

2006 Project Proposal Becoming Reality

It started as a vision in 2006. Louisiana State University landscape architecture students, supported by Louisiana Sea Grant (LSG), worked with the East Jefferson Parish Levee Board to create plans to restore wetlands and establish a passive recreational zone in the Bucktown area of New Orleans. Finally, in 2020, those plans are becoming reality.

Currently under construction, a \$1.7 million, 1,000-foot boardwalk adjacent to the Bucktown Harbor, will enclose 3.5 acres of marshland. Funded by Jefferson Parish and the Environmental Protection Agency (EPA), the project includes benches, bird-watching stations and educational signage so the site can serve as an outdoor classroom.

Work on a \$10 million effort to regenerate wetlands just west of the boardwalk is expected to begin by the end of the year. Plans include breakwaters, aquatic plant and wildlife areas behind the breakwaters, as well as lanes to accommodate kayakers and small recreational watercraft. Funding for the project comes from the National Fish and Wildlife Foundation and bond proceeds from the parish's share of offshore oil royalties.

Both construction projects will result in new amenities for Bucktown and adjacent neighborhoods that will help reconnect residents to the natural environment, while helping protect the area from storm surge. Those were goals of Bruce Sharky's students in 2006 when they developed conceptual waterfront development plans for the Bucktown marina area (www.laseagrant.org/wp-content/uploads/Jefferson-Parish-Lakefront-Restoration.pdf).

"It's a testament to the creativity of those students – creating something that has been implemented," said Sharky, professor of landscape architecture in the LSU College of Art and Design.

"Originally, we were going to take the students to South Texas to work on a project," said Sharky. "Then Katrina and Rita hit two weeks into the fall semester, and I knew we had a number of students who were from New Orleans. So, we changed plans in order to demonstrate what landscape architecture could contribute to the recovery effort.

"What we were doing at the time – mimicking nature – was a strategy that landscape architecture has long promoted. Now it has become standard practice," added Sharky. "It's about green infrastructure. We see what nature does and how it repairs itself and we replicate the process. That's what the students proposed."

Former LSG Extension agent for Jefferson Parish, Mark Schexnayder, connected Sharky and LSG for the project. Sharky also applauded Mike Liffmann, retired LSG Extension director, for his support.

"The Bucktown project is similar to what Sea Grant did in Delcambre," said Rusty Gaudé, current LSG and LSU AgCenter Marine Extension agent for Jefferson Parish. "Sea Grant lights the fuse. But it takes five, ten or even more years for the fireworks.

"The adage is true that we're agents of change. It just takes time to see the change," Gaudé concluded.



Our Next Invasive Species Is a “Snail” of a Story

Have you ever heard of an apple snail? Unfortunately, it is not a “tasty-twist” on escargot, but rather an invasive species in Louisiana.

The first reported sighting of the apple snail was in 2006 and it has since grown into a pest for Louisiana crawfish farmers. In 2018, one Acadia Parish farm had to shut down its 220-acre crawfish pond due to the snails competing with crawfish for food.

Generally, crawfish ponds contain traps that allow farmers to catch the tasty crustaceans, however, “In isolated areas, apple snails become a nuisance to crawfish producers in ponds where snail populations are high,” said Mark Shirley, Louisiana Sea Grant (LSG) and LSU AgCenter Extension agent. “Large snails will prevent crawfish from entering a trap’s funnel entrance. I’ve seen one as big as a tennis ball, but they can become as large as a soft ball. Smaller ones get into the trap, which becomes a sorting mess for the crawfish farmer,” Shirley added. “Sometimes

a farmer will collect sacks of snails rather than crawfish.”

In ideal conditions, female apple snails may weigh 6 ounces or more. In a marginal environment, females will weigh 3.5 ounces, said Jacoby Carter, Ph.D., a Wetland and Aquatic Research Center ecologist for U.S. Geological Survey. “Although male snails are smaller than their female counterparts, in a challenging habitat they can weigh at least 2.8 ounces,” said Carter.

