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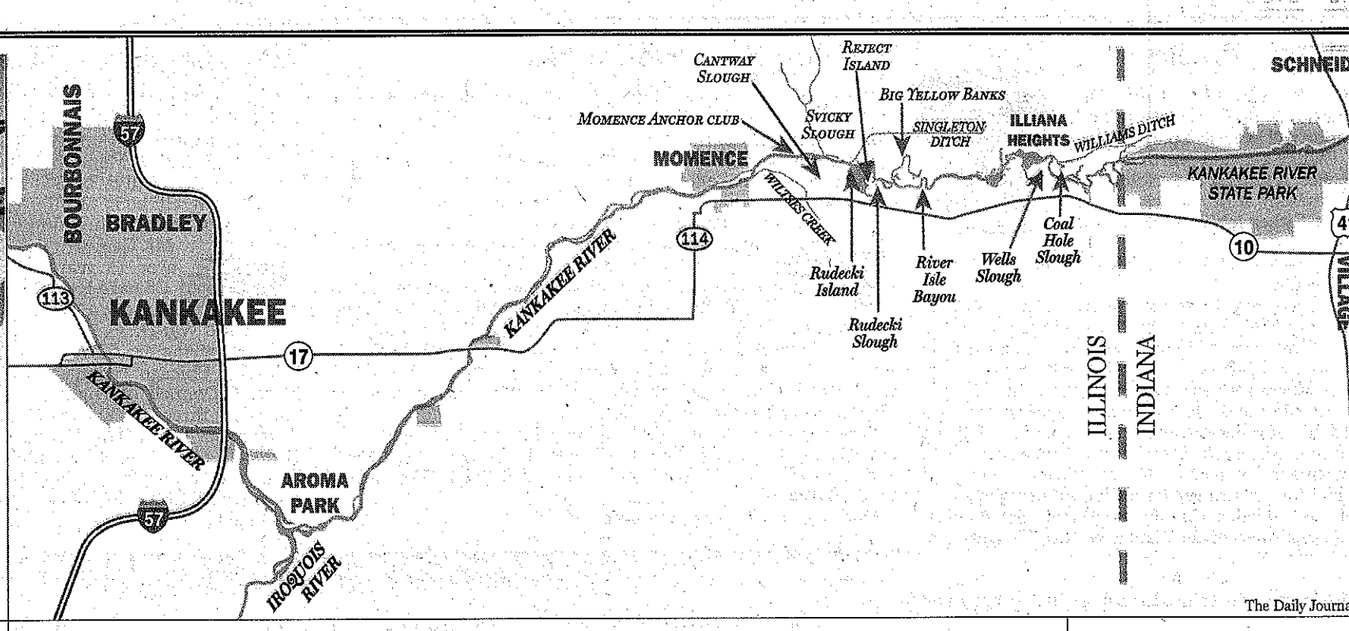
RIVER CONNECTIONS



Series lineup

Cover story: Last winter's floods damaged more than just property — flooding damaged the Kankakee River. ●A3

Inside: Where is all this sand coming from?

Monday: Earthen levees across the country are deteriorating as the Army Corps of Engineers lacks the resources to fix them.

Tuesday: What is being done to save our river?

ON THE WEB

- Interactive map of the Kankakee River Basin and its connection to the Illinois and Mississippi basins
- Plus: Stories, photos and more.

Sand choking out wildlife

Sediment affecting foundation of the river's ecosystem

By Bill Byrns
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815-468-7349

"Nothing grows in a desert," J.R. Black said. He was referring to the deep sand now moving farther down the Kankakee River's main channel.

Sand — and a finer wave of silt — comprise the two major sediments found in the river system. "For the most part the sand is our problem," Black said. "It settles out quickly and covers the river bottom. The silt mainly washes on downriver."

Now large portions of the Kankakee's natural bedrock bottom are covered by sweeps of sandy sediments along the upper river in Indiana to the dam at Kankakee. Over the past few months a dramatic increase in sandy deposits has appeared downstream from the dam all the way through the Kankakee River State Park.

