



**USAID**  
FROM THE AMERICAN PEOPLE

**JORDAN**

# AMMAN WATER MANAGEMENT/ COMMERCIALIZATION ASSESSMENT

PHASE TWO REPORT: FEASIBILITY ANALYSIS OF NEW  
COMPANY

Volume 1\* – Main Section

JULY 2006

This publication was produced for review by the United States Agency for International Development. It was prepared by SEGURA/IP3 Partners LLC under the SEGIR Privatization II Indefinite Quantity Contract No. AFP-I-00-03-00035-00, Task Order No. 539.

\* The annexes section is in Volume 2.

## **EXECUTIVE SUMMARY**

This is the second report submitted by SEGURA-IP3 to the United States Agency for International Development (USAID), the Jordanian Ministry of Water and Irrigation (MWI), and the Water Authority of Jordan (WAJ) as part of the technical assistance to analyze and recommend alternative organizational models for the provision of water and wastewater services in Greater Amman, and to assist the government in implementing the recommendations, as adopted by the government.

The technical assistance includes three phases. The first phase, evaluation of alternative organizational models and recommendation of a model was concluded in January 2006 with the presentation of the Consultants' first report.<sup>1</sup> This second phase corresponds to the planning process and feasibility study. The third phase will cover the implementation and management transfer.

MWI/WAJ, on the basis of the recommendations of the Consultants (phase one report), decided to establish a new company (NEWCO) to provide water supply and wastewater collection services in the Amman Governorate and LEMA's current service area. MWI/WAJ also decided that WAJ will continue to be responsible for the supply of bulk water supply and wastewater treatment from outside the service area.

The main organizational and operational characteristics of NEWCO are outlined in the Memorandum of Understanding (MOU) signed by MWI/WAJ and USAID on April 13, 2006. This report responds then to the mandate given to the Consultants in the MOU. This Executive Summary follows the presentational order of the main report.

### **NEWCO's mandate and legal aspects**

The government is keen in creating a company able to provide excellent, efficient and continuous services to the whole population in NEWCO's service area. NEWCO must quickly establish its credibility as a competent successor to LEMA in line with the expectations of the general public and must gain the trust of external funding agencies that may help finance its investment program, including the start-up project. It will be of the essence for NEWCO to start its activities with clear objectives that address widely felt needs in the service area.

MWI/WAJ's intention is that NEWCO operates as a financially viable, self-sustaining entity, managed under modern commercial principles and private sector practices. Moreover, the intention is also to create a modern corporate governance structure that will allow effective stakeholder participation and operational autonomy. NEWCO's draft Articles and Memorandum of Association and Bylaws contain structures and procedures that reflect modern principles of corporate governance that have been developed in the

---

<sup>1</sup> Amman Water Management/Commercialization Assessment. Phase one report: Comparative evaluation and recommended organizational model. January, 2006

past ten years largely as a result of corporate scandals in the United States, the European Union, and developing countries.

According to the MOU, NEWCO will be a limited liability company organized under the relevant provisions of the Companies Law (Law No. 22 for the year 1997). WAJ will be the majority owner of NEWCO, and it envisions establishing a partnership with Greater Amman Municipality.

WAJ should not have an input into the day-to-day operation of NEWCO and should act mainly as: shareholder, provider of bulk water and of wastewater treatment services, and responsible for major capital improvements.

The Program Management Unit (PMU) under WAJ will monitor NEWCO's performance to ensure the quality and standards of service as defined in the Assignment Agreement to be signed between WAJ and NEWCO. This monitoring is part of a transition process for PMU to achieve in the future a more independent status towards more formal regulatory responsibilities of water and sewerage companies and agencies across the country.

### **NEWCO's organizational and managerial aspects**

There are many alternative approaches to the design of an organizational structure that best fits an organization's objectives but, ultimately, the General Manager and the senior management team are the ones who should decide on the structure that best fits their management style and the needs of the organization to fulfill its mission.

The Consultants consider that LEMA's organization, for the most part, is adequate to respond to NEWCO's initial challenges. In order not to overload the new administration, the Consultants recommend implementing a new organization in two stages:

- Stage 1, to be implemented by January 2007 represents minimal changes to the existing LEMA organization. This stage entails the addition of four key functions and positions to the current organizational structure. This change has a small impact on existing operations, and addresses key organizational issues confronting NEWCO – it is considered a “bare bones” approach to creating a successfully functioning organization. The additional positions/responsibilities envisioned include a human resources officer, a legal coordinator, a capital improvement program coordinator, and a chief financial officer.
- Stage 2, recommended for full implementation by early 2008 represents a more comprehensive reorganization. It increases the number of senior management positions, thereby providing an opportunity to add personnel from the private sector with broad commercial company experience.

