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Lebanon Water and Wastewater Sector Support

QUARTERLY REPORT: OCTOBER 2012 — DECEMBER 2012

January, 2013

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LEBANON WATER AND WASTEWATER SECTOR SUPPORT

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ACRONYMS

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

PSP	Private Sector Participation
PPM	Parts per million
PPP	Public Private Partnership
SCADA	System Control and Data Acquisition
SLWE	South Lebanon Water Establishment
SMP	Subcontractor Management Plan
SOW	Scope of Work
STTA	Short-Term Technical Assistance
TBC	To be confirmed
TOR	Terms of Reference
USAID	United States Agency for International Development
USG	United States Government
WE	Water Establishment
WET	World Engineering and Technology
WPS	Water Pumping Stations
WWTP	Wastewater Treatment Plant

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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 two years of the program, LWWSS has focused on implementing its Year-Three 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 October 2012 – December 2012 and provides quarterly highlights, component updates that provide technical perspective, and then details progress of project activities broken down by each Water Establishment and then 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.

B. QUARTERLY ACTIVITY HIGHLIGHTS

Source Metering Work in South Lebanon



LWWSS engineer Gulnard Ters with SLWE personnel conducting initial surveying work during year 2



Manhole construction at Wady Khansa – October 2012



Manhole construction at Ain Aarab – October 2012

Metering source production is an essential part of non-revenue water management and reduction. It is the foundation for knowing the current performance of the water sources, tracking this performance over time, and achieving water balance, through informing decision-making.

LWWSS has been working with the South Lebanon Water Establishment (SLWE) on source metering since year two of the program. LWWSS engineers conducted preliminary surveys in year two, which resulted in general specification documents being drafted for all 218 sites in South Lebanon where meters need to be installed. These documents led to the appointment of the subcontractor Modon for surveying work, procurement of source metering equipment, and the installation of source meters.

Modon began their site surveying work in April 2012 and submitted all the drawings and equipment for the stations in September 2012. Minor civil works began in September at the Wady Khansa and Ain Aarab sites with the construction of meter pits. The equipment orders will be placed throughout the next couple months, and the supply and installation will proceed in parallel. The activity continues post-installation and includes a year-long meter reading service by the supplier, in addition to warranty and service of supplied equipment.

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.

SLWE's planning will have the equipment and management tools to make the best use of the available water within the SLWE departments, and build a database on water production. Non-revenue water reduction measures and water demand management could then be undertaken with higher certainty. Ultimately, through this activity, SLWE will build its capacity to deliver higher water quantities more equitably to the population of South Lebanon.

Certificate Ceremony for North Lebanon Advanced O&M Pump Station Training



Engineer Siba Raad receiving her certificate

In November, USAID's Lebanon Water and Wastewater Sector Support (LWWSS) Program concluded two sessions of advanced operations and maintenance (O&M) trainings for 23 engineers and senior pump station operators working for the North Lebanon Water Establishment.

The training was focused on preventive maintenance standards, establishing basic facility management practices, recording operation history of equipment, troubleshooting breakdowns, and health and safety. Such advanced training within a limited number of pump stations will result in a decrease in energy consumption, a decrease in faults and equipment damage, and a reduction in the risk of personal injury of operating staff. The training also helps WEs increase the efficiency of their operating staff, thereby reducing water service disruption due to human errors and O&M-related equipment failures.

The certificate award ceremony took place on November 13 at Baytna restaurant in Tripoli.



23 engineers and senior pump station operators from the North Lebanon Water Establishment were trained as part of the advanced O&M pump station trainings



Group photos (Session 1 trainees pictured above and Session 2 trainees pictured below)



Presentation by LWWSS subcontractor Kredo, the training provider



C. PROJECT PROGRESS BY WATER ESTABLISHMENT AND COMPONENT

Project activities are broken down by each water establishment and then further by each LWWSS 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. Beka'a 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	Jan, 2013
2.2.2	Establish a region-specific and Libnor-compatible testing protocols and methodology	AUB	Activity Completed	Oct, 2012
2.2.3	Plan and conduct a comprehensive user training on all aspects of lab operation	AUB	Activity Completed	March, 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	March, 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 completed Follow-up in place	March, 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 completed Follow-up in place	March, 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 with the American University of Beirut (AUB) started on October 1, 2011 and ends on April 30, 2013. The contract with AUB stipulates the following deliverables and dates:

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: Earlier verbal feedback from AUB indicated that the deliverable would be completed on schedule, by end of October, 2012. However, upon formal follow-up with AUB during the month of September, LWWSS was advised that AUB will be delayed on the completion of this deliverable, due to a delay in the chemical water assessment testing caused by a breakdown in their water testing equipment. AUB advised that they had been unable to find replacement parts for the equipment in Lebanon, and that they have attempted to mitigate the delay by sourcing equipment parts from regional suppliers, but did not succeed. DAI is investigating with AUB ways to mitigate the delay generated by the equipment breakdown. In the meantime, AUB advised that this deliverable will be completed as soon as the equipment is repaired, and they are tentatively targeting the end of January 2013 for completion. This delay does not result in any cost increase or extension of the AUB purchase order.

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 is now completed. During the first quarter, LWWSS finalized the design of the mechanical, civil and electrical works for the fit-out of the laboratory in the Zahle Water Treatment plant, in order to commence procurement of the internal enhancement works, and of the equipment prescribed by AUB. During the month of October, CDM Smith assisted with preparing a layout for the laboratory unit. The proposal, discussed with BWE recommends the relocation of the laboratory room to the higher floor within the Zahle building, which will enable the use of a larger space. CDM Smith's design is based on AUB's equipment recommendations and was finalized during the month of November for bid issuance for execution of the works and supply/installation of equipment after review and approval by the BWE Director General. The bids were launched in December.

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 course preparation for this deliverable is completed. Due to delays caused by the halting of the hiring process in BWE, this activity will proceed with existing staff, LWWSS and BWE found that any further postponement of the training would put the activity at risk. As such, LWWSS agreed with BWE to proceed with the training with the available staff during February and March 2013.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-2 (FY'11)					Y-3 (FY'12)					Y-4 (FY'13)												
		Q2		Q4			Q1		Q2			Q3		Q4			Q1		Q2					
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
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***																							
	* Year Three Workplan																							
	** Delayed until Jan '13 as reported in the year four work plan																							
	*** Delayed until March '13 as reported in the year four work plan																							

Legend

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

Activity 2.3. – Building Pump Station Operator Capacity

Throughout the first quarter, planning for the pump station operators’ training continued. There will be two training sessions – one in Shamseen and one in Zahle. including several meetings with Head of Stations Khalil Azar and the Director General Maroun Moussalem and site visits to the Shamseen pump station and the Zahle water treatment station where the trainings will take place.

The training has been postponed until the end of the second quarter of year four because the training room in Shamseen needs to be equipped with tables, a heater, a projector, and a screen. Additionally, the training room at the Zahle Rasiyeh pump station that was previously equipped by LWWSS will soon be undergoing rehabilitation as an expansion of the water analysis laboratory as part of activities 2.2 and 5.4. Therefore, it is no longer available for the pump station O&M training, and Ms. Koleilat is working with BWE personnel to figure out another option. This may cause a delay in the Zahle training session.

Another reason for the postponement of the training sessions is due to the uncertainty about the final participants to be included in the training because contract employees were on strike in late October and November. The contract employees started work again on December 1, so the list of trainees will be finalized and the training rooms will be equipped during January and February. The trainings in both Chamseen and Zahle will most likely take place in March.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-2 (FY11)					Y-3 (FY12)					Y-4 (FY13)															
		Q2		Q4			Q1		Q2		Q3	Q4		Q1		Q2		Q3									
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
2.3	Capacity Building in O&M of Pump Stations																										
	Activity introduced*																										
	Staff interviews																										
	Course preparation																										
	Conduct training**																										
	* Year Three Workplan																										
	** Delayed as reported in the year-three workplan amendment; Updated dates reported in the year four work plan																										

Legend

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

Activity 2.4 - Public administration and process management training aimed at increasing staff familiarity with WE systems and processes

As the LWSS team was implementing the Enterprise Resource Planning (ERP) system in BWE, BWE and LWSS staff found that personnel needed to receive complementary training in general, administrative matters, that targets and builds on the contents of previous training provided by LWSS, and provides a detailed overview of the administrative processes in the WE for the purposes of the networks and distribution department. Such training would cover the increased number of staff within the department (BWE recruited more than 20 contract personnel in 2012 in this department, and is in the process of finalizing the permanent recruitment of another 20 or more personnel).

LWSS' Finance Specialist Mike Chalah and IT & Systems Specialist Ahmad Siddik are currently in the assessment and planning phase of this activity. By the end of the first quarter, Mr. Chalah and Mr. Siddik had finalized a matrix that details BWE's departments and divisions and their main tasks. They will discuss the matrix with the BWE Director General Maroun Moussalem and after he has approved the matrix, they will continue planning the content of the training.

The training is planned for the third quarter of year four, and will most likely be conducted by a third-party management training specialist who will develop the training material based on the existing materials used by LWSS to date, the by-laws of BWE, and other materials available to the trainer at the time of information collection. The training will target administrative staff such as the registry department, as well as secretarial staff, and selected members of the finance department.

