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Lebanon Water and Wastewater Sector Support

QUARTERLY REPORT: JULY 1, 2011—SEPTEMBER 30, 2011

October 15, 2011

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LEBANON WATER AND WASTEWATER SECTOR SUPPORT

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ACRONYMS

ACWUA	Arab Countries Water Utilities Association	IWRM	Integrated Water Resource Management
AFD	French Development Agency	KPI	Key Performance Indicator
AWP	Annual Work Plan	LWWSS	Lebanon Water and Wastewater Sector Support
APP	Annual Work Plan	MIS	Management Information System
ATP	Annual Training Plan	MMS	Maintenance Management System
BMLWE	Beirut and Mount Lebanon Water Establishment	MOEW	Ministry of Energy and Water
BWE	Beka'a Water Establishment	MOF	Ministry of Finance
CAS	Central Administration of Statistics	MOTGE	Mise en place des Outils Techniques de Gestion de l'Eau
CDG	Chairman and Director General	NLWE	North Lebanon Water Establishment
CDM	Camp, Dresser and McKee Engineering	NRW	Non Revenue Water
CDR	Council for Development and Reconstruction	O&M	Operations and Maintenance
CIP	Capital Improvement Plan	PMP	Performance Monitoring Plan
CO	USAID Contract Office	PSP	Private Sector Participation
CQCP	Construction Quality Control Plan	PPP	Public Private Partnership
CSR	Customer Service Representative	SCADA	System Control and Data Acquisition
COP	Chief of Party	SLWE	South Lebanon Water Establishment
COTR	Contract Officer Technical Representative	SMP	Subcontractor Management Plan
DG	Director General	STTA	Short-Term Technical Assistance
DAI	Development Alternatives Inc.	TOR	Terms of Reference
DCOP	Deputy Chief of Party	USAID	United States Agency for International Development
EIB	European Investment Bank	WE	Water Establishment
EU	European Union	WPS	Water Pumping Stations
EA	Environmental Assessment	WWTP	Wastewater Treatment Plant
EDL	Electricite du Liban (National Electricity Provider)		
EMMP	Environmental Monitoring and Mitigation Plan		
ERP	Enterprise Resource Plan		
FAS	Financial & Accounting System		
GA	Geographical Area		
GIS	Geographical Information System		
GIZ	Gezellshaft fur Internationale Zusammenarbeit		
GOL	Government of Lebanon		
GTZ	German Technical Assistance		
HPIP	High Priority Intervention Program		
HR	Human Resources		
IAR	Initial Assessment Report		
IEE	Initial Environmental Evaluation		
IFI	International Financial Institution		
IRG	International Resource Group		
IRM	Information Resources Management		
IT	Information Technology		

CONTENTS

ACRONYMS	1
1. QUARTERLY ACTIVITY HIGHLIGHTS	3
2. PROGRESS ON PROJECT DELIVERABLES.....	5
3. COMPONENT PROGRESS DETAIL.....	6
Component One: Initial Assessment Report and High Priority Intervention Plan.....	6
Component Two: Strengthened Capacity for Managerial, Technical and	6
Operational Efficiency	6
Component Three: Increased Financial and Commercial Viability and.....	8
Operational Efficiency	8
Component Four: Increased Capacity in Capital Investment Planning and Project Management	9
Component Five: Provision of Technical Equipment to Improve Water	10
Establishment Performance.....	10
Component Six: Implementation of Small- and Medium-Scale Projects to Improve	12
Operations and Services.....	12
Component Seven: Improved Customer Service and Customer Relations.....	12
4. COLLABORATION WITH DONORS AND GOL OFFICIALS	14
5. USE OF FUNDS DURING THE QUARTER	ERROR! BOOKMARK NOT DEFINED.
6. CONTRACT DELIVERABLES	16
7. CHALLENGES, PROBLEMS, ISSUES.....	16
8. STAFF AND STTA DURING QUARTER	ERROR! BOOKMARK NOT DEFINED.
9. MAJOR ACTIVITIES PLANNED FOR NEXT QUARTER	17
10. PERFORMANCE MANAGEMENT PLAN (PMP) REPORTING	18
ANNEX A LISTING OF DELIVERABLES BY COMPONENT.....	24

LWWSS Counterparts and Primary Contacts

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

Joseph Nseir
Maroun Msallem
Jamal Krayem
Ahmed Nizzam
Ghassan Beydoun
Abdo Tayar
Randa Nemer

1. QUARTERLY ACTIVITY HIGHLIGHTS

Beka'a Media Campaign

Need and Description

During May and June 2011, LWWSS conducted a media campaign in the Beka'a Valley Water Establishment's service area. The purpose of the outreach campaign was to increase collection of arrears and to encourage non-subscribers to subscribe with the WE. The goal of the pilot activity was to train BWE staff on: (1) conducting a media campaign; (2) developing and understanding how to measure the impact of each media used; and (3) improving the level of payment for services. Another indirect benefit was to have customers and potential customers in the service area see the WE carrying out an outreach program. All media ads were approved by the BWE Director General, Maroun Msallem. In addition to reminding customers and potential customers that the Ministry decreed discount payment of arrears and new subscriptions, the pilot focused on determining which media had the "best" response. Because any media advertisement funding is scarce, directors general and their staff responsible for outreach need to know where to place those ads to get the maximum impact for outreach expenditures.

