



ENHANCE ★ PROTECT ★ CONSERVE

Commission on Marine Resources November Meeting

November 27, 2018

The background of the entire image is a light gray gradient. It is decorated with numerous realistic water droplets of various sizes. Some droplets are large and prominent, while others are small and subtle. They are scattered across the frame, with a higher concentration in the top-left and bottom-right corners, and a few in the center. Each droplet has a soft highlight and a gentle shadow, giving them a three-dimensional appearance.

HAUL SEINE NETS IN MISSISSIPPI WATERS

2018

**2010 MISSISSIPPI CODE
TITLE 49 - CONSERVATION AND ECOLOGY
CHAPTER 15 - SEAFOOD.**

**49-15-78 - PROHIBITION AGAINST USING GILL NET, TRAMMEL NET, ENTANGLEMENT NET, OR LIKE CONTRIVANCE WITHIN A CERTAIN
DISTANCE OF THE SHORELINE; PUNISHMENT.**

**§ 49-15-78. PROHIBITION AGAINST USING GILL NET, TRAMMEL NET, ENTANGLEMENT NET, OR LIKE CONTRIVANCE WITHIN A CERTAIN
DISTANCE OF THE SHORELINE; PUNISHMENT.**

- (1) IT IS UNLAWFUL FOR A PERSON TO USE A GILL NET, TRAMMEL NET, ENTANGLEMENT NET, OR LIKE CONTRIVANCES FOR THE TAKING OF
FISH IN MARINE WATERS WITHIN ONE-HALF (1 /2) MILE OF THE SHORELINE.
- (2) A VIOLATION OF THIS SECTION IS PUNISHABLE BY THE PENALTIES PROVIDED IN SECTION 49-15-100, MISSISSIPPI CODE OF 1972.

**SHOULD THE CURRENT GEAR TYPE CALLED A “HAUL SEINE” BE
CONSIDERED A LIKE CONTRIVANCE?**



There has been a lot of controversy surrounding the use of “haul seine” nets.

It is believed that these nets are being constructed and used as a like contrivance of a gill or entanglement net.



The background of the slide is a light gray gradient. It is decorated with numerous realistic water droplets of various sizes. Some droplets are large and prominent, while others are small and subtle. They are scattered across the slide, with a higher concentration in the top-left and bottom-right corners, and a few smaller ones near the center text.

**PHOTOS WE HAVE RECEIVED
PERTAINING TO HAUL SEINES**





This fish was caught at Cat Island during the spring commercial trout season.