A female apple snail can lay 5,000 or more eggs in an egg mass, with a hatching windows of 11 to 21 days. The egg mass’ toxicity prevents predators from eating them. Hatchlings reach sexual maturity after two to three months.

Most apple snail eggs are identified by the



An applet snail egg mass.

Photo by Jacoby Carter, U.S. Geological Survey

bright pink egg mass that hang about 12-18 inches over bodies of water. This increases the probability that the hatchlings will land safely in the water and thrive.

Hand removal of apple snail eggs is the only approved method to control them in freshwater systems. Pesticides that can kill the snails are too dangerous to the environment. “Often times the snails will use a branch or even pieces of grass that hang above water to lay their eggs on,” Carter said. Crawfish farmers are advised to check their ponds weekly for snails.

“These South American snails were originally located near and in the Amazonian River Basin,” stated Carter. In most cases, the snails were deemed undesirable to Louisiana aquarium owners. Subsequently, they were dumped into nearby waterways. The result, these slimy critters have navigated into crawfish ponds causing trouble that most hope diminishes over time.

Grant Allows PACIT to Build Dock

With the help of Louisiana Sea Grant (LSG) and other partners, the Pointe-au-Chien Indian Tribe (PACIT) has a new bulkhead and dock.

“A grant opportunity from BHP Billiton, administered by the Gulf of Mexico Alliance, had some very specific conditions,” said Melissa Daigle, LSG’s resiliency specialist. “The money had to go to a Native American tribe in either Terrebonne or Lafourche parishes.”

Since PACIT members live in both parishes, on both sides of Bayou Pointe-au-Chien, which is the boundary between the parishes, the tribe decided to pursue the grant. LSG personnel then hosted a Coastal Resilience Index (CRI) workshop to aid the tribe in determining possible projects that could be funded with the grant money.

“Two projects floated to the top,” said Matt Bethel, LSG associate director who has worked with the tribe for several years. “The first involved installing piers and a dock outside of the bayou floodgates so commercial fishermen with the tribe wouldn’t be trapped inside the gates and unable to fish during high winds and small squalls that cause localized flooding. Sometimes those gates are closed for days.

“But because of the complexity of that project, requiring permission from private landowners and the extensive process of getting permits, it was dropped,” said Bethel.

“The second project was the bulkhead and dock area across from the tribe’s community center,” he added. “That new dock would allow for the community to have a safe spot to tie-up and enter and exit their vessels – allowing for potential eco-tourism opportunities that could provide an additional source of funding for the tribe. Also, the tribe already owned the land.”

The permitting process for the second project was also less complicated, said Daigle. And LSG’s Law & Policy Program reviewed all the paperwork before it was submitted to ensure that all the proper permits were filed.

With tribe members volunteering labor so they could maximize the dollars, the bulkhead/dock construction was near completion in late January. The new dock is considerably longer than the previous dock and can handle larger boats as well as multiple boats at a time.

“I would like to thank the BHP Billiton Foundation, GOMA, Sea Grant, Lowlander Center and FPCC for making this project possible,” said Donald Dardar, PACIT co-chairman. “We now have a safe dock to load and unload people for boat rides and to tie boats safely during storms.”

Other partners that helped with the project included the Lowlander Center, Terrebonne Levee District, First People’s Conservation Council (FPCC) and representatives from both parishes. BHP Billiton is a multinational mining and petroleum company.



The PACIT dock in 2017.



The PACIT dock in 2020.



Fishermen selling direct to the public need to be aware of all local sales tax requirements.

Louisiana Sea Grant Takes on Taxing Issues

Louisiana Sea Grant has released new, helpful local sales tax factsheets for fisherman who sell directly to the public. These factsheets are meant to tackle the confusion on exactly how much sales tax a fisherman must collect and remit to the parish. They also will also include information on how much vendor, occupational and related licenses cost.

“Fishermen really need to make sure they are submitting the required sales tax for their local jurisdiction and that they have the right vendor and/or occupational license,” stated Melissa Daigle, resiliency specialist for Louisiana Sea Grant.

