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WATER INFRASTRUCTURE SUPPORT AND ENHANCEMENT FOR LEBANON (WISE-LEBANON)

FIRST ANNUAL REPORT (OCTOBER 2012 – SEPTEMBER 2013),
INCLUDING THE FOURTH QUARTER (JULY – SEPTEMBER 2013)

NOVEMBER 2013

Report No. 14

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ACRONYMS

A&E	Architectural and Engineering
ADS	Automated Directives System
BoQ	Bill of Quantities
CDM Smith	Camp, Dresser, McKee & Smith Consulting Engineers
CLIN	Contract Line Items Numbers
CMMS	Computerized Maintenance Management System
COP	Chief of Party
COR	Contracting Officer's Representative
ELARD	Earth Link and Advanced Resources Development
EMMP	Environmental Mitigation and Monitoring Plan
ER	Environmental Review
ERAC	Environmental Review Assessment Checklist
FAA	Foreign Assistance Act
GoL	Government of Lebanon
IEE	Initial Environmental Examination
KPI	Key Performance Indicator
KREDO	Karam Research, Engineering & Design Office
LOC	Letter of Commitment
LWWSS	Lebanon Water and Wastewater Sector Support
M&E	Monitoring and Evaluation
MoE	Ministry of Environment
MoEW	Ministry of Energy and Water
O&M	Operations and Maintenance
PIAP	Performance Improvement Action Plans
PMBP	Performance Monitoring and Benchmarking Program
PMP	Performance Monitoring Plan
PMU	Project Management Unit
QA/QC	Quality Assurance Quality Control
RFTOP	Request for Task Order Proposal
WE	Water Establishment
WISE	Water Infrastructure Support and Enhancement (for Lebanon)
WISE/A&E	Water Infrastructure Support and Enhancement (for Lebanon)/A&E Services
USAID	United States Agency for International Development

1. WISE-LEBANON PROGRAM: YEAR 1 HIGHLIGHTS

This first annual report of the WISE-Lebanon program highlights the achievements of the program during Year 1 and also contains all the information that would have been contained in the fourth quarterly report (which this report replaces). Highlights of Year 1 activities are presented below and are discussed in further detail in Section 3 of this report:

- *Identified and assessed a long list of projects.* The WISE-Lebanon team held numerous consultation meetings with the Water Establishments (WE) and the Lebanon Water and Wastewater Sector Support (LWWSS) program to identify potential infrastructure projects.
- *Developed a short list of projects.* The consultation process was pursued with all the WE Director Generals to further refine the list of projects compiled earlier.
- *Linked projects with performance targets.* The team developed a project selection matrix for short listed projects to further assess and consider a number of identified performance indicators: mainly financial, commercial, technical, environmental, sustainability, social, community needs, and other criteria specific to each WE.
- *Provided technical capacity building.* The WISE team performed technical capacity building activities within the four WEs by introducing and discussing in detail the project selection matrices - especially the aspects of weighting selection criteria, ranking capital projects by priority, and using the matrix as a planning tool for all investments. The WEs actively participated in the development and utilization of the project selection matrices.
- *Conducted preliminary analytical assessments of candidate infrastructure projects.* Based on the WISE-Lebanon team's analyses, matrices scoring and ranking of candidate projects in all WEs, the team recommended implementation of four projects as being the most suitable and having the most overall positive impacts on the population of Lebanon and the WEs within the program's budget.
- *Conducted feasibility analyses of the selected projects.* The team provided the USAID COR with a priority list of projects for feasibility analysis. Once the COR provided concurrence on selected projects, the feasibility studies were undertaken.
- *Prepared a performance monitoring and evaluation plan with key measurable performance indicators.* This plan contains two performance indicators in direct support of USAID Mission Development Objective No. 1, "Improved capacity of public sector in providing transparent, quality services across Lebanon"; and eleven performance indicators in support of the WISE-Lebanon program objective, "Enhance Lebanon's capacity to manage water resources through water infrastructure upgrades and related management support."
- *Prequalified construction contractors to submit bids under competitive tenders.* -18 construction contractors were prequalified based on open competition.
- *In compliance with Lebanese environmental regulations, prepared and submitted three environmental screening applications to the Ministry of Environment for review.* The Ministry determined that only initial environmental examination (IEE) reports were needed for two proposed water supply network projects and that no further action was required for a proposed pump station rehabilitation project.
- *Prepared and submitted the two IEE reports mentioned above to the Ministry of Environment for review.* The Ministry approved both reports with only minor conditions, requiring monitoring and reporting during construction.
- *Prepared and submitted three environmental review reports to USAID.* These reports demonstrated full compliance with USAID Regulations (22 CFR 216) and included the necessary ERACs and EMMPs.
- *Initiated coordinating activities and approvals with WISE-Lebanon A/E contractor, per the WISE Task Order.* A&E firm was hired by USAID to oversee the engineering, tendering, and construction activities of the WISE-Lebanon program.

- *Prepared the engineering design and technical specifications and Bills of Quantities for two of the infrastructure projects selected.* These documents are part of the tender packages for construction of the infrastructure projects and were submitted to USAID's A/E firm for review and approval.
- *Prepared construction quality assurance/quality control (QA/QC) guidelines and safety management plan for the construction contractors.*
These documents are part of the tender packages for construction of the infrastructure projects and were submitted to USAID's A/E firm for review and approval.
- *Prepared two of the construction requests for proposals (bidding documents) and Conditions of Contract for the tenders.* These documents were submitted to USAID's A/E firm for review and approval.
- *Developed Letters of Commitment (LOC) between USAID and each of the partnering WEs and submitted them for review by USAID.* Each LOC contains the Sustainable Benchmark Schedule, general and project-specific parameters, and roles and responsibilities of each party. USAID will take these LOCs and convert them into formal Memoranda of Understanding.

2. INTRODUCTION

2.1 Background

The Water Infrastructure Support and Enhancement for Lebanon (WISE-Lebanon) program is a three-year activity funded by the U.S. Agency for International Development (USAID) with the objective of improving Lebanon's capacity in the management of water resources through water infrastructure upgrades and related management support. WISE-Lebanon is comprised of three components, including: (1) project identification and design – performing a focused analysis within potential areas of intervention and identifying specific projects and activities, developing architectural and engineering designs, and preparing bidding documents for the implementation of selected projects, (2) project implementation – providing engineering, construction, procurement, and construction supervision/management services for the implementation of selected water infrastructure projects, and (3) capacity building on implemented capital investment to enhance the capacity of water establishments (WE) for the management of the implemented projects. Progress with Component 1 tasks complete and Component 2 tasks underway, and construction scheduled to start in the first quarter of Year 2.

Chemonics International is implementing USAID's WISE-Lebanon program and is supported by subcontractors, KREDO S.A.L. and ELARD S.A.R.L. A dedicated field office was established in Beirut in October 2012 to undertake the work.

The WISE-Lebanon team is implementing the program in coordination with Government of Lebanon (GoL) ministries, WEs, municipalities, the Lebanese private sector, and other USAID-funded programs working on water-related issues. The team also recognizes the current efforts of other donors in the sector and is working with them to obtain synergies in the implementation of projects where appropriate. WISE-Lebanon is cooperating closely with those projects to capitalize on their achievements and lessons learned to date, and is leveraging their successes to further its objectives.

2.2 Task Descriptions

The WISE-Lebanon program comprises three inter-related components, referenced in the WISE-Lebanon task order as Contract Line Item Numbers (CLINs), in order to address the fundamental

problems of water supply utility performance and sustainability in Lebanon. These CLINs each have a number of defined tasks, as laid out in the WISE-Lebanon task order and as follows:

CLIN 1 (Component 1): Project Identification and Design

- *Task 1.1: Develop a Startup Plan and a Work Plan.* Develop four weeks after award a Startup Plan to layout the planned activities for the six months of the program. By month eight after award, Chemonics shall develop a Work Plan to capture all of the program activities for the life of the program. The Work Plan shall be broken down into individual activities that can be executed separately in a phased approach, with a cost estimate and duration of each activity.
- *Task 1.2: Conduct a series of meetings with the regional WEs and USAID/Lebanon.* Perform a series of meetings with the regional WEs and USAID/Lebanon to assess the infrastructure needs of the WEs within the areas of proposed interventions, and identify specific priority projects. Chemonics shall assess strengths, weaknesses, challenges, and opportunities in each of the WEs.
- *Task 1.3: Develop an Analytical Assessment/Feasibility Report.* Develop by month five after award, in coordination with USAID/Lebanon, an Analytical Assessment/Feasibility Report of potential specific projects that can be implemented including an engineering cost estimate and cost/benefit analysis of these options. Chemonics shall provide technical recommendations to USAID/Lebanon, with order of importance, on the best option(s) while considering the following criteria: need, cost, cost/benefit, sustainability, WE performance, impact, available resources, and visibility for USAID. Chemonics shall include in the report a proposed Sustainability Benchmark Schedule to be agreed on between USAID/Lebanon and the partnering WEs to include a schedule of major actions to be undertaken by the WEs during progress of each of the project options to ensure its sustainability. The Chemonics team shall assist USAID/Lebanon with the final decision on one or more projects to be implemented.
- *Task 1.4: Evaluate WEs performance to measure their progress towards achieving efficient and sustainable operations.* In coordination with the LWWSS program, Chemonics will evaluate WEs' performance by reviewing specific financial and management targets that could best illustrate progress of the WEs towards achieving efficient and sustainable operations. Indicators of progress could be illustrated through improved bill collection and water revenues, cost recovery percentages, increase in number of customers, increase in hours of service delivery, reduction in water supply system breaks, development of accurate and timely financial reports, enhancement of management effectiveness, and improved customer service.
- *Task 1.5: Develop the engineering design and technical specifications for the projects selected under Task 1.3.* Develop by the end of month ten after award, the Engineering and Architectural Design and Specifications of the selected project(s) and submit them to CDM Smith, the Architectural and Engineering (A&E) firm awarded the WISE/A&E contract, for approval. USAID/Lebanon might request the preparation of documents for one or more of the identified options, but might not necessarily implement all of them under the WISE contract.

