

Illinois River Mud Builds Chicago Park

By Mary Branham Dusenberry

It was, perhaps, the world's biggest mud pie.

Illinois state officials approved the mudslinging on Chicago slag fields—all in an effort to return displaced soil to the land on Lake Michigan.

The pilot project—**Mud to Parks**—is gaining national attention, and garnered Illinois a CSG Innovations Award for the Midwest region.

“We’ve got a real resource at the bottom of the river,” said Lt. Gov. Pat Quinn. “If we use our heads and common sense, we can help the river and at the same time, help other parts of our state and country.”

The slag field that served as a pilot project was the 573-acre U.S. Steel South Works redevelopment site on the south side of Chicago. Quinn has high hopes the program can be used in other areas, and said the state is in talks with Louisiana officials to take some of the fertile Illinois soil to the marshlands there.

Mud to Parks was the brainchild of Dr. John Marlin, a senior scientist with the Waste Management Research Center, a division of the Illinois Division of Natural Resources located at the University of Illinois.

“Like most of the Midwest, Illinois has always had, and probably always will have, a problem with sediment filling in reservoirs and backwaters on rivers,” Marlin said.

Fast Facts

- Mud to Parks was created to address severe sedimentation on the Illinois River and its backwater lakes.
- The program takes a displaced resource—mud in the bottom of the waterways—and moves it to a place where it can be used—such as a Chicago park on Lake Michigan.
- The lieutenant governor's office granted \$75,000 to the Waste Management Research Center for program startup costs.
- The program is funded through grants and general research funds.

Marlin had worked as a student with professors who had modest success with using dredge material as topsoil next to Peoria Lake.

“The big problem,” he said, “is the farmland is so fertile next to the lake the farmers don’t need or want additional material.”

“There’s enough mud in Peoria Lake to fill a football field 10 and a half miles high,” he said. “It’s hard to place it locally.”

But upstream 168 miles, Chicago had an industrial site with very little soil. To recover that land using traditional methods would have meant many truckloads of soil scraped off farmland and construction sites would have to travel through urban areas.

Marlin’s plan was to dredge Peoria Lake and ship the mud by barge. But even that would require new techniques. Dredge material is typically 90 percent water and 10 percent solid, so Marlin said the hydraulic dredging technique wouldn’t work.

“What we’ve been looking at are high solid dredging techniques that bring up mud rather than a soupy mixture,” he said. Using that mechanical dredging technique, Marlin said, workers were able to get “pure mud out of the lake instead of a little bit of mud mixed with water.”

That mud, with a consistency of pudding, was shipped by barge directly to the Chicago slag field, where it was placed in mining trucks and taken to the site. There it went through a process of weathering and movement. After a few months, a bulldozer spread the soil two to four feet deep, and the area was seeded with rye grass.

Today the area is filled with plant life.

“We essentially reclaimed that area by slabbing mud all over it,” Quinn said.

Quinn’s office in 2004 granted \$75,000 to WMRC for the project. He got involved after hearing Marlin’s presentation. He said it required a change in how dredge material is considered.

“What are your resources?” he said. “Coal or oil or soybeans or corn. We have all of those, but maybe, right before our very eyes, is a resource we’ve overlooked for decades. We have to deal with the legacy of sedimentation at the bottom of the river. If we can use common sense and ingenuity, we can help a lot of our country build parks, do many positive environmental things with this resource.

“The Illinois River mud is the best you can find,” he said. “Our mud is your treasure.”

To find out more about Mud to Parks, visit www.wmrc.uiuc.edu/index_sections/about_us/2005_annual_report/mud_to_parks.htm.