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Commission on Marine Resources

May 21, 2019



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Employment, Contracts and Procurement Updates

May 21, 2019

D.1.

Employment Updates

- 05.01.19 – Tiffany Weidner – Marine Fisheries Scientist IV, Shrimp & Crab
- 05.06.19 – Katherine Glover – Marine Fisheries Tech IV, Shellfish
- 05.13.19 - Austin Burmaster – Finfish Contractor

Contracts and Procurements for May 2019

Commodity Contracts					
<u>Vendor</u>	<u>Procurement Method</u>	<u>Amount</u>	<u>Term</u>	<u>Funding Source</u>	<u>Commodity/Service Description</u>
J&W Marine Enterprises, Inc	Reverse Auction	\$600,000.00	05.02.2019 – 05.01.2020	100% Bonnet Carre	Furnish and Deploy limestone for the Shellfish Bureau
Currently Advertised Procurements					
<u>Office Requesting</u>	<u>Procurement Method</u>	<u>Estimated Amount</u>	<u>Commodity/Service Description</u>	<u>Board Approval</u>	<u>Funding Source</u>
Marine Patrol	Reverse Auction	\$130,00.000	Three (3) Floating Boat Lifts	OPTFM	100% Bond



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Role of Seafood Technology and Marine Patrol in Seafood Processing Plants

The Commission passed a motion at the March 19, 2019 meeting, requesting the Executive Director to review all regulations containing language describing HACCP and sanitation responsibilities and come back to the CMR in April with a Notice of Intent that makes a clear distinction between the HACCP and sanitation roles of the Seafood Technology Bureau and roles of law enforcement in seafood processing plants.

Regulations

- The regulations referenced prior to the motion were Title 22 Part 17 which applies to molluscan shellfish (oysters, clams, mussels, or scallops) including processing, and Title 22 Part 21 that applies to saltwater crabs processing.
- There are no regulations that apply specifically to shrimp processing.
- However, to fully analyze the different roles, there are additional federal and state statutes and regulations that must be included in the review.

Background Information

- MCA §49-15-15 gives the CMR the authority to regulate all seafood sanitation and processing programs and to enter into a MOU with the Health Dept and the Dept of Agriculture to implement the seafood sanitation program.
- §49-15-28 provides for a combined Dealer/Processor license which entitles that licensee to operate as a wholesale dealer, retail dealer and processor.
- There are dealers that are not also processors. However, all processors are dealers.

As of **Friday, March 15, 2019** the following are in operation throughout the State of Mississippi:

- 14 Crab Processors
- 3 Inactive Crab Processors
- 2 Crab Shippers
- 1 Intrastate Oyster Reshipper
- 1 Intrastate Oyster Shellstock Shipper
- 5 Oyster Reshipper
- 14 Oyster Shellstock Shipper
- 5 Oyster Shucker – Packer
- 3 Oyster Post Harvest Processors
- 11 Shrimp Processors
- 3 Shrimp Shipper/Dock Facility
- 1 Inactive Shrimp Shipper/Dock Facility
- 63 Total Dealer/Processor Licenses (4 are Inactive Licenses)



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Seafood Technology Role in Processing Plants

- The MDMR has two (2) employees in the Seafood Technology Bureau (STB) that are certified inspectors. Qualifications for an employee to be a certified inspector are outlined in the NSSP Guide: 2017 Revision, pages 355-361.
- The inspections are conducted in accordance with the NSSP Model Ordinance STANDARDIZATION FIELD GUIDE, January 2019 published by the Food and Drug Administration. The 76-page Guide includes a list of 27 inspection categories with various elements under each category. For example, under Item #8 Safety of Water For Processing and Production, the inspectors are required to check the source of the water supply, the plumbing, cross contamination between potable and non-potable water supplies.

- When the Inspectors discover CRITICAL violations, if the violation cannot be immediately corrected, inspectors call Marine Patrol (MP) for potential seizure of product and to write any necessary violations. The specific citations issued are determined by MP.
- Seizure and disposal of shellfish for sanitation violations shall be carried out by a Marine Patrol Officer as directed by the Commission, or as authorized by the DMR Executive Director, MF Director, Seafood Technology Bureau Director or Certified Seafood Officer in charge of shellfish handling and processing. (Title 22, Part 17, Chap 10, Para 103)
- For other than critical violations, the inspectors establish a timeline where those violations must be corrected.

- Shuckers/Packers = quarterly inspections are required.
- Shippers = bi-annual inspections are required.
- STB Inspectors have the authority to do unannounced inspections, but they typically will do a courtesy call prior to going.
- FDA conducts an evaluation/inspection of randomly selected facilities once a year. FDA has contracted with the Mississippi Department of Health to conduct inspections.
- Ways the ST staff have of discovering potential problems:
 - Routine Inspections
 - Self Reporting
 - Other Processors Reporting
 - Public Reporting
 - Marine Patrol Reporting
 - Someone gets sick

- Seafood Technology may initiate administrative suspension and/or revocation of certification and license. The CMR shall suspend/revoke when there is reason to believe that a public health hazard exists or whenever the holder has violated **any** of the requirements of this regulation or whenever the holder has interfered with a DMR representative performing their duties. (Title 22, Part 17, Chap 9, Para 103)
- MDMR and MS Dept of Health (MSDH) MOU provides for the sharing of information between agencies and does not limit or otherwise restrict the authority of the MDMR's Office of Marine Patrol to enforce the molluscan shellfish regulations.

Regulatory Authorities

- STB does not regulate finfish or shrimp products.
- STB does not check receipts or coolers for certain seafood products.
 - STB **does** have the authority to ask for receipts for oyster and crab products but **not** for finfish and shrimp products.
 - STB does **not** have the authority to inspect products from foreign countries or to inspect for recreationally caught products.

Marine Patrol Role in Processing Plants

- §49-15-21 provides that MDMR enforcement officers shall diligently enforce **all laws and regulations** for the protection, propagation, preservation or conservation of all saltwater aquatic life of the State of Mississippi, and they are hereby constituted peace officers of the State of Mississippi, with **full police power and jurisdiction to enforce all laws of the State of Mississippi and all regulations adopted and promulgated by the commission**. Enforcement officers may exercise such **powers in any county of the State of Mississippi** and on any waters of the state, and **shall investigate all persons, corporations and otherwise who are alleged to have violated any laws . . .**, and make affidavits, arrests...

§49-15-21 (cont'd)

- The application for **any license or permit** from the commission to catch, fish, take, transport or **handle or process any form of aquatic life**, or the taking, catching, transporting or handling or processing of any and all aquatic life in this state **shall constitute acquiescence and agreement upon the part of the owners, captains and crews, employers and dealers** to the provisions of this chapter and the agreement that **enforcement officers may exercise the authority granted under the provisions hereof.**

§97-23-3 Deceptive Advertising

- Any person who, with intent to sell merchandise to the public makes, publishes, disseminates, circulates or places before the public in the form of a notice, handbill, poster, bill, circular, pamphlet or letter, or by a label affixed to the merchandise or its container, or advertisement that contains a false representation, is deceptive or misleading shall be punished by a fine of not more than \$500 and may be held civilly responsible for damages resulting from a violation of this section.

§49-15-303(b)

- The CMR has the authority to enter into and authorize the Executive Director to execute contracts, grants and cooperative agreements with any public or private institution, federal or state agency or any subdivision thereof to carry out the duties of the commission.
- The MDMR has entered into a Joint Enforcement Agreement (JEA) since the JEA's national inception in 2001.
- The emphasis in the JEA's directives have changed over time.

Historical Information

- 2009 GAO report – FDA told GAO that it focuses on food safety and undertakes few fraud-related activities. FDA examines only about 2% of imported seafood annually, and its primary seafood oversight program does not address economic fraud risks, which limits its ability to detect fraud.
- 2011 GAO report – FDA needs to improve oversight of imported seafood and better leverage resources.
- 2013 Safety and Fraud Enforcement for Seafood Act (SAFE) introduced but failed to be enacted – Southern Shrimp Alliance supported this Act.
- 2014 - Presidential Task Force on Combatting Illegal, Unreported, and Unregulated (IUU) Fishing and Seafood Fraud

- 2015 National Ocean Council Committee was established to oversee implementation of the IUU Fishing and Seafood Fraud and the implementation of the Task Force Action Plan which identified 15 Recommendations outlining aggressive steps required by federal agencies.
- NOAA and Department of State were named as co-chairs of this Committee.
- Has led to a national emphasis on relabeling of seafood and product substitution, requiring greater cooperation between FDA and NOAA and between federal agencies and state agencies.

- DOC/NOAA is authorized to enforce provisions of the Magnuson Stevens Act, the Endangered Species Act, the Marine Mammal Protection Act, and the Port State Measures Agreement Act, and, under 16 USC 1861, **to utilize the personnel, services, equipment and facilities of State agencies.**
- DOC/NOAA has authority to prevent illegal trafficking of fish taken and/or possessed in violation of State or Federal laws under the Lacey Act.
- 5 CFR 600.725 provides that it is unlawful for any person to interfere with any **authorized officer** in the conduct of any search, inspection or seizure in connection with enforcement of MSA or any other statute administered by NOAA.

JEA AGREEMENTS

- All Marine Patrol Officers are deputized by the Commerce Dept/NMFS to perform duties under the JEA Agreement.

United States Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service


██████████

**Mississippi Department of Marine Resources
Division of Law Enforcement**

Is a duly deputized Law enforcement Officer authorized to perform
Certain Federal law Enforcement duties on behalf of the Secretary,
U.S. Department of Commerce.

Valid only if presented with Law Enforcement credentials of employing agency
Expires 07/01/2020 SED SE013

This is to certify that Officer: ██████████
Whose photograph appears on the opposite side of this card, is a duly accredited Officer of the Mississippi Department of Marine Resources Marine Patrol and is hereby authorized to make Investigations, seizures and arrests pursuant to State and Federal Laws and to require and receive from all persons having knowledge thereof information as authorized by said laws.



Given under my hand this: 1st of September 2018
██████████
Chief of Marine Patrol

Height: ██████████ DLN: ██████████
Weight: ██████████ DOB: ██████████
Hair: ██████████ Blood Type: ██████████
Eyes: ██████████ Allergies: ██████████

Name: ██████████

Height: ██████████ Weight: ██████████ Hair: ██████████ Eyes: ██████████ Date of Birth: ██████████

The person identified above is duly deputized and is authorized to enforce the law enforcement provisions of the Magnusson Stevens Fisheries Conservation Management Act, and any other marine resources law enforced by the Secretary of Commerce that has been specifically authorized by the current Cooperative Enforcement Agreement between NMFS, Office of Law Enforcement and the employing agency.

Property of the Mississippi Department of Marine Resources. Must be surrendered upon termination of employment or upon demand. If found, please call 228-523-4131.



MARINE PATROL
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This is to certify that
██████████
whose signature and photograph appear is

State Law Enforcement
for the state of Mississippi and as such holds the rank of
██████████

Expires: 08/31/2019
DOH: ██████████

Signature: ██████████

- NOAA publication states that the JEAs serve as a force multiplier for NOAA/OLE and strengthens the ability to effectively respond to numerous enforcement responsibilities
- 2016 – Division Enforcement Plan (DEP) identified 5 General Priorities and 1 Execution Priority for TED Compliance.
- 2017 – DEP identified 2 General Priorities and 3 Execution Priorities – this is the first year that the JEA identified IUU duties as a priority and it was elevated to an Execution Priority.
- 2018 – DEP identified 2 General Priorities and 4 Execution Priorities including the IUU duties.

2018 Division Enforcement Plan

- Execution Priority 4: Lacey Act/International
- Sub-Category: IUU Fishing/Seafood Fraud
- National Priority: Sustainable Fisheries – investigate IUU fishing violations and seafood fraud violations
- Division Priority: Sustainable fisheries – illegal imports or undeclared products entering ports of entry, false labeling, mislabeling and misbranding of seafood product having a significant impact on state, national or international commerce and seafood safety violations where public health and safety is at risk.
- The Agency may document JEA IUU hours when during the course of **normal AGENCY inspections** at commercial **markets, wholesale dealers, processors**, and all other **cold storage facilities**, officers find imported fisheries products with indications of IUU or Lacey Act and seafood fraud violations.
- The Agency **will report the number of inspections conducted and the outcome** to OLE and forward violations for investigation.
- The Agency will refer all IUU and seafood fraud investigations of the Lacey Act and violations of international laws to NOAA OLE for disposition and prosecution.

Why is Mislabeling Important?


- Seafood fraud can threaten human health. Species substitution may lead to the consumption of a product that is riddled with contaminants, toxins or allergens that can make people sick, including anaphylactic shock which can be fatal.
- In a 2013 article the Southern Shrimp Alliance noted that a 2009 GAO report concluded that the federal government was not adequately addressing seafood fraud, especially with respect to 91% of seafood that the US imports. The lack of oversight can harm the health and finances of consumers, and negatively impact the profitability of US fishermen who play by the rules.

Marine Patrol Duties

- MP does not check for sanitation issues but will report anything that may seem to be a sanitation issue to Seafood Technology.
- There have been no tickets issued to processors for HACCP violations that have not been specifically referred to them by Seafood Technology.
- MP routinely checks licenses, coolers for different species of seafood/fish, and receipts/invoices to match with product on hand and submitted reports.

Cases Regarding Mislabeling Investigated by NOAA & State Agencies

- Alpin Brother Inc. – Feb 2015, owner of seafood processing facility pled guilty to felony count of making or submitting false records in violation of the Lacey Act. Falsely labeled 25,000 lbs of farm-raised imported shrimp as wild-caught product of the US.
- \$100,000 fine, 3 yrs probation, training program to educate staff regarding federal country of origin labeling (COOL) regulations.
- This case was investigated by NOAA with assistance from the Louisiana Dept of Wildlife and Fisheries.

- 
- Garcia Shrimp Co. – Sept 2015 sentenced for Lacey Act violation – 35,000 lbs of Mexican shrimp labeled as Product of USA.
 - \$150,000 fine, 3 yrs probation with conditions that subjected the company to increased labeling, recordkeeping and audit requirements.
 - This case was investigated by NOAA with assistance from the Louisiana Dept of Wildlife and Fisheries.

In Summary

- STB has a distinct role regarding sanitation.
- MP has a distinct role regarding enforcement.
- There are no regulations that would prohibit MP from being in the seafood processing plants and the sanitation MOUs specifically state that law enforcement's role is not limited or restricted by the agreement.
- State statutes grant MP the authority to enforce seafood laws and regulations and mandates the acquiescence of license holders.
- Federal statutes and the NOAA JEA grant MP the authority to enforce federal seafood laws and regulations.

Other Gulf States

- The other Gulf States have the same structure – the agency regulatory staff and FDA have responsibility for sanitation and HACCP;
- and law enforcement have responsibility under state and federal law to check such things as licensing and receipts to verify species on hand (i.e., legal species and legally or illegally caught or obtained species).



Trust But Verify

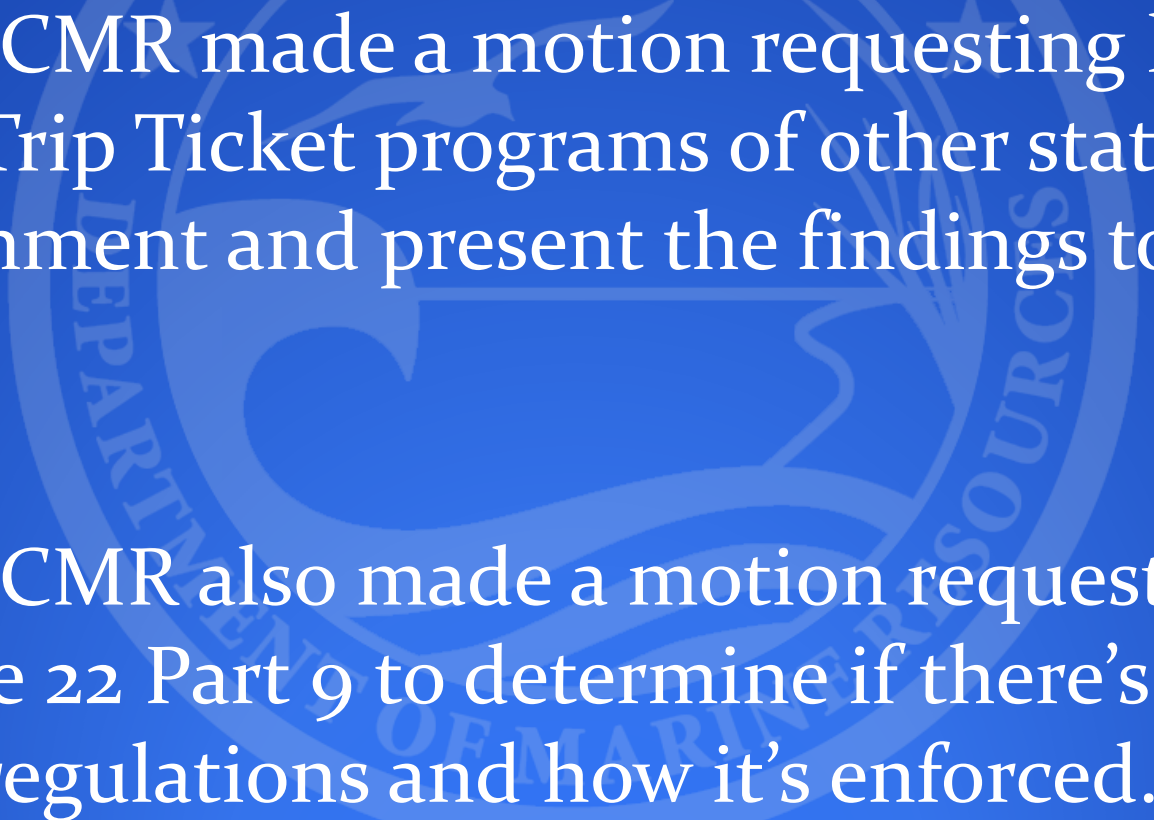
Russian Proverb often quoted by
President Ronald Reagan



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Trip Ticket Program

May 21, 2019 CMR Meeting

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- The logo of the Mississippi Department of Marine Resources is a circular seal. It features a central figure of a fish, possibly a bluefish, swimming upwards. The word "MISSISSIPPI" is written in an arc at the top of the seal, and "DEPARTMENT OF MARINE RESOURCES" is written in an arc at the bottom. There are two stars on either side of the central fish.
- In March the CMR made a motion requesting legal staff to research the Trip Ticket programs of other states and the federal government and present the findings to the Commission.
 - In March the CMR also made a motion requesting legal staff to review Title 22 Part 9 to determine if there's a variance between the regulations and how it's enforced.