NEWCO's Management Committee and senior management face challenges and opportunities inherent in the development of the company's mission, goals, objectives and work ethic. Moreover, the management group should strive to bolster stakeholder

and community confidence through the application of transparent practices. Additional challenges include development and implementation of:

- An equitable and fair personnel management system, to gain staff acceptance and willingness to work hard for the company.
- A comprehensive asset management system to improve operations and maintenance.
- A comprehensive strategy for improving all aspects of the organization's operation to ensure excellent services to all.

### **NEWCO's human resources**

The establishment of NEWCO provides a window of opportunity to shape and direct new human resources policies within the statutory provisions in compliance with the Labor Law. The challenge is to establish the critical transformation by the management and staff from a Civil Service mode of operations to a model that is more in keeping with "private sector practices", to unify the pay scales and staff classification system, and to implement responsive training programs.

The fact that the ex-WAJ staff was seconded directly from the Civil Service and occupies most key positions in NEWCO, would make the transformation a bit more challenging since by and large they would not only have to be the agents of change but also would have to change their modus operandi with regard to management in general and human resource development in particular.

The move towards a private sector service model can be hampered by the Human Resources Department rigidly applying public/civil service human resources policies. This has been the case in other utilities who have tried to make the transition; they incurred the cost and not the desired performance results to date.

### **NEWCO's operational aspects**

A significant increase in water supply will bring a net addition of 40 Mm<sup>3</sup>/year, once the Zara Ma'een project becomes operational in late 2006. This additional water supply provides a unique opportunity to offer continuous service to almost all the population in the service area, provided that Non Revenue Water (NRW) –water losses- is substantially brought under control (45% to 35%) through an aggressive program to reduce pipe breaks/leak and illegal connections and a close supervision program to reduce even further NRW.

As defined in the MOU, WAJ will continue to be responsible for bulk water supply and wastewater treatment services outside the service area. NEWCO will be responsible for the operation of the water supply, including Zai KAC supply system and wells in the operational area. NEWCO will also be responsible for the wastewater collection system and the operation of two small wastewater treatment plants in the area of service.

To effectively discharge its mandate, NEWCO should develop and implement a comprehensive asset management system to supervise the operations and make optimal use of its assets and WAJ assets under its responsibility. This system should be built on the asset inventory system developed by LEMA, and expand the existing SCADA system to optimize operations.

The MOU clearly defines that NEWCO will be “responsible for all preventive and routine maintenance of all assets under its management, including those entrusted to the Company by WAJ” (Article 11). Moreover, the MOU provides a pragmatic and useful allocation of Capital Investment (CIP) responsibilities (Articles 12 and 13).

The assignment of capital investment responsibilities poses a challenge to both NEWCO and WAJ as there are gaps in the understanding of the physical condition of most fixed assets (in particular underground water and sewerage pipes)<sup>2</sup>.

There is no common accepted allocation of capital investment responsibilities; however the consultants, based on best practices in lease/affermage contracts where this distinction is important to the operator and the owner of the service, recommend:

- Maintenance: NEWCO will be responsible for all maintenance responsibilities within the service area including:
  - Water distribution and wastewater collections systems, including the primary water distribution system (pumping stations, storage tanks and pipelines  $\geq 400$  mm),
  - Water treatment/wastewater treatment plants and own wells operated by the new company.
  - Significant maintenance programs that will exceed the budget allocated to maintenance could be dealt as a capital expense.

NEWCO’s maintenance responsibilities should have an annual cap of JD 2.5 million; a cap dictated by the availability of financial resources. This cap should be revised periodically starting in 2009.

- Investment: NEWCO will be responsible for developing and executing an integrated and comprehensive CIP related to the expansion of water and wastewater systems including:
  - The water distribution system (pipelines, pumping stations, SCADA system, storage, valves and appurtenances)
  - Wastewater collection system
  - House connections (water and sewerage) and water meters.

---

<sup>2</sup> The proposed Start- Up project would provide the resources and software/hardware to have a more satisfactory understanding of the condition of these assets.

- Major Investments: WAJ will be responsible for major capital expenditures related to the rehabilitation and expansion of the water and wastewater systems including:
  - New bulk water supplies, including treatment, to timely satisfy the demand in the service area.
  - New wastewater treatment plants and related conveyance facilities.
  - Primary water distribution system and additions to it or replacements to augment its capacity.
  - Transport of bulk water to areas outside service area.

Another factor that should influence the allocation of maintenance/CIP expenditures is the Start-Up project. If this project, as recommended, is timely carried out (beginning in mid 2007) NEWCO will be able to assume the above financial responsibilities. If the Start-Up Project does not materialize as planned, then more modest targets should be set for NEWCO.