The livelihood of a river depends on its smallest creatures, aquatic insects and invertebrates living in the shelter of river bottom rocks and crevasses. And now people like Black fear the sand is choking off this foundation of the river ecosystem.

"The sand fills in the rocky riffles on the bottom," Black said. "Small fish eat the bugs that live on the bottom and bigger fish eat the smaller fish." This cycle is the river's food web.

"There are all kinds of changes going on in Six Mile Pool," Bill White, a river researcher with the Illinois State Water Survey at Peoria, said about the portion of the river in the city of Kankakee. White said more work is needed to determine exactly what is happening on the Kankakee. "We are very concerned about the fact that there is more sediment moving along the river and that there is still more work that needs to be done."

The problem is funding from traditional sources for such research is drying up.

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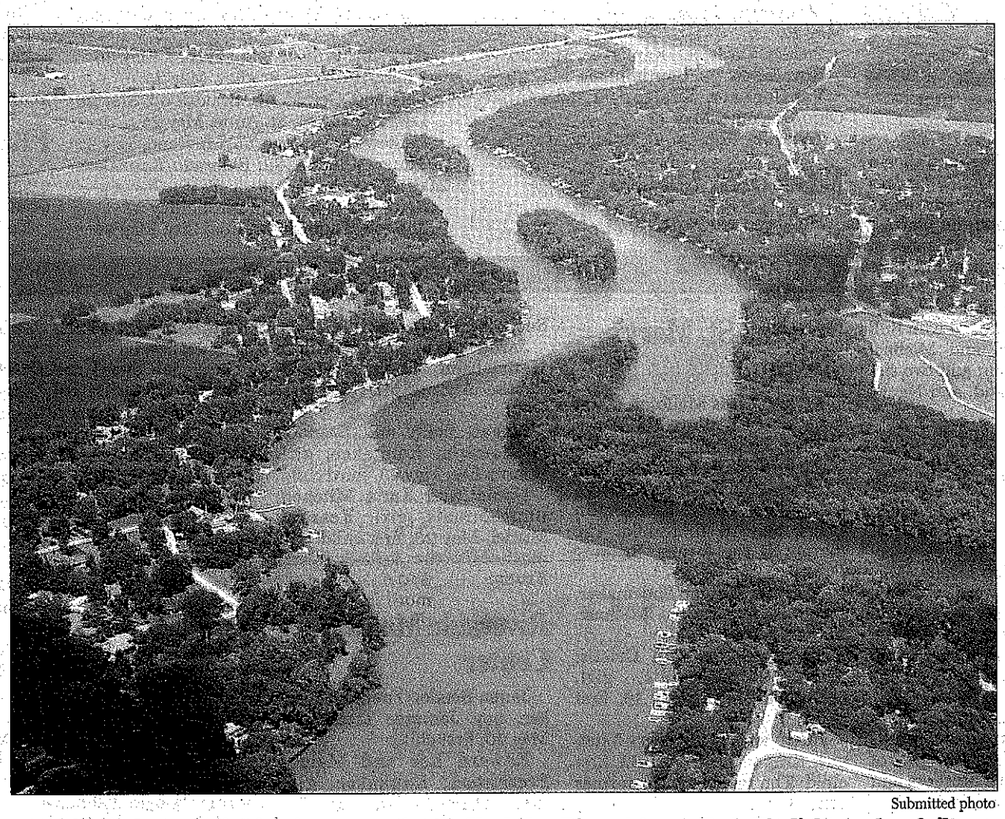

Submitted photo

From the air the Iroquois River is seen meeting the Kankakee River at Aroma Park. The lighter colored silt carried by the Iroquois, left, stands out dramatically in this overhead view. The Iroquois River actually contributes more sediment to the Illinois River than does the Kankakee.