Gulf States Trip Ticket Programs

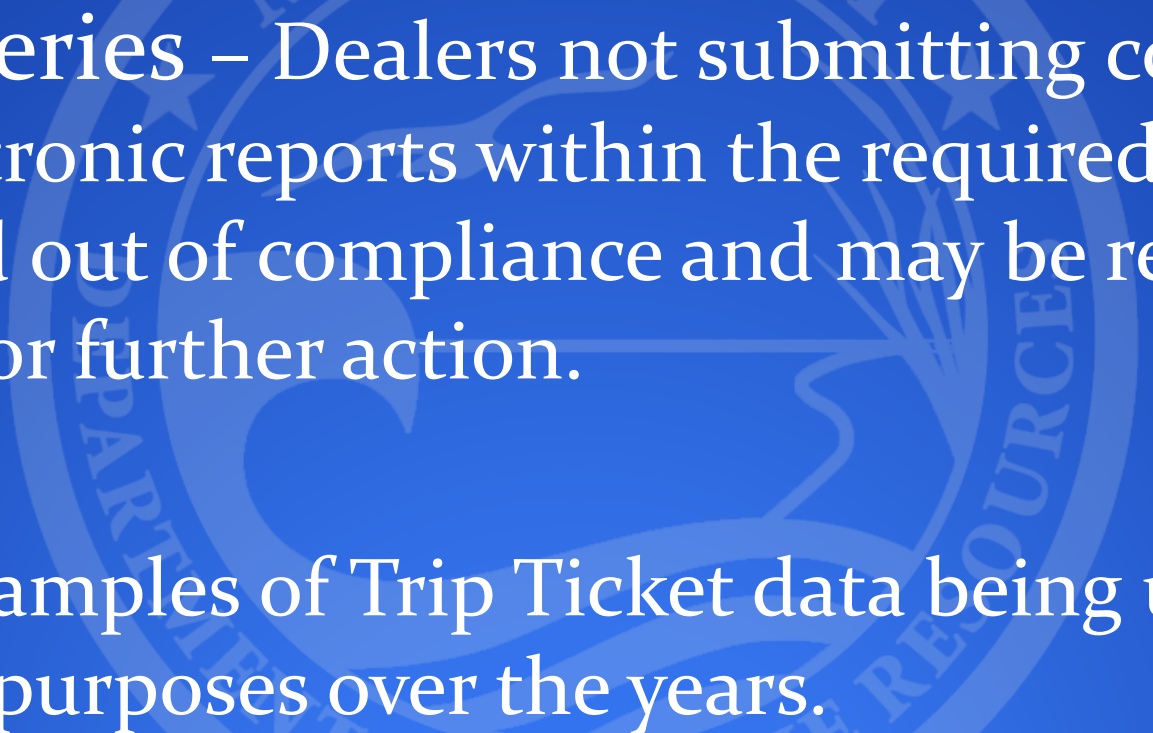
- Louisiana – all information obtained shall be used for the equitable and efficient administration and enforcement of the laws pertaining to the fisheries resources of the state and for conservation and management purposes. LSA–R.S. 56:301.4
- Texas – V.T.C.A. 66.109 mandated the department to establish the statistical gathering program. Texas Game Wardens are authorized to examine statistical reports and have access to real-time data on their phones.
- Alabama – All records required by this regulation shall be maintained and available for inspection immediately upon the request of a conservation enforcement officer or other authorized agent. Alabama Admin Code 220-3-35(2)(f)

- Florida – 68E-5.002 requires that all marine life sold, exchanged, bartered, distributed or landed be reported.
- 68E-5.005 The Commission may revoke, suspend or deny the renewal of a license of any wholesale or retail dealer for failure to make required reports, for failure or refusal to permit the examination of required records, or for falsifying any such record pursuant to FS 379.362 governing the licensure of wholesale and retail saltwater products dealers.
- Wildlife Conservation Commission law enforcement is not allowed to use the trip tickets to make a case, but officers are allowed to request trip ticket data for review or to verify observations in the field either prior to or during an investigation of individual fishing activities. FWC officers frequently request copies of trip ticket data for an individual for these purposes. FWC law enforcement is also notified in cases of significant delinquency or non-reporting by seafood dealers with regards to commercial trip tickets.
- Because FWC has an MOU with NOAA, federal enforcement officers may also be provided confidential trip ticket data upon request.

- Mississippi - Title 22 Part 9 (100) MDMR enforcement personnel are authorized to inspect any and all seafood purchase and/or sales receipts from firms or individuals, whether or not licensed by the MDMR to ensure reporting requirements listed in this Part. MDMR enforcement officers may not reveal confidential information **except as it applies in violations of the reporting requirements** in this Part.

Federal Trip Ticket Program

- Federal – 16 USC 1826.
- The Secretary, subject to the data confidentiality provisions of the MSA, may disclose information, as necessary and appropriate, to any other federal or state government agency as long as the agency has procedures to protect such information from unintended unauthorized disclosure and when such disclosure is necessary to ensure compliance with any law or regulation enforced by the Secretary, to assist in any investigative, judicial or administrative enforcement proceedings.

- 
- The background features a large, faint watermark of the Mississippi Department of Marine Resource logo. The logo is circular and contains the text "MISSISSIPPI" at the top and "DEPARTMENT OF MARINE RESOURCE" at the bottom. In the center, there is a stylized illustration of a fish and a bird.
- NOAA Fisheries – Dealers not submitting complete and accurate electronic reports within the required timeframe will be considered out of compliance and may be referred to the NOAA OLE for further action.
 - Numerous examples of Trip Ticket data being used for enforcement purposes over the years.

Golden Eye Seafood

- 2009 – Robert Lumpkins (MD) and 15 others charged with illegally harvesting and underreporting striped bass.
- Admitted to **failing to record and falsely recording** the amount of striped bass that fishermen harvested.
- 18 months in prison with 3 yrs probation for his company and \$36,000 fine and \$164,040.50 restitution.

Craddock – Lady Samaira

- 2018 - James Craddock and 11 others pled guilty to federal charges for violating the Lacey Act (illegal harvest and sale in 2010 of Atlantic Striped Bass) and charged with filing false reports in connection with the illegally harvested fish.
- NOAA conducted an analysis of electronic data and written reports from those vessels (confirmed with NOAA OLE that Trip Tickets were reviewed).
- During the investigation Craddock made false statements to NOAA concealing the true location of the harvest in his federal vessel trip reports.

- 32 co-conspirators but only 12 were charged and sentenced.
- Illegally harvested 31,206 lbs in 2009 and 102,296 lbs in 2010 with a retail value of \$1.1 million.
- The annual trawl quota for NC is 160,160 lbs which means the illegal harvesting of this species reduced the quota available to be caught by honest fishermen.
- 4 vessels were forfeited and other assets of \$124,000.
- \$1.23 million restitution with the most egregious conspirator paying \$653,795.
- Probation from fisheries activities for a total of 38.5 years.
- 850 hours of community service for 12 of the violators and 3 sentenced to 6 months of home confinement.

Jessie Lambas

- 2010 – Jessie Lambas (LA) arrested for **falsifying trip ticket** information in order to file a BP claim.
- “LDWF routinely reviews trip tickets from the commercial industry to ensure the most accurate data is collected. Inaccurate or embellished trip tickets will be investigated by the department’s Law Enforcement Division.”

Harper Seafood

- Dec. 2011 – Harper’s Seafood Inc. pled guilty to conspiracy to purchase fish they knew had taken and sold in violation of FL laws and regulations and to making and **submitting false FL Marine Fisheries Trip Tickets.**
- Harper - \$50,000 fine, 3 yrs probation.
- Co-defendant Puckett - \$25,000 fine, 3 yrs probation.
- Co-defendants Burdette & Logue each fined \$5,000, 3 yrs probation.
- Investigated by NOAA and LA Dept of Wildlife & Fisheries.

Cowart Seafood

- July 2017 - Cowart Seafood, Inc – selling fish to LA seafood buyers that was taken in violation of MS law (purchased fish from unlicensed commercial fishermen); **failing to report seafood purchases on Trip Tickets** to MDMR and buying fish from recreational fishermen.
- 25 months in federal prison for conspiracy to violate the Lacey Act and illegal possession of a short-barreled shotgun.
- Investigated by NOAA and MDMR.

Orient Seafood Product of Fife, WA

- 2018 – Owner admitted to conspiring with others to underreport the amount of sea cucumbers they purchased by approximately 250,000 lbs with a profit of approximately \$1.5 million.
- Admitted to **falsifying fish tickets, failed to prepare tickets**, failed to retain tickets submitted by others, and paid cash so there would be no financial record of the total amount taken.
- Court ordered to pay the same amount as his profits in restitution.

In Summary

- Trip Ticket data can and has been used for enforcement purposes by all Gulf States and the United States Government.



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Off-Bottom Oyster Aquaculture Training Program

Jason Rider

Oyster Extension Agent

Program Overview

- The Off-Bottom Oyster Aquaculture Program is a RESTORE-Act Project that aims to teach potential and current commercial oyster farmers all aspects of off-bottom oyster farming.
- Upon completion, participants will be positioned to operate and maintain an off-bottom oyster farm.
- This program was approved for 2 years and began training individuals in 2018.



Program overview Continued

- Phase 1

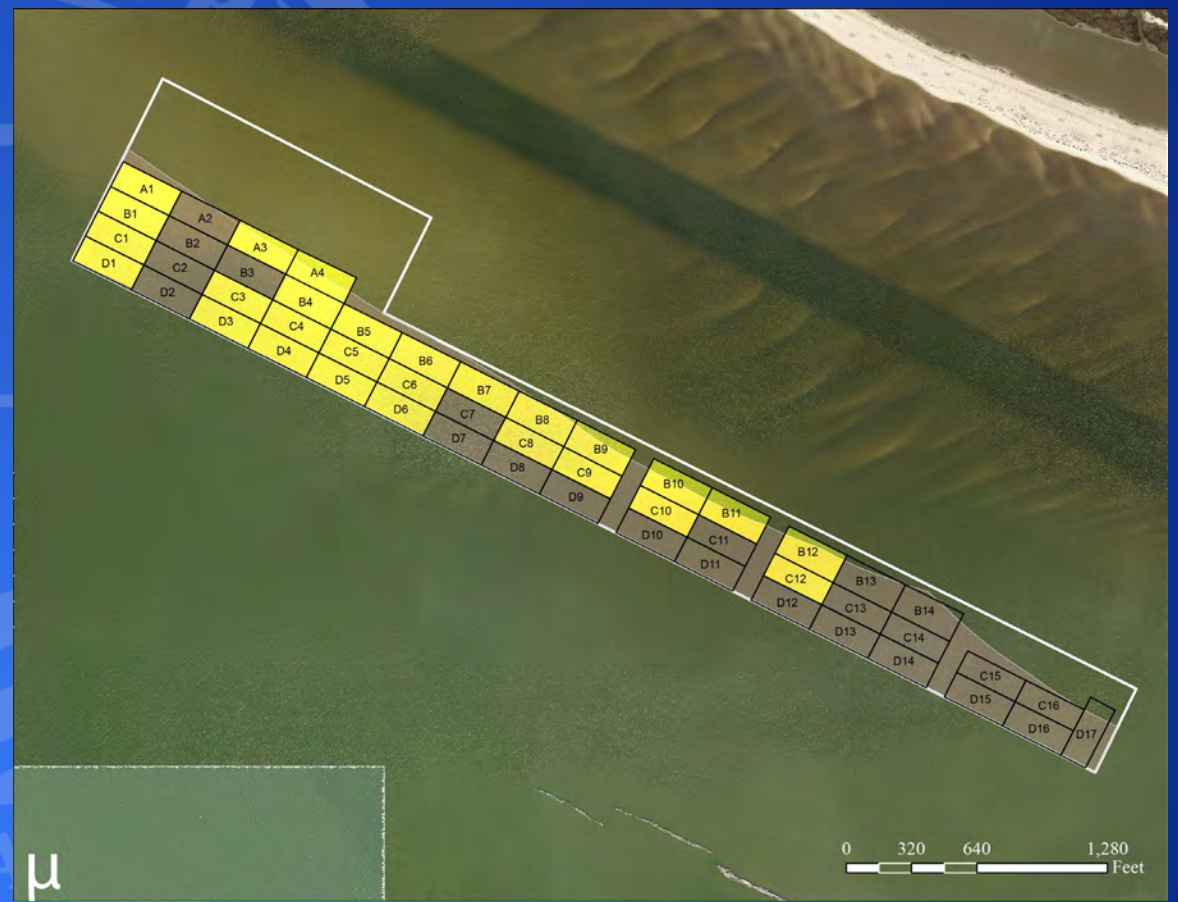
- Phase 1 covers classroom training related to the essentials of operating an off-bottom oyster aquaculture farm.
 - During this phase participants will attend classroom training sessions, receive grow out gear, space in the training area and seed oysters to grow to market size. This allows the participants the opportunity to learn the scope of work required to become an off-bottom farmer.

- Phase 2

- Focuses on the profitability and sustainability of new off-bottom oyster farmers by providing technical guidance and assistance with a business plan.



MDMR Commercial Aquaculture Park



MDMR Commercial Aquaculture Park



First Training Class - 2018/2019

- 20 participants began in June 2018 with 20
- Class participants attended classroom training and selected an oyster growing gear from the knowledge gained.
- Participants received 10,000 oyster seed and “run” of training gear to manage until June 2019
- Participants maintained their assigned gear and oyster seed
 - Installation of gear
 - Weekly gear management (fouling and overset)
 - Grading/ splitting sock techniques
 - Tumbling
 - Site maintenance
 - Instructors and participants will periodically evaluate oyster survival, growth and quality
- After successful completion of the Oyster Farming Fundamentals class and Field Training eligible participants began subleasing acreage within the Deer Island Commercial Aquaculture Park



2018/2019 Results

- Seed oysters (r6) were deployed on August 11, 2018
- Off-Bottom Training Participants are responsible for approximately 160,000 oysters
- 13 participants completed all required tasks and were eligible for acreage
- 13 participants have leased 25 acres in the MDMR Commercial Aquaculture Park and started private farms
- 13 participants have started businesses because of the Off-Bottom Training program
- First harvest was on April 9, 2018
- Average size of oysters are currently between 2 3/4" and 3 1/2"
- Oysters are currently being sold at local restaurants and wholesale stores



Next Steps

- First year participants are transitioning to private leases and beginning Phase 2 (Business Incubation)
- MDMR began training the second Off-Bottom Oyster Aquaculture class on March 16, 2019
 - 25 Participants are currently enrolled
 - Classroom training is complete
 - Field training begins in mid July
- MDMR has submitted a 132 acre expansion permit to allow for additional private leases





Alternative Bulkhead Design/Living Shoreline Permitting

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Currently it is easier to permit a bulkhead than to permit an ABD/living shoreline

The Solution

Waiver for ABDs/Living Shorelines

Approval of variance to Ch. 8, Sect. 2, Part III.O.1 of the MCP and
Miss. Admin. Code Title 22, Part 23, Chapter 8, Section 114.01

Goals:

- Streamline permitting for alternative bulkhead designs and living shorelines
 - Applicants - Quicker response to applications; lower cost
 - Permittees - Better use of time
 - CMR - Fewer minor beneficial projects presented
- Make permitting requirements equal for ABDs/LS and traditional bulkheads

The Solution

Cont.

Conditions:

- ≤ 500 linear feet in length
- ≤ 50 feet or $\leq 25\%$ of the WOW from MHT
- Use native plants only and monitor for/remove invasive species
- Proper signage in accordance with USCG regulations
- Shoreline accretion will not result in a change in property boundaries

What is Required?