- *Task 1.6: Develop a Construction Quality Assurance/Quality Control Plan and a Safety Management Plan.* Develop a Construction Quality Assurance/Quality Control Plan and a Safety Management Plan and submit them to the A&E firm for approval.
- *Task 1.7: Conduct Environmental Assessments on the projects selected under Task 1.3.* Perform an Environmental Assessment (EA), per USAID/Lebanon's request, on selected or all activities that are determined by USAID to have a negative environmental impact. Develop Environmental Mitigation and Monitoring Plans (EMMP) for planned activities that might have an impact on the natural environment.
- *Task 1.8: Initiate a Prequalification process in coordination with the A&E firm.* Initiate soon after the award, a Prequalification process, in coordination with the A&E firm, for the identification of local subcontractors qualified to execute projects of similar anticipated size and complexity.
- *Task 1.9: Prepare construction bidding documents for tendering.* Prepare, in coordination with the A&E firm, the Construction Bidding Documents for the selection of local engineering and construction firms to implement projects selected by USAID/Lebanon.

CLIN 2 (Component 2): Project Implementation

- *Task 2.1: Select and subcontract with local engineering and construction firms for project implementation.* Following the completion of the prequalification process and the preparation of construction bidding documents, Chemonics shall proceed with the bidding process for the selection of the design and/or construction subcontractors to execute the specific projects selected by USAID/Lebanon. This includes the invitation to tenders, technical analysis/review of the bidders' proposals, and selection/award of winning firms. A&E firm shall provide technical input and validate this process per the working relationship described in Section E of the WISE-Lebanon request for task order proposals (RFTOP). The competition process must be in full compliance with USAID procurement rules and regulations, allow utmost consideration for fairness in competition, and receive USAID subcontract consent per the procurement requirements of USAID.
- *Task 2.2: Manage the design and construction process.* Chemonics shall manage all activities under the project including management of the selected subcontractors. Chemonics shall properly coordinate project activities, provide technical recommendations and decisions on the day-to-day progress of the project, and shall coordinate all engineering technical matters with the A&E firm per the working relationship described in Section E of the WISE-Lebanon RFTOP.
- *Task 2.3: Monitor the sustainability benchmark compliance.* Assist USAID/Lebanon in monitoring the Sustainability Benchmark Schedule agreed with the partnering WEs and provide the necessary recommendations.
- *Task 2.4: Procure, ship, install, and commission specific technical equipment related to the specific needs of the infrastructure projects.* Provide for the procurement, shipping, installation, and commissioning of specific technical equipment and spare parts required as an

integral part of the infrastructure projects, and equipment and spare parts identified as a separate need by the WEs. Chemonics shall assess the relevant WEs needs in terms of water monitoring and leak detection tools along with their ancillary computer hardware and software, and provide for their procurement, shipping, installation, and commissioning. Chemonics shall also provide for the necessary training of selected WEs personnel on this equipment.

CLIN 3 (Component 3): Capacity Building on Implemented Capital Investment

- *Task 3.1: Organize training sessions and study tours (as needed).* Organize training sessions and study tours (if needed), and provide training materials, within the context of USAID Participant Training, to improve and build the regional WEs capacity in: planning and budgeting for water and wastewater investments, managing effectively the public investment through the project cycle, and capital investment sustainability. Capacity building shall be specifically focused on (or related to) the implemented projects, and complimentary to similar activities under the USAID/Lebanon LWWSS program.
- *Task 3.2: Provide targeted on-the-job training.* Exercise the learning by doing approach through carrying out all of the WISE contract activities in direct collaboration with WE staff with the constant goal of building their capacity to implement similar activities on their own in the future.
- *Task 3.3: Develop O&M Manuals and provide O&M supervision.* Develop operation and maintenance (O&M) manuals for all of the delivered infrastructure projects. Provide Operation and Maintenance supervision on the completed infrastructure projects for at least six months post completion.

3. ACHIEVEMENTS: YEAR 1, FOURTH QUARTER

The fourth quarter of the first year of the program has seen continued and significant progress on many aspects of the Work Plan. The quarter has been very productive in implementing several tasks under CLIN 1 - Infrastructure Project Identification and Design. The main activities and key achievements in the fourth quarter are detailed below.

3.1 Summary of Achievements in Year 1, Fourth Quarter

The WISE program continues to meet the requirements of the task order and during this quarter has concentrated on: beginning coordinating activities and approvals with CDM Smith, per the WISE Task Order; preparing the engineering design and technical specifications and Bills of Quantities for two of the infrastructure projects selected; preparing the construction QA/QC guidelines and safety management plan for the construction contractors, for submittal to USAID; preparing two of the construction RFPs (bidding documents) and Conditions of Contract for the tenders; and developing Letters of Commitment between USAID and each of the partnering WEs and submitted them for review by USAID.

The WISE-Lebanon team continues to develop synergies with the LWWSS program and other donor programs throughout the project implementation. The program is using criteria defined in the

Performance Monitoring Plan (PMP) Report to help the WEs maximize the benefits gained from the infrastructure elements of the program.

3.2 Achievements and Progress on Deliverables

This section reports on the progress of the activities described and scheduled in the Year 1 and Year 2 Work Plan approved by USAID and the achievements as a result of those activities. It discusses the completed and ongoing activities, as needed. Most tasks have one or more corresponding deliverables.

3.2.1 Deliverables - Task 1.1 Develop a Startup Plan and a Work Plan.

This task consisted of two sub-tasks as follows:

a. Develop a Startup Plan to layout planned activities for the first 6 months of the WISE program

A Startup Plan was prepared and submitted to USAID on November 2, 2012. The COR provided written comments on the plan; the plan was then revised and re-submitted to USAID on November 23, 2012. It was approved by USAID on November 30, 2012. *As a result, this subtask was completed November 30, 2012.*

b. Develop a Work Plan to capture all of the program activities for the life of the program

The Year 1 and Year 2 Work Plan was prepared and submitted in draft form to USAID on May 24, 2013. The COR provided written comments on the plan on May 30, 2013; the plan was then revised and re-submitted to USAID on June 11, 2013. It was approved by USAID on that same date. *As a result, this subtask was completed June 11, 2013.*

3.2.2 Deliverables – Task 1.2 Conduct a series of meetings with the regional WEs and USAID/Lebanon.

The WISE-Lebanon team conducted more than 20 meetings between November 1, 2012, and March 1, 2013, to assess the infrastructure needs of the WEs and to collect information and discuss the viability, advantages, and disadvantages of various infrastructure projects for potential implementation. The USAID COR for the WISE program attended the initial meetings with the DGs of the WEs and the technical advisors to the MoEW. During the meetings, the WISE-Lebanon team completed a review of the strengths, weaknesses, challenges, and opportunities for each WE. This analysis informed the preparation of a preliminary training and staff development plan, which was included in the Work Plan.

This task consisted of two sub-tasks as follows:

a. Conduct meetings to assess the infrastructure needs of the WEs

The Preliminary Analytical Assessment / Feasibility Report was prepared and formally submitted to USAID on March 19, 2013. Based on USAID's informal and formal written comments on the draft report on March 7, 2013, and April 10, 2013 respectively, the report was revised and re-submitted to USAID on April 23, 2013. The COR provided additional written comments on the revised report on April 29, 2013; the report was then further revised and re-submitted to USAID on April 30, 2013. It was approved by USAID on that same date. *As a result, this subtask was completed April 30, 2013.* Section 2.2.3 below provides more details regarding this report.

- b. *Conduct meetings to assess strengths, weaknesses, challenges, and opportunities in each WE*
A separate report will be prepared and submitted to USAID during the first quarter of Year 2. This report will discuss the most critical issues facing the WEs. Training and capacity building will then be provided throughout the life of the project in selected areas to develop the skills of designated managers and other employees. This report was originally planned to be submitted to USAID during the third quarter but was delayed because of work being performed on more high priority items. The report has been drafted and still needs to be technically edited. The lateness of this report will not adversely impact the implementation of the construction of the infrastructure projects.

3.2.3 Deliverables – Task 1.3 Develop an Analytical Assessment/Feasibility Report

Between November 2012 and March 2013, the WISE–Lebanon team performed a preliminary assessment of the infrastructure needs in each of the four WEs in Lebanon. The assessment methodology consisted of developing and testing selection criteria and ultimately short listing the potential candidate projects by conducting site visits at the MoEW and the WEs. The team worked closely with each WE to identify their specific needs and to understand the aspects of their operations. This work occurred in consultation with USAID and through engaging with the Directors General (DGs) of Exploitation and Tutelage and the Minister’s advisors at MoEW. The categories of selection criteria included financial, commercial, technical, environmental, sustainability, social and community needs, and urgency of the projects. Using these criteria, projects were short listed and the technical team conducted further consultative visits with the DGs and technical staff of the WEs.

The Analytical Assessment/Feasibility Report is being submitted in two parts for USAID review and approval. Part I was prepared and submitted to USAID on March 19, 2013; it was subsequently revised twice and re-submitted to USAID on April 23rd and April 30th, when it was finally accepted and approved by the COR. Part I of the report focused on the Analytical Assessment, which included details about the processes and methodology used to assess the options and opportunities and summaries of the consultations with the WEs and the MoEW. Part II of the report has been drafted but still needs to be technically edited. It will be submitted during the first quarter of Year 2; it will focus on the technical feasibility of each project in accordance with the criteria set forth in the Task Order which includes: need, cost, cost/benefit analysis, impact, WEs performance and visibility for USAID. The report will also contain a Sustainability Benchmark Schedule for each WE, stating the major actions to be undertaken by the WEs during progress of each of the project options to ensure its sustainability.

