

JORDAN

Wadi Mousa Water and Wastewater Treatment Project

Context

All visitors to Petra transit by way of Wadi Mousa ("the valley of Moses"), a small village that in recent years has been transformed into a bustling town catering mostly to the tourist trade. Indeed, tourism in recent years has emerged as a major source of income for the local community (as well as for Jordan as a whole, with tourism receipt now representing the country's second most important source of foreign exchange).

Water and wastewater improvements in Wadi Mousa are vital, both for the local community and to accommodate the rapid expansion in tourism. The number of visitors to Petra over the past decade has quadrupled to almost 400,000 annually. At the same time, years the number of hotel beds in the area has increased by at least tenfold. Additional hotels and guesthouses are anticipated and an effort is underway to encourage visitors to stay for at least one or two days rather than only a few hours.

The growth in tourist infrastructure around Petra has suffered from a lack of long range planning. For example, existing water supply facilities are not well planned, and are inadequate for the local population, even without the current and expected tourist growth. With the exception of one hotel (which has its own, currently overloaded treatment plant), wastewater is not collected or treated. Most houses have individual cesspits from which sewage percolates into the ground or is taken away by tankers.

Modern water and wastewater infrastructure is an urgent priority, both to enhance the quality of life in the Wadi Mousa area and to preserve Petra as a major tourist site. Once complete, the new plant should serve the needs of the rapidly urbanizing communities in the area, including Wadi Mousa, Taiba, Um Sahoun, and Beida, to the year 2020. Immediate beneficiaries include the 17,000 residents of the area. In addition, the facilities will service a growing number of hotels (some 69 at last count) with more than 3,000 beds.

The feasibility study, environmental impact assessments and final engineering design for this activity cost \$2.1 million, all of which was funded by USAID. Additional contributions required to complete the project are estimated as follows:

-- Construction of wastewater treatment plant and collection system	\$27.0 million (partly financed by USAID)
-- Construction of water distribution system	\$11.0 million (partly financed by France and Germany)
-- One additional water and wastewater treatment contract	\$1.8 million (financed by Jordan)
-- Construction supervision	\$3.0 million (financed by USAID)

Construction is now well underway and scheduled to be complete by March 2000. Camp, Dresser & McKee, Inc. (Boston) is the engineering firm for the entire system and supervises all construction (\$3.0 million). Morganti Group, Inc. (Connecticut) is the contractor for the wastewater treatment plant, pump stations and conveyance system (\$20.3 million). Six Jordanian construction contractors are also involved.

Your Visit

The tour will begin at the pump station construction site at the village of B'doul, at the checkpoint marking your departure from Petra. Bill McDonnell, the American site engineer from Camp, Dresser & McKee will serve as your guide and can answer any questions. Jordanian officials from the Water Authority of Jordan will also be present, along with Ambassador Burns and Mrs. Carty; Lewis Lucke (the USAID Mission Director); and Cecily Mango (Director of the USAID Water and Environment Office).

From B'doul, the group will proceed to the wastewater treatment construction site about ten minutes further south. Here again, ^{Mr. McDonnell} ~~Bill McDonald~~ will be available to explain the goals and purposes of this site and progress to date. He will also highlight some of the ways in which the project is being responsive to environmental and archeological preservation concerns within the area.

FYI, Brian Atwood, the USAID Administrator, participated in the groundbreaking ceremony for the Wadi Mousa water and wastewater treatment project in May 1998. As can easily be observed, considerable progress had been made in terms of construction over the last twelve months.

Objectives

- Highlight USG support for water and environmental concerns in Jordan.
- Recognize progress made to date in this major project, to which USAID is contributing more than \$27 million.
- Gain a better understanding of water as one of the most significant issues facing both Jordan and the region.

Talking Points

- It is heartening to see the extent to which this project contributes to so many goals: international cooperation; archeological preservation; the development of local communities; and the expansion of the tourist sector in Jordan.
- It is also encouraging to note the extent to which environmental concerns have figured into the construction and design of this plant, both in terms of site selection and the technology being used.