“LIKE” CONTRIVANCE

A CLEVER DEVICE OR OBJECT THAT HAS BEEN INVENTED FOR A PARTICULAR PURPOSE



**DEPARTMENT OF MARINE RESOURCES MARINE PATROL REPORT
TO THE COMMISSION ON MARINE RESOURCES
NOVEMBER 27, 2018**

OYSTER VIOLATION CITATIONS

Possession of Illegal Oysters- 1

Total- 1

FY 19 YTD: 1

FY 18 YTD: 7

Courtesy Citations-0

Verbal Warnings-0

SHRIMP VIOLATION CITATIONS

Shrimping within half mile of shore- 1

Operation a Commercial Shrimping Vessel without Navigation Lights- 1

Total-2

FY 19 YTD: 2

FY 18 YTD: 1

Courtesy Citations-0

Verbal Warnings-0

CRAB VIOLATION CITATIONS

Over the limit Crab Traps- 1

Improperly Marked Crab Traps- 1

Failure to Register Crab Float- 1

Total- 3

FY 19 YTD: 18

FY 18 YTD: 17

Courtesy Citations- 1

Verbal Warnings-0

LIVE BAIT VIOLATION CITATIONS

Total-0

FY 19 YTD: 0

FY 18 YTD: 0

Courtesy Citations-0

Verbal Warnings-0

NET FISHING VIOLATION CITATIONS

Total-0

FY 19 YTD: 0

FY 18 YTD: 1

Courtesy Citations-0

Verbal Warnings-0

Page 2

MISCELLANEOUS COMMERCIAL SEAFOOD VIOLATION CITATIONS

No Commercial Seafood Dealer's License- 2

No Seafood Dealer's License- 1

No Fresh Product Permit- 1

Failure to complete Trip Tickets- 1

Total- 5

FY 19 YTD: 41

FY 18 YTD: 19

Courtesy Citations- 0

Verbal Warnings-0

FISHING VIOLATION CITATIONS

No Saltwater Fishing License- 23

No Non-Resident Saltwater Fishing License- 5

Possession of Undersized Red Drum- 7

Possession of Undersized Gray Snapper- 1

Possession of Undersized Flounder- 1

Possession of Undersized Spotted Sea Trout- 4

Possession of Undersized Gray Trigger Fish- 1

Possession of Gray Trigger Fish during closed Season- 1

Failure to Register with Tails n Scales- 2

Total- 45

FY 19 YTD: 139

FY 18 YTD: 205

Courtesy Citations- 9

Verbal Warnings-0

BOAT AND WATER SAFETY VIOLATION CITATIONS

Insufficient PFD's- 7

No Flare Kit- 1

Improper Registration- 1

No Fire Extinguisher- 1

Reckless Operation- 2

Negligent Operation- 3

Total- 15

FY 19 YTD: 83

FY 18 YTD: 93

Courtesy Citations- 10

Verbal Warnings- 0

MARINE LITTER VIOLATION CITATIONS

Marine Litter- 2

No Marine Litter Sticker- 1

Total-3

FY 19 YTD: 4

FY 18 YTD: 2

Courtesy Citations-0

Page 3

WETLANDS VIOLATION CITATIONS

Total- 0

FY 19 YTD: 2

FY 18 YTD: 0

Courtesy Citations-0

Verbal Warnings-0

MISCELLANEOUS VIOLATION CITATIONS

Sale of game bird, animals or fish- 1

Misc.- 6

Total- 7

FY 19 YTD: 26

FY 18 YTD: 12

Courtesy Citations- 0

Verbal Warnings-0

TOTAL VIOLATIONS CITED: 81

FY 19 YTD: 314

FY 18 YTD: 358

TOTAL COURTESY CITATIONS:

Fishing- 9

Boat and Water Safety- 10

Crab- 1

Misc.- 2

Total- 22

TOTAL VERBAL WARNINGS:

Misc.- 2

Total- 2

TOTAL COURTESY CITATIONS/VERBAL WARNINGS:

(2 verbal/ 22 courtesy citations)

Total- 24

FY 19 YTD: 71

FY 18 YTD: 117

TOTAL STOPS: 1879

FY 19 YTD: 9381

FY 18 YTD: 12421

INCIDENT REPORTS FOR OCTOBER 2018:

BOATING ACCIDENTS WITHOUT INJURIES: 2

There were two boating accidents during the month of October without injuries. The first incident occurred when a commercial shrimping vessel sank south of White Ave in Biloxi. The second incident occurred near Deer Island when a recreational vessel capsized.

Total Accidents- 2

FY 19 YTD: 13

FY 18 YTD: 16

TOTAL WATER INCIDENTS: 1

There was one incident during the month of October when an individual drowned while swimming behind the Arbor Landing Apartments in Biloxi.

FY 19 YTD: 1

FY 18 YTD: 1

TOTAL FATALITIES (Boating and Non-Boating): 1

FY 19 YTD: 1

FY 18 YTD: 2

DIVE ACTIVITY:

Marine Patrol dive team responded to two different calls for assistance during the month of October. The first being the drowning at Arbor Landing Apartments in Biloxi. The team did not conduct a dive, but they did utilize multiple sonar units to assist in locating the victim. The second dive call was a vehicle accident in which the vehicle left the roadway and submerged with one occupant inside. This happened on Wade Vancleave Rd in Jackson county. Three dives were conducted to assist with the recovery of the vehicle and victim.

The Dive Team has continued training on the kongsburg 360 sonar this month. Also, Officer Shay Smith conducted his open water and advanced open water dives. Officer Smith has one more deep dive to conduct to finish his certifications for dive team. He will be certified in Open water, advanced open water, underwater navigation, deep diver, boat diver, and rescue diver.