This task consists of two sub-tasks as follows:

- a. *Develop a Preliminary Analytical Assessment / Feasibility Report*
Part I of the Preliminary Analytical Assessment / Feasibility Report was prepared and submitted to USAID on March 19, 2013. USAID provided written comments on the draft report on March 7, 2013, and additional comments on the preliminary report on April 10, 2013. That report was revised and re-submitted to USAID on April 23, 2013. The COR provided additional written comments on the revised report on April 29, 2013; Part I of the report was then further revised and re-submitted to USAID on April 30, 2013. It was approved by USAID on that same date. *As a result, this subtask was completed April 30, 2013.*

b. Develop the Final Analytical Assessment / Feasibility Report

Part II of the Final Analytical Assessment / Feasibility Report has been drafted but still needs to be technically edited. It will be submitted during the first quarter of Year 2. That report will discuss the technical feasibility of each proposed project for implementation, and it will contain the sustainability benchmark schedule for each WE. KREDO prepared the first three feasibility studies, which will be included in Part II of this report and it took them approximately one month longer than anticipated to complete this work. This delay affected the commencement dates of the tendering processes, but the WISE program will make up some time by performing some activities simultaneously instead of in sequence, as originally planned.

3.2.4 Deliverables – Task 1.4 Evaluate WEs performance to measure their progress towards achieving efficient and sustainable operations

All four WEs have updated their Five-Year Business Plan (Years 2012 - 2016) to define their strategic objectives and action plans for performance improvement for the next five year planning period. These business plans will serve as a “road map” for guiding each WE’s management. The WEs are transitioning to a more commercial business model.

This task consisted of two sub-tasks as follows:

a. Review specific financial and management targets of the WEs to measure progress towards achieving efficient and sustainable operations

The WISE-Lebanon team reviewed the business plans and related Performance Improvement Action Plans (PIAP) of each of the WEs to understand their specific strategic objectives. The team also reviewed the adopted key performance indicators (KPI) under the Performance Monitoring and Benchmark Program (PMBP) reported annually to the MoEW. The WISE-Lebanon team then reviewed the performance indicators developed and used by USAID’s LWSS program to monitor and measure the WEs performance. The WISE-Lebanon program adopted some of the same indicators used by LWSS that also meet the WISE program objectives. The final performance indicators were defined in the Performance Monitoring Plan (PMP) report, which was submitted to USAID on March 28, 2013. *As a result, this subtask was completed March 28, 2013.*

b. Develop a PMP report to track the performance of the WEs using KPIs

Performance indicators for WISE-Lebanon’s PMP are closely aligned with the identified priority projects in each water establishment to be able to measure the progress made on each priority project. The technical team will primarily collect data on projects in targeted service areas directly implemented by WISE-Lebanon. The team focused on these targeted areas to ensure that reported results are within the team’s ability manageable interest. The PMP includes four output indicators (one of which is gender-sensitive) and nine outcome indicators. Output indicators measure tangible, immediate, and intended products or consequences of an activity. Outputs are lower-level steps that are not developmentally significant but are essential in achieving results. Outcome indicators measure conditions or occurrences that result from outputs. In differentiating output from outcome, outcomes are considered developmentally significant changes that answer the question “so what” after outputs. The PMP report was first prepared and submitted to USAID on March 28, 2013. Based on USAID’s and Social Impact’s (SI) informal and formal written comments on the draft report on April 17, 2013, and April 24, 2013 respectively, the report was revised and re-

submitted to USAID on May 12, 2013. The COR and SI provided additional written comments on the revised report on May 14, 2013. The report was revised for the second time and was re-submitted to USAID on August 16, 2013. The COR and SI provided further written comments on the revised report on September 16, 2013. The report was revised for the third and last time and was re-submitted to USAID on October 5, 2013. It was also renamed the Monitoring and Evaluation Plan Report. It was approved by USAID on October 10, 2013. *As a result, this subtask was completed October 10, 2013.* The data collection and the tracking of the trends of these indicators are an on-going subtask, which will be updated every quarter during the life of the project.

3.2.5 Deliverables – Task 1.5 Develop the engineering design and technical specifications for the projects selected under Task 1.3

This task consists of two sub-tasks as follows:

- a. Develop engineering design and technical specifications in preparation for the tenders*
The technical team gathered technical specifications and standards for construction materials, construction techniques, and equipment from a variety of sources including: CDM Smith (under the LWWSS project); best practice construction codes; CDR; other consulting firms in Lebanon; other international projects in the Gulf region; and other international projects outside the Middle East. These documents were reviewed, consolidated and refined to fit the Lebanon construction environment. These were finalized during the fourth quarter of Year 1. This work was performed by the WISE technical team and took about six weeks longer than anticipated to complete this work, because the A&E firm was not selected by USAID until late June 2013. It was necessary to have input on this subtask from the A&E firm. Now that CDM Smith is on board, the WISE team has sought its inputs and finalized the technical specifications and construction standards. The CDM Smith team requested additional time than what was originally planned to review and comment on the documents. This caused an additional delay, which has significantly affected the tendering processes, which were scheduled to begin in early August 2013. However, the first tender was not actually released until October 4, 2013. *As a result, this subtask was partially completed October 4, 2013.* There are three remaining infrastructure tenders to be issued by the WISE-Lebanon program. The two tenders for the Deddeh and Haouch El Oumara water supply networks will be issued in the first quarter of Year 2. The fourth and last tender is for the Customer Metering project in the three Kesserouan Villages (Raifoun, Qleyat, and Ajaltoun), and will be issued in the second quarter of Year 2.
- b. Submit the final engineering design and technical specifications to the A&E firm for approval*
In September 2012, USAID issued a Request for Task Order Proposal (RFTOP) for the Water Infrastructure Support and Enhancement for Lebanon Architectural and Engineering Services (WISE-Lebanon/A&E) program. The WISE-Lebanon program is tasked to coordinate with the A&E firm selected in several areas, including this subtask. In early July 2013, USAID informed the WISE-Lebanon program that the A&E contract award was made by USAID to CDM Smith. After the engineering design and technical specifications were finalized, the WISE-Lebanon team submitted them to CDM Smith, the A&E firm, for review and approval. The WISE-Lebanon team first submitted these documents to the A&E firm for the Chehabiyeh Pump Station on September 5, 2013 and for the Haouch el Oumara water supply network on September 24, 2013. *As a result, this subtask was partially completed on*

September 5, 2013 and also partially completed on September 24, 2013. The engineering design and technical specifications for the Deddeh water supply network will be submitted to CDM Smith in November 2013; for the Customer Metering project in the Kesserouan Villages, the design and specification documents will be submitted in December 2013.

3.2.6 Deliverables – Task 1.6 Develop a Construction Quality Assurance/Quality Control (QA/QC) Plan and a Safety Management Plan.

A typical QA/QC plan contains the following items: a description of the QA/QC activities performed, the people responsible for these activities, the schedule for completing these activities, and the reporting protocols to be used.

A typical safety management plan includes general measures of safety at the work site, preparation of workers prior to commencement of work, personal protective equipment, frequent use of communication devices at the work site and very specific safety precautions around equipment and in the trenches.

This task consists of three sub-tasks as follows:

a. Develop a construction QA/QC plan

The technical team has gathered QA/QC plans for construction programs from a variety of sources including: United States QA/QC programs; other international projects in the Persian Gulf region; and other international projects outside the Middle East. These documents were reviewed, consolidated and refined to fit the Lebanon construction environment. They were finalized during the fourth quarter of Year 1 and submitted to CDM Smith for review and approval. This report was originally planned to be submitted to USAID during the third quarter but it took longer to perform the work than originally anticipated. The lateness of this report will not adversely impact the implementation of the construction of the infrastructure projects.

b. Develop a Safety Management plan

The technical team has gathered technical standards for construction safety, materials handling safety, and personnel safety from a variety of sources including: United States safety codes; other international projects in the Gulf region; and other international projects outside the Middle East. These documents were reviewed, consolidated and refined to fit the Lebanon construction environment. They were finalized during the fourth quarter of Year 1 and submitted to CDM Smith for review and approval. This report was originally planned to be submitted to USAID during the third quarter but it took longer to perform the work than originally anticipated. The lateness of this report will not adversely impact the implementation of the construction of the infrastructure projects.

c. Submit the final engineering design and technical specifications to the A&E firm for approval

The WISE program began coordinating with CDM Smith, the selected A&E firm in several areas, including this sub-task, in August 2013. After the engineering design, technical specifications, and BoQs were finalized, the WISE team submitted them to the A&E firm for review and approval. The WISE-Lebanon team first submitted these documents to the A&E firm for the Chehabiyeh Pump Station on September 5, 2013 and for the Haouch el Oumara water supply network on September 24, 2013. *As a result, this subtask was partially completed on September 5, 2013 and also partially completed on September 24, 2013.* The

engineering design and technical specifications for the Deddeh water supply network will be submitted to CDM Smith in November 2013; for the Customer Metering project in the Kesserouan Villages, the design and specification documents will be submitted in December 2013.

3.2.7 Deliverables – Task 1.7 Conduct Environmental Assessments on the projects selected under Task 1.3.

Most of the proposed infrastructure projects will require an Environmental Review with approval from USAID before the project will be allowed to move forward for tendering. An *Environmental Review Assessment Checklist (ERAC)* will be used to determine whether the proposed course of action (scope of work) of sub-projects and activities has the potential to cause an environmental impact or concern, and if so to determine the scope and extent of additional environmental evaluation, mitigation, and monitoring necessary to fulfill federal U.S. environmental requirements. The ERAC is intended to be used in conjunction with the Leopold Matrix to ensure that environmental consequences were taken into account by USAID and the host country, and to clarify the threshold decision for specific activities based on information that was available at the time the IEE was approved.

This task consists of two sub-tasks as follows:

a. Prepare an Environmental Review (ER) for each proposed infrastructure project

This work was started in the third quarter and was performed by ELARD, a subcontractor to Chemonics. First, ELARD prepared three screening applications, along with the supporting documentation, and submitted them to the Ministry of Environment (MoE) in accordance with Decree 8633, for an initial determination as to whether an IEE or an EIA would be required. These documents were submitted to the MoE on June 12, 2013. The MoE rendered a Decision on June 13, 2013, which stated, “The first 2 projects in Deddeh and Zahleh (building water networks) require performing an IEE study. As for the third project, the rehabilitation of an existing water pumping station will require no official environmental studies to be submitted to the Ministry of the Environment as per the requirements of the EIA Decree. You can prepare an environmental management plan for them and share it with us on an information level if you wish to do so.”