- Public Notice
- Notice to Coastal Program Agencies
- Notice to other commenting agencies
- Notice to City/County governments

**Request for Permit by:
Mississippi Department of Marine Resources
File: DMR-190225**

- **Location:** The mouth of the Wolf River and St. Louis Bay in Pass Christian, Harrison County, MS.
- **Use District:** (P) Preservation Use District
- **Agent:** Allen Engineering and Science and Mississippi Department of Environmental Quality
- **Project Purpose/Need:** To enhance and restore coastal marsh through the placement of suitable dredged material as provided for in MS Code §49-27-61.

Project Description

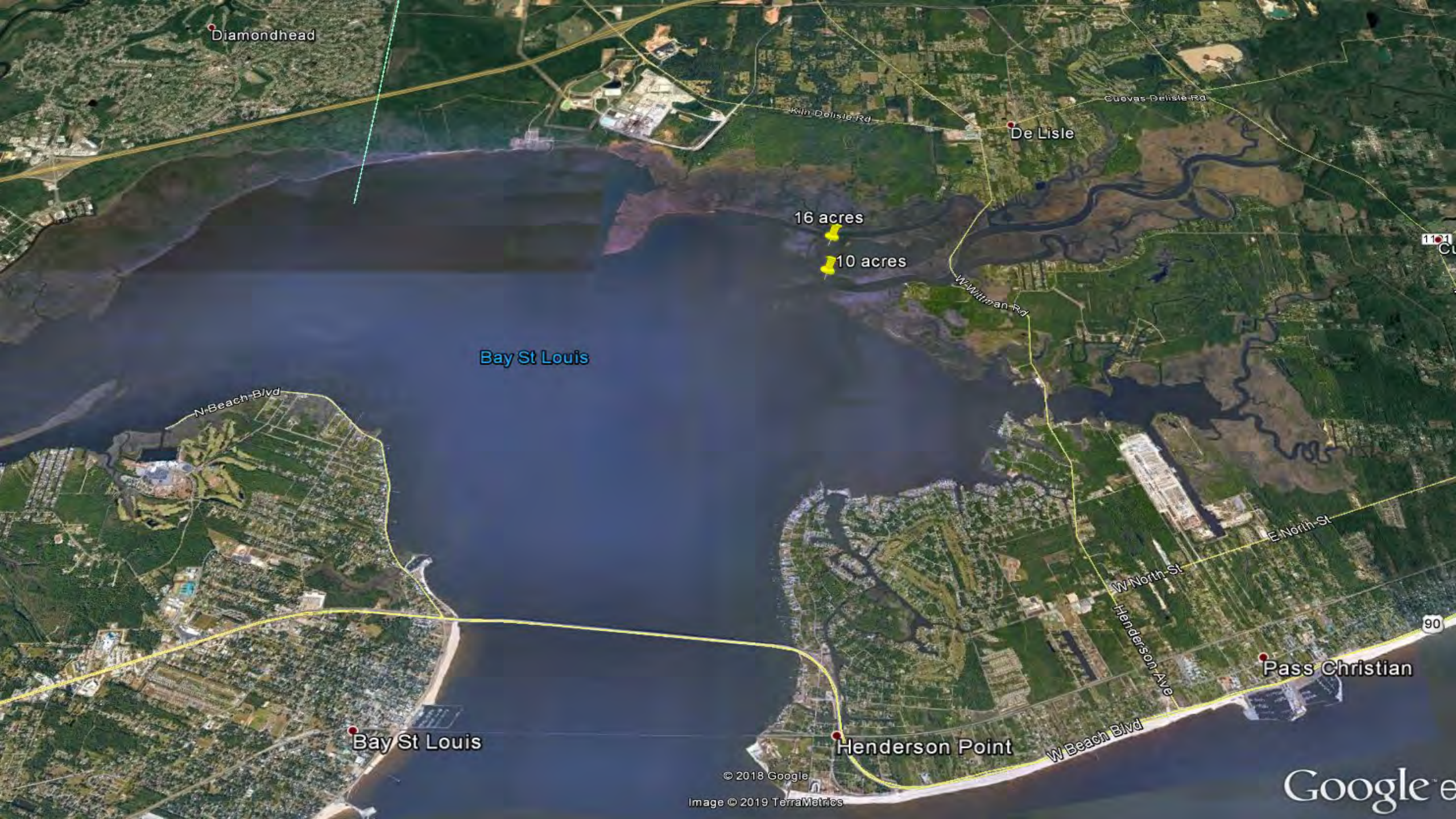
- **Fill:**
 - 26 acres with suitable dredged material (Site 1 = 10 acres and Site 2 = 16 acres)
 - 2,900 linear feet of sand berm
 - 1,600 linear feet of riprap berm
- **Variance from MCP to the Guidelines for Regulated Activities**
 - Ch. VIII, Sect. 2, Part III.O.1.
 - “Permanent filling of coastal wetlands because of potential adverse and cumulative environmental impacts is discouraged.”
- **Variance from Miss. Admin. Code Title 22 Part 23**
 - Ch. VIII, Sect. 114.01
 - “Permanent filling of coastal wetlands below the mean high tide line because of potential adverse and cumulative environmental impacts is not authorized.”
- **Applicant is requesting a 10-year permit**

Project Description

continued

- Variance request MCP justified under Ch. VIII, Sect. 2, Part I.E.2.c.i.
 - “The impacts on Coastal Wetlands would be no worse than if the guidelines were followed.”
 - Replace an area that is currently unvegetated, barren waterbottom with 26 acres of productive marsh
- Variance request Title 22 Part 23 justified under Ch. VIII, Sect. 118.01
 - The impacts on coastal wetlands would be no worse than if the requirements were followed.
 - The project will significantly contribute to addressing two of the priority funding outcomes of NFWF:
 1. Restore and maintain the ecological function of landscape-scale coastal habitats, and
 2. Restore and maintain the ecological integrity of priority coastal bays and estuaries.

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Diamondhead

De Lisle

16 acres

10 acres

Bay St Louis

N Beach Blvd

Pass Christian

Bay St Louis

Henderson Point

W Beach Blvd

W North St

Henderson Ave

E North St

Rain Delisle Rd

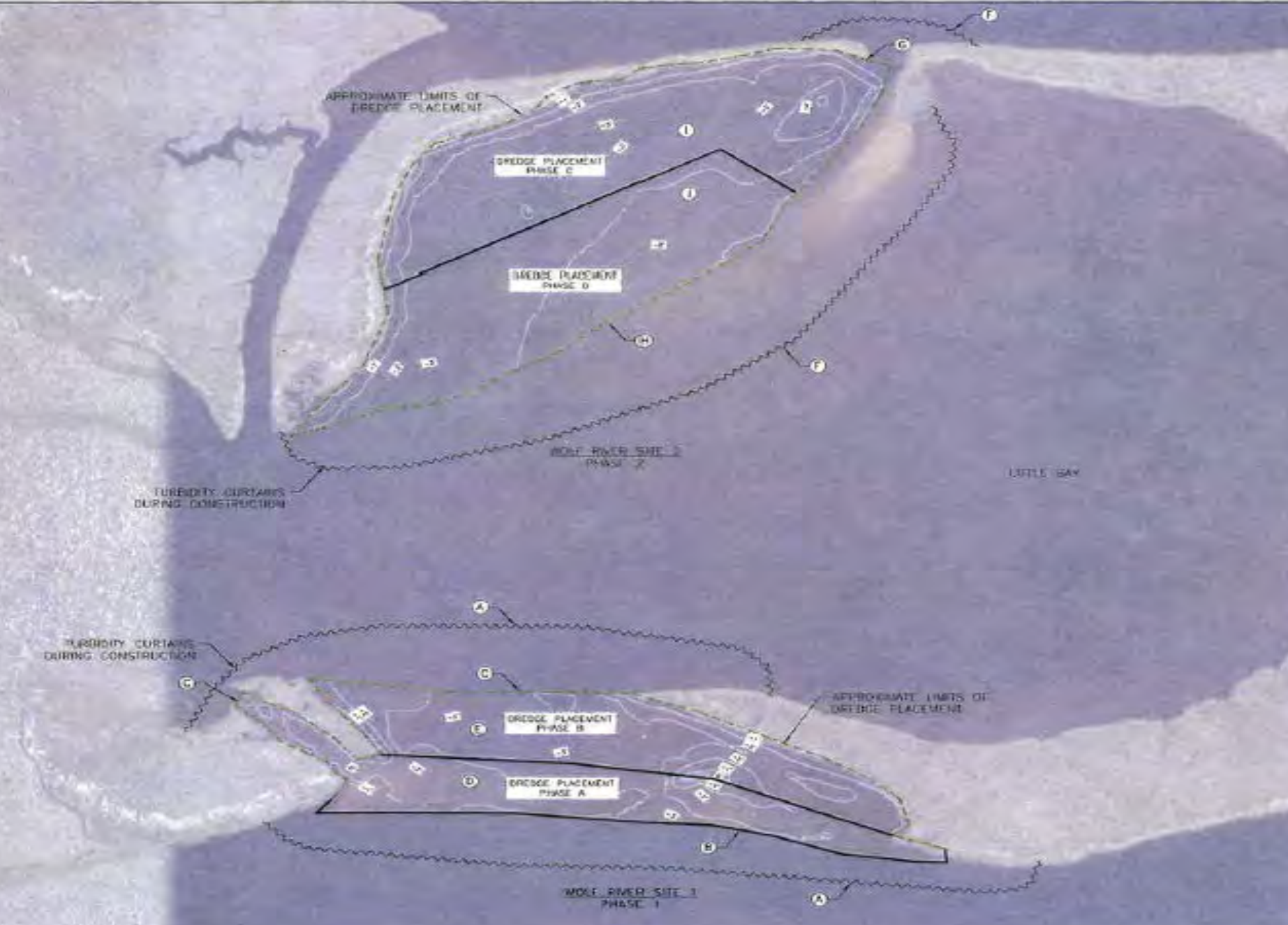
Cuevas Delisle Rd

W Wilman Rd

© 2018 Google

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Google



CONSTRUCTION PHASING / SEQUENCING PLAN

PHASE 1

- A. ESTABLISH SEDIMENT AND TURBIDITY CONTROLS
- B. CONSTRUCT CONFINEMENT AT SOUTHERN EXPOSURE
- C. CONSTRUCT CONFINEMENT AT NORTHERN EXPOSURE
- D. CONDUCE AND COMPLETE DREDGE PLACEMENT PHASE A
- E. CONDUCE DREDGE PLACEMENT PHASE B

PHASE 2

- F. ESTABLISH SEDIMENT AND TURBIDITY CONTROLS
- G. CONSTRUCT CONFINEMENT AT NORTHERN EXPOSURE
- H. CONSTRUCT CONFINEMENT AT SOUTHERN EXPOSURE
- I. CONDUCE DREDGE PLACEMENT PHASES C AND/OR B

LEGEND

- APPROXIMATE MOLE RIVER SITE LIMITS OF DREDGE PLACEMENT
- - - APPROXIMATE MOLE RIVER SITE LIMITS OF DREDGE PLACEMENT
- - - APPROXIMATE 1' CONTOUR INTERVAL
- - - APPROXIMATE 0.5' CONTOUR INTERVAL

NOTES

1. BATHY SURVEY PROVIDED BY JAMES J. CHANCE, P.E., INC.

DETAILS

1. THE COORDINATE SYSTEM USED IN THE DRAWING PORTION OF THIS DRAWING IS MISSISSIPPI STATE PLANE COORDINATE SYSTEM EAST ZONE, NAD 83, US SURVEY FEET.

2. THE VERTICAL CONTROL FOR THIS DRAWING IS BATHYMETRIC HEIGHTS, US SURVEY FEET, EQUIVALENT HEIGHTS AS DETERMINED BY RAPID STATIC GPS OBSERVATIONS PROCESSED THROUGH NGS'S CORS SITE [WWW.NGS.NGA.MIL/CORS].

30' 0"

0' 0" 30' 0" 60' 0"

NO.	DATE	BY	DESCRIPTION



SCALE: 1" = 100'
 DRAWN BY: L. L. LAMAR
 CHECKED BY: J. BOURGEOIS
 REVISED BY: J. BOURGEOIS
 PROJECT NUMBER: J. BOURGEOIS
 DATE: 05/20/14

PROJECT TITLE
 MOLE RIVER BARGE RECONSTRUCTION PROJECT
 INTERIM DESIGN DRAWINGS
 HARRISON COUNTY, MS

DESIGNED BY
 ALLEN ENGINEERING AND SCIENCE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
 LACKS BY: MISSISSIPPI

PROJECT NO.: 141001
 DRAWING NO.: 001A
 SHEET NO.: 141001-001
 TOTAL SHEETS: 141001-001
 DATE: 05/20/14
 W.S. 1 0

Public and Agency Notification

- Notification of this project appeared in *The Sun Herald* on April 28, May 5, and May 12, 2019.
 - No public comments were received
- MS DEQ: Currently reviewing the project
- MS DAH: Requested a Cultural Resources Survey if any activity affects or contacts the most southern small marsh island that is immediately adjacent to the project area. However, the authorized agent has stated that all activities will take place in the water and no activities will occur on the small marsh island.
- MS DWFP: Recommends BMPs
- MS SOS: Rent exempt lease will be required

Recommendation

- The staff of the Department of Marine Resources has conducted a thorough evaluation of the project and has made findings on the decision factors in accordance with Chapter VIII, Section 2, Part I.E.2. of the Mississippi Coastal Program (MCP). These findings have been provided to the Commissioners. Based on the results of these findings, it has been determined that the project is consistent with the MCP because it:
 - Creates a new site for the disposal of dredged material in accordance with MS Code 49-27-61.
 - Creates approximately 26 acres of habitat that will become part of the Wolf River Coastal Preserve
 - Keeps an estimated 200,000 cubic yards of sediment in the littoral system
- Staff recommends approval of the variance requests and a 10-year Permit contingent on water quality certification from MDEQ

**Request for Permit by:
Mississippi Department of Marine Resources
File: DMR-190224**

- **Location:** Beardslee Lake in Moss Point, Jackson County, MS.
- **Use District:** (P) Preservation Use District
- **Agent:** Allen Engineering and Science and Mississippi Department of Environmental Quality
- **Project Purpose/Need:** To enhance and restore coastal marsh through the placement of suitable dredged material as provided for in MS Code §49-27-61.

Project Description

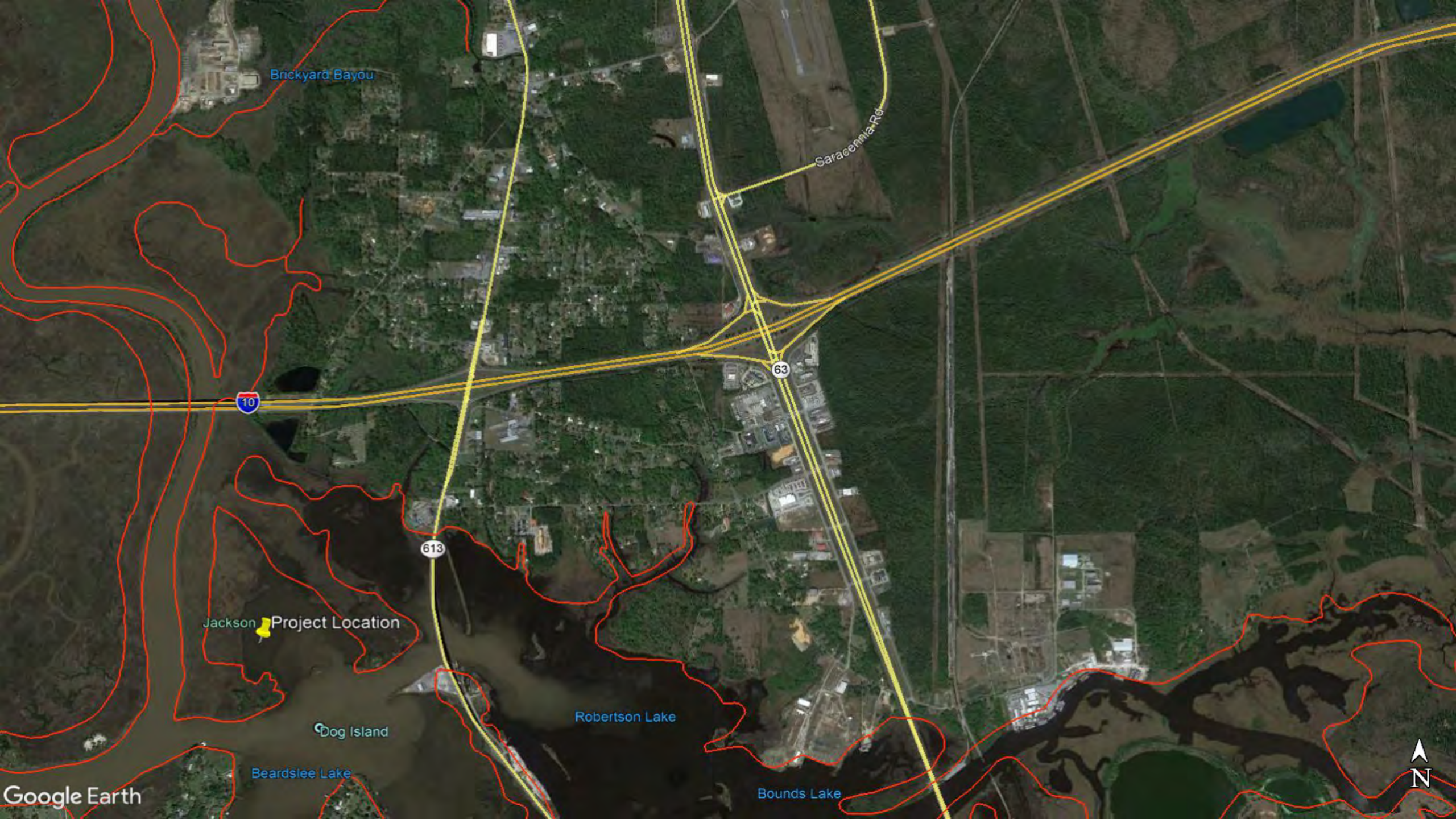
- **Fill:**
 - 18 acres with suitable dredged material
 - 1,200 linear feet of sand berm
 - 280 linear feet of riprap berm
- **Variance from MCP to the Guidelines for Regulated Activities**
 - Ch. VIII, Sect. 2, Part III.O.1.
 - “Permanent filling of coastal wetlands because of potential adverse and cumulative environmental impacts is discouraged.”
- **Variance from Miss. Admin. Code Title 22 Part 23**
 - Ch. VIII, Sect. 114.01
 - “Permanent filling of coastal wetlands below the mean high tide line because of potential adverse and cumulative environmental impacts is not authorized.”
- **Applicant is requesting a 10-year permit**

Project Description

continued

- Variance request MCP justified under Ch. VIII, Sect. 2, Part I.E.2.c.i.
 - “The impacts on Coastal Wetlands would be no worse than if the guidelines were followed.”
 - Replace an area that is currently unvegetated, barren water bottom with 18 acres of productive marsh
- Variance request Title 22 Part 23 justified under Ch. VIII, Sect. 118.01
 - The impacts on coastal wetlands would be no worse than if the requirements were followed.
 - The project will significantly contribute to addressing two of the priority funding outcomes of NFWF:
 1. Restore and maintain the ecological function of landscape-scale coastal habitats, and
 2. Restore and maintain the ecological integrity of priority coastal bays and estuaries.