Because the WE was not successful in obtaining free national TV airtime, and because paid TV ads are so expensive, TV advertisement was not used in this pilot. Therefore, the LWWSS pilot placed ads on radio, in newspapers, and billboards strategically located throughout the WE's service area. Perhaps in the future TV may also be a tool for outreach, but only if it is free. LWWSS will continue to work with all WEs to improve their outreach programs and to assist WEs in taking advantage of free public service announcements, whether they are radio, print, billboards, or TV.



Billboard campaign including a message on outdoor water conservation with the message on discounted subscription rates at the bottom.



Billboard campaign including a message on indoor water conservation with a message on installment payment options at the bottom.

General Outcome of Activity

LWWSS trained three BWE staff on how to conduct an outreach campaign. The newspaper ad was the most effective media with 60 percent of target audience reached. Additionally, BWE collected over \$100,000 in arrears, and 602 new customers subscribed.¹ The pilot was both a public relations and a financial success given that the WE brought in more money than was spent for the outreach campaign. The outreach campaign cost \$39,000. An impact analysis will be written and submitted in January, 2012.

Laboratory Equipment Delivered and Site Tested

LWWSS delivered an autoclave to the Tyre laboratory, and provided training on its proper operation and use to six SLWE laboratory staff. The autoclave enables the Tyre laboratory to test for biological hazards in WE water supply.



¹ LWWSS attempted to allocate the payment of accounts in arrears to the period of the ad campaign, but the lack of accurate accrual accounting made it difficult to assign payment to arrears or current payment. Therefore, the revenue received is an estimate.

Rapid Response to Training Needs

LWWSS successfully advocated that the BWE hire laboratory employees as a part of the Council of Ministers approval for BWE to hire new full-time employees. As a follow up to the hiring of the full-time employees, LWWSS, through a no-cost service provision by the American University of Beirut, provided basic water sample collection and recording training to the new staff.. This entailed on-site training by an AUB specialist in water sample collection procedures as well as training in proper testing records keeping.

2. PROGRESS ON PROJECT DELIVERABLES

Progress Summary

The fourth quarterly report affords an opportunity to not only report on the quarter but to step back and briefly assess the whole year relative to the annual work plan, deliverables and the contract as a whole.

Perspective

LWWSS encountered initial delays beyond the control of the project and USAID, which had an effect on year two's performance. More specifically, the lack of a government soon after the project started delayed some processes even in year two?, such as meeting with the Minister and obtaining approval for the work plan to be carried out with the water establishments. However, with USAID assistance, LWWSS was able to work within the circumstances and make reasonable progress.

Another factor of year-two progress was the need to do more feasibility analysis and on-site due diligence for major equipment requested by the water establishments. Through the IAR and HPIP processes, the focus of the WEs was on equipment procurement. The initial assumption was that the water establishments had developed lists of critical equipment needs, conducted on-site visits, and developed the appropriate specifications. This simply was not the case. LWWSS was obligated not only to conduct the initial feasibility analysis, but to review the design, specification for proper technology (if any)--new equipment often requires changes in controls, operations and maintenance--security, and sustainability. The impact of this additional initial review of the requests (due diligence) was a ripple effect on the time required to execute the equipment procurement activity.

LWWSS was successful in overcoming the initial hurdles and has made reasonable progress in the equipment procurement process. Year two reflects that effort, and toward the end of the year showed progress ensuring the success of the numerous equipment procurement and installation activities.

In terms of technical assistance (beyond that related to equipment procurement), LWWSS has done well relative to the operating conditions in Lebanon. For example, one of the water establishments, Beka'a Valley Water Establishment, did not have a permanent director general

(DG) until after year two had started. The year two work plan prepared with the previous DG had to be vetted again with the new DG, and resulted in numerous changes.

Another factor affecting work plan progress was the lack of full-time permanent employees within some of the water establishments. In order to vet potential training participants and to ensure attendance, LWWSS needed to make sure that the training did not interfere with the work responsibilities of the staff (in many finance departments there is only one person who can do the payroll or take care of procurement). Therefore, the training was spread out over a longer time to minimize the negative impact on the trainees' regular work load and schedule.

None of these items alone were major hurdles, but collectively they tended to slow project progress. However, none are expected to entail a delay that would affect the overall project completion. LWWSS was successful in finding ways, such as hiring sufficient engineering staff to conduct the site visits to ensure adequate feasibility analysis, design and specification development with local water establishment staff.

3. COMPONENT PROGRESS DETAIL

Component One: Initial Assessment Report and High Priority Intervention Plan

Completed, as reported previously.

Component Two: Strengthened Capacity for Managerial, Technical and Operational Efficiency

Overview

Technical assistance to the four water establishments is guided by contract deliverables, annual work plan, and training and procurement plans developed with each WE and approved by USAID. There are a number of contract deliverables associated with component two², although these are dynamic given the fact that LWWSS is flexible in its design and governed by the aforementioned plans developed through consensus with the WEs and approved by USAID. Capacity building is the focus of this component, however, capacity building is greatly affected by the level of modernization within any organization, and the staff's ability to adopt and implement information processing equipment. That is, the provision of new software and new computers allow an organization to reengineer how information and decision-making are done whether at the supervisory level or top management.

² There are 42 deliverables in the LWWSS contract listed in Section F of the contract. Of these, the following numbered deliverables apply to component two: 5, 8, 9, 17, 18, 19, 39, 40. Some deliverables can be listed in more than one component given their nature. For example acquiring new software involves procurement, training and implementation, or components 2, 3, and 5. Please see Annex A for the title and list of components.

Therefore, the activities under component two are designed to maximize LWWSS efforts with the support and commitment of top WE management, middle management, and supervisory level staff through building consensus of the training to be carried out.