ASSISTS WITH PUBLIC SAFETY CONCERNS:

Assists to Another Agency- **9**
Traffic accident without Injury- **2**
Shrimping without Navigation Lights- **1**
Suicidal Individual- **1**
Assist to Swimmers- **1**
Sinking Vessel- **3**
Assist to Boaters in Distress/Tow-Ins- **3**
Hazard to Navigation- **4**
Vessel Fire- **1**
Vessel Aground- **1**
Alligator in Public Area- **1**
Dead Dolphin- **2**
Injured Dolphin- **1**
Reckless Boaters- **1**
Medical Emergency- **2**
Vessel Afloat- **3**
Total- 36
FY 19 YTD: 199
FY 17 YTD: 207

MISCELLANEOUS COMPLAINTS/REPORTS:

Assist to Motorist- **1**
Illegal Waste Dumping- **1**
Injured Bird- **4**
Injured Sea Turtle- **1**
Debris in the Water- **2**
Lost/ Stolen Property- **1**
Oil/ Diesel Spill- **1**
Missing Vessel- **2**
Illegal Gill Net- **1**
Derelict Vessel- **1**
Abandoned Vessel - **1**
Littering- **1**
Boaters Trespassing- **1**
Commercial Net Boat in Restricted Area- **1**
Harassment by Fishermen- **1**
Vehicle Blocking Launch- **1**
Wetlands Violation- **2**
Illegal Fishing Activity- **6**
Manatee Sighting- **1**
Total- 30
FY 19 YTD: 141
FY 18 YTD: 195





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Seagrasses (Cat Island)

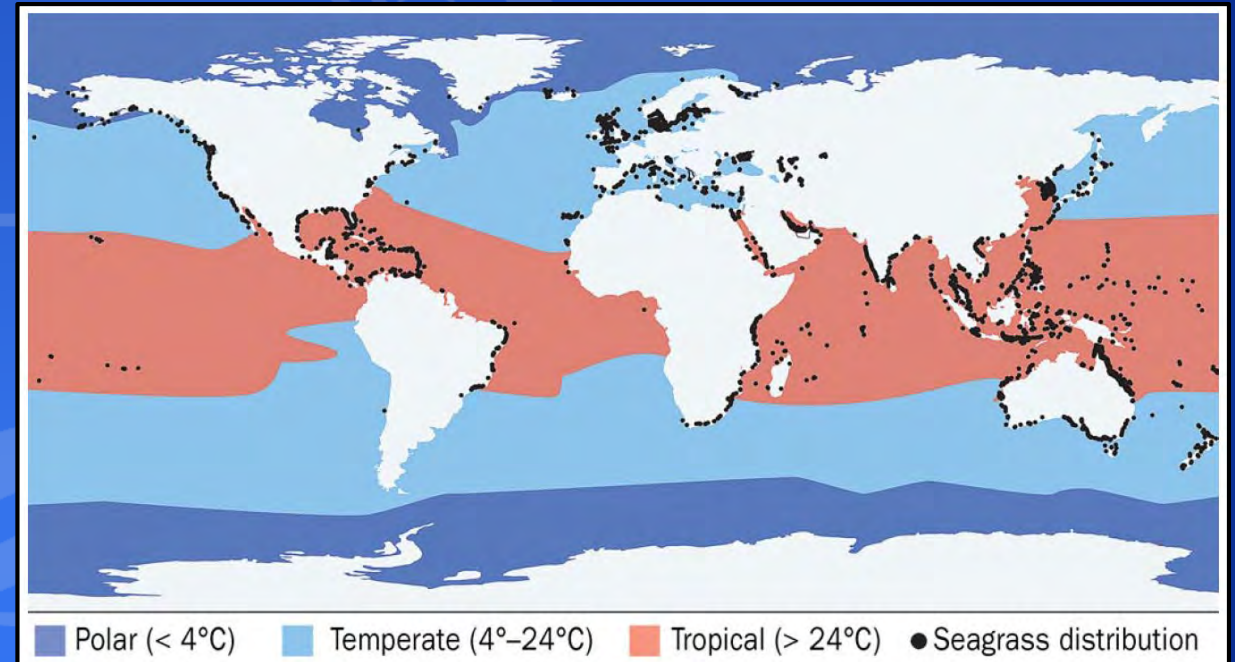
Paul F. Mickle Ph.D.