ENHANCE ★ PROTECT ★ CONSERVE



Brickyard Bayou

Saracenia Rd

10

63

613

Jackson Project Location

Dog Island

Robertson Lake

Beardslee Lake

Bounds Lake

Google Earth





ENHANCE ★ PROTECT ★ CONSERVE

Public and Agency Notification

- Notification of this project appeared in *The Sun Herald* on April 28, May 5, and May 12, 2019.
 - No public comments were received
- MS DEQ: Currently reviewing the project
- MS DAH: No objections
- MS DWFP: Recommends BMPs
- MS SOS: Rent exempt lease will be required

Recommendation

- **The staff of the Department of Marine Resources has conducted a thorough evaluation of the project and has made findings on the decision factors in accordance with Chapter VIII, Section 2, Part I.E.2. of the Mississippi Coastal Program (MCP). These findings have been provided to the Commissioners. Based on the results of these findings, it has been determined that the project is consistent with the MCP because it:**
 - **Creates a new site for the disposal of dredged material in accordance with MS Code 49-27-61.**
 - **Creates approximately 18 acres of habitat that will become part of the Pascagoula/Escatawpa River Coastal Preserve**
 - **Keeps an estimated 200,000-250,000 cubic yards of sediment in the littoral system**
- **Staff recommends approval of the variance requests and a 10-year Permit contingent on water quality certification from MDEQ**

**Request for After-the-Fact Permit by:
CSX Transportation, Inc.
File: DMR-160278**

- **Location:** Bayou Pierre in Gautier, Jackson County, MS.
- **Use District:** (G) General Use District
- **Agent:** Wood Environmental and Infrastructure Solutions, Inc.
- **Project Purpose/Need:** Replace a timber-pile supported bridge with a pre-cast concrete bridge to allow for the safe and efficient transport of:
 - Economic goods
 - Military equipment and supplies
 - Goods and equipment associated with the energy industry

Project Description

- **Fill: 0.049-acre of Coastal Wetlands for work associated with a previously authorized railway bridge replacement project**
- **Mitigation Requirements:**
 - **0.049-acre @ 3:1 ratio = 0.147-acre of mitigation**
 - **2016 project: 0.24-acre excess created**

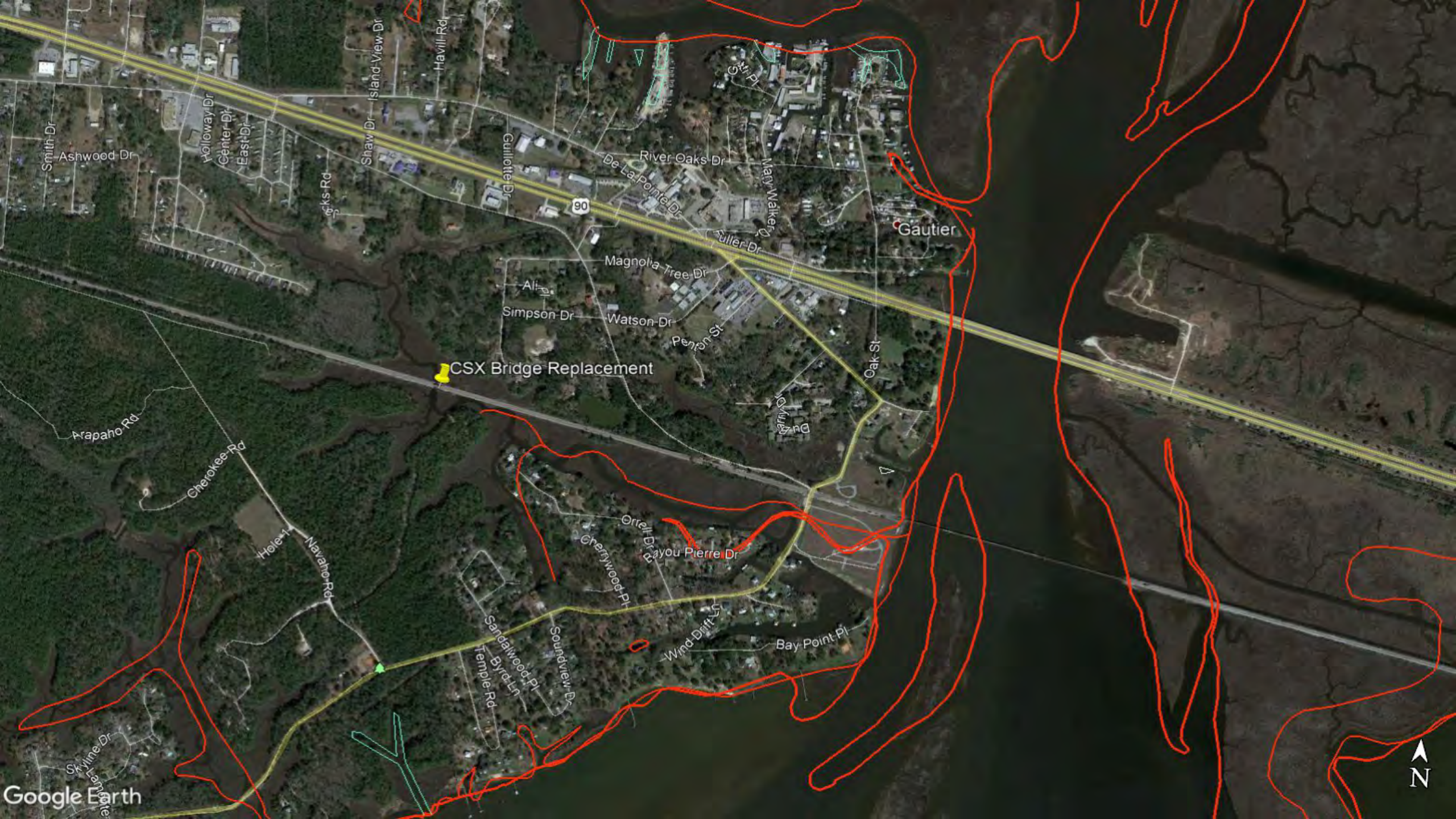
Project Chronology

- **May 3, 2016:** DMR issued a Certificate of Waiver to replace and existing timber pile bridge with a pre-cast concrete bridge
- **April 3, 2018:** DMR issued a Certificate of Waiver Modification to authorize approximately 0.029-acre of temporary tidal marsh impacts for installation of a work/crane pad with all fill to be removed following construction and the site allowed to vegetate to pre-project conditions within 1 year of project completion.
- **October 1, 2018:** Received notification from agent that unauthorized work associated with the project was performed by the applicant which included the filling of an additional 0.02-acre of tidal marsh.

Project Chronology

continued

- **October 2018-February 2019:** Worked with agent and applicant on possible solutions to restore the area or possible mitigation for the unauthorized work.
- **February 15, 2019:** Received application to retain the fill material associated with the bridge replacement project.



CSX Bridge Replacement

Gautier

90

Smith Dr
Ashwood Dr

Holloway Dr
Center Pt
East Dr

Wicks Rd

Shaw Dr
Island View Dr

Havill Rd

Guillette Dr

River Oaks Dr

De La Pointe Dr

Mary Walker Dr

Tuller Dr

Magnolia Tree Dr

Albion Dr

Simpson Dr

Watson Dr

Pearson St

Oak St

Arapaho Rd

Cherokee Rd

Holey Ln

Navaho Rd

Orrell Dr

Cherrywood Pl

Orreayou Pierre Dr

Wind Drift Ln

Bay Point Pl

Sandalwood Pl

Byrd Ln

Soundview Dr

Skylime Dr
Lamarite

Google Earth



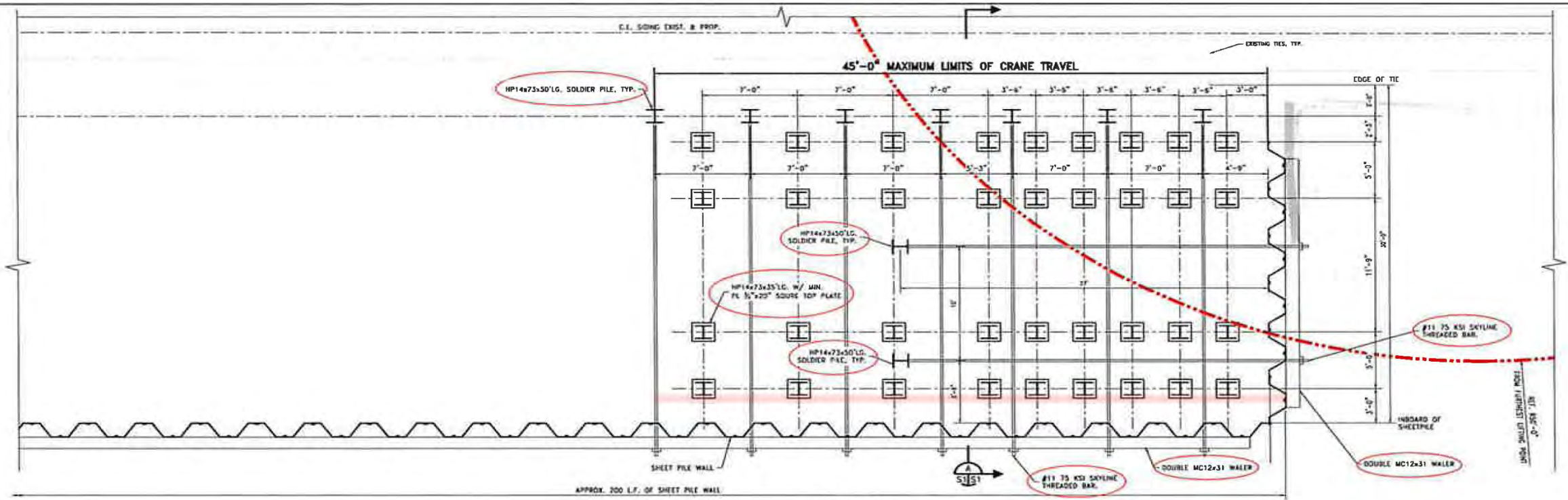




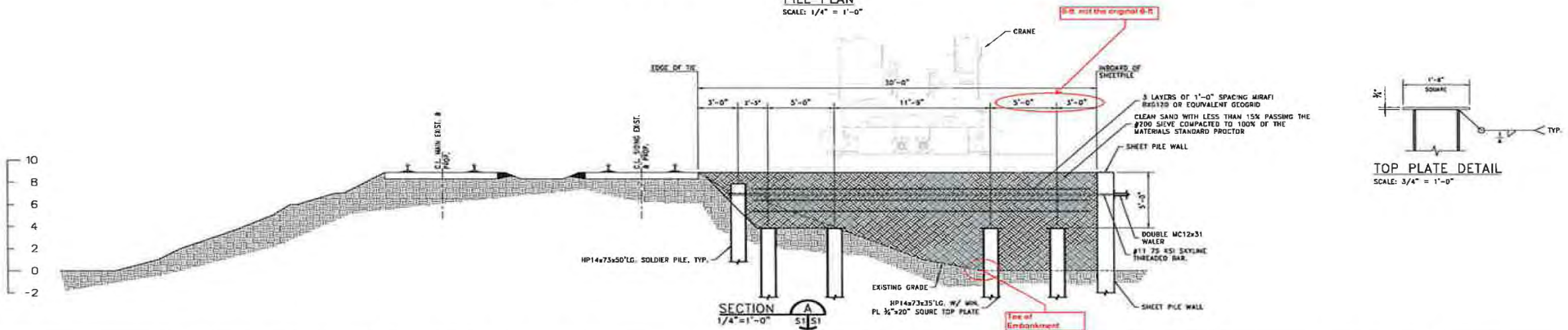
Photograph 3: view of recently backfilled LTP with crawler crane in-place; note additional steel crane mats required to distribute loading; facing east from north side of tracks; photograph taken August 30, 2018.



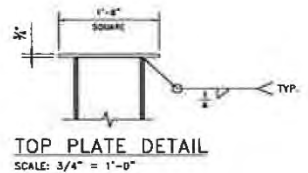
Photograph 4: view of recently backfilled LTP; note access route in background; facing west from north side of tracks; photograph taken August 30, 2018.



PILE PLAN
SCALE: 1/4" = 1'-0"



SECTION
SCALE: 1/4" = 1'-0"



TOP PLATE DETAIL
SCALE: 3/4" = 1'-0"

REV.	DESCRIPTION	DATE	BY	CHK'D
A	ISSUED FOR REVIEW	07/18/18	TAS	GOEC

457 St. Michael St.
Mobile, AL 36602
Phone (251) 433-1611
Fax (251) 433-1411

Cowles, Murphy, Glover & ASSOCIATES
A Full Service Engineering Firm
PERFORMANCE • RELIABILITY • EXPERIENCE

13 Thrash Rd.
LaGrange, GA 30241
Phone (706) 302-2831
Fax (251) 433-1411

**MUPHREE BRIDGE
CRANE SUPPORT**
**GAUTIER,
MISSISSIPPI**

PILE PLAN AND SECTION							
SCALE	NOTED	DESIGN BY	DATE	CHECKED BY	DATE	DRAWING NUMBER	REV.
1/4" = 1'-0"	NOTED	TAS	07/18/18	GOEC	07/18/18	3492-S1	A

Project Description

continued

- **Variances to the Guidelines for Regulated Activities**
 - **MCP Ch. VIII, Sect. 2, Part III.O.1.**
 - **“Permanent filling of coastal wetlands because of adverse and cumulative environmental impacts is discouraged.”**
 - **MCP Ch. VIII, Sect. 2, Part III.O.2.**
 - **“Areas containing submerged vegetation or regularly flooded emergent vegetation shall not be filled.”**
 - **MS Admin. Code Title 22, Part 23, Ch. 8, Sec. 114.01.**
 - **“Permanent filling of coastal wetlands below the MHT line because of adverse and cumulative environmental impacts is not authorized”**
 - **MS Admin. Code Title, 22, Part 23, Ch. 8, Sec. 114.03.**
 - **“Sensitive coastal wetlands shall not be filled.”**

Project Description

continued

- **Each variance request was justified under**
 - **Ch. VIII, Sect. 2, Part I.E.2.c.iv of the MCP.**
 - There is significant public benefit in the activity
 - A public hearing has been held
 - The activity requires a waterfront location
 - **Title 22, Part 23, Ch. 8, Sec. 118.04 of the MS Admin. Code.**
 - There is significant public benefit in the activity
 - A public hearing has been held
 - The activity requires a waterfront location

ENHANCE ★ PROTECT ★ CONSERVE

Public and Agency Notification

- Notification of this project appeared in *The Sun Herald* on March 17, 24, and 31, 2019.
 - No public comments were received
- A public hearing was held on Tuesday, April 9, 2019 at 5:30 p.m. at the Gautier Public Library located in Gautier, Mississippi.
 - No public comments were received
- MS DEQ: No comments
- MS DAH: No objections
- MS SOS: No comments
- MS DWFP: BMPs be properly implemented, monitored, and maintained.