Timeline

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

Legend

 Time frame as per Year Four Work Plan

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

This new activity relates to training for network repair operators at BWE, covering basic maintenance and repair of drinking water distribution pipes and connections, and health and safety practices. The training builds on the successful activity undertaken by LWSS around pump station O&M and establishes a similar effort in the areas of water distribution networks, where water leaks are extremely frequent and breakdowns within the deteriorated networks happen on a daily basis. The training will cover network repair basics, such as leak detection, team composition, equipment needs, project management and task orders, site mobilization for repair team, sequencing of repair tasks, as well as health and safety.

LWSS began conducting a training needs assessment during the first quarter and this will continue throughout the second quarter. The assessment aims to identify the most suitable trainees in the BWE region. The course program will be developed with BWE management during the second quarter, and will most likely take place in the third quarter of year four.

Timeline

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

Legend

 Time frame as per Year Four Work Plan

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, NA), LWWSS (AS), 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, NA), LWWSS (AS), 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, NA), LWWSS (AS), ABA EDM	Activity completed	September, 2013

MC-Mike Chalah; NA-Nada Akl; AS-Ahmad Siddiq

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

Enterprise Resource Planning System Progress

During the first two weeks of October, follow-up sessions were conducted to control and monitor the process and validate the data accuracy for the Finance, Budgeting, Purchasing, Inventory, Human Resources and Payroll modules. Customization & configuration are now completed, as well as testing and go-live support. Sharepoint and Document Control modules were also implemented.

The strike of contractual employees during the last weeks of October and all of November caused a six-week delay on the ERP implementation process. The strike mostly affected the go-live of the Billing & Collection and CRM modules in Baalbeck and Chamseen. LWWSS' subcontractor EDM assisted with this task, as well as providing support on the other ERP modules, but ERP implementation is now behind schedule regardless.

Employees returned to work on December 1, and the ERP implementation is now running smoothly. A summary of the ERP implementation next steps is below:

- SharePoint and Document Control has been developed and implemented. Training on these modules is scheduled for February 2013.
- CRM and Billing & Collection go-live for Baalbeck and Chamseen will take place on February 2013.

The ERP will be fully functional at all branches by the end of the second quarter of 2013. As noted above, this delay has been caused by the strike by contractual employees. After the ERP is fully functional, follow up sessions on all the implemented modules will be conducted:

- To make sure that the users are following the right processes;
- Employees are using the new implemented ERP;
- To solve issues users might encounter while using the new ERP; and
- To modify requested changes and produce required reports.

Component 4: Capital Investment Planning and Program/Project Management

Work Plan Activity

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
4.4	Master planning			
4.4.1	Water Supply and Sewerage Master plan	Local subcontractor (TBC) Valuadd	- Activity SOW defined, activity started (Year 3)	September, 2013

Activity 4.4 - Developing Water Supply and Sewerage Master plan

The request for consent to subcontract with Kredo for the water supply and wastewater master plan activity was sent to the USAID Contracting Officer in October and it was approved in early November, after which the subcontract agreement was finalized and signed. A meeting was then held in early December with LWWSS, LWWSS' subcontractor ValuAdd, and the appointed subcontractor for the Master Plan activity, Kredo. The focus of the meeting was on the activity overview, client objectives, and implementation. The attendees discussed the key activity components and the general vision for the activity, which included:

- The Master Plan should aim for transitioning water management across the Bekaa territory from a multitude of involved parties (municipalities, committees, etc) to the WE, and make use of existing data within the WE and other institutions or partners; and
- The Master Plan should aim to rationalize water allocation between various uses; optimize water supply sources to reduce, where possible, the number of wells needed to supply the various systems; working with existing water rights and legal frameworks and with the MOEW's strategies for the sector.

The following responsibilities were assigned during this meeting:

- LWWSS Senior Advisor Bassam Jaber will be the project manager on this activity and will act as the liaison between the parties;
- LWWSS's ValuAdd will support the BWE in matters of decision making around parameters for the Master Plan, and will review and comment on deliverables accordingly; and
- Kredo, the Master Plan subcontractor, will implement the activity with the full responsibility for coordination, implementation, reporting, scheduling, and sequencing work stages, and arranging and holding meetings with relevant parties.

The next steps to be undertaken by Kredo include the following:

- An update of the previously submitted Master Plan schedule to reflect actual dates and project phases as per the contract;
- A detailed breakdown of the tasks foreseen for the inception stage; and
- An agenda with key discussion points for the kick-off meeting which will be arranged with BWE by DAI in early January 2013.

The implementation period of this activity will last 16 months (December 1, 2012 – March 31, 2014).

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

As mentioned in Activity 2.2 above, the AUB report relating to this deliverable is completed. During the first quarter, LWWSS finalized the design of the mechanical, civil and electrical works for the fit-out of the laboratory in the Zahle Water Treatment plant, in order to commence procurement of the internal enhancement works and of the equipment prescribed by AUB. During the month of October, CDM Smith assisted with preparing a layout for the laboratory unit. The proposal, discussed with BWE, recommends the relocation of the laboratory room to the higher floor within the Zahle building, which will enable the use of a larger space. CDM Smith's design is based on AUB's equipment recommendations and was finalized during the month of November for bid issuance for execution of the works and supply/installation of equipment after review and approval by the BWE Director General. The bids were launched in December.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY12)		Y-4 (FY13)														
		Q3		Q4		Q1		Q2		Q3		Q4						
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
5.4	Upgrading the Water Analysis Laboratory																	
	Finalize laboratory layout and commence procurement																	
	Deliver and install equipment, complete works																	
	Establish service agreements and provide user training																	

Legend

 Time frame as per Year Four Work Plan

Component 6: Small- to Medium-Scale Infrastructure Work on Water and Wastewater in the BWE

Workplan Activities

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
6.1	Decreasing Water Losses and Upgrading Existing Networks			
6.1.1	Design network upgrades in Zahle: rehabilitating the water supply network of the region of Mar Elias	LWWSS (Infrastructure PM) Local Engineering Firm (TBD)	Design completed* (Supervision continues until project completion)	January 2013
6.1.2	Implement network upgrades in Zahle: rehabilitating the water supply network of the region of Mar Elias	Local Engineering Firm (TBD) Local subcontractor (TBD)	Contract placed**, Works commenced	September, 2013
6.1.3	Design network upgrades in Zahle: rehabilitating five branch networks in Haouche el Oumara, Maalaka, Rassieh, Karak-Forzol and Midan	LWWSS (Infrastructure PM) Local Engineering Firm (TBD)	Design completed* (Supervision continues until project completion)	January 2013
6.1.4	Implement network upgrades in Zahle: rehabilitating five branch networks in Haouche el Oumara, Maalaka, Rassieh, Karak-Forzol and Midan	Local Engineering Firm (TBD) Local subcontractor (TBD)	Contract placed**, Works commenced	September, 2013

*Activities 6.1.1 and 6.1.3 are combined under one service subcontract for engineering design and supervision.

**Activities 6.1.2 and 6.1.4 are combined under one infrastructure works subcontract.

Activity 6.1 - Decreasing Water Losses and Upgrading Existing Networks

LWWSS' subcontractor WET submitted the preliminary design report for Zahle's network upgrade and it was approved in September by the BWE and the municipality. In early October, the BWE requested additional pipelines to be added to four main sectors of Zahle because these additional pipelines will increase the efficiency of the network and reduce water loss. A request was sent to USAID to get their concurrence on the additional quantities. USAID wrote that they did not have any objections but still had additional queries before concurrence could be provided, and LWWSS will respond to these queries. WET proceeded with the topographic survey and the detailed design of these additional water pipelines.

WET completed the final detailed design, the detailed drawings, the technical specifications, and the bill of quantities of the initial and additional water pipelines in Zahle at the end of November and LWWSS' engineering team reviewed WET's submittals during December.

LWWSS' engineering team has not yet approved WET's submittals, however, in part due to some information that BWE's Director General Maroun Moussallem shared with the LWWSS team during a meeting on December 18. Mr. Moussallem informed the LWWSS team that the Bureau Technique pour le Développement (BTD), a consulting engineering firm engaged by CDR, is currently conducting a study on the entire water network of Zahle for BWE and, since LWWSS' activity is a part of this network, it would be better if we coordinate our work with BTD to avoid any contradiction or duplication between the two designs. While this coordination may cause some delays on the network rehabilitation activity, it is a more sustainable way to move forward.

A meeting was convened in LWWSS offices on December 20, with representatives from WET and BTD, and all available information related to Zahle water networks was exchanged and many options were proposed to ensure that there is no duplication or overlap between the waterlines we expect to lay in six sectors of Zahle and the BTD's proposed waterlines in the same sectors. It was determined that WET's design for only one of the six sectors (Mar Elias) conflicted with BTD's proposed design. The conflicting design relates to the size of the proposed waterline in Mar Elias. Following the meeting, WET then conducted a series of hydraulic computations to determine the best way to proceed with the design for the Mar Elias sector. After the computations were completed, LWWSS engineers met with BWE and concluded that LWWSS should move forward with WET's original plans for rehabilitation of the waterline in the Mar Elias sector, and that BTD will incorporate LWWSS' designs on all six sectors into their study.

During January, LWWSS' engineering team will finalize their review of the detailed design, detailed drawings, technical specifications, and bill of quantities submitted by WET. After it is approved, the bid for the construction works will be launched.

While there is a slight delay on this activity, LWWSS' engineering team will compensate for this delay during the procurement stage. This delay will not generate any additional cost on the activity.