Chief Scientific Officer

The Mississippi Department of Marine Resources

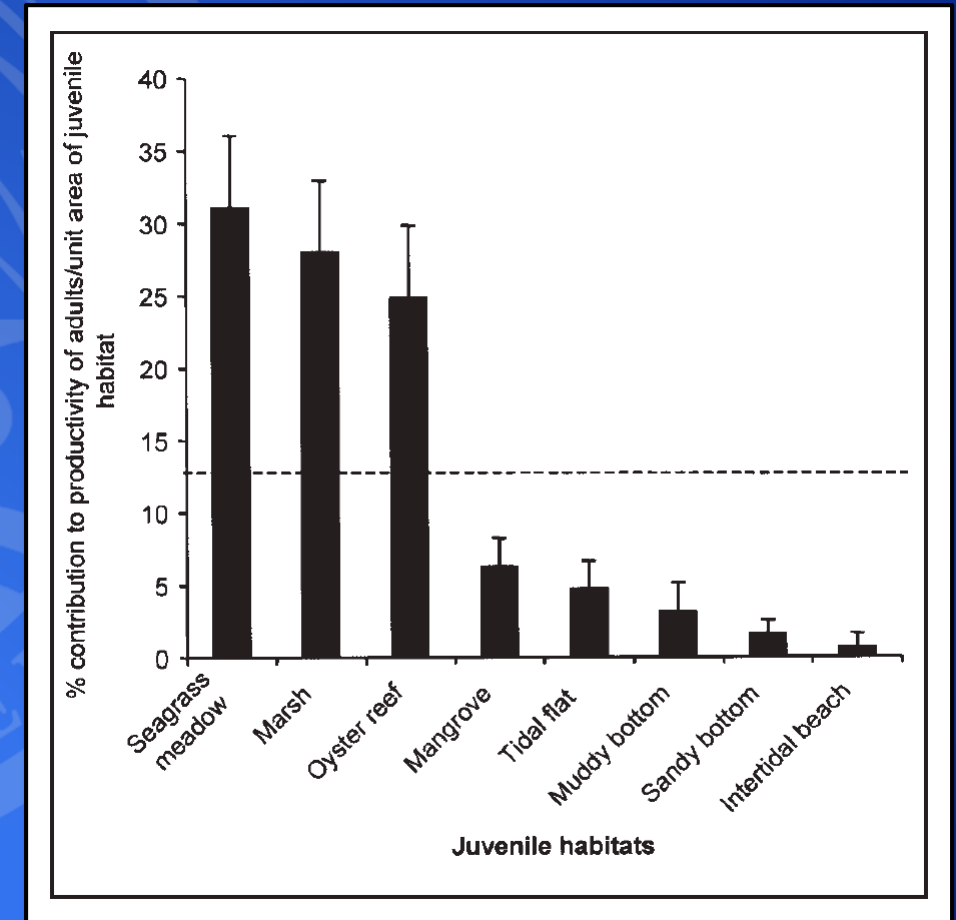
Background

- **Presentation a response from CMR Motion:** Direct the staff to come back at the next commission meeting with a presentation concerning all the different factors that could potentially impact seagrass beds on/near Cat Island.
- All material will be peer reviewed/journal authorized unless specified
- Present
 - Seagrass information
 - Threats/impacts
 - Regulations for protection in other states



Importance and Benefits

- Ecosystem services (presented by: Duarte 2002)
 - Provision of food for coastal food webs,
 - Provision of oxygen to waters and sediments,
 - Carbon sequestration,
 - Sediment Stabilization,
 - Prevention of sediment resuspension,
 - Improvement of water transparency,
 - Wave attenuation,
 - Shoreline protection,
 - Habitat for microbes, invertebrates and vertebrates, often endangered or commercially important, and
 - Trapping and cycling of nutrients



Threats/Impacts

Table 1. A synthesis of 47 representative case studies of seagrass loss.

| Area lost (km ²) | Major mechanisms of loss (number of reports) | | |
|------------------------------|------------------------------------------------------|-------------------------------------------------|---------------------------|
| | Environmental | Biological | Extreme events |
| <i>Temperate region</i> | | | |
| < 1.0 | Dredging, hydrological, dune migration (7) | Herbivory, introduced species, bioturbation (7) | Ice scour, heat waves (2) |
| 1.0–100 | Eutrophication, sediment deposition (4) | Brown tide (1) | No data |
| > 100 | Eutrophication, sea-level rise, high temperature (5) | Wasting disease (1) | No data |
| <i>Tropical region</i> | | | |
| < 1.0 | Vessel grounding, thermal pollution (5) | Herbivory (3) | No data |
| 1.0–100 | Eutrophication, boating, sedimentation (6) | Brown tide, urchin herbivory (2) | No data |
| > 100 | Hydrological, sediment resuspension (3) | No data | Pulsed turbidity (1) |

Note: The seagrass genera studied in temperate regions include *Cymodocea*, *Halodule*, *Heterozostera/Zostera*, *Posidonia*, *Syringodium*, and *Thalassia*; genera studied in tropical regions include *Halodule*, *Halophila*, *Syringodium*, *Thalassia*, and *Zostera*. An expanded table detailing the results of each study can be found at www.vims.edu/bio/sav/bioscience_global_crisis_table_1.pdf.