Additionally, during this quarter, LWWSS began coordinating with the UNDP's two-year ground water data development program. The subcontractor for UNDP, ELARD, has met with LWWSS and we are sharing data, specifically data from the detailed pump station survey with ELARD in order to speed along and make more accurate its analysis of the groundwater conditions throughout the country.

NLWE Pump Station Operations and Maintenance Training

The pump station operations and maintenance capacity building training is tailored for each water establishment. During this quarter, LWWSS completed the training of 51 pump station operators. LWWSS provided training in two locations within the WE, in Tripoli and in Halba.

Operators and supervisors are more able to properly operate and maintain the pump stations based on increased knowledge and skills in pump operation and safety; motor operation control and safety; and electrical control panel operation and safety. Part of the pump station training included troubleshooting or early diagnosis of impending pump or motor failure. In addition, operators were given formatted operating logs to keep daily records in each station. A check on the operators after the training showed that the operators were keeping the logs up to date, an important part of pump and motor maintenance and repair.

BMLWE Financial Management Training

During this quarter 19 BMLWE staff successfully completed financial management training provided by the Institute of Finance. This training is in conjunction with the preparation of BMLWE staff to receive and work with the new MIS systems.³ The new system will enable the BMLWE finance department to shift to accrual accounting (required by legislation but not carried out in any water establishment).

SLWE Detailed Pump Station Survey

LWWSS subcontractor Cadres S.a.r.l. initiated work in the SLWE, and this is anticipated to continue to May 2012. This activity will feed into the maintenance management software planned for procurement for SLWE in year three.

³ As the use of computers in all facets of an organization's functions, processes, and procedures, the computer becomes essential to make allocation decisions. This process is now referred to as enterprise resource planning (ERP). This system allocates resources (human, financial or capital) using an integrated information process. The acronym MIS will be replaced by ERP in future reports and analysis.

Component Three: Increased Financial and Commercial Viability and Operational Efficiency

Overview

LWWSS issued a request for proposal that envisioned and called for increasing the financial and commercial viability and operational efficiency of selected WEs. This entails training allocated to component two: the modernization of business practices and decision-making models that allow top and middle management to make financial, human resource and other operational decisions in a timely fashion. One key tool in modernizing an organization's financial and functional decision-making and improving its viability is to establish an integrated software system combined with policies, procedures and practices that ensure financial and operational success.⁴

Another essential tool that cuts across all disciplines (financial, human resources, capital planning and performance improvement) is the business plan. By generating a business plan, the water establishments can measure throughout the year their progress in financial self-sustainability, human capacity to meet its requirements, and the performance criteria metrics for reporting to the MOEW and other stakeholders. The primary tool in showing progress against the business plan is an integrated information software system or enterprise resource planning system. The contract detailing component three, in addition to the anticipated results, lists several deliverables enumerated in the footnote below.

LWWSS has made excellent progress in the BMLWE and BWE relative to their acquisition, business process reform, information flow and accounting capacity as part of the overall ERP system implementation. While BMLWE is more advanced and capable of absorbing the new system quicker than the BWE, LWWSS has been able to take advantage of this fact by starting the implementation of the ERP in BMLWE first and then the BWE. This procedure has and will continue to allow LWWSS to apply lessons learned in the BMLWE to the activity in BWE to avoid delays or operational issues.

BMLWE and BWE Enterprise Resource Planning Systems

Financial Accounting System

LWWSS completed both a tender for software selection and the IRM and CO approval process. We then began working with the BMLWE and BWE enterprise resource planning (this is a broader term than financial accounting system and implies the full breadth of integration of information flow and business process transactions and will be used as a replacement for FAS, CRM and MIS in further reporting on this process in both WEs).

⁴ There are 42 deliverables in the LWWSS contract listed in Section F of the contract. Of these, the following numbered deliverables apply to component three: 11, 12, 13, 14, 15, 16, 1318?, 19, 21, 23, 24, 28, 31, 32, 34, 38, 39, 41, 42. Some deliverables can be listed in more than one component given their nature. For example acquiring new software involves procurement, training and implementation or components 2, 3 and 5. Please see Annex A for the title and list of components.

During this quarter the LWWSS team has not only completed the procurement of software process but worked closely with the financial and customer relations management processes to prepare them for the implementation of more contemporary financial and customer relations systems. For example, cost centers were identified and agreed upon by the LWWSS team and the respective implementation teams of the two WEs. These cost centers will enable the top management of the WEs to have more specific and timely information about costs within each major division. This, in turn, enables the director general and department heads to determine problem areas relative to cost and areas that are doing well and respond accordingly.

Customer Relations Management System

Another example of the business process transaction modernization is the implementation of software and customer relations policies. Customers will be able to make inquiries of the customer services representatives who will be able to respond to approximately 90 to 95 percent of the questions and requests for services by the customer at the service center. More specifically, the LWWSS customer relations specialist has (1) defined and gotten buy-in of the respective WE staff of the procedures to be used in the customer relations process, to include complaint handling; (2) developed specific forms for each procedure in the customer relations process (e.g., new customer subscription, change of ownership) and obtained WE director general approval for their use; and (3) developed the procedures in such a way that they would feed into the ERP system, which will fully integrate financial and customer relations information.

The next quarter will start the detailed tailoring of the specific business processes with the ERP-specific software and checking on staff training in the software so they can proficiently execute transactions for their departments and divisions. Completion of this activity will culminate in the transfer of data and proper operation of the new software. This process will be completed by the fall of 2012.