### **NEWCO's Start-up Project**

A significant investment program carried out by WAJ has been a contributing factor to improvements, particularly in water supply services. However, there is still an urgent need to substantially reduce the number of leaks/bursts in the water distribution system and blockages in the wastewater collection system as they both exceed, and by an ample margin, acceptable operational practices in service companies of similar characteristics.

The Consultants recommend that NEWCO's management implementing a project - Start-up Project - addressing issues mentioned in the previous paragraph. The Start-up Project has been conceptualized as a means to: restore continuous service within the entire Amman service area, improve the reliability of wastewater collection system, improve operational efficiency and provide a reliable asset management system. The total project cost is estimated at JD 50 million in 2006 prices.

The Start-up Project is attractive through the simplicity of its design and through its clear focus on reducing leakage in order to restore continuous service to Amman, improving living conditions by the reduction of sewerage blockages, and providing more agile management operation software/hardware facilities. It is likely that there will wide interest from external agencies to finance the entire Start-up Project or some of its components (for instance technical assistance in GIS and SCADA). MWI/WAJ would service the loans for this project.

### **Pricing bulk water, services and subsidies**

- It is recommended that WAJ should consider charging NEWCO an optimal bulk water tariff of at least JD 0.300 per cubic meter. The charge should be irrespective of the origin of the bulk water. However, this charge should be revised once Disi becomes operational. WAJ would then be free to consider the optimal dispatch of

bulk water from its various sources, beginning with the cheapest and ending with the more expensive.

- The current pricing of services results in a substantial level of subsidies (economic cost less price paid by the operating company or final consumer) to the water company and end consumers. Subsidies to end consumers amount to about JD 56 million per year as compared to the water company's operational revenue of JD 52 million (LEMA's 2006 budget).
- Subsidies are not well targeted. Poor consumers (with consumption less than 20 m<sup>3</sup>/quarter) representing about 30% of residential users receive only 9% of the subsidies while mid and upper class residential users receive over 90% of the subsidies (Annex 5). Moreover, the absolute level of subsidies to residential users tends to increase as consumption increases.

The consequences of these subsidies are:

- They deprive WAJ and NEWCO of needed resources to provide adequate maintenance and timely expand wastewater services.
- They give a weak signal to the operator and end users to conserve water resources. To the former, in the form of high level of non revenue water and to the latter in promoting wasteful consumption.
- The Consultants recommend an in-depth revision of pricing and subsidy policies to improve cost recovery and reducing subsidies to better-off consumers.

### **NEWCO's financial aspects**

MWI/WAJ should ensure that NEWCO starts operations in a robust financial position. Two critical aspects leading to NEWCO's robust financial positions are the following:

- MWI/WAJ providing NEWCO with adequate working capital.
- MWI/WAJ providing NEWCO with sufficient and predictable revenues for the medium- and long-term operations. The decision on revenues should take into account that NEWCO should have enough resources to finance its day-to-day operations, the rehabilitation of the existing infrastructure and the expansion of services.

The Consultants recommend that WAJ provides NEWCO with the required working capital according to the approach below<sup>3</sup>:

---

<sup>3</sup> The figures are based on available estimates but should be updated during the transition from LEMA to NEWCO.

- WAJ transfers to NEWCO as capital contribution (paid-in capital) the current assets of the water and sewerage service at the end of LEMA's contract, so as to provide the company with adequate liquidity to carry out its operations. These current assets are currently estimated at JD 18 million, which include JD 16 million in accounts receivable (net of provision for doubtful receivables), and JD 2 million in inventories and other current assets at the end of LEMA' contract.
- WAJ opens a JD 2 million line credit to NEWCO to start operations. NEWCO would reimburse the loan during the first one to two years of its operations.
- WAJ clears-up all LEMA's account payables in arrears. The accounts payable not in arrears could be assumed by NEWCO. These accounts, including WAJ's JD 2 million loan would amount to about JD 10 million.

The above arrangements would allow NEWCO to start operations with a positive net working capital (current assets less current liabilities) of about JD 10 million.

The financial scenario estimated by the Consultants for the 2007-11-period shows that NEWCO's cash flows would be adequate to cover its operational expenditures and investments while at the same time maintaining a satisfactory cash position. The sources of funds considered for the scenario include NEWCO's current operational revenues, without adjustment to compensate for inflation, plus WAJ financial revenues generated by the 3% contribution on buildings and land in Greater Amman (Law No. 18 of 1988, Article 21).

NEWCO's management should periodically update the scenarios taking into account actual cash flows and up-to-date management plans. NEWCO's up-to-date scenarios should also take into account aspects like the implications of the entrance in operation of DISI around 2012, government and WAJ's decisions regarding pricing of services and subsidies, and actual inflation rates.

### **Creating NEWCO**

The departure of LEMA and its Suez personnel by the end of 2006 requires the urgent appointment of NEWCO's executive staff to make critical decisions including NEWCO's organization and staff appointments, introduction of new areas of responsibility in the new entity and the transfer of assets and services from WAJ.