Orth et al. 2006

Threats/Impacts

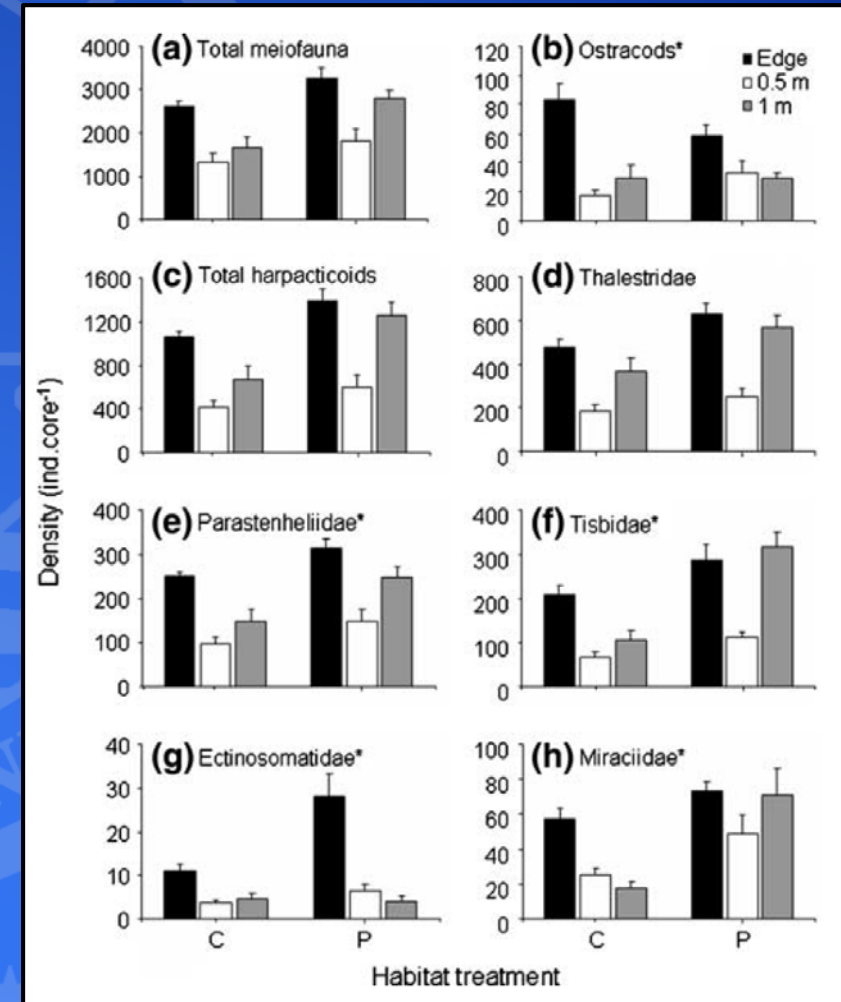
Table 1 Impacts of direct and indirect human forcing on seagrass ecosystems.

| <i>Type</i> | <i>Forcing</i> | <i>Possible consequences</i> | <i>Mechanisms</i> |
|------------------|-------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------|
| Direct impacts | Mechanical damage (e.g. trawling, dredging, push nets, anchoring, dynamite fishing) | Seagrass loss | Mechanical removal and sediment erosion |
| | Eutrophication | Seagrass loss | Deterioration of light and sediment conditions |
| | Salinity changes | Seagrass loss, changes in community structure | Osmotic shock |
| | Shoreline development | Seagrass loss due to burial or erosion | Seagrass uprooting |
| | Land reclamation | Seagrass loss | Seagrass burial and shading |
| | Aquaculture | Seagrass loss | Deterioration of light and sediment conditions |
| | Siltation | Seagrass loss and changes in community structure | Deterioration of light and sediment conditions |
| Indirect impacts | Seawater temperature rise | Altered functions and distributions | Increased respiration, growth and flowering, increased microbial metabolism |
| | Increased CO ₂ concentration | Increased depth limits and production | Increased photosynthesis, eventual decline of calcifying organisms |
| | Sea level rise and shoreline erosion | Seagrass loss | Seagrass uprooting |
| | Increased wave action and storms | Seagrass loss | Seagrass uprooting |
| | Food web alterations | Changes in community structure | Changes in sediment conditions and disturbance regimes |

