirut-Mt. Lebanon Water Establishment

- Support of Budget manual and Cost Tariff implementation (Component 3)
- ERP follow up of DG sign off (Component 3)
- Preparation of Jeita pump station O&M training certificate distribution ceremony (Component 5)

North Lebanon Water Establishment

- Follow up on Internal Audit Manual implementation and drafting training report (Component 3)
- Preparation of procurement for pump station rehabilitation (Component 5)

- Continuation of testing, commissioning, and handover of gensets (Component 5)
- Design and supervision of the rehabilitation of the water supply network in Beit Mellat: Submission by Kredo of the Detailed Design and the Tender Documents (Component 6)
- Sign off of NLWE website (Component 7)

South Lebanon Water Establishment

- Continuation of O&M pump station training sessions (Component 2)
- ERP activity launch of RFP (Component 3)
- GIS training report (Component 4)
- SLWE Lab water analysis tests and identification of needs (Component 5)
- Source meter reading support by subcontractor Modon (Component 5)
- Continuation of pump station rehabilitation work (Component 6)

I. ENVIRONMENTAL COMPLIANCE REPORTING

The LWWSS Project Environmental Mitigation and Monitoring Plan (EMMP) details the project environmental compliance requirements, as well as including a list of reports for submission to USAID. The primary environmental compliance reporting tool is the Quarterly Report.

The LWWSS EMMP notes that an initial screening form must be completed for each project activity. If the activity is determined to be in category 2, 3, or 4, then an environmental review and assessment checklist (ERAC) and an environmental mitigation and monitoring plan (EMMP) must be completed and approved by the LWWSS COTR.

Initial screening forms were completed for each activity (available in the files of the LWWSS Environmental Specialist), and it was determined that the activities under components 5 and 6 all require ERACs and EMMP. The first table below entitled “LWWSS Environmental Compliance Overview” summarizes the environmental compliance actions for each LWWSS activity. The second table below entitled “LWWSS Environmental Mitigation and Monitoring Actions” details environmental mitigation and monitoring actions for each activity that requires an ERAC and EMMP.

ANNEX 1: YEAR-FOUR PMP SUMMARY PERFORMANCE DATA TABLE

ANNEX 1: YEAR-FOUR PRELIMINARY PMP REPORT ENDING THE FOURTH QUARTER OF THE WORK PLAN YEAR

Progress towards achieving LWWSS program outcomes is measured in part through tracking of LWWSS's 8 performance indicators. The indicator targets are reported in the Performance Management Plan (PMP) at the beginning of each program year, while the actuals are reported twice throughout the year – interim figures are reported in the second quarter report and final figures are reported in the fourth quarter report. The cumulative figures – adding together the actuals from years one, two, three, and four – for each indicator are also included below in the right-hand column.

Indicator/Unit of Measure	Disaggregation	BL Year Value	2010 Target	2010 Actual	2011 Target	2011 Actual	2012 Target	2012 Actual	2013 Target	2013 Actual	2014 Target	2014 Actual	2015 Target	2015 Actual	Cumulative
1. Number of people receiving improved service quality from existing improved drinking water sources (F) ¹	Sex ²	0	Male 686,980 Female 715,275 Total- 1,402,000	Male 722,864 Female 752,369 Total- 1,475,233	Male 379,897 Female 395,403 Total- 775,300	Male 409,808 Female 426,535 Total- 836,343	Male 300,673 Female 312,946 Total- 613,619	Male 310,427 Female 323,098 Total- 633,525	Male 22,846 Female 23,779 Total- 46,625	Male 28,902 Female 30,082 Total- 58,984	Male 0 Female 0 Total- ³ 0		Male 10,134 Female 10,547 Total- 20,681		Male 1,472,001 Female 1,532,084 Total – 3,004,085
2. Percent of water revenues collected by targeted water entities	WE	59.1 %	60%	62.5%	63%	63%	64%	63.84 % ⁴	64%	⁵	65%		N/A	N/A	63.84%

¹ Indicators 1, 4, and 6: People benefiting from multiple activities are only counted once. Cumulative values are also shown in the further column to the right.