Recommendation

- **The staff of the Department of Marine Resources has conducted a thorough evaluation of the project and has made findings on the decision factors in accordance with Chapter VIII, Section 2, Part I.E.2. of the Mississippi Coastal Program (MCP). These findings have been provided to the Commissioners. Based on the results of these findings, it has been determined that the project serves a higher public purpose by aiding in the safe and efficient transport of goods for the nation's economy, military, and energy industry. Therefore, staff recommends that the Commission approve the requested variances and issue the ATF Permit contingent on WQC from MDEQ.**



ENHANCE ★ PROTECT ★ CONSERVE

Mississippi

Department of Marine Resources

Agency Financial Results

as of April 30, 2019

Commission on Marine Resources

May 21, 2019

Key Metrics:

- State Revenue of \$5M
- Waiting on Appropriations of \$1M from Treasury
- Agency Revenue of \$21.6M
- State Net Income of (\$1M)
- Agency Net Income of \$2.4M

MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

Income Statement - Fiscal Year 2019

As of April 30, 2019

	<u>State</u>	<u>Federal : NFWF:</u>	<u>Operating Subtotal</u>	<u>Tidelands</u>	<u>Total DMR</u>
Revenue:					
Transfer in from Other Governments	-	37,837	37,837	10,000,000	10,037,837
Off-road Fuel Tax	3,050,000	-	3,050,000	-	3,050,000
Federal/NonFederal Grants	3,200	5,637,550	5,640,750	-	5,640,750
Sales Revenue	730,719	1,026	731,745	2,045	733,789
Indirect Cost Recovery	735,149	-	735,149	-	735,149
Other Revenue	578,799	519,402	1,098,201	345,243	1,443,444
Current Budget Year Revenue:	5,097,868	6,195,814	11,293,681	10,347,288	21,640,969
Expenditures:					
Salaries, Wages, Fringe	4,443,984	1,927,344	6,371,328	863,464	7,234,792
Travel	29,691	40,928	70,619	31,426	102,045
Contractual Services	648,002	1,196,486	1,844,489	606,548	2,451,037
Commodities	271,378	1,449,113	1,720,491	140,516	1,861,007
Other than Equipment	-	-	-	-	-
Equipment	352,801	212,714	565,515	34,629	600,145
Vehicles	-	101,000	101,000	-	101,000
Wireless Devices	351	433	785	274	1,058
Subsidies, Loans, and Grants	382,876	1,659,034	2,041,911	4,752,183	6,794,094
Current Budget Year Expenditures:	6,129,084	6,587,053	12,716,137	6,429,041	19,145,178
Current Budget Year Net Income/(Loss):	\$ (1,031,217)	\$ (391,239)	\$ (1,422,455)	\$ 3,918,247	\$ 2,495,791

Financial Budget Comparison

- After ten months of Fiscal Year 2019:

MISSISSIPPI DEPARTMENT OF MARINE RESOURCES
2019 Budget Comparison
As of April 30, 2019

	<i>Actual Year to Date Expenditures</i>			<i>Budget Year Totals</i>			<i>Percent Remaining</i>		
	Operating	Tidelands	Total	Operating	Tidelands	Total	Operating	Tidelands	Total
Expenditures:									
Salaries, Wages, Fringe	\$ 6,371,328	\$ 863,464	\$ 7,234,792	\$ 10,937,659	\$ 1,012,526	\$ 11,950,185	41.7%	14.7%	39.5%
Travel	70,619	31,426	102,045	325,487	35,000	360,487	78.3%	10.2%	71.7%
Contractual Services	1,844,489	606,548	2,451,037	9,602,848	1,622,590	11,225,438	80.8%	62.6%	78.2%
Commodities	1,720,491	140,516	1,861,007	3,380,674	450,000	3,830,674	49.1%	68.8%	51.4%
Equipment	565,515	34,629	600,145	1,359,408	225,000	1,584,408	58.4%	84.6%	62.1%
Vehicles	101,000	-	101,000	170,000	-	170,000	40.6%	0.0%	0.0%
Wireless Devices	785	274	1,058	6,250	500	6,750	87.4%	0.0%	84.3%
Subsidies, Loans, and Grants	2,041,911	4,752,183	6,794,094	18,180,150	11,325,308	29,505,458	88.8%	58.0%	77.0%
Total Expenditures:	\$ 12,716,137	\$ 6,429,041	\$ 19,145,178	\$ 44,032,561	\$ 14,670,924	\$ 58,703,485	71.1%	56.2%	67.4%

- Operating Funds have 71.1% of Budget remaining
- Tidelands Trust Fund has 56.2% of Budget remaining



ENHANCE ★ PROTECT ★ CONSERVE

CMR Requested Information on Implementing Additional Fishing Records

Jon Barr
May 21, 2019

K.1.

Background

- In the April 2019 CMR meeting, the following motion was made:
 - **Motion:** For staff come back at the May Commission meeting with information on implementing additional fishing records
- This presentation will provide potential options for the CMR's consideration.

Current Official Mississippi State Record Categories

- Standard Record Categories
 - Saltwater conventional
 - Saltwater Fly Fishing
- Additional Record Categories (Adopted in 2018)
 - Youth (Under 16) Conventional
 - Youth (Under 16) Fly Fishing

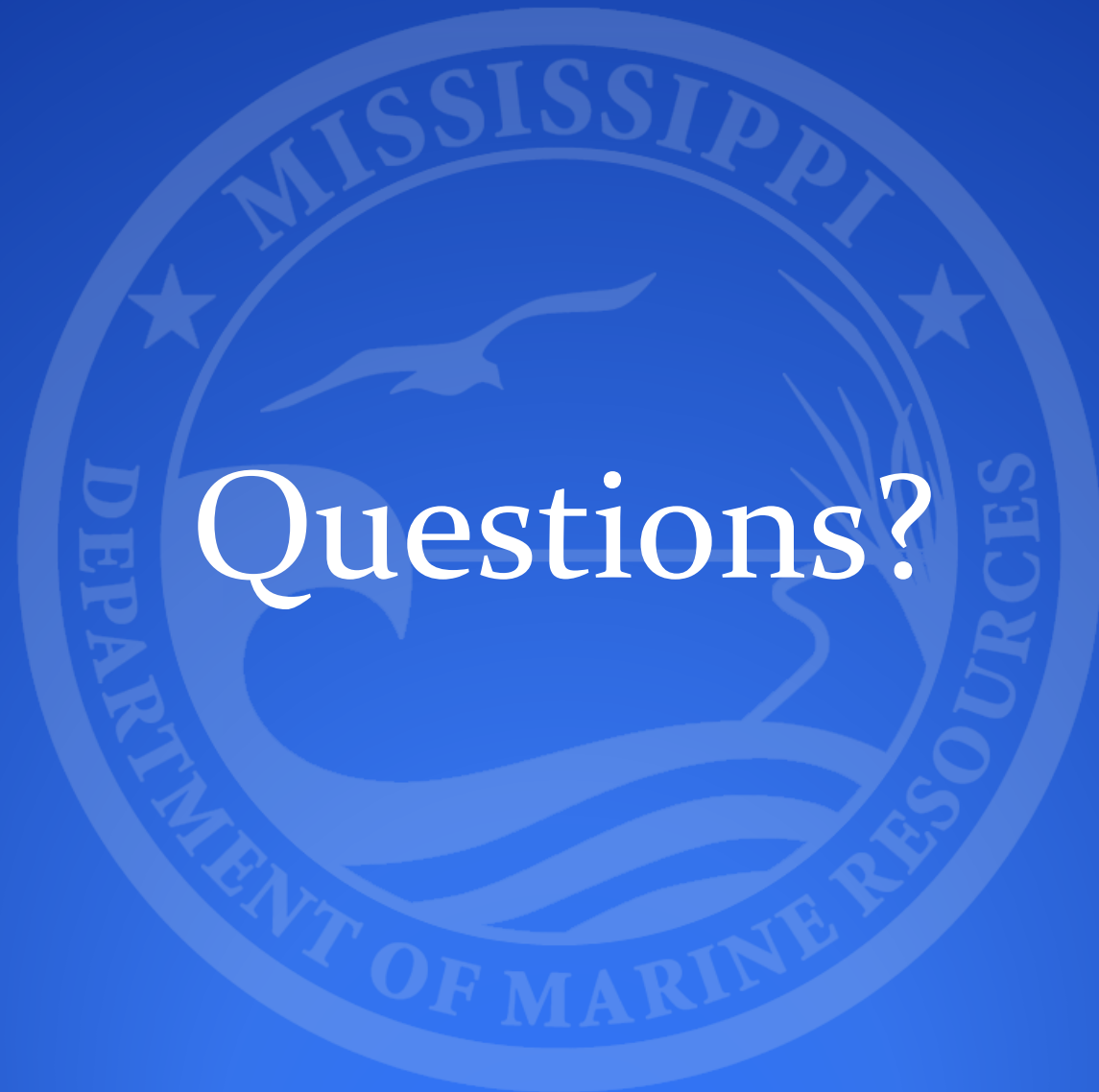
Current Official Record Categories from other State Agencies

State	Conventional Tackle	Fly Fishing	Other Methods
FL	Yes	Yes	No
AL	Yes	No	No
MS	Yes	Yes	No
LA	Yes	Yes	No
TX	Yes	Yes	Yes*

*Texas (TPWD) has a miscellaneous category called “Other Methods” which includes Electric reels, Spear gun, Handline, Gig, and Trotline for which they certify heaviest fish.

Options for Additional State Fishing Record Categories

- Status quo (Conventional Tackle and Fly Fishing)
- Conventional Tackle and All Tackle (All legal methods of take: would encompass Fly Fishing category)
- Conventional Tackle, Fly Fishing, and All Tackle (All legal methods of take)
- Other options as identified by the CMR



Questions?

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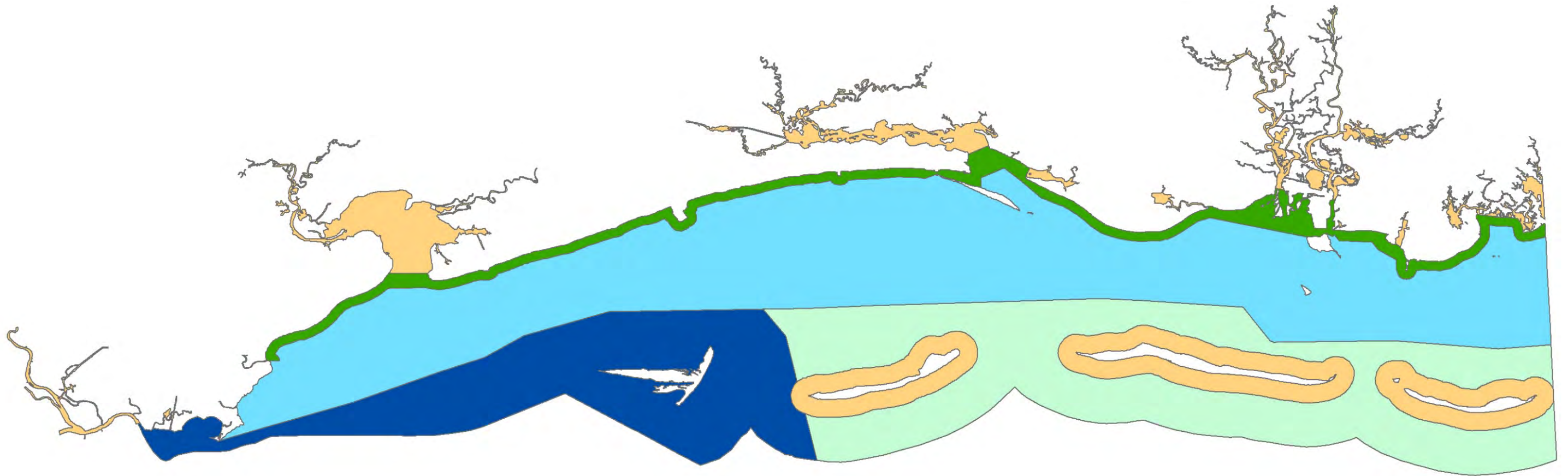