Second, ELARD prepared and submitted the two IEE reports mentioned above to the Ministry of Environment for review, on August 5, 2013. The Ministry approved both reports on September 5, 2013 with only minor conditions, requiring monitoring and reporting during construction. *As a result, this subtask was completed on September 5, 2013.*

Third, ELARD prepared the three ERs for submittal to and approval by USAID. These three environmental review (ER) reports were finalized and submitted to USAID on August 7, 2013. The USAID COR and MEO provided written comments on the three reports on August 16, 2013. The A&E firm also provided their written comments on the three reports on August 27th and August 28th. ELARD then prepared revised ER reports on September 26, 2013, which incorporated all of USAID and A&E firm comments. The revised ER reports were submitted to USAID on October 6th and October 7th, and are currently under final review by USAID.

b. Develop Environmental Mitigation and Monitoring Plans (EMMP) for each infrastructure project

As expected, the Environmental Reviews identified potential pollution concerns requiring appropriate mitigation and monitoring. As a result, EMMPs had to be developed. This work was performed by ELARD and was included in the ER reports mentioned above.

3.2.8 Deliverables – Task 1.8 Initiate a Prequalification process in coordination with the A&E firm

Chemonics has been contracted by USAID to execute and manage the implementation of each of the proposed infrastructure projects. Project implementation includes providing engineering design, construction, procurement, construction supervision/management services for the selected water infrastructure projects, and O&M supervision with training. In anticipation of USAID approving the selection of specific projects for each water establishment, and in accordance with the internally agreed-upon work plan, the WISE-Lebanon team completed the process of prequalifying construction contractors in order to expedite the tender process for the four specific projects. The purpose of the prequalification process was to identify potential local and American construction subcontractors which have a presence in Lebanon and may be qualified to execute projects of similar size and complexity as the candidate projects submitted to USAID.

This deliverable was submitted in two parts for USAID review and approval. Part I was prepared and submitted to USAID on March 28, 2013. It focused on the procedural process that the WISE-Lebanon project used to prequalify contractors. The evaluation process was completed in June 2013 and the final prequalification report required by the task order (Part II) was prepared and submitted to USAID on August 14, 2013.

This task consists of three sub-tasks as follows:

a. Develop a prequalification process and a qualifications questionnaire and coordinate resulting activities with the A&E firm

The technical team developed a prequalification process and a qualification questionnaire. In line with what is noted in 2.2.6 (c) above, this activity was completed on March 20, 2013. There was no coordination with the A&E firm, since that firm was not selected by USAID until late in the third quarter of the program. *As a result, this subtask was completed on March 20, 2013.*

b. Prepare an Interim Prequalification Findings Report

The Interim Prequalification Findings Report was prepared and submitted to USAID on March 28, 2013. It was approved by USAID on that same day. *As a result, this subtask was completed on March 28, 2013.*

c. Prepare a Final Prequalification Findings Report

The Final Prequalification Findings Report was prepared and submitted to USAID on August 14, 2013. It was approved by USAID on that same day. That report included a description of the actual prequalification that took place, the actual findings, and the final list of prequalified contractors. *As a result, this subtask was completed on August 14, 2013.*

3.2.9 Deliverables – Task 1.9 Prepare construction bidding documents for tendering

This task consists of two sub-tasks as follows:

a. Prepare construction bidding documents, including technical specifications in preparation for the tenders

The technical team has gathered technical specifications and sample tender documents from a variety of sources including: CDM Smith (under the LWWSS project); CDR; the Construction Standards Institute (CSI) in the United States; other consulting firms in Lebanon; other international projects in the Gulf region; and other international projects outside the Middle East. These documents were reviewed, consolidated and refined to fit the Lebanon construction environment. The final consolidated document was finalized during the fourth quarter of the WISE-Lebanon program. This document was originally planned to be submitted to USAID during the third quarter but it took longer to perform the work than originally anticipated. The WISE-Lebanon team first submitted these documents to the A&E firm for the Chehabiyeh Pump Station on September 5, 2013 and for the Haouch el Oumara water supply network on September 24, 2013. *As a result, this subtask was partially completed on September 5, 2013 and also partially completed on September 24, 2013.* The engineering design and technical specifications for the Deddeh water supply network will be submitted to CDM Smith in November 2013; for the Customer Metering project in the Kesserouan Villages, the design and specification documents will be submitted in December 2013. The lateness of this document has caused a slight delay in the commencement of the tendering processes.

b. Submit the final construction bidding documents to the A&E firm for review and approval

In line with 2.2.6, the WISE-Lebanon team coordinated with USAID's A&E firm in several areas including this subtask. The final construction bidding documents for the first three projects were submitted to the A&E firm in phases throughout the month of September 2013. Based on comments received from the A&E firm, the bidding documents were revised. *As a result, this subtask was partially completed on September 30, 2013, for the Chehabiyeh Pump Station only.* The final construction bidding documents for the other remaining infrastructure projects will be submitted to CDM Smith during the first quarter of Year 2.

3.2.10 Deliverables – Task 2.1 Select and subcontract with local engineering and construction firms for project implementation

Following the completion of the prequalification process and the preparation of construction bidding documents, the WISE-Lebanon program will proceed with the bidding process for the selection of the design and/or construction subcontractors to execute the specific projects selected by USAID/Lebanon.

This task consists of two sub-tasks as follows:

a. Prepare the Invitations to Tender and issue up to four tenders

This process includes preparing the instructions to bidders and compiling the construction bidding documents (including technical specifications, Bills of Quantities (BoQ), engineering design report and design drawings); issuing the tenders; receiving and opening bids; technical analysis/review and financial review of bidders proposals (bid evaluations); and selection/award of winning firm. This work has been completed for the first two tenders and is expected to be fully completed in the first quarter of Year 2.

b. Coordinate with the A&E firm and seek their technical input to the tendering process

After the tendering process has been finalized, but before the tenders are issued, the WISE team will coordinate with the A&E firm for its concurrence and validation. This work has been completed for the first two tenders and is expected to be fully completed in the first quarter of Year 2.

3.2.11 Deliverables – Task 2.2 Manage the design and construction process

There are many subtasks that support this task. The three most crucial are listed below.

- a. Prepare the subcontracts for the engineering firms and the construction contractors*

ELARD and KREDO are the primary environment and engineering partners, respectively, to Chemonics for WISE-Lebanon. KREDO will be performing all the design related work on the infrastructure projects and ELARD will be performing all the environmental related work on the infrastructure projects. The statements of work and the subcontracts for both of these firms were prepared by the Chemonics home office, with direct input from the WISE technical team; after several revisions, they were submitted in final form to USAID for approval on June 25, 2013 and July 5, 2013, respectively. USAID approved the subcontracts for ELARD and KREDO on July 29, 2013 and August 1, 2013, respectively. A similar process will be used for preparing and seeking USAID approval of the subcontracts for the construction contractors, after they are selected in Task 2.1.
- b. Supervise/monitor the work performed by the engineering firms and the construction contractors*

The extent and character of the work to be performed by the engineering firms and the construction contractors shall be subject to the general oversight, supervision, direction, control, and approval of authorized WISE-Lebanon personnel. For the construction sites, the construction contractors will be required to have a competent Site Supervisor on-site who is approved and accepted by the WISE-Lebanon Construction Management Specialist and the A&E firm. The Site Supervisor will have authority to act on behalf of the contractor. In addition, Chemonics will hire a full time site supervisor for each infrastructure project to represent WISE-Lebanon on the work site, after conducting a competitive tender process to select such supervisors. During the fourth quarter, Chemonics advertised and started interviewing qualified candidates for construction site supervisors. Pending USAID approvals, this hiring process will be completed during the first quarter of Year 2 in time for the actual commencement of construction.
- c. Payment of subcontractor costs*

Chemonics shall make payments to the engineering firms and to the construction contractors at the prices agreed to by the respective parties and as stated in their respective subcontracts. The engineering firms will submit invoices monthly along with deliverables. Once the quantities and quality of the deliverables have been approved and accepted by the WISE team technical representatives, the invoices will be paid. Upon submission of proper invoices, documentation and appropriate approvals, the construction contractors will be paid the full approved invoiced amount less any withholdings (retentions or liquidated damages) as set forth in their respective subcontracts. Payment of unpaid balances shall be made upon completion and final acceptance of the complete construction work by the WISE-Lebanon technical team and the respective WE. Payments to the construction contractors shall be based in part on the percentage of completed work.

3.2.12 Deliverables – Task 2.3 Monitor the sustainability benchmark compliance

The Memoranda of Understanding (MOUs) to be entered into between USAID and the partnering WEs will set forth the WE responsibilities and contributions and will include benchmarks for implementation, terminal dates for completion of benchmarks, and the benchmark verification elements which are defined as documentation and reporting requirements that must be achieved by the WEs prior to USAID's disbursement of construction funds.

This task consists of two sub-tasks as follows:

- a. *Collect data to track the indicators agreed to in the PMP report, and included in the benchmark sustainability schedule contained in the Final Analytical Assessment/Feasibility Report, mentioned in Tasks 1.3 and 1.4*

It is important to gather sufficient information to develop a baseline and set manageable targets. After selecting the program's performance indicators, the WISE-Lebanon team is in the process of gathering existing and derived data from available sources to serve as a baseline for what on the program will monitor throughout the life of the project. WISE-Lebanon's performance monitoring approach will strike a balance between data collection and technical work so that data collection responsibilities for staff are integrated into project activities. The team will collect data using document review, interviews, direct observation during field visits, and customer surveys. The WISE-Lebanon program will execute an official LOC between WISE-Lebanon (through USAID) and each WE, which will outline the data that the WE will be required to share with WISE-Lebanon as part of the collaboration effort. For every field visit that involves collecting or verifying data, the technical team will complete a field visit log identifying items, at a minimum, relevant indicators, types of data collected/received, data sources, observations, and a date/time stamp. The WISE-Lebanon procurement specialist will facilitate the maintenance of field visit logs. This work has not yet begun, however it is expected to start in the first quarter of Year 2, since the revised M&E Plan Report (formerly PMP report) was recently approved by USAID on October 10, 2013.