In the recent past, there have been incidences where some fishermen have failed to collect local sales taxes because they simply did not know. The consequence: Some had to pay both a fine and the taxes. “In incidences where fishermen were unaware that they needed to collect and remit sales tax, it was taken out of their profit margin, which can affect their overall business,” said Daigle.

Since July 1, 2018, state sales tax across all parishes is 4.5 percent. However, the lines begin to blur when it comes to local sales tax.

Not all tax rates are the same among or within parishes. The amount of local sales tax collected is dependent on the parish and municipality where the fisherman sets up shop. For example, a fisherman in Lafourche Parish may need to collect 4.5 percent local sales tax, but a fisherman in Livingston Parish might collect 5.5 percent.

“You will more than likely have to collect sales tax. But there are some parishes that exempt seafood from being taxed. That means a local fisherman in that particular parish does not have to collect parish sales tax. But a fisherman cannot assume that exemption applies when it comes to collecting a town’s required sales tax,” Daigle explained.

Thibodaux and Golden Meadow both are in Lafourche Parish. Thibodaux has a 4.95 percent sales tax rate compared to the 5.4 percent for Golden Meadow. Why?

“Those local sales taxes were voted on in those various jurisdictions. That money is set to go towards certain things. For example, maybe the school board is doing the collecting and auditing. Those taxes then go on to fund safe schools in that jurisdiction. That’s why you see a difference from one community to the next,” Daigle explained.

Occupational and mobile vendor licenses are other requirements that vary from parish to parish and community to community. “For example, Orleans Parish has very specific food truck regulations, whereas some parishes don’t,” Daigle said.

Additionally, some licenses have to be renewed annually and others are one-time payments. It all boils down to the local government. Daigle recommends always checking with the local government where you are conducting business. Information presented on the fact sheets, regulations, requirements and local tax rates can change.

The talk of taxes is taxing within itself but it’s a way to prevent misunderstandings and strengthen local business and government relationships in the future. For more information, contact Daigle at mtrosc2@lsu.edu.

Local sales tax fact sheets are available at www.laseagrant.org/sglegal/publications/other/.

Louisiana Fisheries Forward Summit 2020

Nearly 500 commercial fishermen, dock owners and processors had the opportunity to learn about issues facing their industry at the Louisiana Fisheries Forward Summit, held March 11 at the Pontchartrain Center in Kenner.

This expo is the state’s premier commercial fishing and seafood industry event, attracting hundreds of commercial fishermen, seafood dealers, processors and others. Workshops ran throughout the day along with a trade show that featured hands-on demonstrations about safety, innovative handling and processing equipment, gear and techniques.

Produced by Louisiana Sea Grant, the LSU AgCenter and the Louisiana Department of Wildlife and Fisheries – with other industry partners – the Summit it is part of the Louisiana Fisheries Forward education initiative.





Four CSAP Projects Announced

The Louisiana Coastal Protection and Restoration Authority (CPRA) is continuing its commitment to the Coastal Science Assistantship Program (CSAP). This program provides support for master's students involved in research relevant to Louisiana coastal protection efforts. This collaboration offers the dual benefit of engaging students in CPRA activities while providing for potential recruitment of qualified personnel.

Louisiana Sea Grant administers these assistantships — available to all Louisiana university faculty — to recruit outstanding students to coastal restoration-related research. Up to four new projects are funded annually with an award of \$25,000 each for up to three years. The newest projects are:

Sedimentary Aspects of Land-building in the Fort St. Phillip Crevasse Complex

PI: Mead Allison, Tulane University

As more river diversions are planned for Louisiana, predicting their functionality is difficult. To better advise the future, Tulane researchers hope to learn from the past. In 1978, the Mississippi River breached its banks at Fort St. Phillip providing a natural classroom to study. By examining these crevasse splays, Allison's team will better understand sediment evolution and land growth in receiving basins. Allison seeks to collect scientific data from this historical event to understand flood deposits, sediment trapping efficiency, controls on splay formation and recommendations for low-cost green engineering practices.

