Peck Sink project aims to keep pollution out of drinking water

By Tony Marrero, Times Staff Writer
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John Burnett, Hernando County's water resources coordinator, walks Thursday afternoon along the edge of Peck Sink, west of Brooksville.

BROOKSVILLE — In the 1930s, a boy named Monroe Treiman would make the short walk from his family farm on what is now Wiscon Road and take a dip in Peck Sink.

It was almost certainly lost on Treiman at the time, but the shaded swimming hole he enjoyed after heavy rains acts like a bathtub drain of sorts, a portal into the Floridan Aquifer for stormwater surging across a 17-square-mile basin.

Treiman would go on to become a county judge, grow old here and share memories of Peck Sink before his death in 2004. In his lifetime, shopping centers and big-box stores with oil-soaked parking lots sprouted nearby, and woods and pasture made way for gated communities and well-fertilized lawns and golf courses. Plastic bottles holding everything from beer to bleach became ubiquitous sources of litter.

"I don't think I'd want to swim in there now," Gene Altman, a senior engineer for the Southwest Florida Water Management District, said last week.

The water flowing into the sink will probably never be as clean as it once was. But a project is finally under way to get it closer.

After years of planning, construction has begun on a network of retention ponds, swales and man-made marshes to catch debris and pollution that flows into the sink after every hard rain.

The $1.6 million project, paid for by the county, the water management district and state grant dollars, is a scaled-back version of a plan that included passive park amenities. The picnic pavilions, nature trails and deck overlooking the sink that would have added to construction and maintenance costs will have to wait.

Still, the most important phase of the project has begun, said John Burnett, the county's water resources coordinator.

"It's the first step toward what I think will be a landmark site in Hernando County," Burnett said.

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Last week, Burnett carefully picked his way down the 50-foot embankment leading into the sink's main basin. He stopped just short of the bottom, where a small swimming pool’s worth of brown water had collected.

The small volume of water even in the middle of the rainy season indicates how quickly water flows through the fissures leading into the aquifer. The water has been known to drop as much as 8 feet in 24 hours, Burnett said. From time to time, the sink gets stopped up with silt, fallen branches and other debris before the force of heavy rain unplugs it again.

The detritus of modern society littered the sink. A plastic Coke bottle here, a plastic foam hot dog container there. "In a couple of minutes, you can get a little pile going," Burnett said, picking up a plastic jug that once held Ocean Spray cranberry juice.

Just over Burnett's shoulder on the opposite embankment sat a large truck tire. Beyond that, a tire still on its rim lay in the dry, rocky streambed leading into the sink. It's difficult to imagine that such weighty items arrived by any other means than someone dumping them there, but the force of the stormwater rushing through the streambed and into the sink can carry heavy pieces of debris, Burnett said.

Not visible are the pollutants that inevitably make their way into the sink. But officials realized decades ago how natural formations like this one serve as a window to the aquifer for motor oil, fertilizers and other chemicals.

Peck Sink is actually a complex of at least five separate sinkholes, two of which form vertical shafts directly connected to the upper Floridan Aquifer, according to a 1987 U.S. Geological Survey study. It's typical of what geologists call a karst landscape, a limestone honeycomb of sinkholes, underground caverns and hidden rivers that gush back to the surface as springs.

The sink was identified in the USGS study as one of the most vulnerable in west-central Florida because it drains part of an urban area and two major roadways, U.S. 41 and State Road 50. Some of the water flowing into the sink and surrounding wetlands probably flows back to the surface either 8 miles away at Weeki Wachee Springs or 15 miles away at Chassahowitzka Springs. Some stays in the aquifer, tapped by wells in Hernando County and beyond.


Felled pine trees are stacked for removal from near Peck Sink.

"Your surface water gradually becomes your drinking water," Burnett said.

In two separate purchases in 2006 and 2008, the county spent a total of about $2.3 million for the 112 acres now known as Peck Sink Preserve. About $1.9 million of that came from the county's Environmentally Sensitive Lands Fund, the rest from a grant from the state Department of Environmental Protection.

The Southwest Florida Water Management District, known as Swiftmud. is covering about $600,000 of the design and construction costs, the DEP grant is covering about $368,000, and local tax dollars are paying for the rest.

It's money well spent, county Commissioner Dave Russell said. As a member of the state House of Representatives, Russell worked in 2006 with state Sen. Paula Dockery to secure the DEP grant money.

"Water quality issues never go away," Russell said, "and we're creating jobs."

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To understand the scope and design of the project, it helps to understand how water gets to the sink.

The Peck Sink basin extends from California Street on the west to downtown Brooksville on the east. Roughly in the middle of this sprawling watershed is a natural channel that starts just south of Wiscon Road and meanders its way north toward the sink. After heavy rains, stormwater washes across the watershed and into the channel, carrying debris and pollutants with it through culverts under Wiscon.

Just north of Wiscon, the water will be diverted from the channel into a large new settling pond. Trash and other debris will be trapped there by a screen as the water continues north into a new man-made marsh.

The marsh will act like natural wetlands, catching and filtering pollutants. Water will spill from the marsh into the channel and continue to the sink. The project also includes a small man-made marsh between two large ponds on the east side of the preserve that feed into the channel.

The stormwater improvements cover nearly 9 acres. Eventually, crews will haul out 55,000 cubic yards of dirt.

When the economy soured, the County Commission scaled back the plan for the passive park. That means public access to the site will remain limited to guided tours for groups that request one, and the occasional cleanup efforts spearheaded by the county's Groundwater Guardians group. Though features such as the nature trails and the sink overlook are considered amenities, they also would serve a safety purpose, preventing visitors from getting lost and helping them avoid areas near the sink that are still active, Burnett said.

Some of the infrastructure for the future phase is part of the current work, such as improvements to an access road on the western edge of the preserve and a large stormwater retention area near the future site of restrooms and a paved parking lot.

Burnett, a 19-year county employee, hopes to see it happen. The park would help visitors get the cause-and-effect connection between their actions on the surface and the watery world below, he said.

"If we can get people to understand that, then it makes the drinking water safer, it makes the recreational water safer, and it cuts down on algae in Weeki Wachee Springs," he said. "It's just good custodianship."