ENHANCE ★ PROTECT ★ CONSERVE

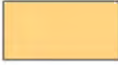




2019 Mississippi Shrimp Season Update

Jason Saucier

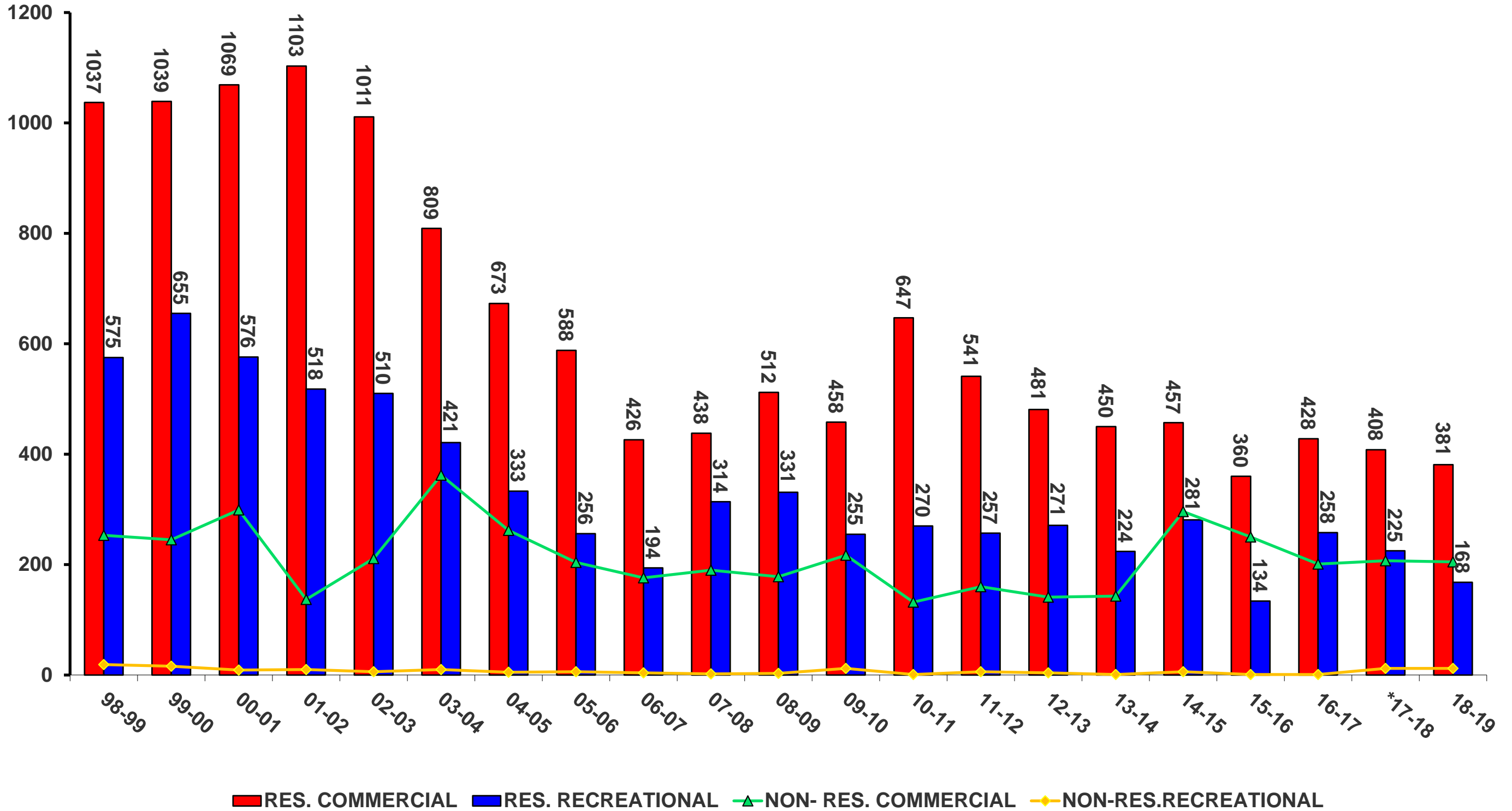
May 21, 2019



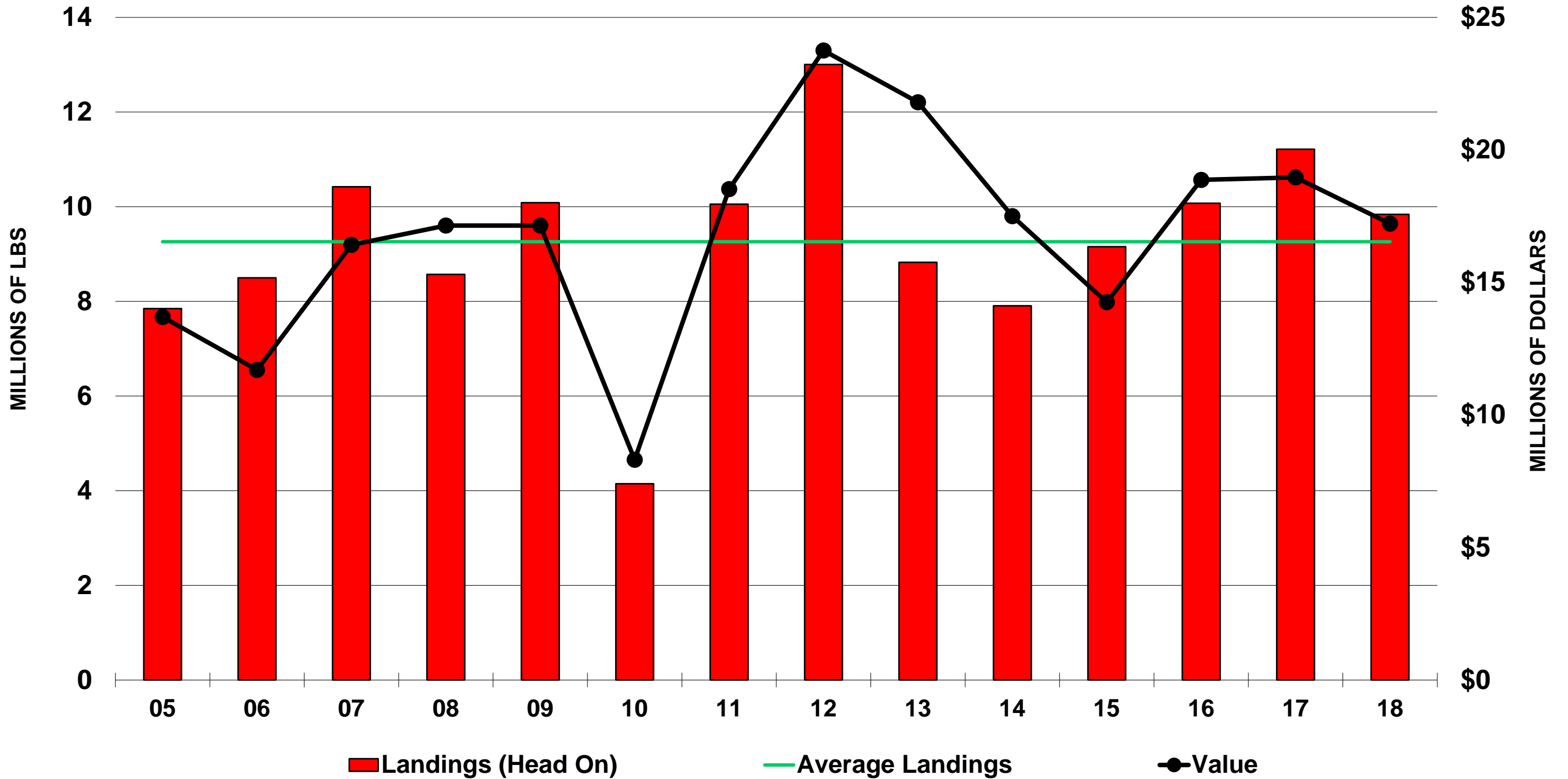
ENHANCE ★ PROTECT ★ CONSERVE

-  Closed to all shrimping, inland and within 1 mile of the Gulf Islands National Seashore Shoreline
-  Open to commercial & recreational shrimping on a seasonal basis until April 30
-  Open to commercial & recreational shrimping on a seasonal basis until December 31
-  Open to live bait shrimping ONLY, within 1/2 mile of the shoreline
-  Open to commercial & recreational shrimping year round

Mississippi Shrimp Licenses Sold



MISSISSIPPI SHRIMP LANDINGS AND VALUE (ALL SPECIES COMBINED)



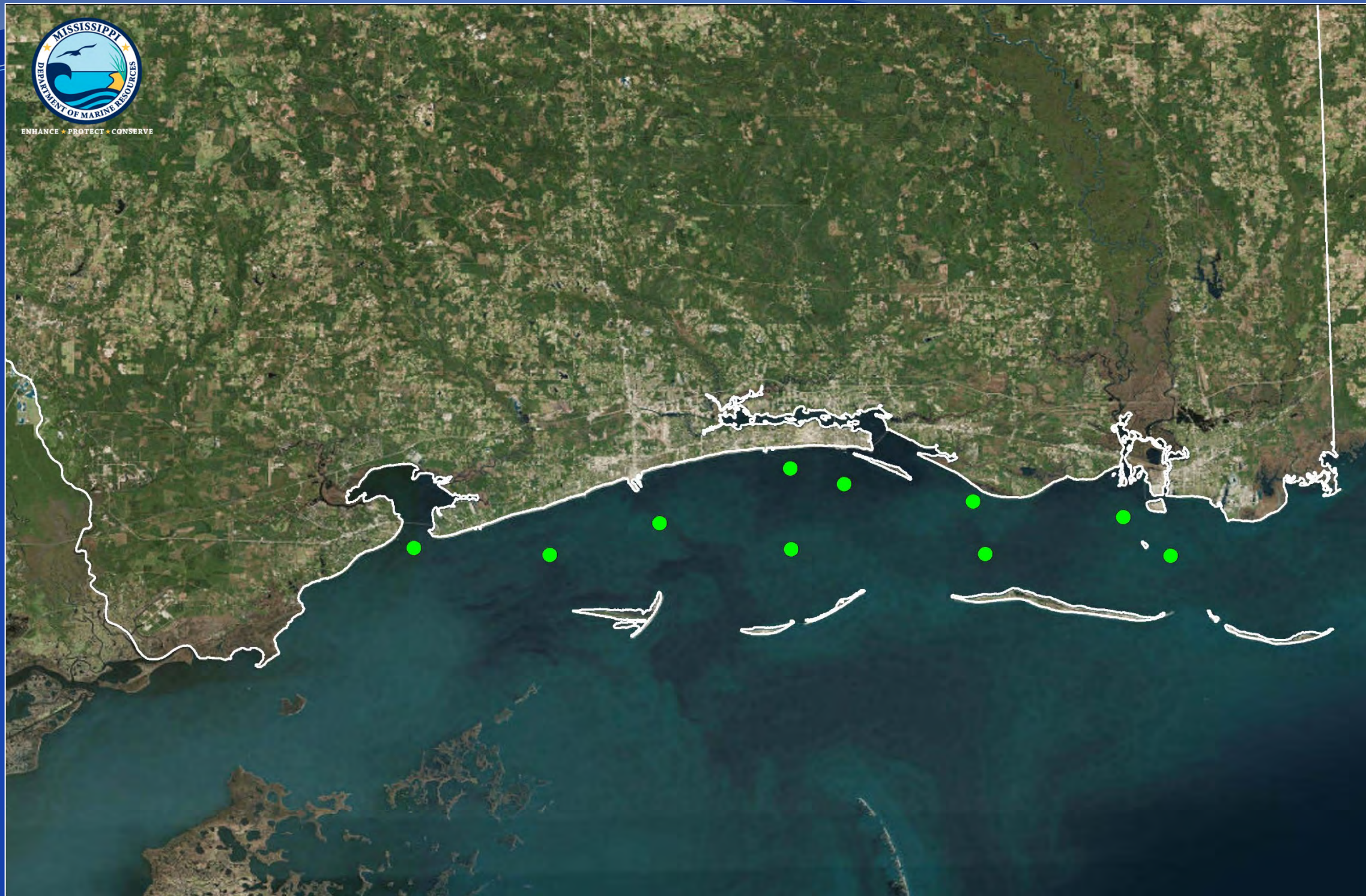
Mississippi Shrimp Season Opening Sampling

- **Post larval sampling (begins February)**
 - Standardized beam plankton trawl sampling at historical stations
- **April – June juvenile/adult sampling**
 - Standardized 16 foot trawl sampling at historical stations
 - Chart the growth of Brown Shrimp from juveniles to adults
 - Season opens when Brown Shrimp reach legal size of 68 count



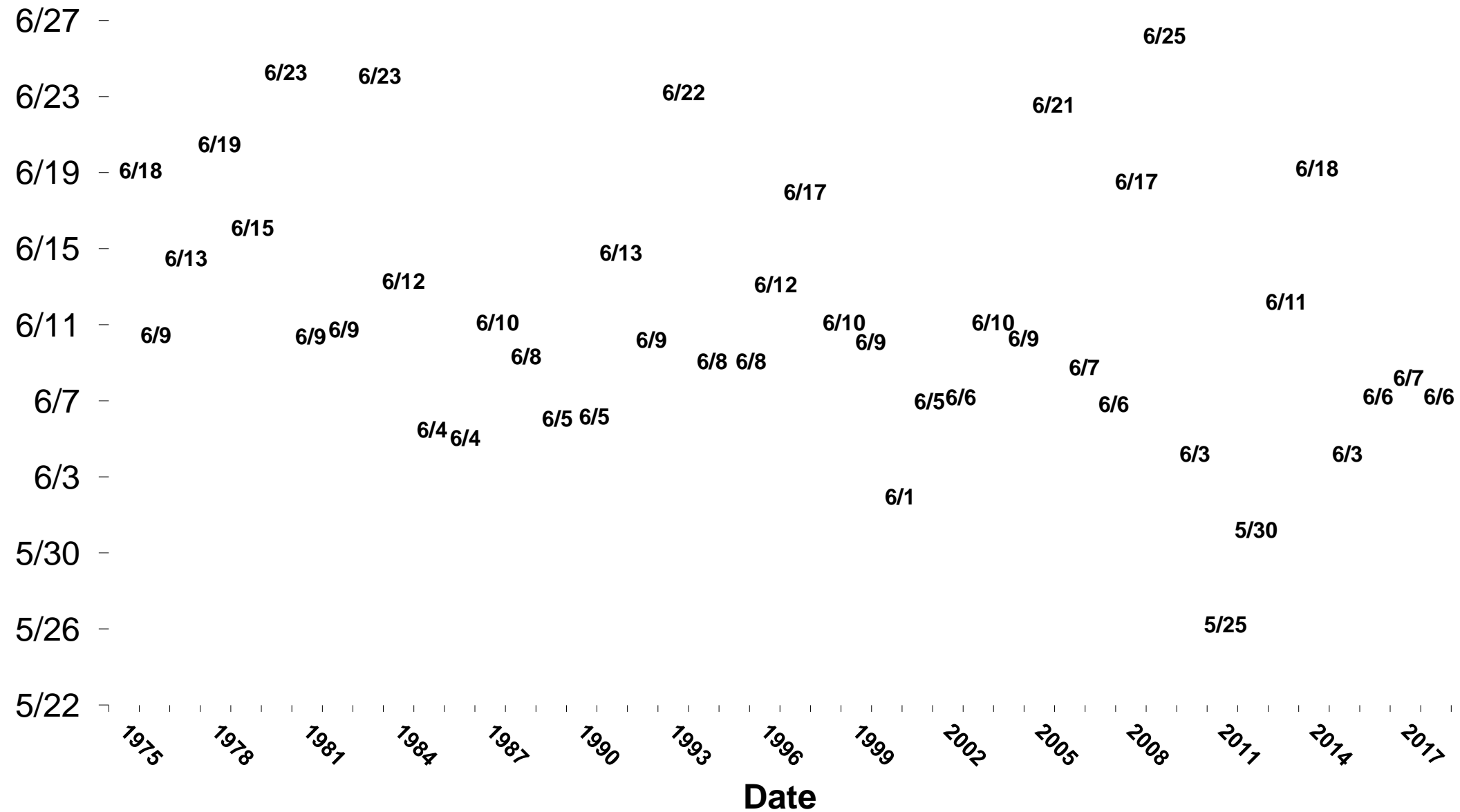


ENHANCE * PROTECT * CONSERVE

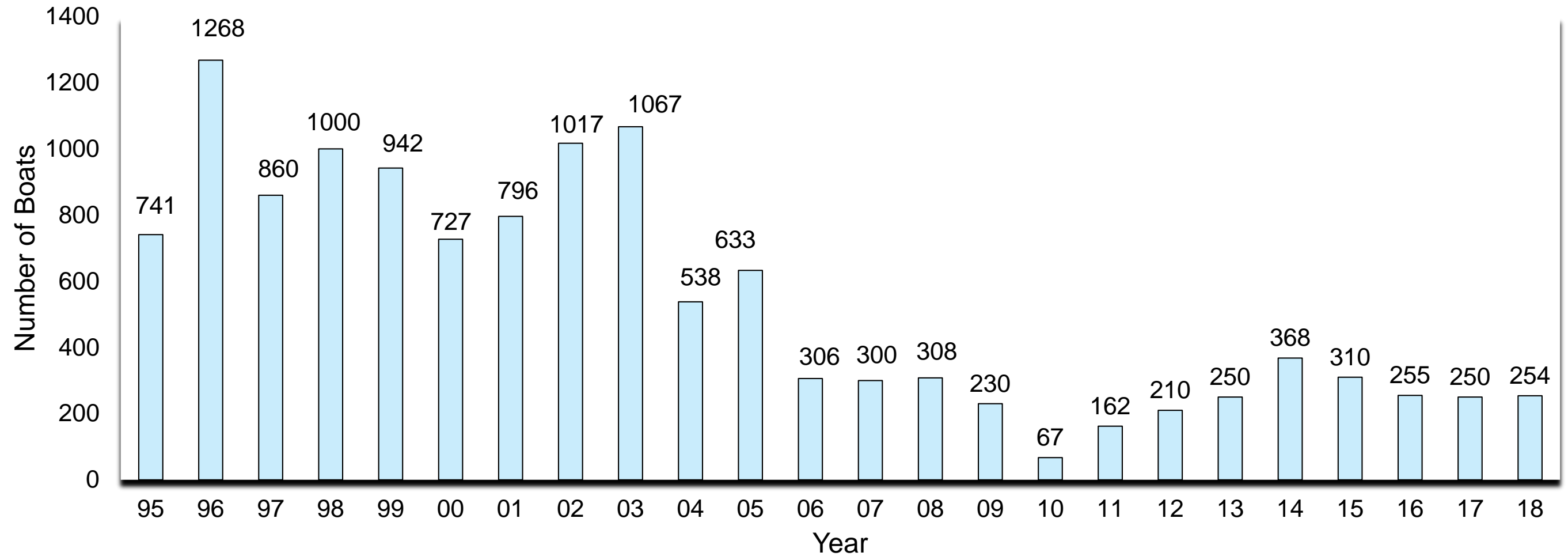


ENHANCE ★ PROTECT ★ CONSERVE

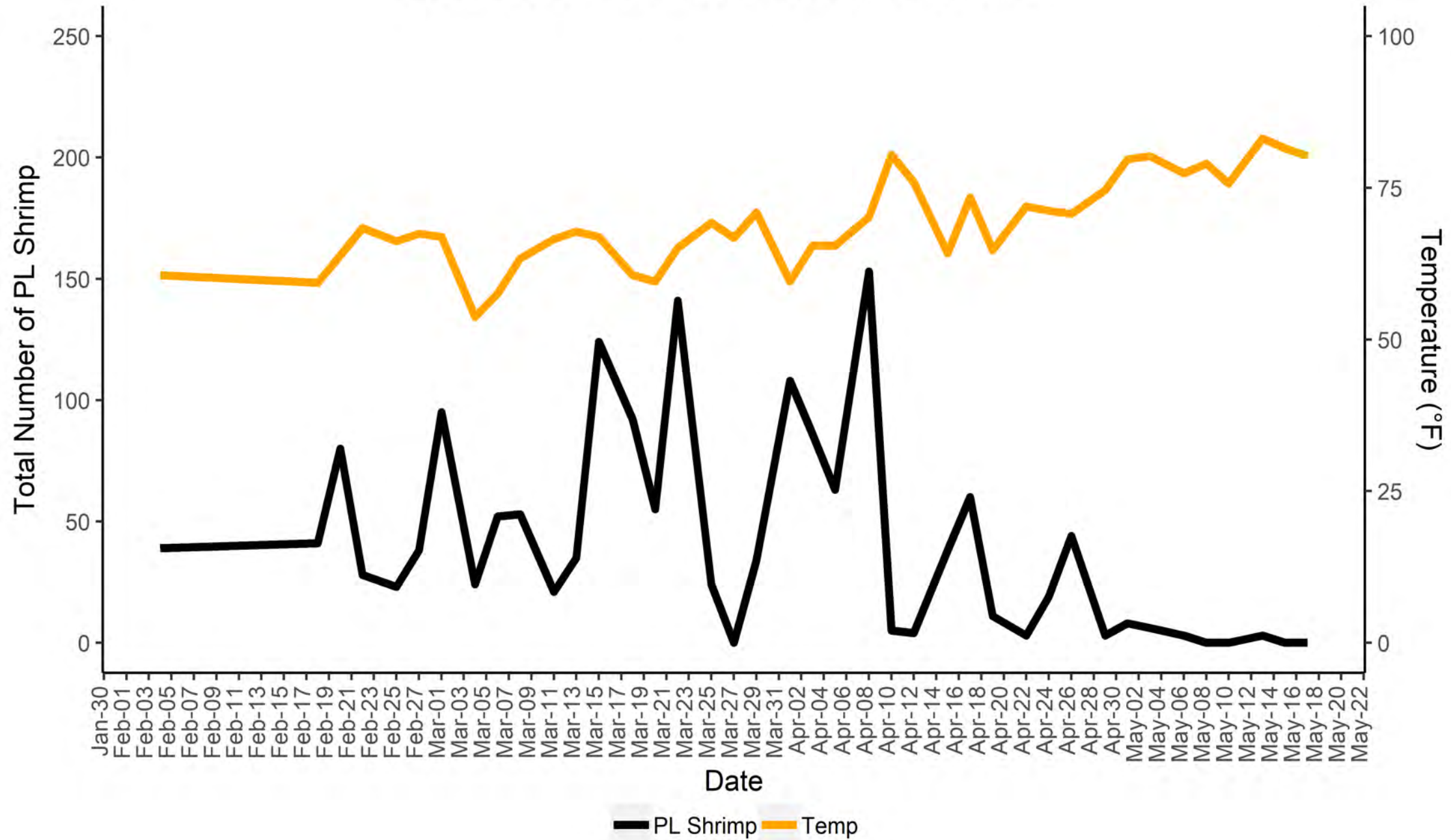
Historic Opening Dates of Mississippi Shrimp Season