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

Workplan 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	- EMC (NA) - Local subcontractor (TBD)	- Activity completed	March, 2013

NA – Nada Akl

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

On behalf of the WEs, and at their request, LWSS will continue 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 planned activity includes developing, printing and distributing water conservation calendars. LWSS will target to reach a total of 26 water establishment branches (at all four WEs), thereby extending its awareness message to most of population.

During the month of November, the LWSS outreach specialist Nada Akl consolidated a schematic design for the calendar and consulted with the WEs over the general content of the calendar. Based on the schematic design, the LWSS team conducted the procurement for the design and photography services associated with the calendar, and by November 28, Circle Group was appointed to conduct the work.

As of the end of the first quarter, the calendar activity is on track:

- Circle Group sent the proposed designs on December 14 and they were reviewed by the LWSS team and a preferred option was selected.
- Photo sessions took place on December 27 and 28, and another photo session will take place on January 3. In the meantime, LWSS' Customer Service and Outreach Specialist gathered all the required information for the calendar.
- Work on the layout of the calendar started as of December 21. It is expected to be delivered around January 10 for final review (internally) and then it will be sent to USAID for approval. Following USAID's approval, we will proceed with the printing of the calendars.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY12)		Y-4 (FY13)														
		Q3		Q4		Q1		Q2		Q3		Q4						
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
7.6	Promoting public awareness and water conservation																	
	Activity introduced																	
	Develop concept and content																	
	Discuss content and agree with WE management																	
	Obtain USAID approval on content, print and share																	

Legend

 Time frame as per Year Four Work Plan

2. Beirut-Mount Lebanon Water Establishment (BMLWE)

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

There are no component two activities with BMLWE in the year-three 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), DAI (AS) - ABA	- Procedures defined, manual produced, training conducted.	September, 2013
3.1.7	Develop module, procedures and provide training on the Cost Tarif Model for Strategic Planning and Budgeting	- EMC (MC), DAI (AS) - 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, NA), LWWSS (AS), 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, NA), LWWSS (AS), 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, NA), LWWSS (AS), ABA EDM	- Activity completed	September, 2013

MC-Mike Chalah, AS-Ahmad Siddik, NA-Nada Akl; 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

As per the year four workplan, LWWSS' Financial Specialist Mike Chalah and subcontractor ABA will work on a budget manual for BMLWE that is based on the five-year business plan which they assisted with in years two and three. This manual 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.

During the first quarter, Mr. Chalah and LWWSS' subcontractor ABA began their work on the budget manual that is based on BMLWE's five-year business plan. The manual will include the following nine sections:

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

The manual will be completed early in the third quarter of year four, after which Mr. Chalah and ABA will conduct a training for five people from BMLWE who are working in the finance & budget department (one financial manager, three supervisors, and one accountant).

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY12)				Y-4 (FY13)													
		Q3		Q4		Q1		Q2		Q3		Q4							
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
3.1.5	Develop procedures and a standard manual for yearly budgeting																		
	Activity introduced																		
	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																		

Legend

 Time frame as per Year Four Work Plan

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

As per the year four work plan, LWWSS' Financial Specialist Mike Chalah and subcontractor ABA will update the cost tariff analysis module (originally developed by the USAID LWPP project in 2004) and connect it to the ERP platform. This will enable the module to fully utilize the ERP solution's output and provide BMLWE management with a strong financial, analytical and planning tool for costing and tariff to improve their decision making process.

During the first quarter, Mr. Chalah and LWWSS' subcontractor ABA began their work on the cost tariff analysis which will most likely be 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

The module will be finalized during the third quarter of year four, after which it will be connected to the ERP and a training will be conducted with six people from BMLWE’s financial department (financial manager, accountant, and four supervisors).

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY12)				Y-4 (FY13)													
		Q3		Q4		Q1		Q2		Q3		Q4							
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
3.1.7	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																		

Legend

 Time frame as per Year Four Work Plan

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

Enterprise Resource Planning System Progress

Progress during the first quarter is summarized below:

- During October and November, weekly follow-up sessions were conducted to control and monitor the process and validate the data accuracy for the finance, budgeting, purchasing, inventory, human resources and payroll modules. Customization and configuration are now completed, as well as testing and go-live support, and the December 2012 payroll will be generated from NAV 2009.
- LWSS proceeded with providing the advanced training of BMLWE's IT personnel and other key personnel in the finance and engineering departments on key areas associated with the programming and advanced use of the various components of the ERP platform.
- The earlier issue of connectivity between the Hazmieh and Dora warehouses and the Badaro head office was solved during December and the connection is now functioning properly.
- LWSS began the gradual distribution of 20 new PCs to branches on which the new Billing & Collection module will be installed, as well as testing the connectivity.

A summary of next steps is included below:

- The Billing and Collection module training and go live will start in mid-January and it will take place gradually. It will go live in five branches at the same time by sending one specialist for two weeks from 9:00 am until 1:00pm to provide training on the new Billing & Collection module bearing in mind that BMLWE operator will keep entering data on the old system. Then the specialists will move to another five branches and do the same tasks listed above until we finish the 20 branches.
- The SharePoint and Document Control modules will be implemented in February.
- The CRM module will be implemented in March after the Billing & Collection module implementation.

The financial modules of the ERP are now fully functional, while the Billing & Collection, CRM, and Sharepoint and Document Control modules will be fully functional by the end of the second quarter.

After there is a fully functioning ERP system at BMLWE, follow up sessions on all the implemented modules will be conducted:

- To make sure that the users are following the right processes;
- Employees are using the new implemented ERP;
- To solve issues users might encounter while using the new ERP; and
- To modify requested changes and produce required reports.

Challenges are detailed below in *Section G: Challenges, Problems, Issues*.

Component 4: Capital Investment Planning and Program/Project Management

There are no component four activities with BMLWE in the year-three 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

All equipment (pumps, motors, motor control centers, and valves and fittings) was delivered at the end of year three and throughout the first quarter of year four, BMLWE engineers supervised the installation of the new equipment at Jeita pump station. While BMLWE is charged with the installation, LWWSS engineers still conduct site visits to ensure that the installation is unfolding according to CDM's recommendations. During and after installation, the suppliers and LWWSS engineers will provide on-the-job training and guidance to WE staff on operation of the equipment and on the preventive maintenance required. As of the end of December, only one more set (out of eight) of pumps and motors remains to be installed. The installation will be completed in January.



COP Sam Coxson and engineer Bassem Ghayda observe the new pumps and motors at Jeita



Engineer Bassem Ghayda discusses the installation process with the subcontractor

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

There are no component six activities with BMLWE in the year-three 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	- EMC (NA) - Local subcontractor (TBD)	- Activity completed	March, 2013

NA-Nada Akl

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

This national outreach activity applies to several WEs. As such, for details, refer to activity 7.6 within component 7 of BWE’s work plan above.

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 Year Four	Target Date
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

The first session for the follow-on O&M training for pump station operators began on August 30 and concluded on September 20. The training took place at the Hab station in Tripoli with a site visit to the Kousba water treatment plant. The second session took place during October, though one of the sessions was postponed due to the security situation in Tripoli, and concluded on November 8. As part of the training, the site visit to Batroun- Kfarhelda pump station took place on October 18. The

certificate award ceremony took place on November 13 at the Baytna Restaurant in Tripoli. A couple photos of the second session are provided below (Please see “Quarterly Event Highlights” for photos of the award ceremony.)



Site visit to Kfar Helda Pump Station – Oct. 18



Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-2 (FY11)		Y-3 (FY12)				Y-4 (FY13)	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
		A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M
2.3	Capacity Building in Operation and Maintenance of Pump Stations								
	Activity introduced								
	Staff interviews, training needs assessment								
	Course preparation								
	Training Implementation								

Legend

Time frame as per 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			
3.1.2	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), DAI (AS), ABA	Procedures defined, manual produced, training conducted.	September, 2013

MC-Mike Chalah; MK-May Kolielat; AS-Ahmad Siddik; ABA-Allied Business Advisors

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

This activity is a continuation of the year three group of activities relating to an update of the financial and analytical accounting methods in NLWE, through a new chart of accounts and the introduction of the concept of cost and profit centers. A period of time is necessary to ensure that the NLWE finance department staff have adequately applied the new chart of accounts and the cost and profit cost center concept application prior to providing additional training. This training was rescheduled until the middle of year four based on LWWSS' communication and agreement with NLWE Director General. The training relates to matters of public accounting, accrual based accounting, procurement and auditing, and augments the capacity of the WE staff to adopt accrual accounting standards while meeting the government of Lebanon's requirements and regulations.

The Request for Proposal (RFP) for the public finance and accounting management training courses was finalized and launched in early December. It was advertised, after which DAI issued the RFP to four bidders. The bid deadline is January 3. The training will take place during the second quarter of year four.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-2 (FY'11)		Y-3 (FY12)				Y-4 (FY'13)																
		Q3		Q4		Q1		Q2		Q3		Q4												
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
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																							
	* Year-Three Work Plan																							
	** As reported in the Year Four Work Plan																							

Legend

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

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

As per the year four work plan, LWWSS will assist NLWE in developing a thorough Internal Audit Manual that will cover all aspects of audit controls dictated by the by-laws and the legislation applicable to the WEs, in order to improve detection, corrective and preventative controls within the WE. The effort would 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. As part of this activity, LWWSS and NLWE will work to assign staff to lead the process of internal auditing, conduct comprehensive training on the manual's contents and processes.

