

LA Wetland Education Coalition

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<http://www.lacoast.gov/education/lawec/>



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1. Wetland Restoration Efforts Gain Ground

By Tom Kenworthy

USA TODAY November 22, 2005

THIBODAUX, La. - From his small suite of offices on the campus of Nicholls State University, marine biologist Kerry St. Pé works on an ambitious goal, what he calls the "largest environmental restoration effort ... in human history."

To reverse the disappearance of coastal Louisiana's marshes and wetlands, he envisions a pipeline system to carry 70 million cubic yards of silt every year from the Mississippi River south of New Orleans to bayou country. He sees the sediment combining with native plants and shrubs to rebuild vast areas of wetlands lost to the advancing Gulf of Mexico.

A 35-mile drive to the north, in Baton Rouge, geologist Sherwood Gagliano shares the same goal, but he proposes a different and even more ambitious delivery system.

He wants to create a new Mississippi River channel by diverting as much as one-third of the river's flow along a new riverbed starting about 60 miles west of New Orleans and draining south to the Gulf of Mexico. This new branch of America's mightiest river would deliver massive amounts of sediment and, over several decades, create new delta wetlands the way nature has always done it.

For years the two men have been sounding the alarm as southeastern Louisiana's coastal wetlands disappeared at a rate averaging 34 square miles a year over the past half-century. But in the aftermath of Hurricanes Katrina and Rita, they hope such bold engineering ideas are gaining traction.

The massive destruction brought by the two storms has focused new attention on how channeling the Mississippi River behind giant levees has jeopardized one of the world's great wetlands systems and left New Orleans and other communities more exposed to hurricanes.

"Now the whole world knows about the dilemma down here," says Gagliano, who catalogued the wetlands losses for the first time in 1969 as a young Ph.D. candidate at Louisiana State University.

In 1998, Gagliano's "Third Delta Conveyance Channel" was included in a state coastal restoration plan, Coast 2050, proposed by state and federal officials. And this year, when Louisiana's congressional delegation outlined

a \$250 billion hurricane recovery plan, the idea was included with others for further study.

Full restoration of Louisiana's coastal wetlands "will not be possible," a National Academy of Sciences study concluded last week. But it found that the third-delta plan "could more than offset" future losses and "should receive serious further study."

In its natural state, the Mississippi during annual flooding deposited silt from as far away as Montana across the broad delta below New Orleans. Those deposits replenished the region's millions of acres of wetlands, more than compensating for marshlands lost to the natural sinking of the region because of other geologic forces.

But beginning in earnest after a killer flood in 1927, man tamed the river with levees, locks and dams to prevent flooding and aid commercial navigation. Sediment moving downstream now is funneled like a fire hose stream far out into the Gulf of Mexico, starving the wetlands of raw material. Also shrinking wetlands: canals built in the Delta region for boat navigation and for pipelines carrying oil and gas from offshore wells.

"This is the fastest-disappearing land mass in the world," says St. Pé, director of the Barataria-Terrebonne National Estuary Program, a federal-state-local effort to protect the 4.2-million-acre region of south Louisiana.

The continuing loss of coastal wetlands, St. Pé says, threatens the region's prodigious commercial and sport fisheries and wildlife - and the Cajun way of life that depends on those resources. The losses also eat away at a natural buffer that absorbs some of the power of hurricanes. For every 2.7 miles of wetlands between the Gulf and solid land, he says, a hurricane's storm surge is lowered by one foot.

"We've lost the flesh and now we are losing the skeleton" of the wetlands system, he says.

This year's hurricanes appear to have accelerated the losses. Last week, the U.S. Geological Survey reported that Katrina and Rita transformed about 100 square miles of marsh into open water - an area more than 1 1/2 times the size of Washington, D.C. "Indications are that much of the loss may be permanent," the agency said in a statement on Nov. 1.

Strengthening the levee system that failed during Katrina, inundating 80% of New Orleans, is of critical immediate importance, but St. Pé and Gagliano say that building back the wetlands is also an important long-term investment in hurricane protection.

They part company on the best way of doing it.

Gagliano and a partner in his environmental consulting business first proposed the \$2 billion third channel project in 1994. Giant valves and sluice gates on the river at Davidsonville, La., would funnel water south. Starting small, water volumes would be increased as the new river arm scours its own channel. About halfway to the Gulf, the channel would be split, sending water and silt into Barataria and Terrebonne bays.