Component Four: Increased Capacity in Capital Investment Planning and Project Management

Overview

Increased capacity in capital investment planning requires not only some training in capital planning but also the ability to ensure that the budgeting and procurement divisions in the WE function closely together. Additionally, the organization will need to improve and expand its capacity to oversee capital projects. The first part of component four is addressed by LWWSS through the business planning development and updating. The business plan looks at the next five years, and beyond with respect to capital needs, and assesses the funding needed for capital projects.

Currently the WE budget has two parts in its annual budget. The first part contains all the operational expenses. The second part contains the capital investment at the level that the

WE resources can meet. Larger projects that require significant funding are submitted separately to the MOEW and CDR for consideration and funding.

The second part of component four is the assessment and technical assistance to the WEs in the execution of capital investment projects. For those capital investment projects that the WE can undertake, it oversees the entire process of hiring a design firm, the tendering process and the construction process. LWWSS will continue the business planning subpart that focuses on capital planning at the WE level. During the work plan year three execution, LWWSS will conduct an assessment of the WE capital investment procurement process and make recommendation for areas of improvement.

SLWE Business Plan Amendment

The recently completed SLWE business plan will need to be amended to accommodate the recently adopted National Water Sector Strategy that reflects MOEW goals and objectives. This process will entail discussion and development of wastewater division effort and discussion on how the WE will meet specific targets on service coverage, collection rate, consumer metering and reduction of non-revenue water.

The fact that the MOEW is looking at the business plan to report progress toward the NWSS is good news for LWWSS and the WEs as the WEs annually amend their business plans to show that they are doing their best to meet the NWSS and MOEW goals and objectives. Concurrently, it demonstrates the MOEW acceptance of the business plan as the document that demonstrates the planning and budgetary commitment to the NWSS. In fact, the business plan does much more than the planning and capital budgeting to meet the NWSS, it also states the human resources and the performance improvements that will also move the WEs closer to meeting the NWSS goals and objectives.

During the next quarter, LWWSS will support SLWE to make amendments to their business plan.

Component Five: Provision of Technical Equipment to Improve Water Establishment Performance

Overview

From the beginning of the project it has been clear that the WEs had much more need for equipment replacement and new equipment than the LWWSS resources could address.⁵ The problem was to fashion an affordable set of procurements that balanced the WE's priorities with those of USAID. That is, procurements that would increase the amount, volume or quality of the water the WEs provide to those most in need. Fortunately, these two objectives mesh well and the impacts of the procurement chosen reach the maximum of poor, un-served, or the maximum number of water consumers feasible.

Other procurements that are listed below address essential water management needs such as metering water production which is the first step in any program to reduce water loss. Other procurements such as the detailed survey of the pump stations in the SLWE are essential for service provision planning, capital planning and system maintenance and operation.

Another aspect of the procurement program is to complete projects that were started but not completed by USAID or other donors. One such project is the installation of the UNICEF procured chlorination systems for BWE. UNICEF had procured 29 chlorination systems but installed only nine of them. The rest lay in the major pump station in Zahle. LWWSS evaluated the remaining 20 systems and determined that they could be installed with the addition of safety equipment (alarm systems, gas masks, and emergency showers). More detail is presented on this specific project below.

One aspect of the equipment procurement component is that the WEs rarely have performed feasibility and engineering reviews for necessary equipment rehabilitation or replacement projects. LWWSS has found that it is often not prudent to simply replace a pump and motor, that the entire pump station has to be reviewed and often refurbished with new electrical controls, electrical generation back-up or systems that can shut down properly when the electricity is erratic in voltage or shut down. While the lack of feasibility (proper technology for the location and function), and development of specifications are not unexpected tasks, the amount of work not done has added to the time required on most procurements.

BMLWE--Jeita Pump Station Upgrade

During the bidding process for pumps, motors, electrical control panels, valves, couplings and fittings, the LWWSS team determined that it would be beneficial to break the bid into three separate components; two were bid in the US and one in Lebanon. The first bid package was for motors and pumps. The second package was for valves, couplings and fittings for high pressure connections. Both of these packages were bid in the US. However, because of specific requirements by Électricité du Liban (EDL) for electrical panels to be hooked up to its system, the motor control panels were bid in Lebanon. The third bid is ongoing as this quarter ends. The bidding for valves, couplings and fittings encountered a problem because no vendors responded to the request for bids. The reason stated by the vendors when contacted was that the bid was a special production and was not large enough to be worthwhile (the estimate for the valves, couplings and fittings was \$250,000). The result is a delay of at least two months in the procurement process from the date of the original bid solicitation

The National Pump Company won the bid for the pumps and motor assemblies with a bid of \$1,813,464 for sixteen pumps and motors. Request for USAID contract office approval has been forwarded and is expected early in the next quarter.

The issue with the valves, couplings and fittings will also be addressed, and LWWSS should be able to forward an approval to the contracts office in November.

UNICEF Chlorination Systems Installation

LWWSS subcontractor, Sanabel, completed the chlorination system installation of 17 chlorination systems in fourteen stations. The selection of stations was based on pressure of the system (some candidate locations had water pressure that was too high for the chlorination systems to work) and the number of people served. Three of the stations required two chlorination systems because of their size and configuration (two have bypass lines that must also be chlorinated). Of the 20 systems that UNICEF had procured, three systems had defective parts and would not function if installed. These non-working systems will become a parts reserve for the remaining 17 systems when they need parts replaced.

Approximately 107,000 people in the BWE (32 percent of the served population) will now receive water that has been chlorinated, thus reducing the bacteriological threat to health. The completion of the installation does not end the subcontractor's commitments because the subcontractor will periodically check the operations and maintenance of the installed systems and provide remedial training if needed.