Mud Settling Velocity in Barataria Bay: A Crucial (Yet Neglected) Parameter for Marsh Evolution

PI: Giulio Mariotti, Louisiana State University (LSU)

Mud is abundant in the Mississippi River, but it is uncertain where it will be deposited. One factor affecting settlement patterns is salinity, which causes mud particles to clump together and settle faster. River diversions will have salinity gradients, so it is important to know how mud settles under different conditions. Mariotti's team will collect data along a salinity gradient in Barataria Bay and the Gulf Intracoastal

Waterway to quantify mud settling velocity rates. This project will increase understanding of sediment dynamics, specifically where (and how much) mud will settle onto marsh platforms.

Factors Influencing Subsurface Wetland Dynamics in Coastal Louisiana:

Implications for Wetland Response to Sea-level Rise and Restoration

PI: Tracy Quirk, LSU

Wetlands feature prominently in the Coastal Master Plan; therefore, it is important to know how they respond to environmental changes like sea-level and restoration strategies such as river diversions. While much attention has focused on aboveground changes, it is also important to examine beneath the surface. These subsurface processes can play a large role in determining whether wetlands drown or remain above sea-level. Quirk and her team will study the variability in wetland subsurface changes across Louisiana to see how they impact elevation change including examining the underlying processes that may be influencing subsurface changes.

Time-varying Rates of Organic and Inorganic Mass Accumulation in Louisiana Marshes and Relation to Sea-level Change

PI: Carol Wilson, LSU

Flooding and waterlogged soils can stress plants, having negative impacts on both aboveground and belowground growth. With more river diversions planned, it is important to know how marshes in the spillways will respond to increased inundation and sediment delivery. Using soil cores, Wilson will study organic and inorganic mass accumulation and vertical accretion rates in Barataria Bay's brackish and salt marshes. This will provide insight into how these marshes have responded to sea-level fluctuations over the past 50 years and how they could continue to do so in the future.

For more information, visit www.laseagrant.org/research/student-research/csap/#background.

A Coastal View

Although Louisiana Sea Grant (LSG) is well-known for providing speedy assistance – whether its Extension agents responding to natural disasters or providing academics with research support for emerging challenges – there are certain aspects of our program that require playing the long game. A few good examples are highlighted in this newsletter.

As you will read, 14 years ago, LSG-sponsored students created waterfront development concepts for the Bucktown area of New Orleans. Their work was exceptional. So much so, that after more than a decade of piecing together funding and logistics by community leaders, those plans serve as the foundation of work that is currently underway.

Similarly, Sea Grant personnel have been working with the Pointe-au-Chien Indian Tribe (PACIT) for a decade. The long-term partnership developed between LSG and PACIT helped the tribe in determining, applying for and executing a grant to build a new dock and bulkhead across from its community center. They plan to use the new infrastructure to promote ecotourism, which could in-turn be economically beneficial.

And for 12 years, LSG and the Louisiana Coastal Protection and Restoration Authority (CPRA) have partnered for the Coastal Science Assistantship Program (CSAP). Through the program, master's students work on research relevant to protecting our state's coast while interning at CPRA. Most of these students stay in Louisiana after graduation and many have taken jobs with CPRA – providing the workforce necessary for protecting and restoring our coast.

These are just three brief examples in Louisiana Sea Grant's 52-year history of looking strategically at the needs of our coastal communities and yielding incredible impacts.



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COVID-19 and State of the Coast

The Coalition to Restore Coastal Louisiana and the organizations hosting the State of the Coast conference have been monitoring the news and guidance from local and national governments and public health officials about the coronavirus COVID-19 and carefully considering the steps we must take to ensure the safety of our staffs, attendees, vendors and others with whom we will interact. We are committed to following best practices, and we are working on plans to adapt to a fast-changing situation. However, climate change and the land loss crisis plaguing south Louisiana continue, and we must confront them with the utmost urgency. Therefore, the 2020 conference will not be canceled, but it will be rescheduled for later in the year. CRCL will also reschedule volunteer events. CRCL will be reaching out with further updates as they become available and also posting them on their website at <https://www.stateofthecoast.org>.