During the first quarter, LWWSS' Finance Specialist Mike Chalah and LWWSS' subcontractor ABA began their work on the internal audit manual which will be composed of several sections, including the following:

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

The first draft of the manual will be completed during the second quarter of year four, after which it will be reviewed by NLWE. During the third quarter, a final copy of the manual will be issued, as well as a training for NLWE's finance team for about 10-15 people (financial manager, 7 supervisors, and 7 accountants).

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY12)				Y-4 (FY13)													
		Q3		Q4		Q1		Q2		Q3		Q4							
		A	M	J	J	A	S	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 per Year Four Work Plan

Component 4: Capital Investment Planning and Program/Project Management

There are no component four activities with the NLWE in the year-three work plan.

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
5.2	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	April, 2013

5.2.4	Supply and install the replacement nine submersible pumps and associated works	- CDM (BG, GT) - Local subcontractor (TBD)	Procurement stage; contract placed	September, 2013
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 (TBD)	- 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 (TBD)	- Activity commenced	September, 2013

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

Activity 5.2 - Upgrading Pumping and Energy Efficiency

Under this activity DAI has encountered a delay in the planned timing of activities that will result in a five month delay. The basic problem has centered on the difficulties in obtaining proper and acceptable bids for the well testing (pump test and CCTV probing).

Over the first three months of year four, DAI and CDM Smith continued their effort to appoint a technically acceptable supplier for the well testing. As reported in the last quarterly of year three, LWWSS and CDM Smith collectively decided to re-advertise after a first round of non-compliant and low response bid returns.

The re-advertisement took place in early September, 2012 and seven copies of the RFP were collected by local suppliers. The second round of procurement and re-advertisement also led to the receipt of one bid package (Sanabel) which was only partly acceptable with the bid requirements, most notably in terms of time frames associated with project completion. The reasons behind a lack of appropriate response seemed to relate mainly to the remoteness of the area where the tests were taking place, and the anticipated flow tests that required large pumps to be transported to the well site.

As per the progress reported in the year four work plan, and the first three monthly reports in year four, the LWWSS program took the initiative to re-contact bidders who did not submit any bid returns, and ~~(requested them to issue a proposal)~~ urge them to reconsider issuing a proposal to this package. As a result, two bidders, DEP and ELARD submitted bid documents which were analyzed by CDM Smith.

At the end of December 2012, ELARD was chosen to conduct tests at four water supply wells located at Al-Ouyoun Pump Station in Halba and the work will begin in early January 2013. Part of the assessment will be to test the capacity of two wells with a temporary test pump to determine their optimum yields. Also, wellhole inspection will be conducted via closed circuit television (CCTV) of the well casing and screen to the bottom of each well. The supplier is expected to complete the investigation by March 2013, thereby enabling the design for the rehabilitation to be completed and the procurement to commence.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-2 (FY11)					Y-3 (FY12)				Y-4 (FY13)			Y-5 (FY14)															
		Q3		Q4			Q1		Q2		Q3		Q4	Q1		Q2													
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	N	D	J	F
5.2	Upgrading Pumping and Energy Efficiency																												
	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 pumps**																												
	Confirm costing and start testing ahead of procurement**																												
	Start procurement process for manufacturing and installation**																												
	Activity rescheduled due to delays with procurement of well-test package***																												
	Complete well assessment and obtain well test results***																												
	Finalize design, confirm costing and start procurement***																												
	Manufacturing and installation***																												
	* As planned in Year-Two Work Plan Amendment #3 dated June 24th, 2011																												
	** As planned in Year-Three Work Plan																												
	*** As detailed in Year-Three fourth quarterly report and Year-Four Work Plan																												

Legend

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

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 (Infrastructure PM) Local Engineering Firm (TBD)	- Design completed	September, 2013
6.2.2	Beit Mellat, Akkar, North Lebanon: Implement house connections to up to 12 villages	Local Engineering Firm (TBD) Local subcontractor (TBD)	- Procurement completed; Subcontractor appointed	September, 2013

Activity 6.2 - Decreasing Water Losses and Upgrading Existing Networks

The evaluation committee for the design and supervision of the rehabilitation of a water supply network in Beit Mellat completed the evaluation process and a winning firm was selected based on their combined financial and technical scores at the end of year three. The request for consent to subcontract with Kredo was then prepared in October and November and was sent to the USAID Contracts Officer at the end of November. LWWSS has not yet received consent which is creating a significant delay. After approval is received, a contract will be signed with Kredo and they will begin the design phase.

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

Work Plan Activities

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
7.3	Develop Tools and Support WEs in Adopting Corporate Communication			
7.3.2	Design and Implement WE Corporate Website	EMC (NA), Local subcontractor (TBD)	- Activity completed	May, 2013
7.6	Consumer-Targeted Awareness Programs			
7.6.3	Outreach material promoting public awareness and education on water conservation	- EMC (NA) - Local subcontractor (TBD)	- Activity completed	March, 2013

NA – Nada Akl

Activity 7.3 –Designing and Implementing WE Corporate Website

The corporate website for the North Lebanon Water Establishment will be browsed and used by the public citizens of North Lebanon, particularly those who are connected to the water network. The website will be in 3 languages: Arabic, French and English with the Arabic site being the default site. The website will include the technology of a dynamic content management system allowing the NLWE non-technical staff to easily and cost effectively update content and modify page layouts after the initial launch.

The RFP for the design of the website was advertised in newspapers at the end of year three. Five local web design hosting and development consultants collected the RFP document from the LWWSS office. Out of the five consultants, four submitted their proposals by the September 18 deadline. The bid opening session took place on September 24 by the evaluation committee and an award was made on October 9 to Netways.

The subcontract to design, develop, and host the NLWE’s corporate website was signed at the end of November, and the company began work in December. The schedule is as follows:

- Phase 1: Planning and design (1.5 months)
- Phase 2: Development, testing and deployment (1.5 months)
- Phase 3: Hosting (2 years)

There is a delay with the website design approval phase because the NLWE team was not satisfied by the initial design options proposed by Netways. Additional design options were requested from Netways with further modifications to the ones they had already proposed, followed by a conference call between NLWE project team, LWWSS, and Netways. After that, a meeting was scheduled with NLWE’s Director General (DG) to go over the designs and select the preferred option. The first meeting with the DG will be held on January 4, after which the design phase will be completed.

The deployment date for the NLWE website, as per the project plan, is set to take place by February 7. However, as per the year four work plan, we noted that it will be completed by the end of February taking into consideration that there may be slight delays throughout the process. Even with the delay mentioned above, the website will still be completed within the month of February 2013.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY'12)					Y-4 (FY'13)											
		Q3			Q4		Q1		Q2		Q3		Q4					
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
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 per Year Four Work Plan

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

This national outreach activity applies to several WEs. As such, for details, refer to activity 7.6 within component 7 of BWE's work plan above.

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
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) - Kredo	- 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

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 will commence when field progress has been achieved on the source metering procurement activity (activity 5.1), i.e. around the middle of year four. This sequencing is necessary given that this activity is a follow-up to activity 5.1. Establishing and training metering teams is closely associated with the ongoing meter installation given that, in order to draft a metering strategy, assign teams and provide training, everything must link to the actual metering infrastructure that awaits installation.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-2 (FY'11)				Y-3 (FY'12)				Y-4 (FY'13)									
		Q3		Q4		Q1		Q2		Q3		Q4							
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
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 per Year Four Work Plan

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

During years two and three, the LWWSS program implemented a group of successful activities that built the capacity of pump station operators in the areas of operation, maintenance, health and safety in both NLWE and BWE. The LWWSS program recently received a request from SLWE to conduct a similar training in South Lebanon.

SLWE operates more than 220 water production, treatment and pumping sites, and as such, the requested capacity building activity has the potential to substantially enhance the effectiveness and safety of water supply practice in the South Lebanon region.

The proposed training course is already prepared in a template format by the LWWSS engineering training team. It is 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.

Overall, the activity includes the following sequence of tasks:

- Interviewing the SLWE management, as well as the employees that are proposed for the training, and assessing their specific training needs;

- Confirming and agreeing the course details, to suit the profiles of the selected persons and their identified skills and needs;
- Conducting the training, both on-site and in classrooms, as well as the post-training evaluation;
- Certificate distribution;
- Continuing evaluation and follow-up.

The staff interviews and course preparation will begin in the second quarter and the trainings will take place in the third quarter.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-3 (FY12)					Y-4 (FY13)												
		Q3			Q4		Q1		Q2		Q3		Q4						
		A	M	J	J	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 per Year Four Work Plan

Component 3: Increase Financial and Commercial Viability of Water Establishments

There are no component three activities with SLWE in the year four work plan.

Component 4: Capital Investment Planning and Program/Project Management

There are no component four activities with SLWE in the year four work plan.

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
5.1	Identifying Water Production and Contributing to Water Demand Management			
5.1.1	Supply and install up to 215 production meters, fittings and protection box/manhole (all non-metered sources in WE)	- CDM (BG, GT, IN) - Modon Group	- Activity substantially complete	September, 2013

5.1.2	Establish service agreements, conduct training and complete meter reading	- CDM (BG, GT, IN) - Modon Group	- Activity started	September, 2013
5.6	Increase IT Infrastructure Efficiency			
5.6.2	Upgrade server installation and power supply infrastructure at head office and selected branches	- DAI (AS) - Local subcontractor (MDS + TBD)	- Activity completed	September, 2013

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

Activity 5.1 - Identifying Water Production

When this activity began, the SLWE submitted a list of 242 sites total for the WE. Through site investigations the list was corrected to the 222 that were in operation. From that number LWWSS identified a potential of 222 sites where source meters, and at some locations, meter vaults would be needed. Previous activity reports may contain other numbers. Since the beginning of the activity; however, decisions by the WE and LWWSS have reduced the number of stations to 185 sites and 215 meters (some sites require more than one meter) So from the original activity report to the current number shown in Annex A the number of sites and meters may fluctuate. For example, the rehabilitation of pump stations under activity 6.1 includes the meters instead of this activity. Also, some of the pump station sites are included in work to be done by other donors, thus, eliminating the need for LWWSS to procure and install meters.