² The CIA Factbook lists the ratio of male to female population in Lebanon as 49% male and 51% female.

³ While there are several activities during year five of the program that will improve service quality, the beneficiaries of these activities will not be counted, as they were already counted during years two, three, and four of the LWWSS program. The new subscribers of the previous year will be counted in case they benefit from the activities counted. The targets after year 4 will be estimated yearly based on the year's projected new subscriptions.

⁴ This figure reports collection rates of the 4 WEs. However, the information for NLWE is estimated.

⁵ This number will not be available until Q2 of Y5, as the WE fiscal year ends on December 31.

Indicator/Unit of Measure	Disaggregation	BL Year Value	2010 Target	2010 Actual	2011 Target	2011 Actual	2012 Target	2012 Actual	2013 Target	2013 Actual	2014 Target	2014 Actual	2015 Target	2015 Actual	Cumulative
3. Number of training activities provided to staff from water entities as a result of USG assistance	WE	0	3	BML-1 SL-1 NL-1 B-0 Cross-WE-0 Total-3	6	BML-2 SL-1 NL-1 B-1 Cross-WE-1 Total-6	22	BML-8 SL-1 NL-1 B-11 Cross-WE-2 Total-23	12	BML-5 SL-3 N-2 B-3 Cross-WE-2 Total-15	10	BML- SL- NL- B- Cross-WE- Total-	1	BML- SL- NL- B- Cross-WE- Total-	BML-16 SL-6 NL-5 B-15 Cross-WE-5 Total-47
4. Number Staff from Water Entities Trained as a Result of UGG Assistance	Sex	0	M-25 F-10 Total – 35	M-2 F-4 Total – 6	M-51 F-24 Total – 75	M-91 F-15 Total – 106	M-66 F-34 Total – 100	M-84 F-48 Total – 132	M-38 F-21 Total – 59	M-160 F-31 Total – 191 ⁶	M-37 F-26 Total – 63		M-6 F-0 Total – 6		M-337 F-98 Total – 435
5. Number of management systems and plans used at water management entities as a result of USG assistance	WE	0	3	BML-3 SL-0 NL-0 B-0 Total-3	2	BML-1 SL-0 NL-0 B-2 Total-3	12	BML-5 SL-1 NL-1 B-7 Total-14	12	BML-2 SL-0 NL- B-4 Total-6	10	BML- SL- NL- B- Total-	N/A	N/A	BML-11 SL-1 NL-1 B-13 Total-26

⁶ This number represents the number of “new” participants as per the PIRS. The total number of training participants for Year Four is: 293 (M=235; F=58).

Indicator/Unit of Measure	Disaggregation	BL Year Value	2010 Target	2010 Actual	2011 Target	2011 Actual	2012 Target	2012 Actual	2013 Target	2013 Actual	2014 Target	2014 Actual	2015 Target	2015 Actual	Cumulative
6. Number of water users receiving guidance on efficient water use	Gender	0	M-1,300	0	M-1,300	M-81,570	M-70,453	M-70,455	M-1,250	M-1,210	N/A		N/A		M-152,025
			F-700		F-700	F-84,933	F-73,328	F-73,271	F-1,250	F-1,210					F-158,204
			Total 2,000		Total 2,000	Total-166,503	Total 143,781	Total 143,726	Total-2,500	Total-2,420					Total-310,229
7. Number of functioning water facilities constructed or rehabilitated with USG assistance	Water	W-0	W-0	W-0	W-1	W-1	W-10	W-18	W-180	W-236	W-10		W-3		W - 255
8. Number of USG Assisted Water Reports or Studies Proposing Legal, Policy, and Institutional Measures or Procedures	N/A	0	1	2	1	2	1	2	1	1	1		N/A		7