- b. *Make recommendations to USAID regarding the WEs' compliance with the LOCs and the sustainability benchmark schedules*

The WISE-Lebanon team will establish a system for verifying accuracy, integrity, and validity of data using three levels of quality control as data is received. The first level is review from the WISE-Lebanon team as they are best positioned to provide initial quality control for the various data elements given their technical background and familiarity with interpreting data. After review by the technical team, the data will be given to the WISE-Lebanon procurement specialist as a second level of quality control, who will conduct random spot checks for calculation errors, confirm out-of-range numbers, and so forth. Before the data is submitted to USAID via quarterly reports, the third and last level of quality control will be the WISE-Lebanon COP and Chemonics home office project management unit (PMU). When possible during field site visits, technical staff will conduct random spot checks on data reported by the WEs through direct observation and interviews. Because the program's approach strikes a balance between M&E and technical work, verifying data in this way will not present additional burdens on program resources. WISE-Lebanon will make recommendations to USAID as appropriate to ensure the WEs' compliance with the LOCs and the sustainability benchmark schedules. This work has not yet begun, however it is expected to start in the first quarter of Year 2 and continue as on-going as needed in subsequent quarters.

3.2.13 Deliverables – Task 2.4 Procure, ship, install, and commission specific technical equipment related to the specific needs of the infrastructure projects

There are many subtasks that support this task. The three most crucial are listed below.

- a. *Procure, ship, install, and commission specific technical equipment*
USAID's statutory procurement authority is Section 604(a) of the FAA, which authorizes procurement "from the United States, recipient country, or developing countries." Tracking that statutory authority, the Regulation establishes a presumptive USAID Principal Geographic Code, Code 937, for all USAID federally financed procurement of commodities and services under implementation instruments, unless otherwise specified. The procurement rules are enforced under ADS Chapter 310. Since the WISE-Lebanon project is designated Code 937, all construction contractors and other vendors will be required to certify the source, origin, and components of goods and commodities in compliance with ADS 310. This work has not yet begun, however it is expected to start in the first quarter of Year 2 and continue as on-going as needed in subsequent quarters.
- b. *Assess the relevant WEs' needs for procuring specialized water monitoring and leak detection equipment along with ancillary computer hardware and software*
The WISE-Lebanon team will assess the needs of the WEs for the equipment mentioned and any other equipment that may be needed to help them improve their performance in maintaining and operating the water supply networks. This work has not yet begun, however it is expected to start and finish in the first quarter of Year 2.
- c. *Provide necessary training of selected WEs' personnel on any procured equipment*
WISE-Lebanon will insist that the manufacturer of any specialized equipment procured under the project, will provide a reasonable amount of on-site training as part of the procurement contract. This work has not yet begun, however it is expected to start in the first quarter of Year 2 and continue as on-going as needed in subsequent quarters.

3.2.14 Deliverables – Task 3.1 Organize training sessions and study tours (as needed)

The topics that USAID believes have the greatest potential to improve and build the regional WEs capacity are: planning and budgeting for water and wastewater investments, effectively managing public investment through the project cycle, and capital investment sustainability. Capacity building shall be specifically focused on (or related to) the implemented projects, and complimentary to similar activities under the USAID/Lebanon LWWSS program.

This task consists of two sub-tasks as follows:

- a. *Organize training sessions, workshops, and study tours*
WISE-Lebanon will conduct several workshops where international and regional experts will lead discussions on the selected topics mentioned above as well as other management issues. The workshops will be held periodically throughout the life of the project. This subtask will be an on-going effort. The first workshop will cover the topic of emergency preparedness planning, to help the Water Establishments cope with the increased water demands caused by the Syrian refugee influx. This workshop is scheduled for November 12, 2013.
- b. *Coordinate capacity building efforts with the LWWSS program*
WISE-Lebanon will coordinate the planning and delivery of any training sessions with the LWWSS program to build upon any capacity building sessions that they might have

delivered. This work has not yet begun, however it is expected to start in the first quarter of Year 2 and continue as on-going as needed in subsequent quarters.

3.2.15 Deliverables – Task 3.2 Provide targeted on-the-job training

This task consists of two sub-tasks as follows:

- a. *Perform a training needs assessment associated with the targeted investments*
The WISE-Lebanon team will perform a small training needs assessment and gap analysis with respect to topics related to the implementation of the WISE-Lebanon task order. Such topics may include prioritizing capital improvements, preparing and evaluating tenders, water demand management, billings and revenues collections, etc. This work has not yet begun, however it is expected to start and finish in the first quarter of Year 2.
- b. *Conduct on the job training in targeted areas based on needs assessment*
WE Staff training modules will be directly linked to the WISE-Lebanon investments in water loss reductions (part of water demand management), benchmarking and performance indicator measurement, cost recovery, and improved collections. Schedules for delivery of associated training are included in the investment implementation portion of the work plan. Staff from each WE will also be selected to work on the construction sites along with the WISE-Lebanon site supervisors in order to gain knowledge and experience in inspecting work and managing construction. One example of on-the-job training which has already been delivered to BWE, NLWE, and SLWE is the Priority Project Selection Matrix tool which the WISE-Lebanon team developed in coordination with the respective WEs. After developing the matrix, the WISE-Lebanon team shared with each of the three DGs how to use the tool to prioritize and rank their proposed capital investment projects. The selection criteria and weighting of factors was emphasized to help them make better informed decisions going forward.

3.2.16 Deliverables – Task 3.3 Develop O&M Manuals and provide O&M supervision

Water treatment plants and distribution networks are constructed to operate 24 hours a day every day of the year, and equipment can wear out if not maintained properly. When equipment breaks down, it disrupts what should be continuous treatment and delivery processes. Preventive and predictive maintenance programs reduce breakdowns and identify problems in advance so they can be handled during a planned, controlled shutdown. World class utilities often use a computerized maintenance management system (CMMS) due to the large amount of equipment and the frequency of preventative maintenance necessary to keep the water system operating effectively. The WISE-Lebanon program will investigate the possibility of procuring CMMS software for one or more of the WEs, in addition to developing O&M manuals.

This task consists of two sub-tasks as follows:

- a. *Develop O&M Manuals*
The technical team has gathered sample O&M specifications for water supply networks from a variety of sources including: United States water utility programs; other international projects in the Gulf region; and other international projects outside the Middle East. These documents are currently being reviewed, consolidated and refined to fit the Lebanon operational environment. They will be finalized during the second year of the WISE project.

b. Provide O&M supervision on completed infrastructure projects

The technical team will assist the WEs in developing and implementing O&M plans for the completed infrastructure projects as they are placed into service. WISE-Lebanon will coordinate the O&M functions and oversee the WE staff members in performing these activities.

4. CHALLENGES ENCOUNTERED

The challenges facing the water sector are many and varied, and whilst some have a detrimental effect on project implementation, there are mitigating actions that the WISE-Lebanon team are taking to minimize these effects. One of the most important factors to overcoming challenges has been the development of strong working relationships with the Directors General and staff of the WEs based on the skill and experience of the WISE-Lebanon team. In planning for and addressing specific challenges, the WISE-Lebanon team utilizes the following matrix:

Table 4.1: Critical Assumptions, Risks, and Mitigating Actions for Overcoming Challenges

Assumption	Risk	Mitigating Action
Water Establishment management and staff are committed to development	Poor commitment will lead to inability to implement program and reduced investment in infrastructure	WISE-Lebanon is working closely with key managers and staff to ensure ownership of process and cooperation in implementation
Water Establishment staff have the sense of drive and urgency to meet the objectives of the WE	Institutional lethargy will lead to poor customer response, negative impacts on revenue collection, worsening water losses, etc.	WISE-Lebanon is working with staff of WEs to provide encouragement and direction
Absorption capacity of Water Establishments and staff is sufficient to enable developmental changes to occur, particularly as all four WEs have major projects in progress with another USAID project and other donors	Necessary changes are not made, or lack ownership by management of WEs; information is slow to be provided; companies develop more slowly than anticipated	WISE-Lebanon is working with management teams and developing programs with timing to meet needs of WEs; the ERP applications installed under the LWSS program are key to accelerating information sharing
Government is committed to allow infrastructure projects selected by WISE-Lebanon to be implemented under USAID terms and conditions without interference	Where necessary coordination with MoEW is not adhered to by MoEW, governance of WEs and implementation of selected projects will be impaired	WISE-Lebanon is keeping MoEW informed and making sure there are not any objections from MoEW on the selected projects. WISE-Lebanon is working closely with the other donor organizations to achieve synergies from the programs
No political influence in Board of Directors and management and daily operation of WEs	Water Establishments may respond to political pressures rather than technical priorities	WISE-Lebanon will be working closely with Director Generals of each WE to develop and implement specific technical capacity building

		programs for senior managers
WEs to ensure that all land is available or properly expropriated for all infrastructure work	Unclear or contested ownership will delay or prevent construction	WISE-Lebanon is working closely with all WEs to identify schemes, route and land requirements, and ensure that correct authorities and permissions are in place
Cooperation by municipalities	Delayed or prevented construction/installation	WISE-Lebanon is requiring WEs to coordinate with the construction contractors to obtain all necessary permits soon after the contract is signed

5. PLANNED ACTIVITIES IN NEXT QUARTER

The initial Startup Plan was approved by USAID on November 30, 2012 and was supplemented by the Year 1 and Year 2 Work Plan which lays out the full range of program activities for the remainder of Year 1 and Year 2. USAID approved the Work Plan on June 11, 2013. As a result, all planned activities directly correspond to the Work Plan.