After installation of the chlorination system in each station, the staff of that station received training on the specific chlorinators, their proper operation and maintenance. Additionally, Sanabel provided equipment and training on the safety equipment provided by LWWSS (gas masks, alarm checks and use of emergency showers).

Component Six: Implementation of Small- and Medium-Scale Projects to Improve Operations and Services

No small- to medium-scale capital construction projects were planned for year two. As previously stated in the quarterly report, the highest intervention priorities of the directors general of the four water establishments are procurement of equipment such as pumps, motors, electrical controls, generators and source meters. Since LWWSS is a demand-driven project, the DG priorities will be addressed first. Should project resources allow for small- and medium-scale infrastructure projects, LWWSS with USAID approval may execute them in subsequent years.

Component Seven: Improved Customer Service and Customer Relations

Overview

The customer service orientation of the WEs is in its seminal state. Often the customer is treated as though he or she should be happy to receive water at all. Donors, primarily USAID and GIZ, have begun to provide technical assistance and training to increase utility customer relations staff ability to respond to customer inquiries and requests for service. In fact, the training of the utility staff starts before the actual contact with the customer by training customer awareness and handling techniques and procedures for a positive outcome.

In the NLWE, GIZ has provided some assistance in restructuring the organization to improve customer relations, and provided funding for the refurbishment of a customer service center.

In SLWE and BMLWE the water establishments have developed their own limited effort to establish and improve customer relations. However, all WEs lack a comprehensive and on-going effort to improve communications and their relationship with customers.

The enterprise resource planning (ERP) software system entails a customer relations management module that helps modernize the customer relations management system. The ERP enables a customer service representative to have nearly all the information needed to respond to most inquiries by the customer. Requests for service are forwarded to the proper division for service response (also emergency response for line breaks). The ERP is a fundamental change agent within both the BMLWE and BWE in terms of information processing and decision-making. It empowers lower level managers to make decisions quickly to address specific situations (to the extent that top management is willing to delegate the decision-making process).

The customer relations management improvement process entails more than new computer software, it entails a change in the mind-set of the utility employee toward the customer. This attitude is important not only for improved tariff collection but also for confidence in and cooperation with the water utility. LWWSS staff are involved with these significant steps (ERP development and implementation, customer relations improvement and customer outreach with respect to water conservation).⁶

NLWE Corporate Identity Guidelines Developed

LWWSS customer relations specialist, Nada Akl, completed the development of NLWE corporate identity guidelines that will be applied organization-wide. The corporate guidelines will be used by NLWE staff in developing their communication supports such as stationary, service brochures, campaigns, forms and any documents that are used to communicate to the WEs consumer base. The guidelines show where and how the WE logo including its identity elements, pictures and special message line are to be applied on these communication supports so as to create consistency and build confidence in the consumer's mind with the utilities services and activities. The NLWE Director General started implementing the guidelines this past quarter in the utilities' newsletter.

BWE Customer Service Center for Zahle

The customer service center in Zahle has been designed, tendered and the successful bidder selected: Al-Handassa. Although the cost for the work was estimated at about \$130,000, the actual bid came in at nearly \$169,000. LWWSS was successful in negotiating the price down to \$145,000 without reducing the quality of the work or goods to be provided. The work will start in mid-October. The rehabilitation work is anticipated to be completed in March, 2012.

BWE Water Conservation and Arrears Payment Outreach

This activity is described in the highlights section on page three above.

⁶ There are 42 deliverables in the LWWSS contract listed in Section F of the contract. Of these, the following numbered deliverables apply to component seven: 39, 40, 41. Please see Annex A for the title and list of components.

BMLWE and BWE Customer Service Operations

As reported above in component three, CRM is a part of the total ERP system upgrade and the LWWSS CRM specialist has participated in the development of the specifications as well as the overall tendering process. LWWSS also sought and obtained IRM and CO approval for the procurement of software (and some hardware for BWE). LWWSS worked with both WEs to amend and update their business processes and cost centers, develop specifications, and complete tendering.. The winning bid was EDM. EDM and LWWSS staff held kick off meetings with each of the WE implementation staff.

In the next quarter the EDM-LWWSS team will work closely with the WE appointed implementation teams to address specific organization information flows. Additionally, BWE will take more time to absorb the new processes and formats compared to BMLWE since about half of their staff will be new. The major focus for LWWSS during the next quarter will be to tailor the system and address site specific issues in administration, availability of personnel for training, and capacity to absorb and apply the training.

4. 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 with the GOL and other donors below provides a clear picture of this important program activity.

Meeting with Donor or GOL Official	Date	Attendees	Brief Synopsis of Meeting
MOEW	July 19,2011	Bassam Jaber	Launch of the UNDP Groundwater Assessment and Data Base Program
USAID Training at AUB	July 26-7, 2011	Sam Coxson and May Kolielat	Monitoring and Evaluation and PMP-GIS Training
MOEW-Abdo Tayar	August 16, 2011	Tayar, Sam Coxson, Jimmy Zammar	Briefing on LWWSS progress and information sharing on changes in the GOL
Ministry of Environment	September 2, 2011	Teresa Hart, Elias Hasbini, Bassam Jaber, Ms. Rola Sheikh	To discuss Lebanon's environmental regulations in general and the Ministry environmental requirements regarding the implementation of environmental impact assessments in particular
EU Water Coordination Group	September 15, 2011	All relevant water donor organizations	Periodic meeting of water and wastewater donor organizations that discuss current programs in an effort to coordinate as well as avoid duplication of efforts

