

Improving infrastructure, security

CH2M HILL is partnered with the U.S. Agency for International Development to support through infrastructure projects one of America's top foreign policy initiatives, the Middle East peace process.

Water—a salient point in Israeli and Palestinian relations—is the focus of ongoing projects and represents a large share of the CH2M HILL-led work there.

“Water issues remain at the core of the Israeli-Palestinian conflict. Through implementation of the West Bank Water Resources Program, CH2M HILL has helped to alleviate immediate water needs and to provide vision for future development through provision of education and training, resource analysis, and planning and infrastructure development,” said John Pasch, project manager. “Our employees should take great satisfaction in knowing that they have helped to at least lower one

“CH2M HILL and the subcontractor's construction management staff have worked under difficult, trying conditions, performing admirably and completing the work when many said we couldn't or shouldn't. The security requirements have made us act even more as a team, looking out for one another.”

—Larry Belken, construction manager

of the hurdles on the path to peace.”

Since 1999, working with the Palestinian Water Authority and other Palestinian national and local agencies, CH2M HILL has been providing groundwater aquifer modeling and design and construction management services for two critically important water resources programs. These programs have helped relieve water shortages in major West Bank cities such as Hebron, Nablus, Bethlehem and Jenin. This work includes some of the deepest water production wells in the world, along with miles of high-pressure pipelines and multiple booster pump stations in remote areas of the West Bank.

In an uphill effort, interrupted by the Palestinian intifada and Israeli military action, the firm developed a solid reputation with USAID and today is the agency's largest contractor serving the West Bank and Gaza.

“CH2M HILL always made it a priority to meet and satisfy the requirements of USAID and its counterparts,” reported USAID in an evaluation on the firm's first program. “CH2M HILL has gained the respect and satisfaction of PWA, local government and municipal employees....”

USAID infrastructure projects often are structured with a U.S.-based company as the program manager, providing technical expertise and design and construction management.

The program manager, in this case CH2M HILL, works with local agencies to train workers and develop community outreach programs. Local companies do the construction and, whenever possible, supply construction materials. This inclusive project-delivery approach provides jobs and infuses money into the communities, and it provides much-needed infrastructure that locals can then operate and maintain.

“Company store” delivers
CH2M HILL also has been involved in repairing and upgrading the area's roads and bringing wastewater treatment technology to private industry and public-works projects.

Transportation
The first transportation work began with a rapid

Lowering a hurdle on the path to peace



(L-R) CH2M HILL's work with USAID and the Palestinian Water Authority has delivered new potable water supplies in the West Bank, an area with critical water shortages. • Representatives from USAID and the Palestinian Water Authority display environmental principles established with the help of CH2M HILL through a collaboration of local government agencies and the quarry and stone-cutting industry. • The firm is working with the quarry and stone-cutting industry to introduce water-recycling practices and reduce water pollution.

uring operations

Delivering work in West Bank, Gaza

design and construction upgrade to improve traffic flow throughout Bethlehem for the multitude of visitors expected for the 2000 millennium celebration. Work was carried out virtually around the clock to meet the Christmas 1999 deadline.

Today, employees are designing and providing construction management for a \$15 million emergency road repair effort resulting from damage from three years of violence. This fast-track effort began in late August and will be completed by the end of the year. Repairs will be done in Bethlehem, Hebron, Jenin, Nablus and Ramallah. In Gaza, work will be done in Beit Hanon and Beit Lahya.

Water, wastewater demonstration projects

There are more than 2.2 million people living in the arid, landlocked West Bank whose primary source of water is deep, dwindling aquifers. CH2M HILL is helping local agencies

by introducing ways to make the most of this precious resource.

In Al-Bireh, CH2M HILL is delivering high-quality reclaimed water from the city's wastewater treatment plant to thriving agricultural crops.

This demonstration project, using water treated through an advanced secondary process and a biosolids composting program, is designed to introduce to Palestinian farmers and agri-businesses ways to manage alternative water resources and soil amendments.

Following the demonstration projects in Al-Bireh, planned work includes constructing a full-scale composting facility as well as establishing a reuse extension service center, nursery and municipal park adjacent to the plant.

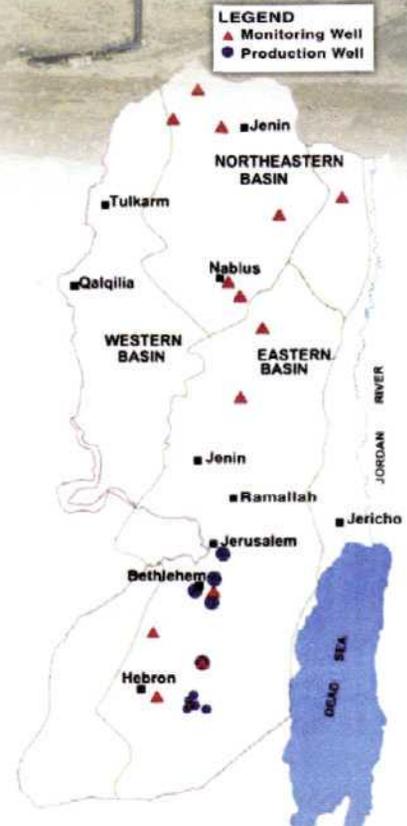
CH2M HILL will also be involved in the design and construction of a new

wastewater treatment facility in Hebron. It, too, will supply reuse water for irrigation and biosolids compost for agricultural use.

Other work in the area includes helping the tannery and stone-cutting industries address water and pollution issues.

In Hebron, employees are working with the tannery industry to reduce the amount of chromium being discharged to the municipal wastewater system. A demonstration project includes the construction, operation and testing of a centralized chromium removal and recovery facility. The end goal is to reduce the discharge of chromium by 90 percent and recycle it.

In collaboration with the quarry and stonecutting industry and local agencies, CH2M HILL is working to improve water recycling practices and greatly reduce the level of pollution being discharged.



Through aquifer modeling and monitoring and establishing new wells, CH2M HILL has optimized the use of limited groundwater, the only water source for residences of the West Bank.

A workgroup has been formed to develop environmental standards and an environmental management system. Education and training programs, including a workgroup study tour to the U.S., will be offered.

Stalwart security measures to protect employees

To protect the firm's 30 employees in Jerusalem and the 10 in Ramallah, CH2M HILL has put in place a specially designed security program.

"Our goal was to create a robust security program that would give confidence to our employees in Israel and our executives back home that the CH2M HILL team would be safe there," said Wayne Sellman, corporate sponsor of the West Bank and Gaza work.

When the intifada began in earnest, CH2M HILL evacuated several employees. Work with USAID continued at a reduced level. Ultimately, a decision had to be made whether to continue. In 2001, international security provider Wackenhut Corporation helped set up a security program, which included the

When the firm's expatriate staff were temporarily evacuated earlier this year from the West Bank, local CH2M HILL assistant engineer Bellal Elayan was instrumental in making sure progress continued on the demonstration projects.



development of a security manual that covers how employees are to conduct themselves in a variety of situations.

Employees have been given radio phones and have been instructed to call in at prescribed times. Upgrades have been made to strengthen office security such as adding guards, fire alarms, closed-circuit TVs, an identification badge system, shatterproof plastic film on windows and evacuation plans.

The security program "has been widely embraced by our people, which has enabled them to achieve the project's objectives under tremendously challenging conditions," Sellman said. "And," he added, "our client has given us high marks for our efforts."



Passing through Israeli checkpoints is an awkward part of commuting to work for employees in the West Bank.