As indicated in the Minister letter of June 6, 2006, the Minister of Water and Irrigation will appoint NEWCO's General Manager. The Consultants consider it is critical to have the General Manager identified, at the latest, by early August, 2006.

In the same letter the Minister confirmed the participation of the Consultants in the identification of suitable candidates to fill the following positions:

1. Finance and Administrative Director

2. Human Resources Officer
3. Technical Services/CIP Director

All these positions will be publicly announced and the competitive selection process will consider candidates from inside and outside MWI. The selection process will be managed by a local recruitment firm based on responsibilities and qualifications discussed and agreed between the PDT and the Consultants. Interviews will be jointly managed by a special task group with representatives from MWI, WAJ and the consultants. NEWCO's General Manager will make the final selection.

It is expected that successful candidates will be offered the position by mid August 2006 so they can start work in early September. These professionals will be transitionally hired by USAID through the SEGURA/IP3 contract, with MWI/WAJ commitment that NEWCO will retain them at the beginning of operations.

The consultants recommend that NEWCO's senior management concentrate their initial effort in the following areas:

- Organization. The organizational proposal contained in this report should be validated or amended as necessary.
- Human resources. As detailed in the report, and in line with the decision on the organization, there is a need to develop a new system of staff classification, unified remuneration system and bonus package.
- Procurement procedures. NEWCO will have procurement procedures different to the ones from LEMA. The consultants will work closely with NEWCO's senior management in developing these procedures.
- Business plan. This plan captures the goals of the new company in terms of objectives, and defines the resources, financial and manpower, needed to implement it. The consultants will provide support to NEWCO's management in the development of this plan.
- Initial budget. There is a need to develop a detailed first year budget and sources of funds and a similar, less detailed one for the next two years. The consultants will work closely with NEWCO's senior management to develop these budgets, within the context of the Business Plan.
- Opening balance. This document needs to receive close attention from NEWCO's senior management. The consultants will work closely with NEWCO's senior management in developing this balance.
- Communication plan. To reach staff and the general public to help develop and reinforce NEWCO's corporate identity

- Operating procedures. While initially the consultants recommend continuing using LEMA's applicable procedures, there is a need to revise and update them as necessary. The consultants will make recommendations to NEWCO's senior management particularly on the following areas:
  - Customer services. To improve and enhance NEWCO's interaction with its customer base.
  - Finance and accounting. A new FAS system, financed by USAID will be implemented with the help of consultants. It is expected to be fully operational by mid 2008.
  - Standard operations. These procedures need to reflect the new organizational structure.
  - Transfer of rights and responsibilities. NEWCO's senior management need to be actively involved in this transfer as well as in the transfer of assets (fixed and movable) from WAJ to NEWCO.
  - Start-Up project. NEWCO's senior management should review the project and participate in the dialogue with donors to canvass their support and internally designate the professional team that will be responsible for its implementation.

A timeline of the expected work program for the above mentioned task is presented below:

NEWCO's incorporation process has already started with the development of draft versions of the Articles of Association (Annex 1B) and the Memorandum of Association (Annex 1C), which were discussed with PDT on several meetings. These documents are required to register the company (limited liability) in Jordan.

MWI/WAJ should submit the above drafts to the Greater Amman Municipality (GAM), the potential shareholder, and reach agreement with them as they would be the basis for the shareholder agreement between the two parties. As this agreement is a critical step in the process of incorporating NEWCO, MWI/WAJ should seek to reach agreement with GAM *by the beginning of August 2006*.

MWI/WAJ will present to the Cabinet the agreed versions, as part of the communications process that the MWI has established regarding the creation of the future company in Amman. Endorsement by the Cabinet is expected by the *end of November 2006*.

NEWCO's registration process will include the presentation of the foundation documents to the Company's Comptroller to obtain the Registration Certificate. In order to meet the timeline proposed, this Certificate should be obtained by the *middle of September 2006*.

Once NEWCO obtains its registration certificate and is fully incorporated as a limited liability company, the start of operations process begins with the shareholder's call for the General Assembly. The purpose of this meeting is to approve the decisions that will allow the company to start operations and to appoint the Management Committee and executive staff.

The deadline for this set of appointments is the beginning of *October 2006*. The consultants recommend that the members of the Management Committee be selected in advance to its formal nomination. This would permit them to participate in the review of documents that later they need to formally approve. It would be advisable to have these nominations completed in *early September 2006*.

Once formally appointed, the MC needs to review and approve the following set of documents.

- A first group includes: the organizational structure, staff compensation plan and human resource procedures, finance and accounting procedures and standard operating procedures.
- A second group includes: opening balance, the one-year budget and the business plan.

These approvals should take place not later than the end of *November 2006*.