5. CONTRACT DELIVERABLES

- Quarterly Report for third quarter
- Project Technical and Budget Realignment

6. CHALLENGES, PROBLEMS, ISSUES

Capacity Building

LWWSS continues to encounter difficulty and delays in confirming training candidates, especially in critical areas such as financial operations and pump station operations. One problem is that many financial department employees are contract employees of a subcontractor to the WEs and not full-time regular employees. Selecting only full-time employees is the correct approach, but finding employees that can be allowed to miss work for even short periods of time makes the search and training more difficult and time consuming. In some cases, the personal contract employee may be trained if he or she has been in the position for a long period and has a good chance of being nominated to a full-time position. This situation does not hinder the positive technical assistance of training but may from time to time delay the start of training or the speed that the training can be provided (for example, the finance training provided to BMLWE took twelve weeks that could be provided in two weeks because staff could only receive training on Fridays and Saturdays).

LWWSS is mitigating this challenge by extending the time frames for training and training smaller classes, resulting in less work flow disruption while accomplishing the training for targeted WE employees.

Another problem LWWSS is encountering is the selection of staff that are committed to receiving training and carry out their responsibilities faithfully. Some staff that have received training, although successfully passing the training modules, do not show up for work regularly or leave their work stations during the work day for significant parts of their tour of duty. This situation was encountered in the BWE after pump station operators received pump station operations and maintenance training and chlorination system operations and maintenance training. Periodic site visits have revealed that some of the operators may show up for the beginning of their shift but then leave the premises in pursuit of personal business while pump stations motors and other equipment suffer the lack of proper operations and maintenance.

LWWSS has brought this situation to the attention of the director general and will continue to pursue his full cooperation in enforcement of work responsibilities within the WE. However, this is a serious limitation on the ability of the WE to absorb new training and work procedures (such as the speed that new business processes and IT can be implemented). LWWSS has amended its expected time line for the BWE to

absorb the new IT-ERP system based on the commitment of the staff to train and implement the new system and will continue to monitor the process closely.

Due Diligence

An aspect of the lack of data and staff capacity is that the WE may list an activity or high priority equipment purchase need but not have any of the information supporting that decision. For example, while a WE may request pump station rehabilitation with new pumps and motors to reach the water flow capacity of the source, he may have no specifications for the requested equipment. LWWSS must review the feasibility of the request, make amendments with the concurrence of the WE, and then proceed with the development of specifications, bidding, approvals and then the procurement process.⁷

LWWSS is mitigating this aspect of the project by planning long lead times, sometimes as much as a year or more for the procurement process when the procurement process warrants it.

8. MAJOR ACTIVITIES PLANNED FOR NEXT QUARTER

Component Two:

- SLWE Detailed pump station survey continued

Component Three:

- SLWE business plan amendment to accommodate the NWSS
- Continued work on FAS and CRM for BMLWE
- Continued work on FAS and CRM for BWE
- Customer service training for BMLWE customer service representative staff
- Cost center establishment for BWE in coordination with work previously done by GIZ

Component Four:

- Continuation of the SLWE Detailed Pump Station Survey that will integrate into the capital planning and maintenance management of the WE

Component Five:

- Jeita pump and motor order placed
- Jeita pump station motor control bid process completed and order placed
- Source metering procurement for SLWE and BWE order placed
- Specifications and bidding completed for NLWE motors and pumps
- Water quality testing planning and baseline for BWE continued
- Lab equipment training on new equipment completed

Component Six:

- No small- or medium-scale infrastructure is planned for next quarter

Component Seven:

⁷ Approvals include USAID approval by the COTR and CO, and DAI approval to procure as well as IRM office approval if computer equipment or software are included in the procurement.

- Continued coordination of the MIS system implementation for BWE
- Continued coordination of the MIS system implementation for BMLWE
- Start of customer service training in BWE
- Start of customer service training in BMLWE
- Continuation of customer Service Center rehabilitation in Zahle, BWE
- Analysis and report on the pilot billing arrears and new subscription effort in the BWE

9. PERFORMANCE MANAGEMENT PLAN (PMP) REPORTING

Since this is the fourth quarter of year two for LWWSS, the performance monitoring plan (PMP) is included in this report. The year two PMP targets are significantly different from the actual number reported for some PMP indicators. Each indicator where there is a significant difference between the target indicator and the actual is discussed below.

PMP Year Two Targets

LWWSS had difficulty in assessing the year two target numbers for several reasons. Deciding what to count led to confusion in determining appropriate targets. Therefore, there were several targets for year two that are quite different from the actual results reported. The corrections in the target numbers are incorporated in the table below. The corrections are based on the guidance provided in the USAID-sponsored seminar (July 26-27, 2011) when the proper methodology and selection of criteria to be counted was completed. Following the seminar, LWWSS realized that the method used in establishing targets needed to be readdressed. The indicators shown in the table that were directly affected were 1, 5, 6, and 7.

Target Projection Correction and Indicator Actual Results

Indicator 1, "Number of people in target areas with an access to improved drinking water supply as a result of USG assistance"

In determining the target for the "number of people in the target areas with access to improved drinking water supply as a result of USG assistance," LWWSS estimated a very conservative **30,000** (includes males and females). LWWSS initially limited its

target to what was anticipated to be the beneficiaries of part of the chlorination system installation. However, after reviewing the principles of target definition presented by USAID contractor Social Impact, LWWSS realized that the definition of the target and its estimated number was too restrictive and did not take into account the full impact of the various LWWSS activities. The LWWSS pump station operations and maintenance activity in the BWE and NLWE covered a much larger number of beneficiaries than the chlorination system. Therefore, the actual number of beneficiaries of indicator number one of the LWWSS performance management plan increased to **576,972** people (294,256 female and 282,716 male). Since this number already covers the BWE, the beneficiaries of the chlorination systems installed in BWE are not counted since counting them would constitute double counting.