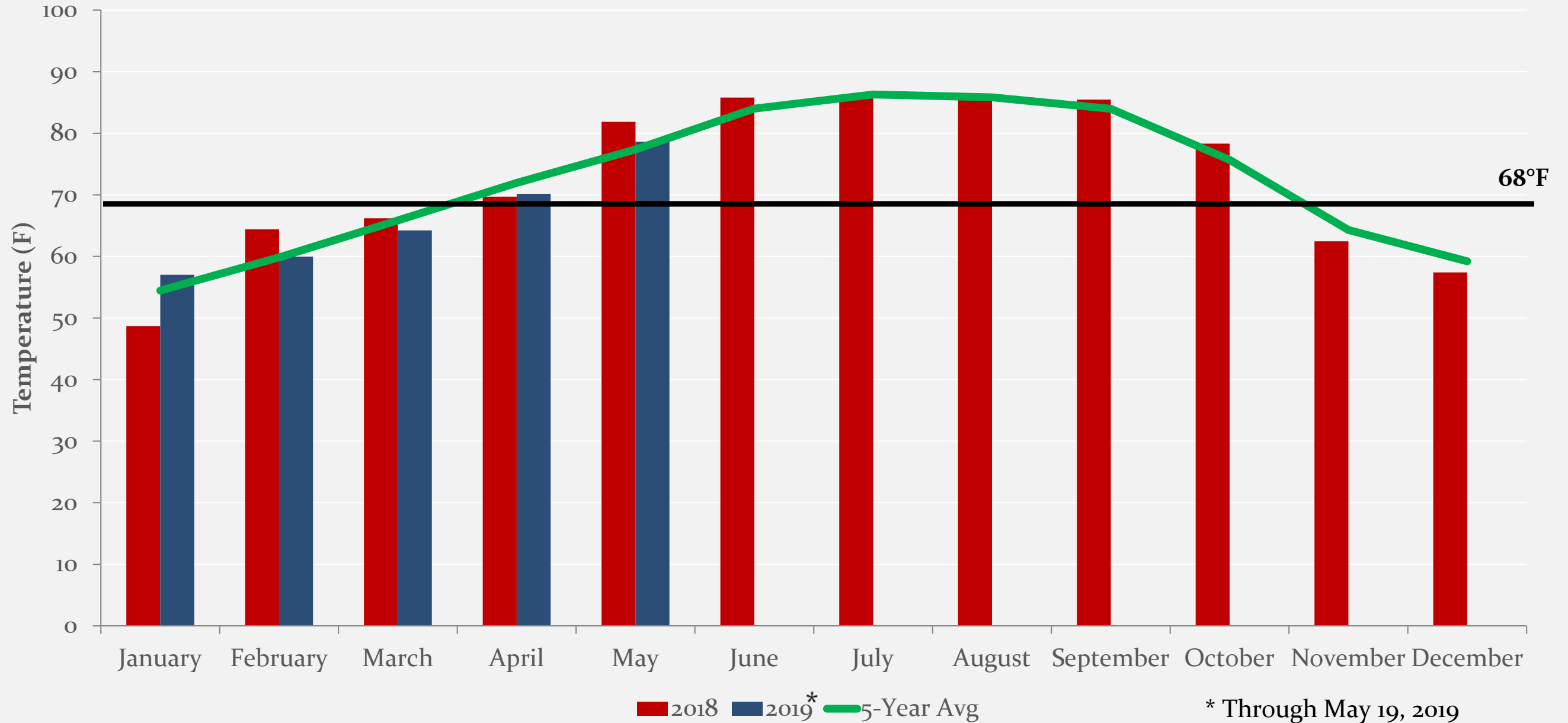
Number of Shrimp Vessels Counted on Opening Day



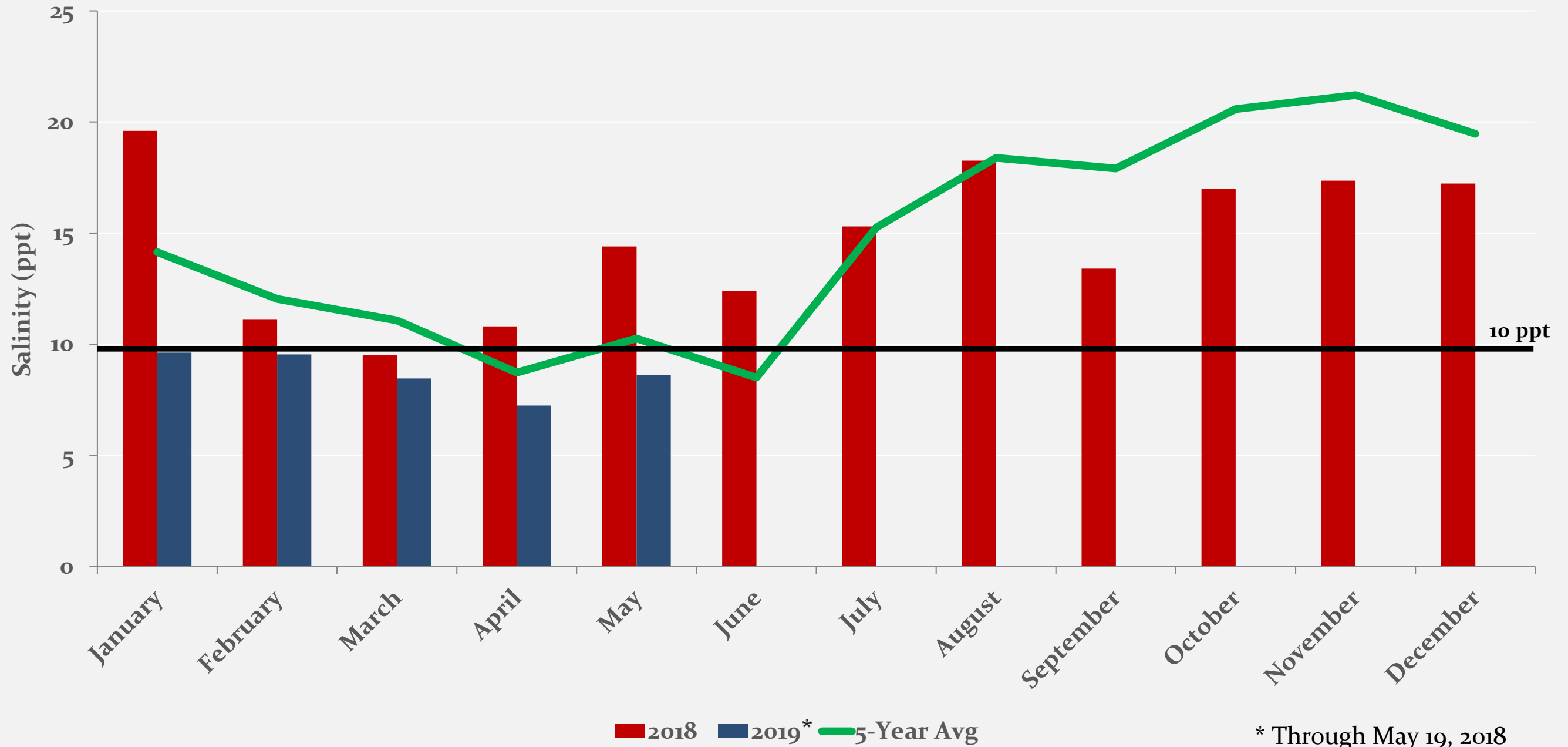
2019 Post Larval Brown Shrimp Abundance



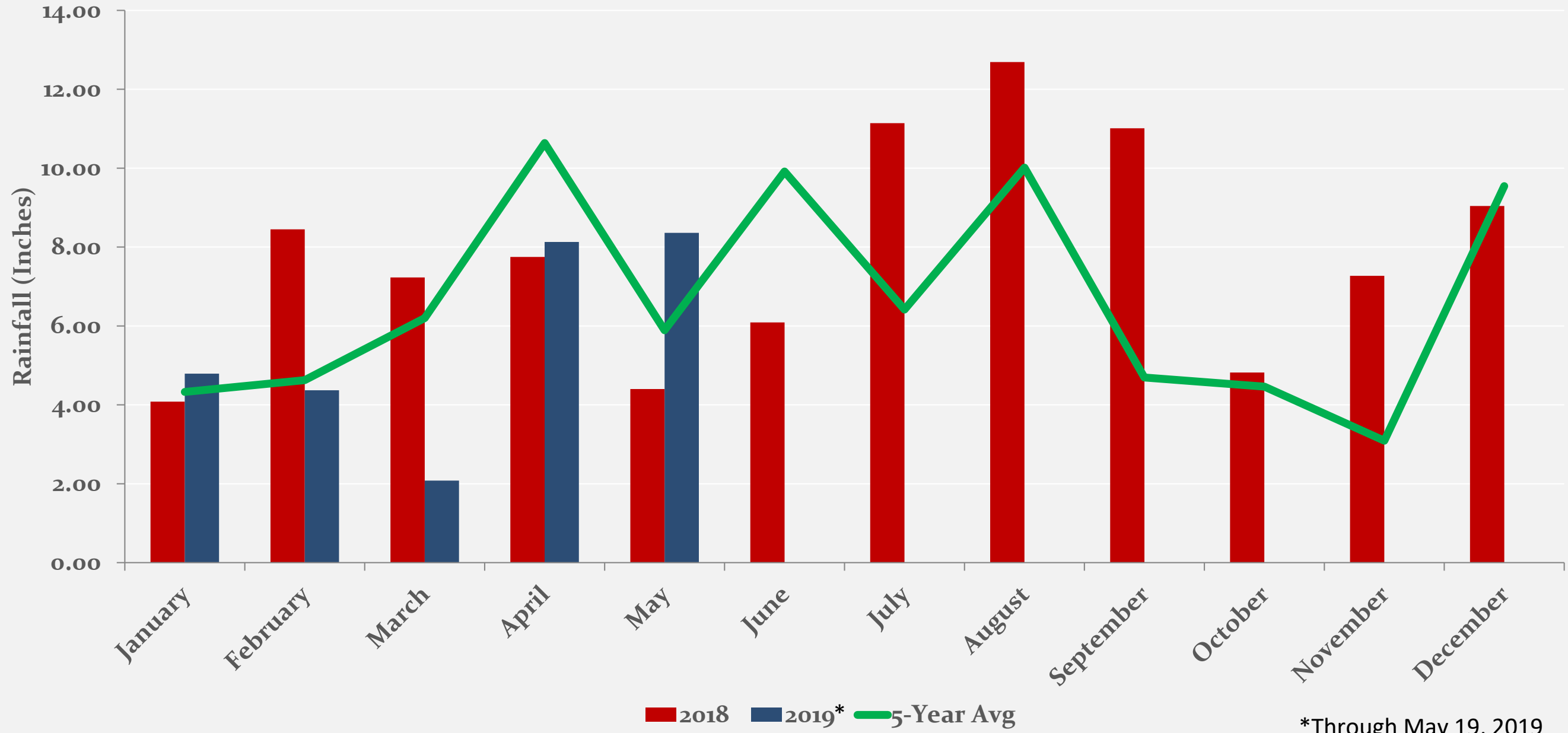
Biloxi Bay Water Temperature



Biloxi Bay Salinity



Localized Rainfall (Biloxi)



*Through May 19, 2019

Shrimp Samples - May 20, 2019



Station 2 - Round Island



Station 5 - South of Deer Island

Shrimp Samples - May 20, 2019



Station 3 - Biloxi Bay



Station 4 - North of Horn Island

2019-2020 Mississippi Shrimp Season Opening

Required: Motion to give authority to the Executive Director to open the 2019 shrimp season when sampling shows Brown Shrimp have reached the average of 68 count per pound as required by state statute (§49-15-64.1).



ENHANCE ★ PROTECT ★ CONSERVE

Bonnet Carré Spillway Update

Joe Jewell

May 21, 2019

K.3.

Louisiana Mississippi River Control Structures



Analysis of Openings

Historical Context

- Became operational in 1931
- Been opened every decade except in 1960's
- First time in history the structure has been opened two consecutive years (2018-19).
- First time in history the structure has been opened twice in one year (2019 February & May).
- First 2019 opening duration FEB 27 – April 11 (43 days)
- Second 2019 opening duration May – Pending
- 2008-present, open average of every 2.4 years
- Opened 3 of last 4 years
- 2011 Fisheries Failure declared
- 2016 & 2018 no major impacts to fisheries
- Duration and water temperatures major factors
- Initial monitoring analysis indicates impacts; however, data is still being processed.

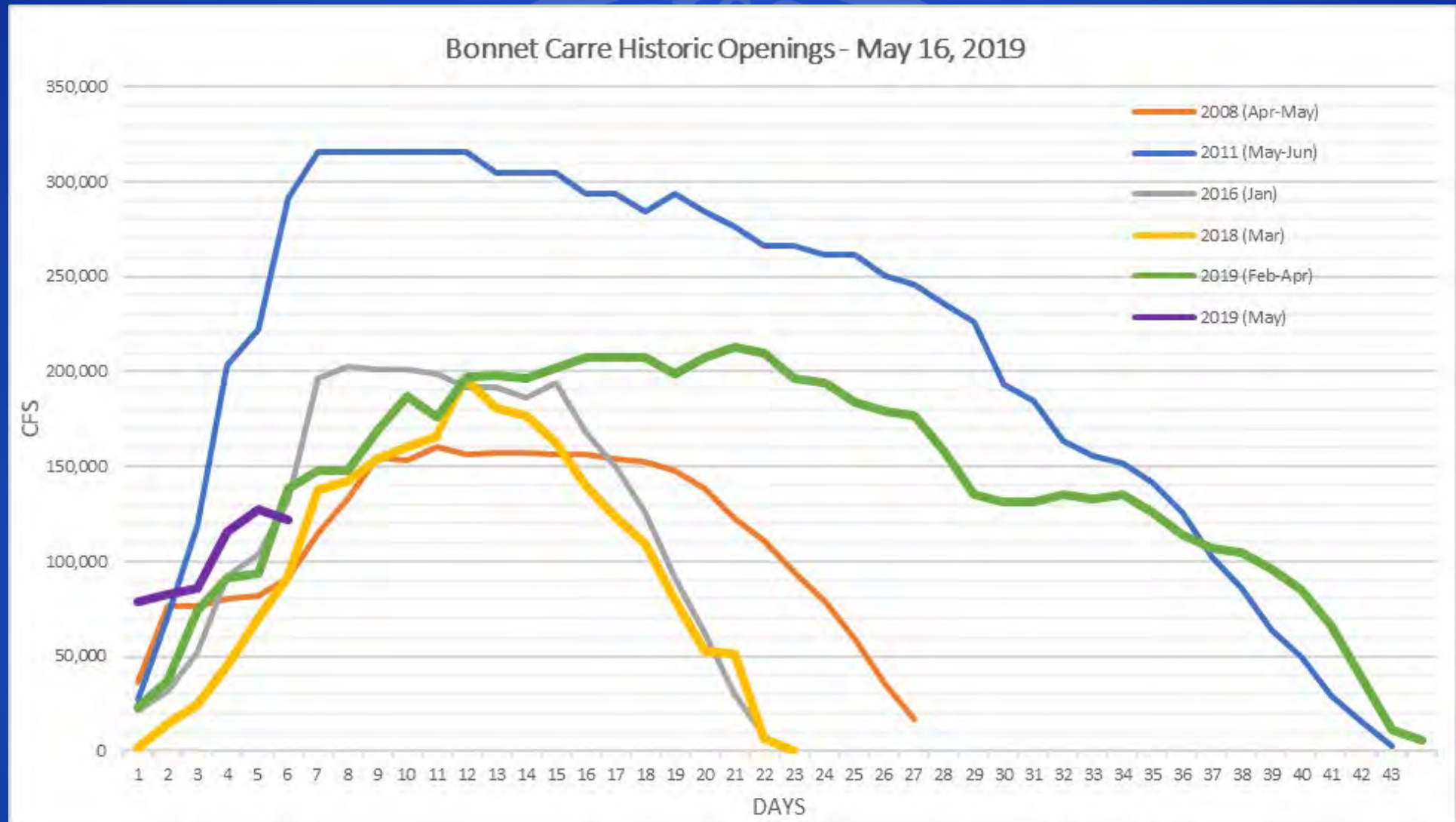
Day	Date	Bays Opened	Total Opened	Discharge
1	10-May	60	60	79,000 cfs
2	11-May	10	70	83,000 cfs
3	12-May	0	70	86,000 cfs
4	13-May	58	128	116,000 cfs
5	14-May	10	138	127,000 cfs
6	16-May	0	138	122,000 cfs
7	17-May	0	138	124,000 cfs
8	18-May	0	138	127,000 cfs
9	19-May	10	148	142,000 cfs
10	20-May	0	148	148,000 cfs