The source metering work continued on track throughout the first quarter. Modon continued civil site works at several of the pump stations where meter vaults and rectification works are required before the installation of flow meters. LWWSS engineers reviewed and commented on Modon’s submittals and conducted site inspections at sites where meter vaults and rectification works. As of this report 18 sites have been completed and seven sites are in progress. LWWSS engineer Ihab Nasr is working closely with Modon, spending most of his time working in the field supervising Modon’s work. The LWWSS team also met with SLWE’s Director General in December regarding activity progress.

The activity continues post-installation and includes a year-long meter reading service 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 task 5.1.2 of this activity (maintenance, warranty, and meter reading for a period of one year per completed site) will extend into until April 2014 at the latest.

Activity 5.6 – Increasing Information Systems Infrastructure Efficiency

The RFP for the supply of equipment, set up and configuration of servers, and the installation of software packages at SLWE’s headquarters offices in Saida was advertised at the end of year three. Five firms were issued the RFP with a deadline set on September 27 for the return of the bids. Two firms submitted their bid proposals and the evaluation committee reviewed the proposals in October and chose EDM as the vendor..

The detailed analysis required for USAID’s approval on IT equipment purchases was drafted in coordination with the senior personnel at DAI’s Office of Information and Management Technology, and was issued to USAID in November and then LWWSS was granted an Information Resources Management (IRM) approval from USAID for the IT infrastructure procurement for South Lebanon and a contract was then signed with the vendor.

The current schedule is as follows: the new infrastructure (servers and related equipment) will be installed in February 2013 and the JD Edwards software will be migrated from the old to the new servers in March 2013.

Timeline

Work Plan Item	Wok Plan Activity Title; Activity Stages	Y-2 (FY11)					Y-3 (FY12)				Y-4 (FY13)																
		Q3		Q4			Q1		Q2		Q3		Q4														
		A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
5.6	Increasing Information Systems Infrastructure Efficiency																										
	Activity introduced																										
	Finalize specifications, start procurement for server upgrades																										
	Upgrade server installation and other key IT infrastructure																										
	Finalize specifications, start procurement for server upgrades																										
	Conduct the procurement of the server infrastructure in SLWE																										
	Supply and install servers and other key IT equipment; conduct training																										

Legend

 Time frame as per Year Four Work Plan

Component 6: Small- to Medium-Scale Infrastructure Work

Work Plan Activities

Item	Activity Description	Program Resource	Outcome by End of Year Four	Target Date
6.3	Pump Station Infrastructure Rehabilitation			
6.3.1	SLWE: Test and design pumps, motors and associated works for the rehabilitation of selected stations	- CDM (and their subcontractor DEP)	- Activity completed	September, 2013
6.3.2	SLWE: Supply and install pumps, motors and associated works for the rehabilitation of selected stations	- CDM (and their subcontractor DEP) - Local	- Infrastructure contract placed; works commenced	September, 2013

Activity 6.3 – Upgrading Pumping and Energy Efficiency

This activity includes the design and rehabilitation of three pump stations in South Lebanon - Wadi Jeelo, Al Shehabieh, and Batoulay. The rehabilitation will include upgrading pumps and associated equipment that are located in the booster pump stations at all three of these stations, as well as upgrading pumps that are inside wells that are located in the vicinity of the Wadi Jeelo and Batoulay stations. These wells pump water to the reservoirs at the booster pump stations.

As part of the design of the rehabilitation of the Wadi Jeelo and Batoulay pump stations, well condition assessment tests were undertaken. The well condition assessments identified the cleaning and repair work necessary in the wells and the size of the pump that should be in the wells. The well condition assessments tests were prerequisites to the design of the rehabilitation of the pump stations.

LWWSS' subcontractor CDM Smith hired DEP to conduct the well condition assessment tests.

Progress on this activity during the first quarter is summarized below:

- DEP completed the well assessment tests at the Wadi Jeelo station at the end of the fourth quarter of year three and finalized the well condition assessment tests for the Batoulay station during October.
- The Preliminary Design Reports (PDR) for Wadi Jeelo and Al Shehabieh were completed at the end of the fourth quarter of year three and the PDR for Batoulay was completed in November, after which the detailed design phase for all three pump stations began.
- Throughout November and December, CDM Smith engineers met with the subcontractor DEP to discuss drawings and specifications for the three pump stations, as well as conducting site visits to the pump stations.
- At the end of November, LWWSS' COP and CDM Smith engineers met with the SLWE Director General to discuss SLWE's feedback on Batoulay's PDR and discuss the construction schedule.
- In mid-December and late December, LWWSS staff and CDM Smith engineers met with the SLWE Director General (DG) to hand over the Bill Of Quantities (BOQ) for his review and to discuss his comments on the civil, mechanical and electrical drawings. Discussions also included the project status, schedule, and bidding dates.

The approval of the design for the three pump stations, including technical specifications, will be completed in February, and the construction works package will be bid during the second quarter.

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

Work Plan Activities

Item	Activity Description	Program Resource	Deliverable 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	- EMC (NA) - Local subcontractor (TBD)	- Activity completed	March, 2013

NA - Nada Akl

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

This national outreach activity applies to several WEs. As such, for details, refer to activity 7.6, within component 7 of BWE's work plan above.

5. Study Tours and Conferences

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

Two senior engineers from NLWE traveled to Amman from November 24-29 for a regional training on non-revenue water. LWWSS' Capacity Building Specialist May Koleilat met with them in December for follow-up and she will issue a training report in the second quarter.

Ms. Koleilat has had initial correspondence with Tunisia's SONEDE (*Société Nationale d'Exploitation et de Distribution des Eaux*) regarding a potential study tour for year four. Ms. Koleilat will continue to follow up with SONEDE regarding this possibility. Ms. Koleilat also began discussing this possibility with the Director Generals to gauge their interest. Once we have a firm answer from SONEDE about their availability and a general study tour program, an outline of the program will be sent to USAID in January for their review.

It is worth noting that the study tours and conferences are constrained by the WE personnel's availability and the approvals necessary to allow their foreign travel to take place. During the past year, LWWSS has learned that the WEs faced considerable challenges in obtaining clearance from the MOEW and the Ministry of Foreign affairs, for attending international training and conferences. However, LWWSS will continue to pursue study tours and assist those that should attend to gain approvals for the travel.

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 or Special Event with Donor or GOL Official	Date	Attendees	Brief Synopsis of Meeting
Donor Meeting at EU Delegation Offices	October 3, 2012	Most Donor Agencies have representatives attend	General Discussion of new projects; continue work and issues or problems faced
GIZ	October 18, 2012	GIZ Project Director, Manfred Scheu	Meeting to compare work plans and to ensure no duplication takes place and areas of possible collaboration
USAID-COTR	October 25, 2012	COTR Saliba and COP Coxson	Project progress report and discussion of reporting formats
Social Impact	November 1, 2012	Sam Coxson, Jimmy Zammar, Leyla Moubayed, Harvey Herr,	Discussion of the USAID funded municipal wastewater treatment plants
MOEW	November 12, 2012	Sam Coxson, Jimmy Zammar, Abdo Tayar	Informal discussion of LWWSS year four activities
NLWE	November 13, 2012	Sam Coxson, Jimmy Zammar, May Koleilat, NLWE Director General	Award of advanced pump station operations and maintenance training certificates
Chemonics	November 16, 2012	Sam Coxson, Jeff Wourinen	Discussion of LWWSS and WISE coordination and possible collaboration

EU Donor's Meeting	December 6, 2012	Major Donors and Implementers	Discussion of new programs along with exchanges of information
MOEW	December 6, 2012	All parties interested in analysis of Lebanon's groundwater status	Project progress report outlined some preliminary findings

E. CONTRACT DELIVERABLES

- Quarterly Report for fourth quarter of year three
- Year Four PMP
- Year Four Work Plan

F. CHALLENGES, PROBLEMS, ISSUES

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

Following on the update included in the last quarterly report relating to the supply of consumables, as well as the operation and maintenance of the Chlorination Systems by BWE, during the month of November, 2012, the LWWSS team succeeded in assisting the WE in drafting a scope of work for the O&M services and the supply of consumable for these chlorinators. The BWE launched the procurement process which will secure the continuous use and sustainability of this equipment. The LWWSS team will continue to provide support to assist the WE in continuing to make use of this equipment where needed.

Enterprise Resource Planning (ERP) Risks in BMLWE

As with all management information system projects, the deployment of the ERP entails some risks in terms of user adoption, change management, and establishing the new platform as the standard tool for operations across the WE.