The main objectives for the upcoming quarter (the first quarter of Year 2 of the project) include:

1. Complete the technical editing of the feasibility studies for each of the first three proposed infrastructure projects and submit the Final Feasibility Report to USAID for approval.
2. Complete the feasibility study for the customer metering project for the BMLWE and submit it to the A&E firm and USAID for review and approval.
3. Prepare the environmental review with an EMMP for the BMLWE customer metering project selected for implementation by USAID, and submit the report to USAID for approval.
4. Finalize the Memoranda of Understanding (MOUs) between USAID and each of the partnering WEs and facilitate the signing process with the WEs.
5. Begin collecting data and tracking performance indicators for monitoring and evaluation (M&E) reporting.
6. Finalize the engineering designs and technical specifications for the remaining BMLWE project selected for implementation by USAID, and submit them to the A&E firm for review and approval.
7. Revise the Quality Assurance/Quality Control Plan and resubmit it to the A&E firm for review and approval.
8. Prepare construction bidding documents for tendering for the two remaining projects and issue the tenders.
9. Evaluate all the construction tenders, award contracts to the most qualified and responsive bidders, and commence construction on at least the Chehabiyeh Pump Station Rehabilitation Project.
10. Continue coordinating activities and approvals with the A&E firm, per the WISE-Lebanon task order.

In addition to the above activities and to properly address the Syrian crisis situation's impacts on the Lebanese host communities and specifically on the water and sewer service providers (WEs) in Lebanon, USAID has requested Chemonics' WISE-Lebanon team to perform a rapid assessment of communities served by the WEs that are directly affected by the Syrian refugee influx, to identify, develop, recommend, and potentially implement integrated interventions to raise the capacity of the WEs to cope with the recurring emergencies resulting from an overall volatile situation in the Middle East region.

The team of consultants proposed by Chemonics, under the direction of the WISE-Lebanon COP, will undertake an assessment, which will achieve the following objectives:

1. Assist USAID/Lebanon to develop an emergency response strategy and action plan focused on enhancing and building emergency planning and preparedness capacities of the WEs to cope with this crisis and future crises.
2. Recommend options for effective interventions identified in coordination with key stakeholders including, but not limited to the WEs, affected municipalities, other USAID programs, the EU, UN agencies, international and local NGOs, and the World Bank. The team will focus on *integrated quick implementation projects* with outcomes that would mitigate the effects of the influx of large numbers of Syrian refugees on Lebanese host communities, whilst keeping the identified activities and interventions within the overall *strategy of emergency preparedness and planning*. Those activities will secure and maintain medium to long term benefits to the WEs, preserve basic levels of sustainability, and assignment of ownership and maintenance responsibilities for any assets installed or constructed.
3. Propose methodologies and tools for technical assistance and capacity building in conjunction with integrated quick implementation projects.
4. Sponsor a workshop for the WEs and other key stakeholders and introduce the concepts of emergency preparedness planning.

6. ADMINISTRATIVE ELEMENTS

6.1 Office Space and Operations

The office required moderate renovations to optimize the space, and make it fully functional and comfortable for staff. These improvements were completed in February 2013 and included the following:

- Installation of a gypsum and glass partition in the room where the majority of staff sit, necessary to absorb sound and provide division between the technical and administrative teams;
- Installation of a cement board and gypsum wall with a wooden door to enclose the server in a secure and fire-retardant room with proper ventilation;
- Installation of a ceiling light, an electrical outlet, and a wall mounted switch;
- Painting of select office walls; and
- Installation of five roller shades for office windows.

6.2 Staffing

All local positions were filled during the first quarter of the project except for the procurement specialist position. The procurement specialist was approved by USAID in January 2013 and the candidate was on-boarded in February 2013.

The WISE-Lebanon long-term project staff during the fourth quarter consisted of:

Name	Position
Rick Albani	Chief of Party
Fady Nakad	Construction Management Specialist
Salah Saliba	Technical Advisor
Haitham Nemer	Technical Liaison
Rindala Kraitem	Finance Director
Dzovinar Yeghiazarian	Administration & Office Manager
Nemer Habib	Procurement Specialist
Shaker Zreik	Field Expeditor & Driver

The project team will be supplemented by Lebanese and international short-term technical assistance (STTA). During the fourth quarter, the long-term and short-term team was supported by a dedicated Project Management Unit (PMU) in Chemonics' home office including PMU Director Jeffrey Wuorinen, Manager Zachary Borrenpohl, and Associate Jane Latham Hodges at no direct cost to the contract. Additional home office professionals have provided technical and administrative back-stopping including engineering and contracts, monitoring and evaluation, communications, training, field accounting and compliance, and procurement.

6.3 Local Subcontracts

The Chemonics consortium implementing WISE-Lebanon includes KREDO and ELARD, Lebanese subcontractors. Chemonics submitted formal requests for USAID consent for ELARD and KREDO on June 25, 2013 and July 5, 2013, respectively. Chemonics proposed to enter into fixed price type of subcontracts, which will issue individual firm fixed price purchase orders for specifically defined activities, above, to ensure cost control and full compliance with the specifications and delivery requirements of these services procurements. With this type of subcontract, there is a high degree of certainty of the prices and that the deliverables can be clearly defined, which are appropriate for the risks involved. USAID approved the subcontracts for ELARD and KREDO on July 29, 2013 and August 1, 2013, respectively.

7. FINANCIAL AND CONTRACTUAL ELEMENTS

7.1 Financial Elements

The first year of the WISE-Lebanon program has been completed with invoice submissions on the following dates:

Invoice 1	November 15, 2012	Invoice 7	May 28, 2013
Invoice 2	December 18, 2012	Invoice 8	June 24, 2013
Invoice 3	January 18, 2013	Invoice 9	July 16, 2013
Invoice 4	February 14, 2013	Invoice 10	August 22, 2013
Invoice 5	March 18, 2013	Invoice 11	September 17, 2013
Invoice 6	April 17, 2013	Invoice 12	October 21, 2013

The WISE accruals through the end of the fourth quarter are as follows:

Accruals as of September 30, 2013		
Description	Date	Amount
Total Funds Obligated	As of May 22, 2013	██████████
Total Actual Expenditures at End of Previous Quarter	As of June 30, 2013	██████████
Projected Expenditures for Fourth Quarter	July 1-- September 30, 2013	██████████
Total Projected Expenditures at End of Fourth Quarter	As of September 30, 2013	██████████
Remaining Obligated Funds Available at End of Fourth Quarter	As of September 30, 2013	██████████

7.2 Quarterly Financials (July 2013 - September 2013)

The total budget under this task order is \$21,464,084, of which ██████████ has been obligated. Below is the estimated monthly expenditure summary for WISE-Lebanon during the fourth quarter for both programmatic and operations costs.

Monthly Project Expenditures for WISE-Lebanon				
Month	Total Amount Spent in Month	Total Amount Spent to Date	Obligated Amount Remaining	Total Contract Ceiling Amount Remaining
Jul-13	██████████	██████████	██████████	██████████
Aug-13	██████████	██████████	██████████	██████████
Sep-13	██████████	██████████	██████████	██████████

Below is the estimated expenditure summary for WISE-Lebanon during the fourth quarter for both programmatic and operations costs, broken down by CLIN.

Expenditures Breakdown by CLIN						
CLIN Number	Approved Budget	Obligated to Date	Fourth Quarter Expenses (Jul-Sep 2013)	Cumulative Expenses to date	Remaining Budget Balance	Projected Expenses for Upcoming Quarter (Oct-Dec 2013)
█	█	█	█	█	█	█
█	█	█	█	█	█	█
█	█	█	█	█	█	█
█	█	█	█	█	█	█

7.3 Contractual Elements

There were no new contractual modifications during the fourth quarter to the Integrated Water and Coastal Resources Management IQC, Contract No. EPP-I-00-04-00020-00 nor the WISE-Lebanon Task Order No. AID-268-TO-12-00002.

8. TRAVEL INFORMATION

The frequency of international travel is low due to nature of the WISE-Lebanon work. Anticipated international travel in the first quarter of Year 2 of the contract (beginning October 2013) is reflected in the table below.

Name	Dates of Travel	Scope of Work Summary
Zachary Borrenpohl	September 21, 2013 to November 15, 2013 *	To lead a rapid assessment of the Lebanese WE's abilities to respond and cope with the influx of Syrian refugees and their impacts on host communities / service areas within the framework of emergency preparedness and planning
Jeffrey Wuorinen	October 17, 2013 to October 31, 2013*	To oversee and manage the WISE-Lebanon program while the COP is on annual leave
Patricia Bakir	November 17, 2013 to November 23, 2013 *	To assist the WISE-Lebanon team in developing a communication strategy for each of the planned infrastructure projects

* All dates are subject to international travel approval from USAID.

9. DELIVERABLES SUBMITTED TO USAID

The following deliverables have been submitted to USAID:

Report No.	Title of Report	Submission Date
00	Startup Plan (original)	November 02, 2012
00	Startup Plan (revised)	November 23, 2012

Report No.	Title of Report	Submission Date
01	1 st Quarterly Report October 2012 - December 2012	January 18, 2013
02	Preliminary Analytical Assessment / Feasibility Report	March 19, 2013
02A	Preliminary Analytical Assessment Report (Revised)	April 23, 2013
02B	Preliminary Analytical Assessment Report (Second Revision)	April 30, 2013
03	Performance Monitoring Plan Report	March 28, 2013
03A	Performance Monitoring Plan Report (Revised)	May 12, 2013
03B	Performance Monitoring Plan Report (Second Revision)	August 17, 2013
03C	Monitoring and Evaluation Plan Report (Third Revision)	October 5, 2013
04	Prequalification Findings Report (Interim)	March 28, 2013
05	2 nd Quarterly Report January 2013 – March 2013	April 12, 2013
06	Year 1 and Year 2 Work Plan	June 11, 2013
07	3 rd Quarterly Report April 2013 – June 2013	July 15, 2013
08	Deddeh Water Supply Network Report (Required IEE report submitted to Ministry of Environment.)	August 5, 2013
09	Haouch El Oumara Water Supply Network Report (Required IEE report submitted to Ministry of Environment.)	August 5, 2013
10	Chehabiyeh Pump Station - ERAC & EMMP Report	August 7, 2013
11	Haouch El Oumara Network - ERAC & EMMP Final Report	August 7, 2013
12	Deddeh Water Supply Network - ERAC & EMMP Final Report	August 7, 2013
13	Final Prequalification Findings Report	August 14, 2013
14	First Annual Report / Fourth Quarterly Report	October 23, 2013

