

LAUNCH

Digging Deep

When the funds to protect Chicago from floods and water pollution evaporated, stakeholders saved the day.

The citizens of Chicago, Ill., USA, and its surrounding 118 suburbs have good reason not to like stormy weather. Heavy rains often cause basements to flood and sewage to enter area rivers.

In the 1970s, engineers developed the Tunnel and Reservoir Plan (TARP). Also known as the Chicago Deep Tunnel Project, the project is designed to store water in channels and reservoirs until it can be treated and safely released.

One of the largest civil engineering projects in the United States, it is scheduled to be completed in 2015 at a cost of \$3 billion to \$4 billion. The project is managed by the Metropolitan Water Reclamation District of Greater Chicago and the U.S. Army Corps of Engineers. The new system will consist of 110 miles of underground tunnels about 300 feet underground, plus reservoirs and pollution-control systems designed to hold excess storm water and sewage.

Funding, however, has been a persistent problem for TARP.

It has been primarily supported by loans from the Illinois Environmental Protection Agency and the U.S. federal government. In 2005, President Bush proposed slashing spending on the project because it did not meet the required benefit-cost ratio of three or better. This cut jeopardized the completion of McCook reservoir, one of three planned. Scheduled to be completed in 2014, the McCook reservoir, which will hold 10.5 billion gallons, is a central element of the project.

"Funding a project is often difficult when functional organizations like public administrations are budgeting along fiscal periods, while projects need their budgets developed for their scheduled duration," says Oliver F. Lehmann, PMP, director-at-large (Case Analyses) of the PMI Troubled Projects Specific Interest Group. "Somebody must assume the role of a project sponsor and



translate the fiscal budget into a project life cycle budget, which ensures planning security for the project team."

With budget cuts looming, the Water Reclamation District and the University of Illinois at Chicago, Chicago, Ill., USA, joined forces. Along with altering the reservoir's design, they wanted to improve the balance between project investments and the benefits created from project deliverables. The changes cut project costs by \$100 million and boosted the benefit-cost ratio to four, well above the standards of the U.S. government. In February 2006, project funding was restored, including \$45 million to continue work on the McCook reservoir.

The Metropolitan Water Reclamation District and the University of Illinois have done "a tremendous job and saved the day for the project as well as for the citizens of Chicago," Mr. Lehmann says.