Indicator 5, “Number of WE and MOEW Staff Trained as a result of USG assistance”

The initial target for this indicator was 60, but the additional pump station operator training was not initially planned for year two. LWWSS was successful in getting the additional training sessions in to increase the total above the target to 105 (90 male and 15 female). The number of women being trained is minimal because there are relatively few positions filled by women in the WEs.

Indicator 6, “Number of management systems and plans used at water management entities as a result of USG assistance”

Reducing the target for this indicator to two (from six) is a reflection of the recommendations brought up during the Data Quality seminar run by USAID’s PMPL project in relation to setting indicator targets. For example, it was pointed to LWWSS that business plans, which set the policy and institutional goals for the organization, were more closely aligned with indicator 10 -- “Number of USG assisted water reports or studies proposing legal, policy and institutional measures/procedures” even though the business plan had already been counted in Year One’s actuals for Indicator 6. Actual management systems such as the accounting system and the customer service system are more in line with the definition of this indicator. The actuals reported (3) include the customer service action plan for BWE and the functional technical requirements for the ERP platforms for both BWE and BMLWE which were based on the business process mapping exercise.

Indicator 7, “Number of water users trained on conservation and preservation of water resources”

LWWSS did not correctly analyze the indicator definition and project a target in line with the guidelines we later received in the PMP seminar. The initial target was limited to the number of estimated brochures that would be circulated rather than taking into account other means of communicating the water conservation message

to WE customers. Upon setting up an outreach program in the BWE to assist the WE in increasing its past due water bills, LWWSS decided that the water conservation message could also be presented in newspapers, radio and billboards. The higher number of water users was reached using these other media. Water conservation calendars were also produced but are not included in the actual number presented because it appeared this may be double counting.

Year Two PMP Reporting

Objective/Results	Indicator/Unit of Measure	Disaggregation	BLYear Value	2010 Target	2010 Actual	2011 Target	2011 Actual	2012 Target	2012 Actual	2013 Target	2013 Actual	Date DQA	Responsible for Indicator
<u>AO: Improved water services for all in Lebanon</u>	1. Number of people in target areas with access to improved drinking water supply as a result of USG assistance (F) ⁸	Gender ⁹	0	Male 14,700 Female 15,300 Total- 30,000	0	Male 14,700 Female 15,300 Total- 30,000	Male 282,716 Female 294,256 Total – 576,972	Male 88,200 Female 91,800 Total- 268,200		Male 145,040 Female 150,960 Total- 296,000		12/2010	COP
<u>AO: Improved water services for all in Lebanon</u>	2. Percent customer satisfaction with water services in targeted areas.	Gender	42 %	42%	42%	None	None	45%		48%			COP
<u>IR 1: More efficient water management</u>	3. Percent of water revenues collected by targeted water entities	WE	47 %	48%	62%	53%	(1)	56%		59%		12/2010	COP
<u>Sub-IR 1.1: Improved capacity of water entities</u>	4. Number of training activities provided to staff from water entities as a result of USG assistance	N/A	0	4	3	4	5	4		4		12/2010	COP
<u>Sub-IR 1.1: Improved capacity of water entities</u>	5. Number Staff from Water Entities Trained as a Result of UGG Assistance	Gender	0	M-25 F-10 Total – 35	M-4 F-4 Total - 8	M-40 F-20 Total – 60	M-90 F-15 Total – 105	M-55 F-30 Total – 85		M-60 F-35 Total – 95		12/2010	COP

⁸Indicators 1 and 6: People benefiting from multiple activities are only counted once. Numbers shown are cumulative.

⁹Several sources list the ratio of male to female population as 49 % male and 51 % female.

Objective/Results	Indicator/Unit of Measure	Disaggregation	BLYear Value	2010 Target	2010 Actual	2011 Target	2011 Actual	2012 Target	2012 Actual	2013 Target	2013 Actual	Date DQA	Responsible for Indicator
<u>Sub-IR 1.1: Improved capacity of water entities</u>	6. Number of management systems and plans used at water management entities as a result of USG assistance	N/A	0	4	3	2	3	2		2		12/2010	COP
<u>Sub-IR 1.2: Increased participation of water users in water management</u>	7. Number of water users trained on efficient water management*	Gender	0	M-1,300 F-700 Total 2,000	0	M-1,300 F-700 Total 2,000	M-81,438 F-84,761 Total-166,199	M-5,047 F-5,253 Total 10,300		M-6,300 F-5,700 Total-12,000		12/2010	COP
<u>Sub-IR 1.2: Increased participation of water users in water management</u>	8. Number of dialogue events held between stakeholders and water authorities as a result of USG assistance	N/A	0	3	2	2	4	2		2		12/2010	COP
<u>IR2: Improved water infrastructure</u>	9. Number of functioning water and wastewater facilities constructed or rehabilitated with USG assistance	Water Wastewater	W-0 WW-0	W-0 WW-0	W-0 WW-0	W-1 WW-0	W-1 WW - 0	W-10 WW-0		W-1 WW-0		12/2010	COP
<u>IR3: Enhanced water governance</u>	10. Number of Proposed Legal, Regulatory and Policy actions to enhance Efficiency and Effectiveness of Water Entities as a result of USG Assistance	N/A	0	1	2	1	2	1		1		12/2010	COP