10. PERFORMANCE MONITORING & EVALUATION PLAN

#	Indicator (Type)	Definition	Disaggregate By	Data Source	Method and Frequency of Data Collection	Frequency of Reporting	WE	Baseline*	Target Y1	Target Y2	Target Y3	Total change from baseline	Total result at end of Y3	Key Assumptions, Comments, Milestones	Person Responsible
<i>USAID/Lebanon Development Objective: Improved capacity of public sector in providing transparent, quality services across Lebanon</i>															
<i>USAID IR 1.2: Improved availability of water related public services to all in Lebanon</i>															
M1	Total Increase in the number of beneficiaries with access to potable water supply (Output)	We will count the increase in the number of individuals benefitting from registered household connection within the targeted service areas (zones).	By WE targeted service area	WE customer databases and business plans and the Central Administration for Statistics (CAS)	As part of their LOC, WEs will submit data to technical staff every six months. Technical staff will conduct spot-checks to verify data. The technical team will use the latest occupancy rate from the Central Administration for Statistics (CAS).	Semi-annual	NLWE	1,840	0	1,380	2,806	4,186	6,026	Assumes WE customer databases are updated. Registration of new subscribers is year round. Descriptive analytics will show population served as percentage of total population in service area.	Haitham Nemer
							BWE	13,094	0	5,147	12,008	17,155	30,249		
							BMLWE	17,560	0	1,750	1,925	3,675	21,235		
M2	Percentage increase in customer satisfaction with potable water services in selected service areas receiving USG assistance (Outcome)	Customers are registered entities in WISE targeted service areas. Customers could include households, businesses or commercial entities, churches and mosques, industry (e.g., construction sites), and government institutions (schools & hospitals) within the targeted service areas (zones). Customer satisfaction is the extent to which customers are satisfied with the potable water services they receive from their respective water establishment.	By WE targeted service area, customer class, metered vs. non-metered	Sample of registered customers	Customer satisfaction survey: baseline and end-term.	Baseline and end-term	NLWE	TBD by Customer Survey	0%	0%	10%			Minimum sample size for each water establishment targeted service area will be calculated to ensure the results will be statistically significant (i.e., probability that the change in customer satisfaction did not happen by chance).	Salah Saliba
							BWE	TBD by Customer Survey	0%	0%	25%				
							BMLWE	TBD by Customer Survey	0%	0%	20%				
<i>LEBANON WISE Objective: Enhance Lebanon's capacity to manage water resources through water and wastewater infrastructure upgrades and related management support</i>															
<i>Intermediate Result 1: Infrastructure enhancements identified, designed, and implemented</i>															

#	Indicator (Type)	Definition	Disaggregate By	Data Source	Method and Frequency of Data Collection	Frequency of Reporting	WE	Baseline*	Target Y1	Target Y2	Target Y3	Total change from baseline	Total result at end of Y3	Key Assumptions, Comments, Milestones	Person Responsible
W1*	Total Increase in the number of customers served in targeted service areas (Output)	We will count the increase in the number of registered customers in terms of households, businesses or commercial entities (can also include churches and mosques), industry (e.g., construction sites), and government institutions (can also include military offices) within the targeted service areas (zones).	By WE targeted service area, customer class, metered vs. non-metered	WE customer databases and business plans	As part of their LOC, WEs will submit data to technical staff every six months. Technical staff will conduct spot-checks to verify data.	Semi-annual	NLWE	400	0	300	610	910	1,310	Assumes WE customer databases are updated. Registration of new subscribers is year round. Descriptive analytics will show number of customers served as percentage of service area population covered and will show the increase in the number of people with access to potable water.	Haitham Nemer
							BWE	2,786	0	1,095	2,555	3,650	6,436		
							BMLWE	5,017	0	500	550	1,050	6,067		
W2*	Increase in the hours of service delivery to customers in targeted service areas (Output)	We will determine the increase in average number of hours per day that customers in targeted service areas have potable water services.	By WE targeted service area	WE rationing plans, customers	As part of their LOC, WEs will submit data to technical staff every 3 months. Technical staff will verify through site visit surveys.	Quarterly	NLWE	9	0	0	6	6	15	Service hours fluctuate depending on EDL. Did not include BMLWE because their baseline for the target service area is already at 24 hours of service per day because the local reservoirs in the target service areas are fed by gravity from the Shabrouh dam. For BWE, it is estimated that hours of service are between 6-9 hours every other day or 12	Fady Nakad
							BWE	9	0	0	6	6	15		

#	Indicator (Type)	Definition	Disaggregate By	Data Source	Method and Frequency of Data Collection	Frequency of Reporting	WE	Baseline*	Target Y1	Target Y2	Target Y3	Total change from baseline	Total result at end of Y3	Key Assumptions, Comments, Milestones	Person Responsible
														in the winter and 6 in the summer. For SLWE, we will monitor whether the reservoirs are full for certain hours of the day.	
W3*	Decrease in the percentage of potable non-revenue water (NRW) in targeted service areas (Outcome)	NRW is the difference between system input volume and billed authorized consumption. System input volume is the total volume input to the target service area. Authorized consumption is the total volume of metered and non-metered potable water taken by registered customers, the WEs, and others who are implicitly and explicitly authorized to do so (e.g., fire hydrants, fountains). For baseline calculation, we will use the simplified water balance equation (total potable water sent to system minus potable water sold/apparent demand) since data is not available. Once meters are installed, we will calculate by taking the cubic meters of total system input volume for specific targeted service areas and subtracting cubic meters of total billed authorized consumption, then percentage is calculated by dividing that number by total cubic meters of system input volume.	By WE targeted service area	WE meter records, production data, and sales data	Technical staff will collect data from WE records and calculate volume and percentage of non-revenue water every three months	Quarterly	NLWE	48.0%	0	0	-28%	-28%	20%	Bills are systematically issued at start of Lebanon FY (Jan) based on customer database in target service area. We will not start seeing results for NLWE and BWE target service areas until the network is completed in Year 3. We will start seeing results for BMLWE target service area since the network is new and the scope involves meter installation and training. The targets are set assuming that shortly after the installation of new networks and meters illegal connection will	Salah Saliba
						BWE	40.0%	0	0	-20%	-20%	20%			
						BMLWE	50.0%	0	-22%	-8%	-30%	20%			

#	Indicator (Type)	Definition	Disaggregate By	Data Source	Method and Frequency of Data Collection	Frequency of Reporting	WE	Baseline*	Target Y1	Target Y2	Target Y3	Total change from baseline	Total result at end of Y3	Key Assumptions, Comments, Milestones	Person Responsible
														not exist and leakage and over flows will be minimal.	
W3a*	Decrease in the percentage of technical losses of potable water in targeted service areas (Outcome)	Technical losses, also referred to as "physical losses" or "real losses", is the total volume (in cubic meters) lost through types of leaks, bursts, and overflows on mains, storage tanks (covered reservoirs), and service connections up to the point of customer metering. We will report the percentage of technical losses from the total system input; This is calculated by taking the total volume of potable NRW in targeted service areas and subtracting the total cubic meters of unbilled authorized consumption and estimated total cubic meters of commercial losses in the same targeted service areas the result is divided by the total system input and multiplied by 100.	By WE targeted service area	WE records	Technical staff will collect data from WE records and calculate every three months	Quarterly	NLWE	33.60%	0.00%	0.00%	-28.60%	-28.60%	5%	For baseline data in NLWE and BWE, we will assume that technical loss is 70% of NRW because target service areas are villages. For BMLWE, the baseline is 10% of NRW since the network is new. We will not see results until the network is completed in Year 3.	Primary: Salah Saliba Secondary: Haitham Nemer
							BWE	28.00%	0.00%	0.00%	-23.00%	-23.00%	5%		
							BMLWE	5.00%	1.00%	1.00%	1.00%	3.00%	8%		
W3b	Decrease in the percentage of commercial losses of potable water in target service areas (Outcome)	Commercial losses, also referred to as "apparent losses" or "administrative losses", consist of unauthorized consumption (illegal connections and theft of water from registered customers) and all types of meter inaccuracies (slow meters, malfunctioning meters, stuck or frozen meters, stopped and blocked meters, incorrect meter readings, and under estimated flat rate or lump sum tariffs). We will report the percentage of commercial losses from the total system input; This is calculated by adding an estimate of total cubic meters unauthorized consumption and an estimate of total cubic meters of customer metering inaccuracies in the targeted service	By WE targeted service area	WE records	Technical staff will collect data from WE records and calculate every three months	Quarterly	NLWE	14.40%			0.60%	0.60%	15%	For baseline data for NLWE and BWE, we will assume that commercial loss is 30% of NRW because targeted service areas are villages. For BMLWE, baseline is 90% of NRW since networks are new so technical losses are very small. Even though this indicator is under IR 1 as part of the NRW	Primary: Fady Nakad Secondary: Haitham Nemer
							BWE	12.00%			3.00%	3.00%	15%		
							BMLWE	45.00%			-33.00%	-33.00%	12%		

#	Indicator (Type)	Definition	Disaggregate By	Data Source	Method and Frequency of Data Collection	Frequency of Reporting	WE	Baseline*	Target Y1	Target Y2	Target Y3	Total change from baseline	Total result at end of Y3	Key Assumptions, Comments, Milestones	Person Responsible
		areas.												calculation, it also contributes to IR 2. That is, a decrease in commercial losses is also a measure of financial and managerial sustainability.	
<i>Intermediate Result 2: Financial and managerial performance and sustainability of WE improved through capacity building</i>															
W4*	Increase in the percentage of cost recovery (Outcome)	Cost recovery means the WEs are able to recover operations and maintenance (O&M) costs in the targeted service areas through revenues and improved collections (including full billing cycle and deployment of consumption-based tariffs). This is, in essence, improved water demand management. O&M costs include labor, electricity, chemicals (chlorine and others), maintenance, and repairs. The percentage of cost recovery is calculated by subtracting actual O&M costs in the targeted service areas from actual revenue of the same targeted areas, and dividing that number by actual O&M costs then adding 1 to the result. Maintenance fees are not included in O&M costs since it is assumed that WEs do not have actual costs for it.	By WE targeted service area	WE annual reports submitted to MoEW, KPIs	Technical staff will collect data from WE reports and calculate percentage of cost recovery annually	Annual	NLWE	88%	0	0	22%	22%	110%	Breakeven point is at 100%. Baseline data assumes only 9 hours of service delivery (not 24 hours) and lump sum-based tariff. Targets are based on at least 15 hours of service delivery, consumption-based tariff, increase in number of customers, and change in volume of water delivered. Milestone: Improved procedure manual(s) for collections and billing completed; PA brochures (to educate citizens to pay for water services) developed and distributed.	Primary: Salah Saliba Secondary: Fady Nakad
						BWE	40%	0	0	70%	70%	110%			
						BMLWE	131%	0	0	-11%	-11%	120%			