Duarte 2002

Fragmentation of Seagrass Beds

- Motor scars or other physical removal of entire seagrass structure
 - Long term recovery (10+ Years)
 - Create fragmentation/alter fish and benthic communities
 - Decrease transport mechanisms for seagrass and fauna



Mississippi Seagrasses/Cat Island

- Seagrasses present on three sides of Cat Island
- Pham et al. 2011 was the last image monitoring effort around Cat Island
- Showed a seagrass area expansion from 2003-2007 of 21.8 Ha to 71.3 Ha

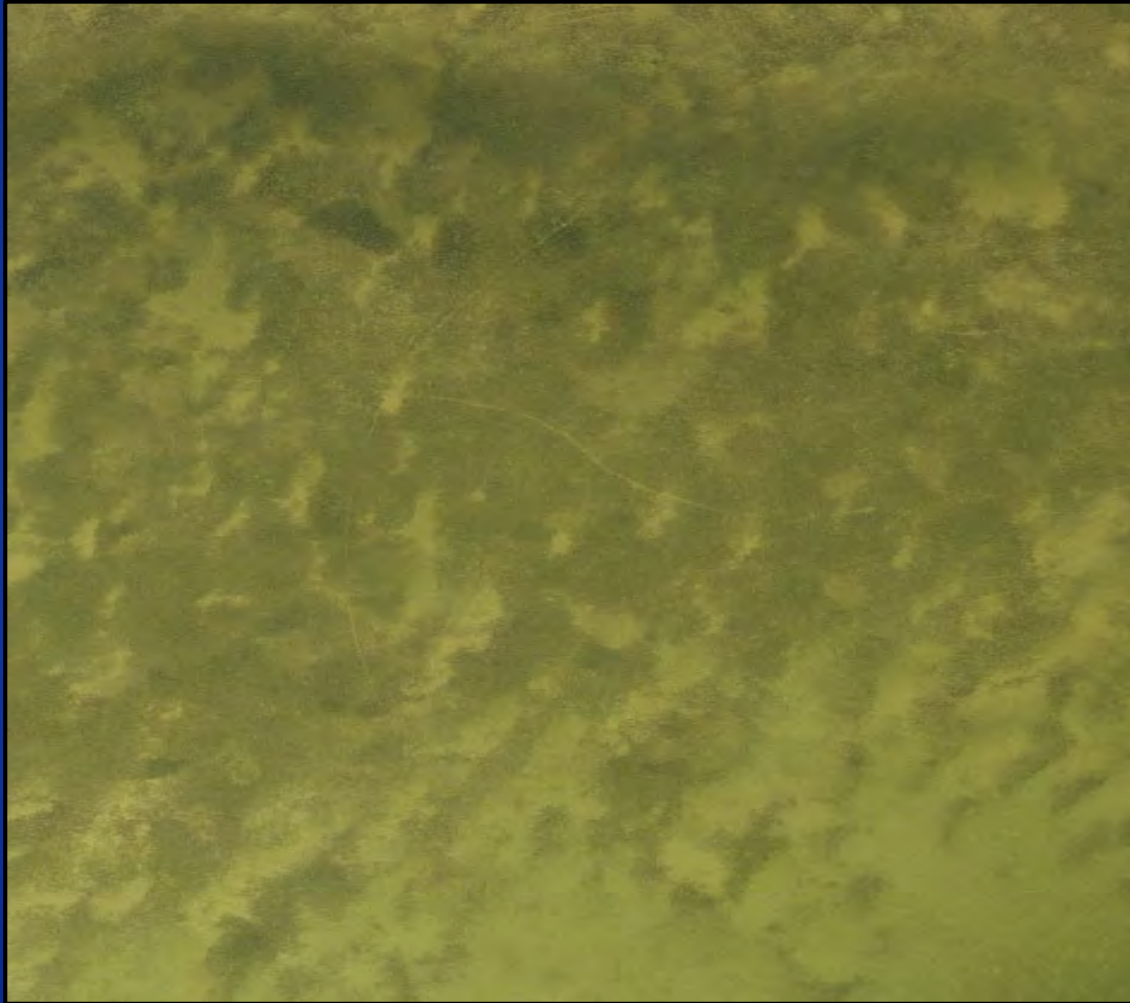
Table 2. Seagrass coverage on the Mississippi barrier islands, 1940–2007. Sampling error was estimated to be $\pm 5\%$ of the given area value.