"It isn't rocket science," Gagliano says. "We reasoned if the river built (wetlands) once, it could do it again." He figures that within 10 years, the two new deltas would be growing at a rate of 2 to 3 square miles a year.

In a 2004 preliminary study, the state Department of Natural Resources said construction of the channel, delivery of sediment and new delta buildup are feasible.

But the proposal faces daunting technical and political hurdles, says Gerry Duszynski, who oversees coastal restoration for the DNR. Among them: possible limits on Mississippi River barge and ship navigation because of a lower flow, damage to shrimp and oyster fisheries with the introduction of fresh water and the costs of moving oil and gas pipelines.

"While the theory is good, there is a lot more that goes into it," Duszynski says. St. Pé's pipeline proposal "is one of the alternatives we're looking at," Duszynski says. "From a technical standpoint, we can already do that. It's expensive, but it's effective."

Transporting silt through 36-inch pipelines from the lower Mississippi to the state's southern coast would be quicker and less disruptive, St. Pé argues. "We could be building significant land masses within two years," St. Pé says. "It's a very simple concept."

Over the past summer, St. Pé's estuary project built a 750-acre wetland near Port Fourchon on the Gulf of Mexico by bringing in sediment and planting grasses, shrubs and trees. It survived Hurricane Rita in good shape.

Despite that success, St. Pé is concerned that in the hurricanes' aftermath, reconstruction efforts will focus too much on rebuilding the levee system that failed to protect the New Orleans area.

"We cannot survive with levees alone," he says. "The reason the levees are not working now is because of the destruction of our wetlands systems."

Visit <http://www.americaswetland.com> for additional information.

2. LSU Press Holiday Book Sale on Dec 8 – Features 2 Outstanding WETLANDS Books!

Thursday, December 8, from 4:00 – 7:30 p.m. at the LSU Faculty Club on Highland Road will be the site of a great gathering of local authors and their books. *CC Lockwood* and *Rhea Gary* will be on hand to sign copies of their book, **Marsh Mission: Capturing the Vanishing Wetlands**. In addition, *Bevil Knapp* and *Mike Dunne* will be signing copies of their book, **America's Wetland: Louisiana's Vanishing Coast**. It is a great opportunity to get signed copies for personal use and Christmas gifts. For additional information, visit <http://www.lsu.edu/LSUPress>.

3. NOVA Storm That Drowned a City

PBS featured a NOVA on November 22 – **Storm That Drowned a City**. The supporting website has interesting interactive pieces, including a visual chronology of the flooding of New Orleans, development and tracking of Hurricane Katrina, and an interactive map to show the size of the flooded New Orleans area mapped onto any location in the United States. This last feature helps those from other parts of the United States get a feel for how much of New Orleans was flooded by the levee failures. NOTE: If you missed the broadcast, you can watch the entire program online via the PBS website the **week of December 5**. You can also purchase a VHS/DVD for \$19.95. Visit <http://www.pbs.org/nova/orleans/>.

LAWEC-L LISTSERVE INFORMATION

- **Description of this listserve:** A listserve serving educators interested in LA wetlands.
- **To send a message of your own to the listserv:** email LAWEC-L@LISTSERV.LSU.EDU and type your message into the body of the email. The message will be distributed to ALL PARTICIPANTS subscribing to the listserve. As a participant, you are welcome to send messages to educators subscribing to the LA Wetland Education Coalition listserve. We ask that participants focus their emails on educational opportunities and materials *directly related to wetland education*.
- **To UNSUBSCRIBE from this listserve:** email LAWEC-L@LISTSERV.LSU.EDU and enclose the following single line in the body of the email
unsubscribe LAWEC-L
- **To SUBSCRIBE to this listserv:** email LISTSERV@LISTSERV.LSU.EDU, with only the following line listed in the body of the email:
subscribe lawec-l YourFirstName YourLastName
For example: subscribe lawec-l John Doe
NOTE: You should not put anything in the subject line and should remove any automatic signatures from the email, otherwise the signup process will not work. You will get a return message indicating that you have been subscribed to the listserve along with information on other listserve operations you can perform (such as unsubscribe, etc.). If you have trouble, email Dr. Pam Blanchard at <pamb@lsu.edu>.

Please do not reply to the entire list unless you want everyone to read your message!