Second Opening: May 9, 2019 – Current

No. of Openings	Year	Days	Bays Opened	Ideal Flow Capacity
				(Cu ft/s)
1	1937	48	285	203,571 cu ft/s
2	1945	57	350	250,000 cu ft/s
3	1950	38	350	250,000 cu ft/s
4	1973	75	350	250,000 cu ft/s
5	1975	13	225	160,714 cu ft/s
6	1979	45	350	250,000 cu ft/s
7	1983	35	350	250,000 cu ft/s
8	1997	31	298	212,857 cu ft/s
9	2008	31	160	114,286 cu ft/s
10	2011	42	330	235,714 cu ft/s
11	2016	22	210	203,000 cu ft/s
12	2018	30	186	196,000 cu ft/s
13	2019	43	206	213,000 cu ft/s
14	2019	12	84	86,000 cu ft/s

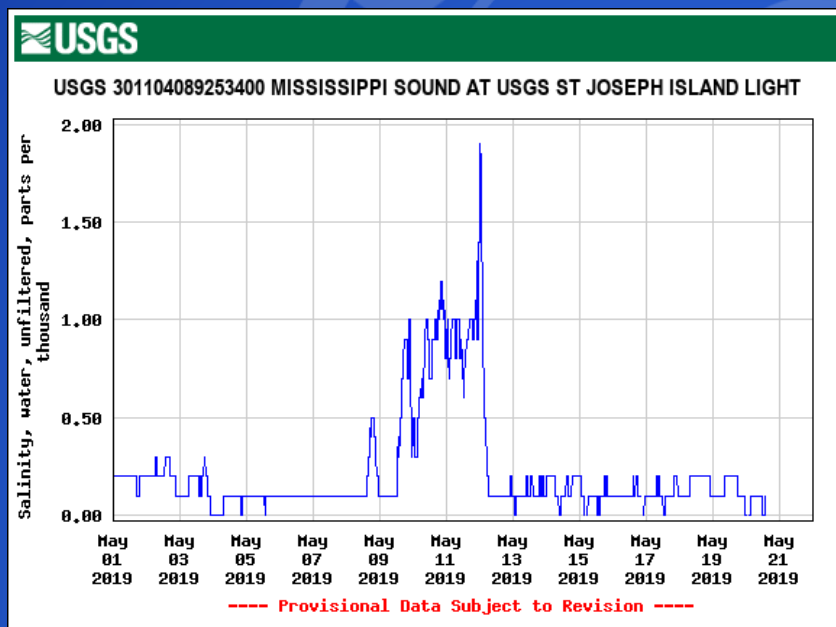
First Opening: FEB 27 – APR 11, 2019

Bonnet Carré Spillway Gates and Flow Rate Update

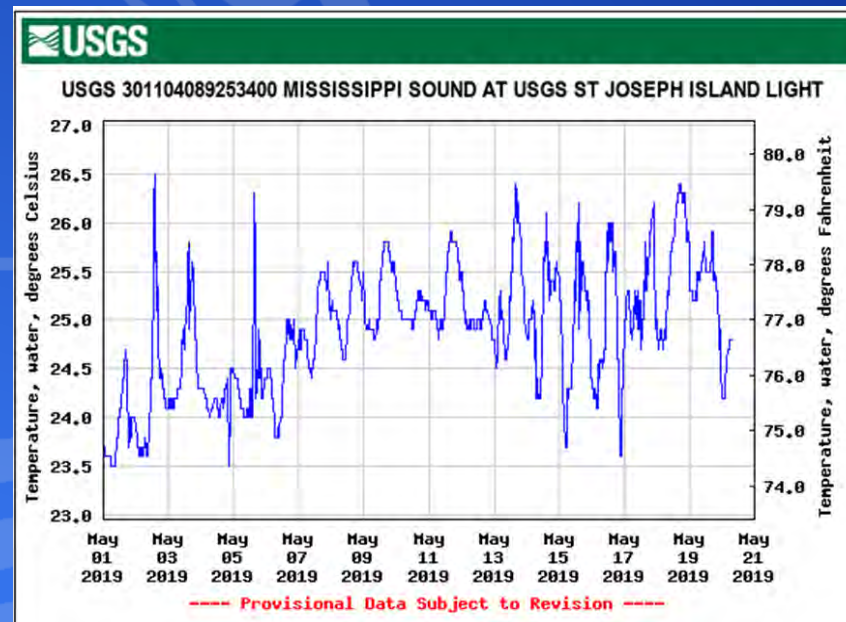


MDMR/USGS Gauge at St. Joe, MS

Second Opening



Salinity



Temperature

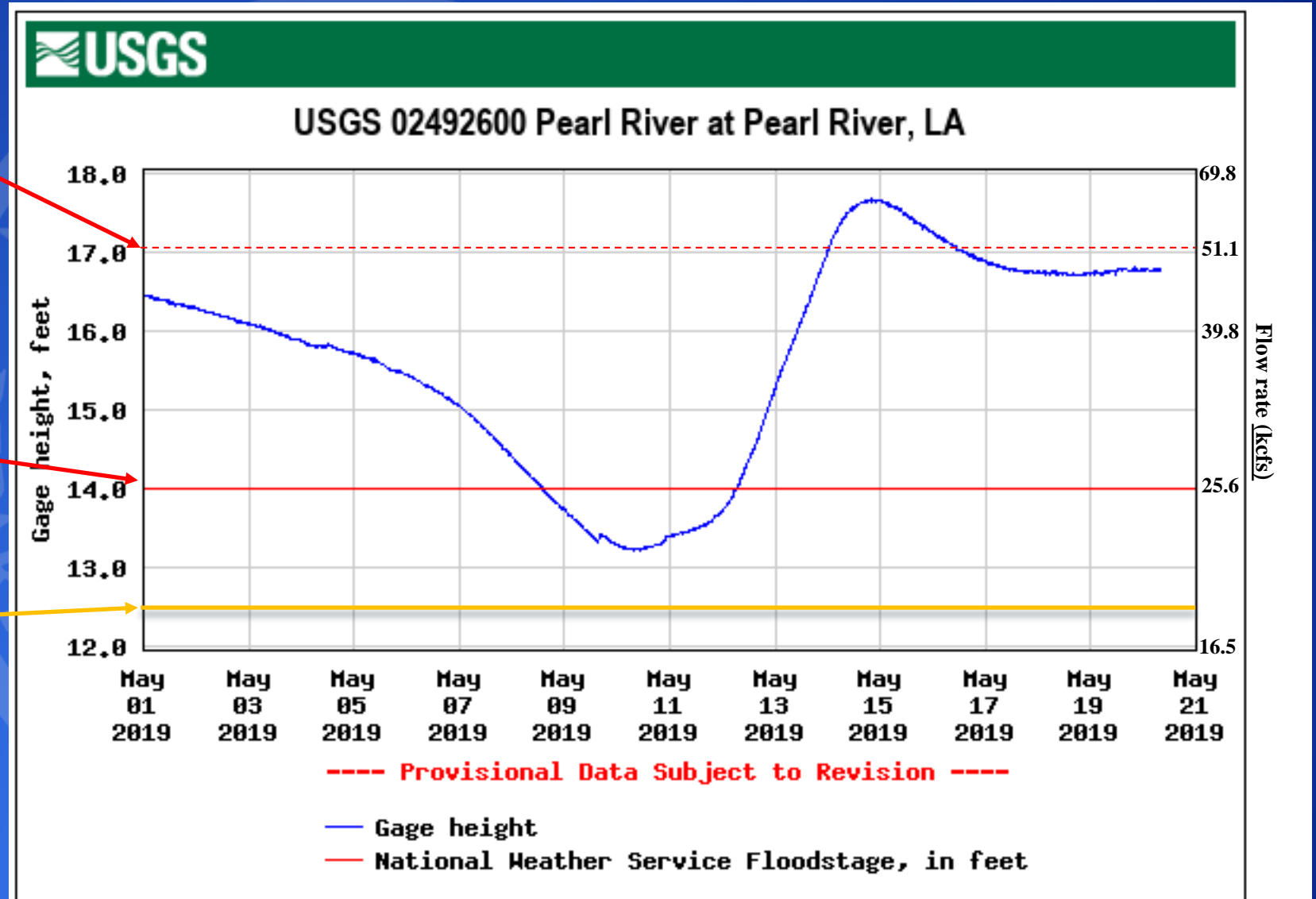
Effects of Pearl River

Above 17 ft flood stage is >50,000 cfs

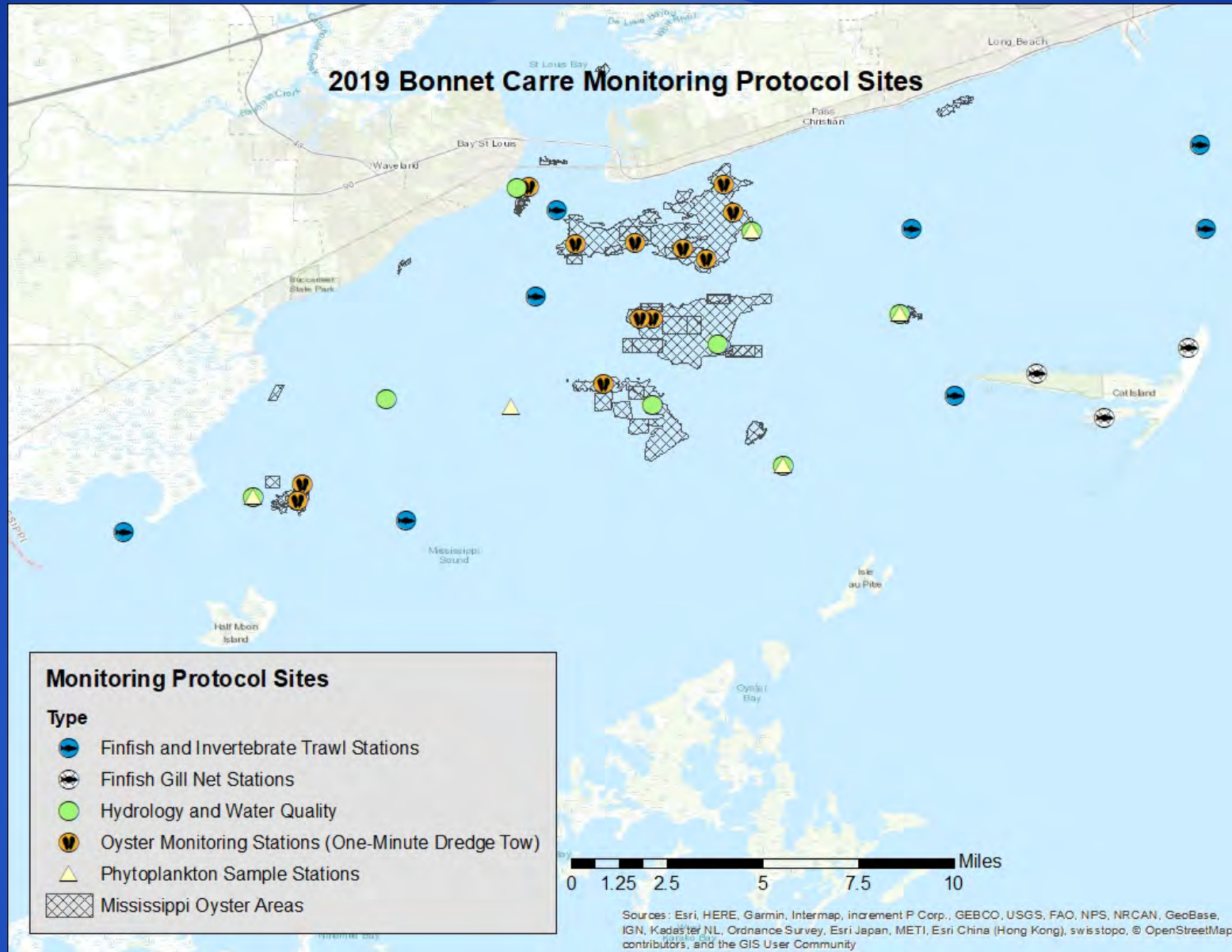
Flood stage of Pearl River

Closing criteria for ALL reefs

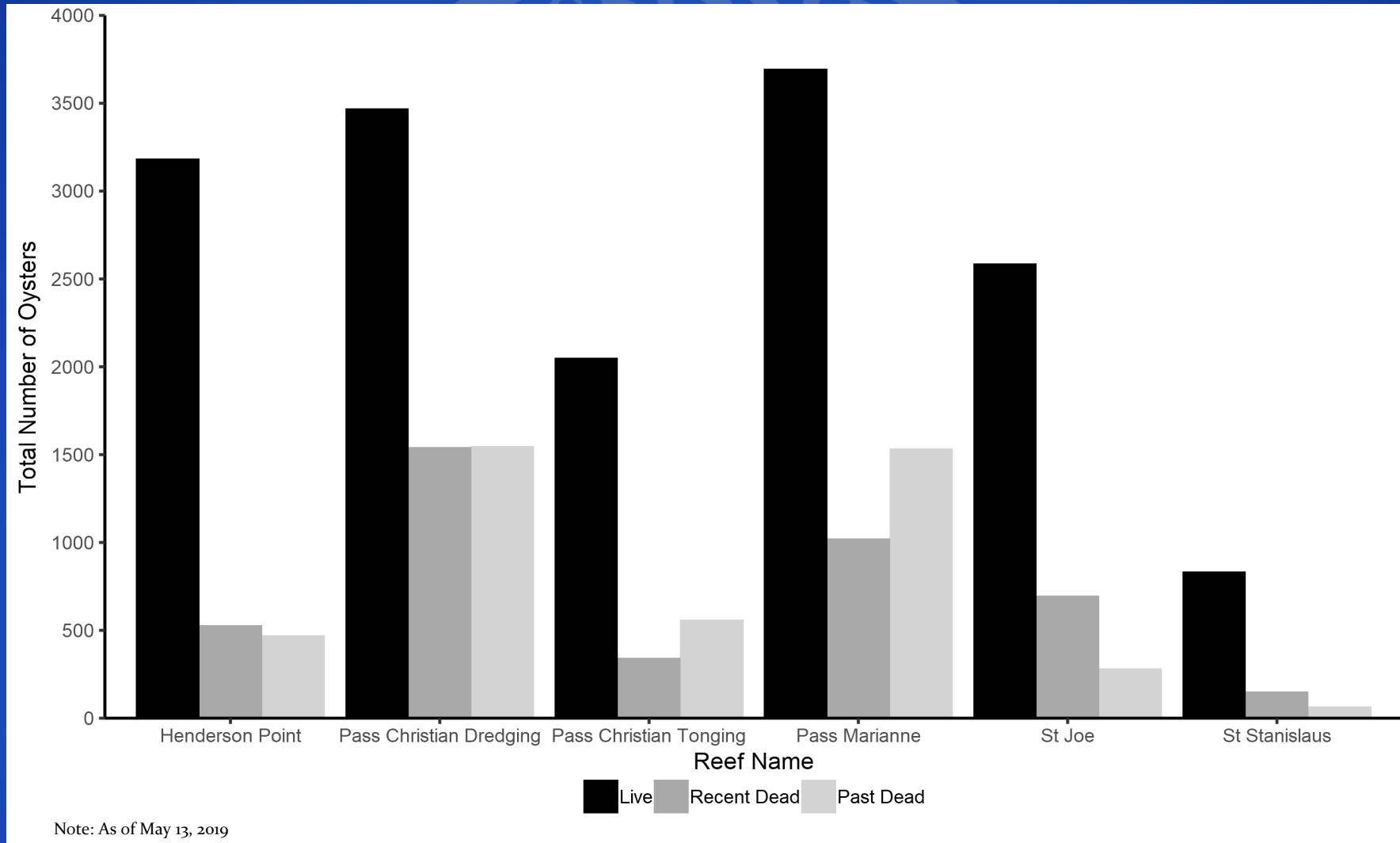
Closing criteria for inshore areas= 10 feet river stage
IIA, IIB, IID, IIE and IB



MDMR Bonne Carre Monitoring Stations



MDMR Shellfish Pre-liminary Sample Data



MODIS Satellite Imagery

March 6, 2019



First Opening: FEB 27 – APR 11, 2019

March 20, 2019



ENHANCE ★ PROTECT ★ CONSERVE

MODIS Satellite Imagery

April 11, 2019



First Opening: FEB 27 – APR 11, 2019

ENHANCE ★ PROTECT ★ CONSERVE

May 6, 2019

MODIS Satellite Imagery

May 13, 2019

Second Opening: May 9, 2019 – Current

The background features a large, faint seal of the Mississippi Department of Marine Resources. The seal is circular and contains the text "MISSISSIPPI" at the top and "DEPARTMENT OF MARINE RESOURCES" at the bottom. In the center of the seal is a stylized illustration of a bird in flight over waves.

QUESTIONS?

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