

Geocell Presents Rapid Deployment Flood Wall to Jefferson County, Missouri



Portable floodwall may replace sandbags

California firm's invention may become county's new weapon against floodwater

By MATTHEW HATHAWAY
Of the Post-Dispatch

If a California company has its way, one of Jefferson County's springtime traditions could go the way of the maypole.

Jefferson County mayors, city managers and commissioners met Thursday with the inventor of a portable, reusable floodwall, which, he said, would make sandbagging a thing of the past.

The invention is a stackable plastic grid about four feet square and eight inches tall. The grid is composed of about 30 compartments, and, after being filled with sand by a backhoe, is stronger than any ordinary levee, says Al Arellanes, the product's inventor and the president of Geocell Systems of Mountain View, Calif.

"What's unique about this wall is it's stronger, faster, cheaper and more revolutionary than anything you can make out of sandbags," said Arellanes. "On top of that, it's reusable."

Arellanes said he had fought floods for the past 25 years, both as a technician for the Federal Emergency Management Agency and as a contractor for the Corps of Engineers. In the 1980s, the Corps of Engineers asked Arellanes to develop a plastic-cell system that could replace sandbags as the Army's primary battlefield fortification.

Applying that technology to flood fighting seemed natural, but it was easier said than done, the



DIANE L. WILSON

David LaValle (right) watches as Gaylon White of the Eastman Chemical Co. answers questions about a portable, reusable wall, which its inventor says can replace sandbags when fighting floods.

See Flood, Page 2

Flood

Portable wall may make sandbagging obsolete

Continued from page 1

inventor says. If a plastic is too pliant, it gives way under hundreds of pounds of sand and the pressure of floodwater. But if the plastic is too rigid, it cracks. The wall also would have to be strong enough to survive the rough handling of inexperienced volunteers rushing to hem in a deluge.

That's where the Eastman Chemical Co. of Kingsport, Tenn., and Spartech Corp., a St. Louis plastics company, became involved.

"We needed a tough material that could take a pounding, and we wanted something that would be reusable," said Gaylon White, an Eastman official who met with county leaders. He said the solution was a type of hard plastic similar to what's used for soda bottles.

Arellanes says a seven-person crew can build a four-foot-high, 100-foot-long stretch of his floodwall in about an hour. He said it would take 35 people about 19 hours to build the same wall with sandbags.

Thursday's meeting of the Jefferson County Municipal League was a chance for Arellanes to wow city and county leaders here with the hope that they might lobby federal officials to buy the product for use in the St. Louis area. Geocell is seeking \$12 million, enough for about 16 miles of floodwall, from the Corps' regional office in St. Louis.

Jefferson County Presiding Commissioner Sam Rauls called the floodwall "a product that we can use," but he said he wanted to see municipal and county officials develop a plan before going to the Corps of Engineers.

"We couldn't use this type of wall in every situation, so we should figure out how many (wall segments) we'll need and where we plan to use them," Rauls said. "We could just say to the Corps, 'Stock these.' But we're going to be more effective if we approach them with a plan."

Associate Commissioner Pat Lamping, 2nd District, said that he had been skeptical about the portable floodwall but that he was impressed when he saw the product.

"Anything that saves time and labor during times of flooding is something that's going to have a lot of interest in Jefferson County," Lamping said. "I think their presentation showed that maybe it is time for the Corps to look more at new technology."

Lamping said that county officials weren't asked to buy the product but they were asked to write supportive letters to the Corps' local office.

Corps districts in Minnesota and Mississippi have expressed an interest in the product. So has Rep. Jo Ann Emerson, R-Cape Girardeau, who has put in a request to add extra money to the Corps' budget to begin a pilot floodwall program.

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Al Arellanes, product inventor and president of Geocell Systems



PHOTOS BY DIANE L. WILSON

LaValle holds up a section of the portable floodwall. The wall is made out of a type of hard plastic similar to that used for soda bottles.



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