#	Indicator (Type)	Definition	Disaggregate By	Data Source	Method and Frequency of Data Collection	Frequency of Reporting	WE	Baseline*	Target Y1	Target Y2	Target Y3	Total change from baseline	Total result at end of Y3	Key Assumptions, Comments, Milestones	Person Responsible
W4a	Decrease in the average unit cost per volume of potable water pumped (Outcome)	We will calculate this by dividing total O&M cost per pump in targeted service areas by total system input volume by pump in the same targeted areas.	By reservoir or service area	SLWE records	Technical staff will collect data from SLWE and calculate every six months	Semi-annual	Douara P1/P2/P3	210 LBP/m3	0	0	-14 LBP/m3	-14 LBP/m3	196 LBP/m ³	Assumes that automation of some pump functions will lead to reduced overtime (which equals labor savings).	Primary: Fady Nakad Secondary: Haitham Nemer
							J.Amel P7/P9	98 LBP/m3	0	0	-5 LBP/m3	-5 LBP/m3	93 LBP/m ³		
							Kafra P4/P5/P6	108 LBP/m3	0	0	-70 LBP/m3	-70 LBP/m3	38 LBP/m ³		
							Majedel P8	98 LBP/m3	0	0	-73 LBP/m3	-73 LBP/m3	25 LBP/m ³		
W4b	Decrease in energy consumption per M ³ of potable water pumped by service area (Outcome)	We will measure the change in energy consumption per M3 of potable water pumped for each pumping station by taking the number of kilowatt usage of each pump and multiplying that by total hours the pump was running than dividing the total by the total volume pumped. Unit of measure is kilowatt hours per cubic meter.	By service area	Electric meters, pump operators, electric bill	Technical staff will collect data from SLWE and calculate every six months	Semi-annual	Douara P1/P2/P3	1.613 kwh/m3	0	0	0.107 kwh/m3	0.107 kwh/m3	1.506 kwh/m3	Targets were determined assuming each pumping station will operate 24 hrs daily when replaced.	Primary: Fady Nakad Secondary: Haitham Nemer
							J.Amel P7/P9	0.750 kwh/m3	0	0	0.036 kwh/m3	0.036 kwh/m3	0.714 kwh/m3		
							Kafra P4/P5/P6	0.833 kwh/m3	0	0	0.542 kwh/m3	0.542 kwh/m3	0.291 kwh/m3		
							Majedel P8	0.750 kwh/m3	0	0	0.56 kwh/m3	0.56 kwh/m3	0.190 kwh/m3		
W4c	Increase in collection ratio (Outcome)	Improved networks and services result in an increased number of customers (through legalization of illegal connections) and improved collection efficiency. We will take the total amount collected and divide it by the total amount billed (includes paid and non-paid) for targeted service areas.	By WE targeted service area	WE records	Technical staff will collect data from WE records and calculate annually	Annual	NLWE	88%	0	0%	2%	2%	90%	Collection ratio as of Dec 2012 for the entire service territory of NLWE is 53%, compared to 88% in the targeted service area.	Salah Saliba
							BWE	47%	0	7%	12%	19%	66%		
							BMLWE	62%	0	22.0%	11.0%	33%	95%		
W4d	Increase in the percentage of registered water users who pay their bills (Outcome)	Registered water users are WISE customers in targeted service areas. We will count customers who have "current status" on their accounts with water establishments at the time of data collection.	By WE targeted service area	WE reports	As part of their LOC, WEs will submit data to technical staff	Annual	NLWE	88%	0	0%	2%	2%	90%	Assumes water establishment records are up-to-date.This indicator reports similar data as indicator 4c. The same baseline & targets as 4c were used.	Salah Saliba
							BWE	47%	0	7%	12%	19%	66%		
							BMLWE	90%	0	2.5%	2.5%	5%	95%		
W5	Number of participants in OJT program and workshops	We will count the number of people from WEs that participate in our on-the-job (OJT) program (i.e., working side-by-side with contractors to increase knowledge on quality of	By WE targeted service area and by sex	Project records	Technical staff will track data using participation sheets and	Quarterly	NLWE	0	2	2	2	6	6	For female participants, we will track how many are in decision-making	Nemer Habib
							BWE	0	2	2	2	6	6		

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	(Output)	materials, quality of workmanship, illegal connection resolution, etc.) and attend workshops/training. We will count participants only once, even though they may choose to attend more than one training session.			site visits.		BMLWE	0	4	2	4	10	10	or management positions. We will also obtain baseline information on how many are employed to provide context for disaggregation.	
							SLWE	0	0	2	4	6	6		

* All baseline data was obtained from the WEs directly.

ANNEX 1: LIST OF SHORT-TERM TECHNICAL ASSISTANCE

Year 1 (2012-2013)

Short Term Expert	Period of Mission in Lebanon	Tasks Performed
<p>Jeffrey Wuorinen (Acting Chief of Party)</p>	<p>October 20, 2012 – January 18, 2013</p>	<ul style="list-style-type: none"> • Responsible for overall technical, managerial and strategic direction of the project. • Produced start-up plan in cooperation with team members. • Monitored execution of planned activities, ensuring consensus on project objectives and results, that activities were performed to a high professional standard, and that objectives are met and results are achieved. • Defined personnel needs and scopes of work. • Ensured close and collaborative relationships between USAID, counterparts, and Chemonics' home and field offices. • Oversaw field office finances and work with home office in management of contract finances; responsible for allocation of project resources, and commodity procurement. • Assured timeliness and quality of reports and deliverables as called for in the contract • Assured quality and timeliness of work of subcontractors. • Provided direction and guidance to field office staff. • Defined personnel needs and scopes of work for full time and short term consultants. • In consultation with home office, hired personnel. • Directly supervised the senior members of the project team.
<p>Angela Sabino Wasson (M&E Specialist)</p>	<p>February 17, 2013 – February 23, 2013</p>	<ul style="list-style-type: none"> • Reviewed illustrative indicators provided in the technical approach and in the task order, and proposed permanent indicators used for the WISE-Lebanon projects; present for approval to the COR in coordination with the COP. • Drafted performance indicator reference sheets, with emphasis on ensuring that instructions are clear and thorough on methods of data collection and calculation of indicator values. • Ensured indicators are relevant to each project's intended result. • Ensured adequate number of indicators to measure results to avoid under-reporting and propose outcome indicators, as relevant. • Developed annual and end-of-project targets for

		<p>each indicator.</p> <ul style="list-style-type: none"> • Determined which baseline data exist and which ones need to be collected – develop scope for subcontractor(s) to conduct baseline data collection as relevant. • Defined roles and responsibilities for data collection, processing, and dissemination and use. • Trained staff on their responsibilities and timelines, while ensuring that data collection and analysis are timed to meet the needs of reporting requirements.
<p>Jeffrey Wuorinen (Work Planning Specialist)</p>	<p>May 12, 2013 – May 18, 2013</p>	<ul style="list-style-type: none"> • Met with USAID to fully understand their expectations and identify any issues that need to be addressed during the planning workshop. • Reviewed the project contract and work plan as well as other background documentation such as the client’s strategic objectives, results framework, PMP, and country strategy to understand how the project is designed to achieve the client’s goals. • Assisted in the design and preparation of the work planning workshop agenda. • Participated in technical work planning sessions which define specific objectives, activities, and resources for years one and two of the project. • Helped prepare the work plan document outline based on workshop proceedings and structure a process for completion of the draft work plan. • Solicited feedback from stakeholders and beneficiaries on the progress of the project. • Participated in technical work planning sessions which define specific objectives, activities, and resources for years one and two of the project. • Prepared work plan, including procurement plan. • Reviewed and recommended linkages with other projects in the country/region. • Drafted scopes of work for short-term technical assistance in coordination with COP.
<p>Zachary Borrenpohl (Rapid Assessment Engineer)</p>	<p>September 22, 2013 – November 15, 2013 (On-going)</p>	<ul style="list-style-type: none"> • Collect, review and benchmark existing information about host communities needs and on-going activities to mitigate the impacts of the Syrian influx through coordination meetings with WEs , local authorities (mainly municipalities) and selected agencies such UNDP, EU, UNHCR, and ICRC and cross check information with existing data provided by other sources (local and/or international). • Review previous and current performance of the Water Establishments in response to service area based or wide spread emergencies with respect to large population influx, i.e. conduct a preliminary vulnerability assessment of each affected WE. • Meet with the WEs’ Senior Management and Branch offices managers and municipal officials to develop

		<p>a firsthand list of needs to be addressed mainly to mitigate immediate adverse impacts whilst integrating activities within an overall strategy of interventions, focusing on medium to long-term implications on emergency preparedness.</p> <ul style="list-style-type: none">• Prepare a selection matrix for identified projects, to be ranked based on specific impact criteria such as technical need, cost, commercial availability in the Lebanese market, time needed for procurement, and overall effectiveness in addressing emergency response actions. Identify high impact short-term projects which focus on aspects that would alleviate the added burdens of increased water demands and increased wastewater generation, whilst trying to cover as much service area population as possible.• Prepare a joint workshop for all 4 WEs' DGs and senior personnel in order to present the results of the vulnerability assessments to introduce and deliver intended training program for the WEs for them to implement best practices with respect to emergency planning and preparedness with emphasis on refugee population influx.• Prepare a detailed assessment report.
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