While the sand can create dead zones in the river, suspended sediments, flowing mostly out of the Iroquois, pose different problems for the Illinois River.

The Iroquois ranks among the third-highest group of rivers dumping sediments into the Illinois' main channel, according to water survey studies done between 1981 and 2000. Larger tributaries, such as the Spoon and LaMoine rivers, contribute the most sediment.

Still, the Iroquois carries nearly twice the load of suspended sediments that the Kankakee does, according to studies by the state water survey.

Overall most of the suspended sediments from the Kankakee basin end up in the Illinois' Peoria and

16,000 years old

Understanding the Kankakee River requires comprehension of events that took place more than 16,000 years ago when glaciers and a prehistoric flood of near-biblical proportions created the river basin.

Melting water from three lobes of the last great glacier to cover North America created a series of meltwater lakes across this region. Those lakes, known as Wauponsee, Watseka, Ottawa and Pontiac, created beds of fine-grained sediments such as those found throughout eastern Kankakee and much of Iroquois County.

The massive volume of meltwater from the glaciers washed across those lakes and created a massive torrent know as the Kankakee Flood that fed westward into the Illinois valley west of Marseilles.

"It was the most important geologic event shaping the landscape and the character of the deposits in the basin," said Nani Bhowmik, a researcher with the Illinois State Water Survey who had spent decades studying the Kankakee River.

The flood left a landscape of thick sand all along the river from Kankakee to South Bend, Ind.

~ Bill Byrns

photos and more.

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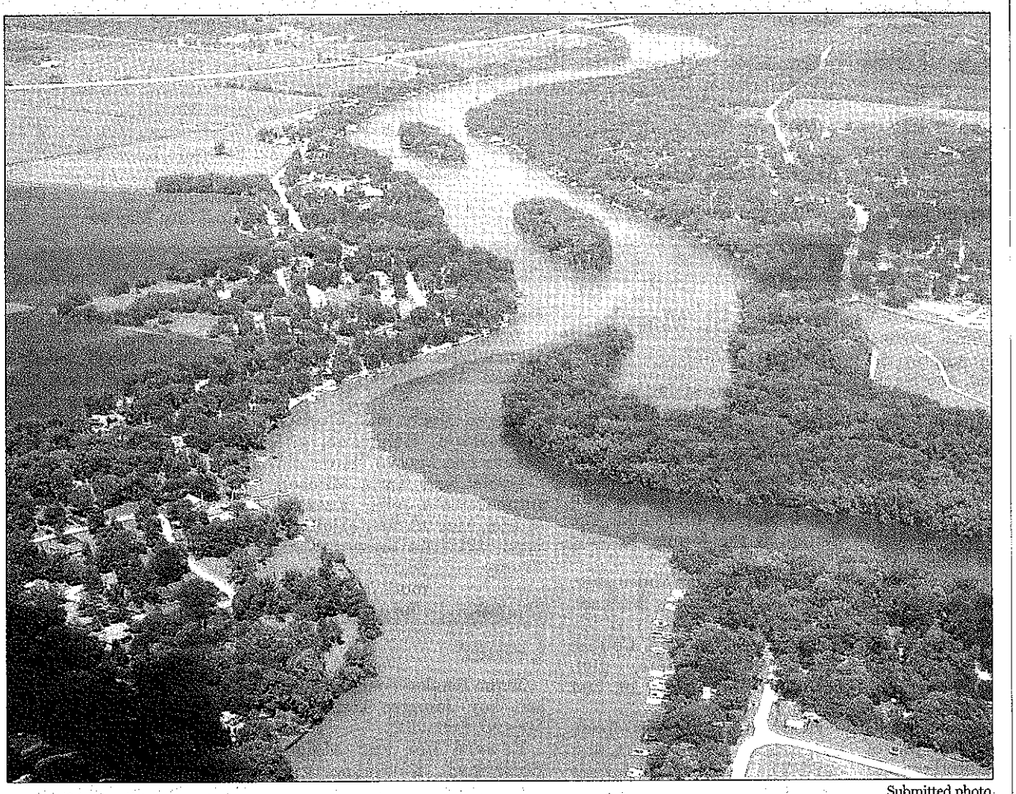
The problem is funding from traditional sources for such research is drying up.