Over the past three months, most of the challenges associated with the ERP deployment and usability have been addressed by the LWWSS team and the subcontractor (EDM) in collaboration with BMLWE management and staff. These problems included instances of:

- Repeated hardware and connectivity breakdowns on BMLWE's hardware infrastructure;
- Lack of continued staff engagement in the WE due to internal issues associated with the politics and the contractual arrangements of the WE staff;
- Lack by WE personnel in meeting the agreed milestones for sharing key information associated with migration, such as the key customer databases.

Although most of these instances were eventually resolved, they have necessitated important engagement and additional level of effort by the LWWSS staff and subcontractor specialist personnel. As reported in the monthly reports over the past three months, these repeated incidents necessitated several meetings on a monthly basis, as well as emergency troubleshooting sessions. Most of these sessions were held on short notice and included long hours of attendance and involvement by the LWWSS program's teams (Systems Manager, Finance Specialist) and EDM personnel (BMLWE site support personnel, Head Networks Engineer, Project Manager, and Hardware Engineer). As mentioned above, most of these issues were found to be caused by internal failures within BMLWE's infrastructure or among their staff. In every instance, DAI implemented measures to aim to help, to the extent possible, the WE avoid repetition of these issues.

This repeated assistance led to the completion, despite some delay, of the six core modules of the finance and accounting system (FAS). The risks on successful adoption have been reduced with the FAS modules being utilized and fully adopted by staff now. Monthly financial reports are being successfully generated to the senior management in the WE by the finance department's staff, and the LWWSS team's follow-up is resulting in a smooth operation of these modules.

The inventory/stock module of FAS, as well as the Billing and Collection, and Customer Service modules, still face a risk, due to the frequent network connectivity breakdown that the WE faces. The LWWSS program made the BMLWE director general and IT team aware of these risks, and urged them to ensure the WE complies with its commitment to operate the connectivity between its various sites to ensure sustainable operation of the module.

As reported in the year-four work plan, and the previous monthly reports, there are additional delays on the modules of Billing and Collection, Customer Service, Intranet (Sharepoint) and Document Registry. These delays are primarily caused by:

- BMLWE's management unavailability during several weeks in the summer of 2012;
- The subsequent delay by the BMLWE's IT team in complying with the actions required to accelerate deployment;
- Delay by BMLWE's IT team in providing the key databases associated with these modules, notably the customer database, and addressing inconsistencies in the database that are required prior to final migration of the database into the new system;
- Repeated and continuing breakdowns, that are taking an increasingly unpredictable pattern, in BMLWE's hardware and networking infrastructure, and that are resulting in one to three day shut downs on all network modules, notably inventory/stock, billing and collection, and customer service.

DAI have provided several proposals for BMLWE, whereby they have discussed and recommended management strategies for the WE, through which the WE could avoid these management and infrastructure breakdowns. These strategies include performance-based service contracts with IT suppliers, and upgrade in the IT team's capacity and skills, and a revamped organizational structure within the IT team with additional contracted and specialized staff. The BMLWE management considered these solutions but has not yet taken any tangible action to resolve their internal issues in a lasting manner.

At this point in time, the LWWSS program's team is conducting a comprehensive branch survey at BMLWE in preparation for the installation of the LWWSS-supplied PCs for the branches, which will enable the billing and collection modules to proceed. In parallel, EDM and BMLWE IT staff are proceeding with the long-awaited finalization of the customer database file prior to migration into the new system, in preparation for extensive testing and staged deployment in branches.

Despite the LWWSS team's efforts to ensure success for these modules are completed on time (by end of February, 2013), there remains important risks in terms of deployment and adoption of these modules, caused by the BMLWE's IT personnel allocating the time and effort required to achieve the action points allocated to them, and their efforts in relation to preventing and addressing network and hardware breakdowns. Until such action is resolved by the BMLWE, the timely completion of the ERP activity, and the sustainability of the modules that rely on network connectivity, remain at risk.

G. STTA DURING QUARTER

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

Person and Subcontractor	Period of STTA	STTA Activity
Raed Ghantous, Project Manager, CDM Smith	Nov 18—Nov 30, 2012	<ul style="list-style-type: none"> • SLWE Infrastructure project review • QC/QA periodic review of all CDM engineering operations

John Crippen, Project Technical Engineer, CDM Smith	Dec 8—Dec 21, 2012	<ul style="list-style-type: none"> • Jeita PS Inspection • SLWE Infrastructure • NLWE PS Design Review
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H. MAJOR ACTIVITIES PLANNED FOR NEXT QUARTER

BWE Water Establishment Activities

2.2 Completion and submission of the water quality testing report and capacity building program

3.3 Continuation of ERP implementation by providing training on SharePoint and Document Control as well as CRM and Billing and Collection go-live for Baalbek and Chamseen

4.4 Master plan inception report completed and vetted with the BWE Director General and continued work on the master plan

5.5 Continued chlorination system site visits, provision of chlorine and system operation checks as well as remedial training, if needed. Continued efforts to deal with the operational challenges presented above

6.1 Bid advertisement, selection of winning bid and forwarding to USAID for approval

Beirut-Mt. Lebanon Water Establishment

3.1 Development of BMLWE procedures and standards manual for use in budgeting and financial reporting

3.2 The Billing and Collection module training and go live will start in mid-January and it will take place gradually. It will go live in five branches at the same time by sending one specialist for two weeks from 9:00 am until 1:00pm to provide training on the new Billing & Collection module bearing in mind that BMLWE operator will keep entering data on the old system. Then the specialists will move to another five branches and do the same tasks listed above until we finish the 20 branches.

- The SharePoint and Document Control modules will be implemented in February.
- The CRM module will be implemented in March after the Billing & Collection module implementation.

5.2 Completion of the installation of pumps, motors, motor controls, and painting and arrangements for an event at the site by GOL and USAID

North Lebanon Water Establishment

5.2 LWWSS will continue its work on the NLWE submersible pump replacement program in the next quarter by completing the well testing, pump design and bid package

5.3 LWWSS will continue the procurement and installation of the NLWE standby generators

6.1 Award Beit Mellat design and supervision subcontract

7.3 Obtain WE concurrence on the website design and work on web site completed

South Lebanon Water Establishment

5.1 The subcontractor Modon will continue construction of meter protection enclosures and begin meter installation

5.6 Procurement of IT hardware and installation

6.1 Completion of PS design and bid documents; bids received and reviewed and consent request forwarded to USAID for approval

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.

Environmental Compliance Table 1:

LWWSS Environmental Compliance Overview				
Activities (Completed, On-going, and Planned)		Environmental Compliance Actions		
#	Activity Description	Has an initial screening form been completed?	As per the screening form, is an ERAC and EMMP necessary?	Is there an approved ERAC and EMMP (if applicable)?
Component 2				
2.1	Source metering training in SLWE	Yes, see activity 5.1	See activity 5.1	See activity 5.1
2.2	Water quality management in the Bekaa implemented by AUB	Yes	No	N/A
2.3	O&M trainings for pump station operators in BWE, NLWE, and SLWE	Yes	No	N/A

2.4	IT literacy training for BMLWE and BWE	Yes, see activity 3.1	No	N/A
2.5	Network maintenance and repair training for BWE	Yes	No	N/A
Component 3				
3.1	Upgrade finance and accounting standards and methods	Yes	No	N/A
3.2	Enterprise Resource Planning (ERP) platform and associated activities	Yes	No	N/A
3.3	Pilot Stakeholder exercise to sustain O&M of USAID WWTP	Yes	No	N/A
Component 4				
4.1	Business planning for BMLWE and SLWE	Yes	No	N/A
4.2	Pump station inventory in South Lebanon	Yes	No	N/A
4.3	Water utility management: conferences, workshops, specialist trainings and study tours	Yes	No	N/A
4.4	Masterplanning for the Bekaa	Yes	No	N/A
Component 5				
5.1	Source metering installation and training	Yes	Yes	Yes
5.2.1-5.2.2	Jeita pump station rehabilitation	Yes	Yes	Yes
5.2.3-5.2.4	Pump station rehabilitation in North Lebanon	Yes	Yes	No - planned for Q2 of Y4*
5.3	Back-up power generators for NLWE pump stations	Yes	Yes	Yes
5.4	Upgrading water analysis laboratories in SLWE and BWE (Y3) and rehabilitation of laboratory and equipment purchases for BWE (Y4)	Yes	Yes	-Yes for Y3 activities -No for Y4 activities - planned for Q2 of Y4
5.5	Customer Service Center in BWE	Yes	Yes	Yes
5.6	Upgrade IT equipment in BWE and SLWE	Yes	Yes	-Yes for BWE -No for SLWE - planned for Q2 of Y4*
5.7	GNSS procurement and training for SLWE	Yes	Yes	Yes
Component 6				
6.1	Network rehabilitation in Zahle (BWE)	Yes	Yes	Yes
6.2	Expanding service provision in Beit Mellat (NLWE)	Yes	Yes	No - planned for Q2 of Y4
6.3	Pump station rehabilitation in South Lebanon	Yes	Yes	No - planned for Q2 of Y4*

6.4	Chlorination systems installation and training	Yes	Yes	Yes
Component 7				
7.1	Building customer service management structure at BWE	Yes	No	N/A
7.2.1	Customer Service training at BWE and BMLWE	Yes	No	N/A
7.2.2	On-the-job training in communication planning	Yes	No	N/A
7.3.1-7.3.2	Design and implement WE brand identity guidelines and design and implement corporate website	Yes	No	N/A
7.3.3	Design and adopt customer service application forms	Yes	No	N/A
7.4	Customer satisfaction survey	Yes	No	N/A
7.5	Youth water conservation programs	Yes	No	N/A
7.6.1	Media campaign in the Bekaa	Yes	No	N/A
7.6.2	World Water Day 2012 youth outreach	Yes	No	N/A

ERAC = Environmental Review and Assessment Checklist

EMMP = Environmental Mitigation and Monitoring Plan

* = These EMMPs were originally planned to be completed during Q1 of Y4, but the activities were not finalized during Q1.