Objective/Results	Indicator/Unit of Measure	Disaggregation	BLYear Value	2010 Target	2010 Actual	2011 Target	2011 Actual	2012 Target	2012 Actual	2013 Target	2013 Actual	Date DQA	Responsible for Indicator
<u>Sub-IR 1.1: Improved capacity of water entities</u>	11. Number of participants attending regional water and wastewater utility study tours	Gender/ Type of Participant (Mgt., Supervisory or Staff)	0	0	0	Supr-3 Staff-12 M-11 F-4 Total 15	(2) Supr – 1 Staff – 2 (M – 2, F – 1) Total 3	Supr- 3 Staff- 12 M-11 F-4 Total 15		Supr-3 Staff-12 M-11 F-4 Total 15		12/2010	COP

Footnotes:

- (1) This number is not available at the end of our fourth quarter because the WE fiscal year ends at December 31st. In the subsequent second quarter report, LWWSS will be able to report this metric for the end of year two.
- (2) Attendance at out of country seminars and conferences is not supported by the Minister of Energy and Water. Although not stated as a policy decree, the Minister has refused to let directors general and key staff at the MOEW attend seminars and conferences out of Lebanon. LWWSS will continue to press for attendance of directors general and other key staff out of the country on a very selective basis and focus more on lower level staff and possibly bringing specialists into Lebanon to conduct training similar to that received at out of Lebanon seminars and conferences.

ANNEX A LISTING OF DELIVERABLES BY COMPONENT

Deliverable Title	Component or Components to Accomplish Deliverable
1. Initial Assessment	Component 1
2. Environmental Assessment Report	None-IEE and case by case requirements for EIAs
3. High Priority Intervention Plan	Component 1
4. Institutional Development Work Plans	General Deliverable—Annual Work Plan
5. Training Development Plans	General Deliverable-Annual Training Plan
6. O&M Outsourcing and procurement training	Component 2
7. Study tour programs on selected topics	Annual Training Plan
8. Operations and maintenance planning procedures and systems, long term preventive maintenance standards and guidelines	Component 2
9. Clear, well defined, and documented description of the different roles of the MOEW and the WEs and the business relationship between them	General Deliverable-Not a specific component
10. Recommendations for service standards that could be used as the basis for reviewing performance of subcontracting companies	General Deliverable-Not a specific component
11. Provide recommendations to extend the time frame for outsourcing to multi-year agreements	General Deliverable-Not a specific component
12. Provide the SLWE with a detailed pump station survey (entails quantity and quality testing as well as type of equipment, age, need for replacement), that will provide the basis for optimization of water supply, energy consumption and operational efficiency	Component 5
13. Provide an analysis and model agreement that water establishments can use in developing and negotiating service agreements with municipalities for wastewater collection system operation and	General Deliverable—Not a specific component

maintenance	
14. Provide specific recommendations to selected WEs in developing and implementing performance improvement plans that are a subpart of the adopted business plan.	Components 2 and 3
15. Training activities for staff and for senior and mid-level managers on financial management	Component 3
16. Introduction at selected WEs of improved financial and cost recovery systems	Component 3
17. Training on FAS and cost recovery model implemented under LWPP	Component 3
18. Long-term financial training plans for WEs	General Deliverable-Part of the Business Plan Development and Updating Process
19. Make specific recommendations for implementation of tariff strategies for cost recovery and long-term viability	Component 3
20. Corporatization procedures and recommendations	Component 3-Part of the business plan development process
21. Develop modern management and financial systems	Component 3
22. Develop business plans	Components 2 and 3
23. Study and recommendations on capital investment planning	General Deliverable-Merged with deliverable 22
24. Long- and medium-term capital investment plans	General Deliverable-Merged with deliverable 22
25. Training WE staff to build institutional and technical capacity to effectively monitor and manage capital investment planning	General Deliverable-Merged with deliverable 22
26. Conduct a detailed pump station survey in the SLWE as a model for other WEs and the MOEW to use in the development of a master plan; training of WE staff on master planning and priority setting based on needs and resources evaluation; recommendations to WE directors general based on the master planning process	Component 3 and general deliverable (business plan for capital planning aspects), some of this deliverable is being done by another donor (GIZ is working with the SLWE in developing the master plan as part of its work plan agreed to prior to the start of LWWSS)
27. Training of the WE staff on master planning and capital investment	General Deliverable-the business plan portion is with LWWSS while the master

planning and budgeting	plan portion is with GIZ.
28. Report and recommendations for selected WEs on the prioritization of projects according to needs, resources, duration and impacts.	General deliverable-merged with deliverable 26
29. Strengthened procurement planning procedures	Component 3
30. Report and recommendations on identification and assessment of local capabilities of design and engineering firms, construction management firms and suppliers.	Component 3
31. Manual on Establishing meaningful and measurable indicators to measure actual progress of construction projects	Component 3
32. Program management tools that allow data collection and analysis for proper project supervision and monitoring at technical and financial levels	Component 3-Part of the ERP program
33. Strengthened capacity at mid-level to inform these tools and at senior levels to use them for decision-making and specific actions to respond to problems	Component 3-Part of the ERP program
34. Procurement of selected equipment	Component 5
35. Construction of selected projects	Component 6
36. Defined mission statements for the WEs and for individual departments	General Deliverable-Part of the business plan development.
37. Public awareness plans and activities	Component 7
38. Training on corporate culture and customer service	Component 7
39. Establishment of customer reception office and guides to selected WEs	Component 7
40. Specific recommendations to selected WEs in implementing their service disconnection policy	General Deliverable