"The state doesn't have the money for the work we need to do. We are trying to define projects that can get funding from the (Army) Corps of Engineers," said White, who has been working on projects for both the Kankakee and Illinois rivers.

Corps officials say they are having to prioritize which projects get precedence and the Kankakee River basin falls short of the top of that list.

"Six Mile Pool is almost full with sediments after years of building up behind the dam," said Misganaw Demissie, director of ISWS's Center for Watershed Science in Champaign.

"For years the dam was holding that sand back," Demissie said. "More sand will go over the dam as time goes by. In major floods, like we saw earlier this year, there can be a lot of sand movement."



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Overall most of the suspended sediments from the Kankakee basin end up in the Illinois' Peoria and Dresden pools, where an estimated 60,000 acres of side channels and backwater lakes have filled in, according to the Illinois Environmental Council.

Some areas "have become so shallow that they've lost almost all value for fish, wildlife or recreation," said Rob Kanter, who writes a monthly Environmental Almanac blog for the Environmental Council. "These areas were formerly 6 to 8 feet deep, but now average less than 18 inches."

Ironically, while sediment buildup is a serious threat to both the Kankakee and Illinois rivers, it is the exactly what many believe may ultimately reverse the loss of vital wetlands and estuaries along the Louisiana Gulf Coast.

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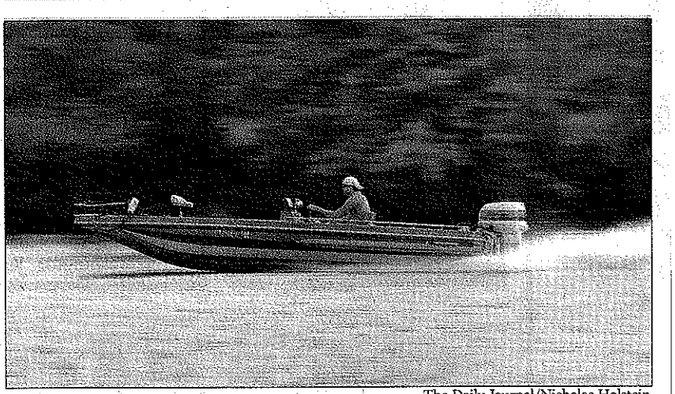

The Daily Journal/Nicholas Holstein

A boater speeds down the Kankakee River near Cobb Park in Kankakee on Memorial Day.

River

Continued from Page A1

"We have been conducting some ... surveys over the past year from the Yellow River all the way downstream along the Kankakee," said project manager Brad Thompson. "There's no doubt that the Yellow is a significant source of sedimentation in the Kankakee River.

"This study will give us an updated sediment budget for the Kankakee and will include earlier research by state and federal agencies." Thompson expects a public review of the report will be held sometime this fall.

Studies conducted by the USGS between 1993 and 1995 calculated that more than 2 million tons of suspended sediment — approximately 390 tons a day — washed through the Kankakee River gauge at Wilmington during that two-year period.

Additional studies in 1999 by the Illinois State Water Survey showed that the boating pool between Aroma Park and the Kankakee dam had lost "over 13 percent of its total volume between 1978 and 1999," according to researcher Nani Bhowmik, who had spent decades studying sediment movement in the Kankakee River.

Still, such research only seems to confirm what most who live along the river already know, that the Kankakee carries a heavy sand bed load and a high volume of suspended sediment.

The bed load produces the sandbars, islands and shoreline deposits seen along the river. Suspended sediments are also deposited along the way, but most of that load washes on through to empty into the Illinois River west of Wilmington.

"We can expect to see more frequent flooding as the main channel fills in," Black said.