Environmental Compliance Table 2:

LWWSS Environmental Mitigation & Monitoring Actions		
Activity # (as per Y4 Workplan)	Activity Description	Environmental Mitigation and Monitoring Update (as of December 31, 2012)
5.1	Source metering installation and training	The ERAC and EMMP were approved by LWWSS' COTR at the end of the third quarter of year three.
		An initial EMMP was included in the subcontract with Modon (signed in April 2012), the vendor that is supplying and installing source meters at up to 221 sites. A more detailed EMMP, as well as an environmental mitigation inspection checklist, was given to Modon personnel at the end of the second quarter of year three and discussed in detail with them.
		As per the EMMP, Modon's site supervisor is responsible for ensuring that all mitigation measures are followed and must complete an environmental mitigation inspection at each site. These checklists should be turned in with monthly reports. LWWSS' ES has not yet received any checklists, but will begin requesting them during the second quarter of year four.
		Preparation works for the installation of source meters began at the end of the fourth quarter of year three, and installation began at the end of the first quarter of year four. An LWWSS engineer is on site four days/week to supervise Modon's work.
		LWWSS' ES will go on site visits twice per quarter with the LWWSS engineer to ensure that all mitigation measures are being followed. Photos will be included in the EMMP monitoring files.
5.2.1-5.2.2	Jeita pump station rehabilitation	The ERAC and EMMP were approved by LWWSS' COTR during the fourth quarter of year three.

		<p>The EMMP includes an environmental mitigation inspection checklist that BMLWE's engineers must complete during the rehabilitation and at the beginning of the operation of Jeita. LWWSS is still awaiting a commitment letter from BMLWE's Director General (DG) concerning the environmental mitigation process, but continues to follow up with the DG and we hope to receive this letter in the second quarter. In the meantime, during installation, BMLWE engineers are completing the environmental mitigation inspection checklists that were developed by LWWSS' ES. LWWSS' ES has not yet received the checklists, but will request them during the second quarter of year four.</p>
		<p>The rehabilitation began at the end of the fourth quarter and will be completed early in the second quarter of year four. During the first quarter, LWWSS' ES went on a site visit with the LWWSS engineers to ensure that all mitigation measures are being followed during the rehabilitation process. Photos of this site visit are included in the EMMP monitoring files.</p>
<p>5.2.3-5.2.4</p>	<p>Pump station rehabilitation in North Lebanon</p>	<p>This activity has been delayed due to issues detailed in the monthly and quarterly reports, and will begin during the second quarter of year four with well assessment tests taking place at one of the pump stations that will be rehabilitated, followed by the design of the rehabilitation of all four of the pump stations. LWWSS' ES will complete the ERAC and EMMP during the second quarter of year four once the design phase of this activity begins.</p>
<p>5.3</p>	<p>Back-up power generators for NLWE pump stations</p>	<p>The ERAC and EMMP were approved by LWWSS' COTR during the fourth quarter of year three.</p> <p>The EMMP, as well as an environmental mitigation inspection checklist, was included in the subcontract with Edan Group International (signed in September 2012), the vendor that is supplying and installing the back-up generators.</p> <p>Once the installation of the generators begins (third quarter of year four), Edan Group International's site manager will ensure that the mitigation measures are followed at each site and will complete the checklist. LWWSS engineers will be on site during the installation, and the ES will also conduct monthly site visits to ensure that mitigation measures are being followed.</p>

5.4	Upgrading water analysis laboratories in SLWE and BWE (Y3) and rehabilitation and equipment procurement in BWE (Y4)	<p>-The ERAC and EMMP for the year three activities in SLWE and BWE were approved by LWWSS' COTR during the second quarter of year three.</p> <p>-The ERAC and EMMP for the year four activity with BWE will be completed in the second quarter of year four.</p> <p>LWWSS' capacity building specialist and engineers conducted frequent site visits to the laboratories throughout year three to ensure that all mitigation measures were followed and reported back to the ES, as well as taking photos for documentation. The ES also conducted a couple site visits to both SLWE and BWE and found that all mitigation measures were being followed.</p> <p>As per the EMMP, both the SLWE Director General and the BWE Director General signed commitment letters agreeing to follow detailed safety procedures during use of the equipment and to dispose of laboratory equipment in an environmentally responsible manner at the end-of-useful life of the equipment.</p> <p>For the year four activity with BWE, as with the year three activities, the ERAC and EMMP will require the same training activities to be conducted, as well as commitment from the WE to abide by safety measures and environmentally responsible disposal. LWWSS' ES will request a commitment letter from BWE's Director General in this regard.</p>
5.5	Customer Service Center in BWE	<p>The ERAC and EMMP were approved by LWWSS' COTR during the third quarter of year three.</p> <p><i>Rehabilitation</i> - The contractor ensured that all mitigation measures were followed, and completed an environmental mitigation inspection checklist and turned this into the ES. LWWSS' Customer Service Specialist conducted frequent site visits during the rehabilitation and reported back to the ES, as well as taking photos for documentation. All photos are included in the EMMP monitoring files.</p> <p><i>Operation</i> - As per the EMMP, the BWE Director General signed a commitment letter to follow the mitigation measures during operation. The ES also conducted a couple site visits to the customer service center during operation to ensure that these measures are being followed and took photos for documentation. All photos are included in the EMMP monitoring files.</p>

5.6	Upgrade IT equipment in BWE	The ERAC and EMMP were approved by LWWSS' COTR during the second quarter of year three.
		As per the EMMP, the BWE Director General signed a commitment letter agreeing to dispose of IT equipment in an environmentally responsible manner at the end-of-useful life of the equipment.
	Upgrade IT equipment in SLWE	This activity will take place during the second quarter of year four, and the ERAC and EMMP for SLWE will be completed during the second quarter of year four. The EMMP will require that the SLWE Director General signs a commitment letter agreeing to dispose of IT equipment in an environmentally responsible manner at the end-of-useful life of the equipment.
5.7	GNSS procurement and training for SLWE	The ERAC and EMMP were approved by LWWSS' COTR during the second quarter of year three.
		As per the EMMP, the SLWE Director General signed a commitment letter agreeing to dispose of the GNSS equipment in an environmentally responsible manner at the end-of-useful life of the equipment.
6.1	Network rehabilitation in Zahle (BWE)	The ERAC and EMMP were turned into the LWWSS COTR at the end of the fourth quarter of year three and it was approved during the first quarter of year four.
		Environmental compliance language was included in the subcontract with WET, the contractor that is designing and supervising the network rehabilitation.
		The EMMP was developed after the preliminary design was submitted by WET and WET was given the EMMP and the environmental mitigation inspection checklist developed by LWWSS' ES.
		The EMMP will be included in the subcontract with the construction subcontractor, who will be responsible for following mitigation measures during the rehabilitation. WET will be responsible for monitoring the construction subcontractor and will fill out the checklists and turn them in with monthly reports.

		Once the rehabilitation begins in year four, LWWSS' ES will conduct site visits twice quarterly to ensure that all mitigation measures are being followed.
6.2	Expanding service provision in Beit Mellat (NLWE)	This activity will begin during year four. The ES will complete the ERAC and EMMP during the second or third quarter of year four after the subcontractor has completed the preliminary design.
6.3	Pump station rehabilitation in South Lebanon	This activity will begin during year four. The ES will complete the ERAC and EMMP during the second quarter of year four when the final design is completed by CDM Smith and their subcontractor DEP.
6.4	Chlorination systems installation and training	<p>The ERAC and EMMP were approved by LWWSS' COTR during the first quarter of year three.</p> <p>LWWSS' capacity building specialist and engineers conducted frequent site visits to chlorination sites throughout year three to ensure that all mitigation measures were followed and reported back to the ES, as well as taking photos for documentation. Photos are included in the EMMP monitoring files.</p>

ERAC = Environmental Review and Assessment Checklist

EMMP = Environmental Mitigation and Monitoring Plan

ES = LWWSS Environmental Specialist

Annex A Source Metering Activity

LWWSS - SLWE - Source Metering Activity

Item	Source name	Source Meter Quantity	Status by March 2013
Saida Department			
1	Jenjleya	1	
2	Sirob	1	
3	Kferhatta	1	
4	Ghaziyeh Dlaybeh	1	
5	Ghaziyeh Khaliliyeh	1	
6	Ghaziyeh Zehriyeh	1	
7	Maamriyeh	1	
8	Arab Tabaya	1	Construction of meter vaults completed
9	Jarjouu	1	Construction of meter vaults completed
10	Villet station number 1	1	
11	Villet station number 2	0	No access
12	Al Fouwar station number 1	0	Station Under rehabilitation by SLWE
13	Al Fouwar station number 2	2	2 wells
14	Bnaafoul	1	Construction of meter vaults completed
15	Salhyeh	1	
16	Haret Saida	1	
17	Majdelyoun station number 1	1	
18	Majdelyoun station number 2	0	Station Under rehabilitation by SLWE
19	Maghdouche station number 1	1	
20	Maghdouche station number 2	1	
21	Dayr el Zahrany station number 1	1	
22	Dayr el Zahrany station number 2	0	Flow meter working (New station)

23	Ezzeh	1	
24	Erkay	1	
25	Ein Bouswar	1	
26	Kfarwa	1	
27	Rafic Hariri	0	Flow meter working
28	Nabee el tassy	8	5 Wells & 3 Spring sources
29	Kerkha	1	Construction of meter vaults completed
30	Ankoun station number 1	1	
31	Ankoun station number 2	1	
32	Lebaa	1	
33	Roumin	1	
34	Myeh w Myeh	1	Construction of meter vaults completed
35	Qennarit	1	
36	Zaita	1	
37	Jerneya	1	
38	Kfarmelki	1	
39	Wady Baankoudayn	1	
40	Al qrayyeh	1	
41	Darb el Sim	1	
42	Tanbourit	1	Construction of meter vaults completed
43	Hajjeh	0	Not working - Aquifer Polluted
44	Houmin el Tahta	1	
45	Barty	1	
46	Mjaydel	1	
47	Hesseniyeh	0	Not working - Aquifer Polluted
48	Kfarwa spring	0	No access
49	Sehet el choudada	0	Not working-abandoned
Sour Department			
50	Chaaytyeh	1	

51	Maarakeh	0	Flow meter working
52	Dayr Kifa	1	
53	Qalaway	2	2 Wells
54	Berish	1	
55	Srifa	1	
56	Aalma el Chaeeb	1	
57	Dhayra	1	Construction of meter vaults completed
58	Yerin	1	
59	Boustan	1	
60	Ramia	1	
61	Debel	1	
62	Qouzah	1	Construction of meter vaults completed
63	Al jabyn	1	Flow meter not working
64	Chihin	1	
65	Chamee	1	
66	Tayr Harfa	3	1 Well & 2 Spings Sources
67	Naqoura	1	Construction of meter vaults completed
68	Biyada	1	Construction of meter vaults completed
69	Rchef	1	
70	Al Mansoury	1	
71	Jenneta	1	
72	Bazouriyeh station number 1	1	
73	Bazouriyeh station number 2	1	
74	Berj Rahal	1	
75	Bedyas	1	
76	Al Ebbesyeh station number 1	1	
77	Al Ebbesyeh station number 2	1	
78	Maaroub	1	
79	Dayr Qanoun el naher	0	Flow meter working (New station)

80	Al Hmayri	1	Construction of meter vaults completed
81	Debaal	1	
82	Baflay	1	
83	Tawra	1	
84	Tayr Debba	1	
85	Majdelzoun	1	
86	Hanaway	1	
87	Rmedyeh	1	
88	Zebquin	1	
89	Jibal el Betem	1	
90	Dayr Aames	1	
91	Al Biyyad	1	
92	Kafra	1	
93	Al Qlayleh	0	Flow meter working
94	Al Rashdyeh	0	No access
95	Al Bass	2	2 Spring sources
96	Ras el Ein	2	2 Spring sources
97	Batoulay	0	Under USAID/LWWSS-Add On project
98	Kafra Tank	0	Station Under rehabilitation by SLWE
99	Wady jilo	3	3 Wells
100	Seddiquin	0	Under rehabilitation by SLWE
101	Aitit	1	
102	Marwahin	1	
103	Yenouh	0	Not working-Not handed over to SLWE yet
Jezzin Department			
104	Mlikh *	1	

105	Kfarhouni	*	1	
106	Al Fouwar	*	1	
107	Shoum station number 1	*	1	
108	Shoum station number 2	*	1	
109	Ain Qbais	*	1	
110	Jouret el Souk	*	2	Well pumping to two destinations
111	Midan station number 1	*	1	
112	Midan station number 2	*	1	
113	Eezaybet el Fawqa	*	1	
114	Berket el Zarqa	*	1	
115	Kfarhouni Spring		0	No access
116	Haytoura		0	Station out of service (cancelled by SLWE)
117	Jezzin Main station		0	No source , Lift station
Zahrany Department				
118	Complex of Teffehta		7	7 Wells sources
119	Teffehta old well		1	
120	Khourtoun		0	Not working - Dry well
121	Kawthariyeh el Siyed		1	Construction of meter vaults completed
122	Al Ghesseneyeh		1	
123	Babilyeh		1	
124	Ansariyet Aadloun		1	
125	Al Loubyeh		1	Construction of meter vaults completed
126	Al Saksakyeh station number 1		1	
127	Al Saksakyeh station number 2		1	
128	Al Sarafand		1	
129	Qaaqaiyet el Snoubar		1	
130	Al Nmayriyeh		1	
131	Al Khrayeb		1	
132	Al Nejjeryeh		1	

133	Zefta	1	Construction of meter vaults ongoing
134	Al Aadousiyeh	1	Construction of meter vaults completed
135	Al Merwenyeh	1	
Nabatyeh Department			
136	Jebchit - Choukin station number 1	1	
137	Jebchit station number 2	1	
138	Jebchit station number 3	1	Construction of meter vaults completed
139	Choukin	1	
140	Charqyeh station number 1	1	
141	Charqyeh station number 2	1	Construction of meter vaults completed
142	Harouf station number 1	1	
143	Harouf station number 2	1	Construction of meter vaults completed
144	Ansar station number 1	1	
145	Ansar station number 2	1	
146	Sinay	1	
147	Chelbaeel	1	Construction of meter vaults completed
148	Eebba station number 1	1	
149	Eebba station number 2	0	Flow meter working
150	Braykee	1	
151	Zawtar el Charqyeh station number 1	1	Construction of meter vaults completed
152	Zawtar el Charqyeh station number 2	1	
153	Zawtar el Gharbyeh	1	
154	Sir el Gharbyeh station number 1	1	Construction of meter vaults ongoing
155	Sir el Gharbyeh station number 2	1	Construction of meter vaults ongoing
156	Aadchit station number 1	1	
157	Aadchit station number 2	1	
158	Qaaqaaiyet el Jesser station number 1	1	
159	Qaaqaaiyet el Jesser station number 2	1	Construction of meter vaults completed
160	Mayfadoun	1	Construction of meter vaults ongoing

161	Ksaybi station number 1		1	
162	Ksaybi station number 2		1	
163	Al Ksaybi station number 3		1	
164	Yehmor		1	Construction of meter vaults completed
165	Nabatyeh Fawqa - Kfartebnit		1	
166	Nabatyeh Fawqa		1	
167	Kfartebnit el Khardali		1	
168	Kfartebnit Tabaja		1	
169	Kfartebnit Tassy - spring		0	No source , Lift station
170	AL Dwer		0	Flow meter working
171	Chlorine room		0	No source , Lift station
172	Hima Arnoun		1	
173	Fakher el Din Complex		6	6 Wells sources
Bent Jbeil Department				
174	Aaita el Chaeab *		1	Construction of meter vaults completed
175	Rmeich station number 1 *		1	Construction of meter vaults completed
176	Rmeich station number 2 *		1	Construction of meter vaults completed
177	Ein Ebbel *		1	Construction of meter vaults completed
178	Heddetha *		1	
179	Qabrikha *		1	
180	Al Souwany *		1	
181	Toulin *		1	
182	Chaqra *		1	
183	Markaba		0	Rehabilitated by SLWE 2012
184	Litany (Taybe)		0	Flow meter working
185	wezzeny *		2	2 Spring sources
186	Mays el Jabal *		1	
187	Hawla station number 1 *		1	Construction of meter vaults completed
188	Hawla station number 2 *		1	

189	Hawla station number 3	*	0	No source , Lift Station
190	Blida	*	1	
191	Kherbert Selm	*	1	
192	Aaitaroun	*	1	
193	Bany hayyan	*	1	
194	Tallousi	*	1	
195	Bareechit	*	0	Not working - Aquifer Polluted
196	linata	*	0	Not working - Aquifer Polluted
Hasbayya Marjeyoun Department				
197	Helta station number 1	*	1	
198	Helta station number 2	*	1	
199	Chanouh	*	1	
200	Eezrayel	*	1	
201	Kferhamam	*	1	
202	Al Mary	*	1	
203	Rachayya el Fekhar	*	0	Not working - Aquifer Polluted
204	Al Kfir	*	0	Not working - Aquifer Polluted
205	Hebberyeh station number 1	*	1	Construction of meter vaults ongoing
206	Hebberyeh station number 2	*	0	Not working - Aquifer Polluted
207	Hasbany river	*	2	2 Spring sources
208	Zaghli	*	0	No source , Lift Station
209	Mayssat Complex	*	2	2 Spring sources
210	Kfarkella	*	1	
211	Dayr Mimes station number 1	*	1	Construction of meter vaults ongoing
212	Dayr Mimes station number 2	*	1	
213	Ebel Saqy Village	*	1	
214	Ebel el Saqy main station	*	3	2 wells (3 pumping lines)
215	Al Khelwet	*	1	
216	Ein Arab	*	1	Construction of meter vaults completed

217	Wady khansa *	1	Construction of meter vaults completed
218	Wady el Khokh	0	Flow meter working
219	Mimes	0	Not Working-abandoned
220	Berghos	0	Not working-abandoned
221	Blat	0	Not working-abandoned
222	Chebaa	0	No access
Total stations	222	Total Meters	215

Construction of vaults completed
Construction of vaults ongoing
Construction of vaults pending
No need for vaults construction
Not suitable or no need for meters installation

* Meters installation in process

** Meters installation completed