| Date | Cat | West Ship | East Ship | Horn | Petit Bois |
|---------------------|------|-----------|-----------|------|------------|
| 27 October 1940 | — | — | — | 76.7 | 54.1 |
| 7 April 1952 | — | — | — | 45.7 | 15.3 |
| 10 October 1963 | — | 11.1 | 19.4 | — | — |
| 10 November 1971 | — | — | — | 19.3 | — |
| 21 October 1975 | — | 1.8 | 1.7 | — | — |
| 6 October 1985 | — | — | — | — | 17.7 |
| 15 October 2003 | 21.8 | 0.0 | 16.5 | 50.8 | 8.0 |
| 29 October 2006 | 25.5 | 0.9 | 15.5 | 82.0 | 18.9 |
| 10–16 November 2007 | 71.3 | 1.9 | 13.7 | 38.1 | 16.8 |

Note: Date of image acquisition (flyover) is given in day/month/year.

Carter et al. 2011

Mississippi Seagrasses/Cat Island



- Motor scars are present around Cat Island
 - Impacts are most likely minimal to none
 - Today's technology and maps assist in navigation and depth alarms
 - Nowhere around Cat Island is identified as a high traffic area

Other States Regulations

- Florida Law gives their Marine Patrol the options of:
 - F.S. 327.3 Reckless/careless operation of a vessel
 - F.S. 253.04 Protection of state lands
 - F.S. 380.05 Areas of critical concern
- Some Florida counties have restricted access to outboards < 18" at low water (high traffic areas only)



Research Needs

- Cat Island and other seagrass areas in State waters are minimally monitored and some areas unknown
- Seagrass species composition not fully understood in Mississippi waters
- National Seashore seagrasses are monitored more often than Cat Island
- Restoration of Seagrasses extremely risky and difficult but understanding the massive increase of Cat Island would be hugely beneficial in expanding these high production habitats

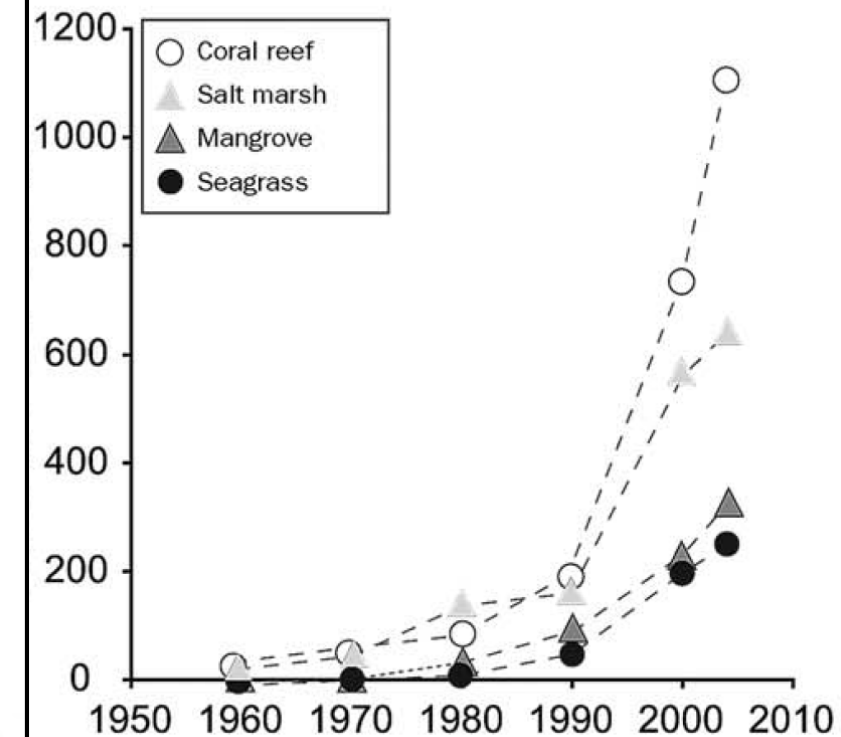
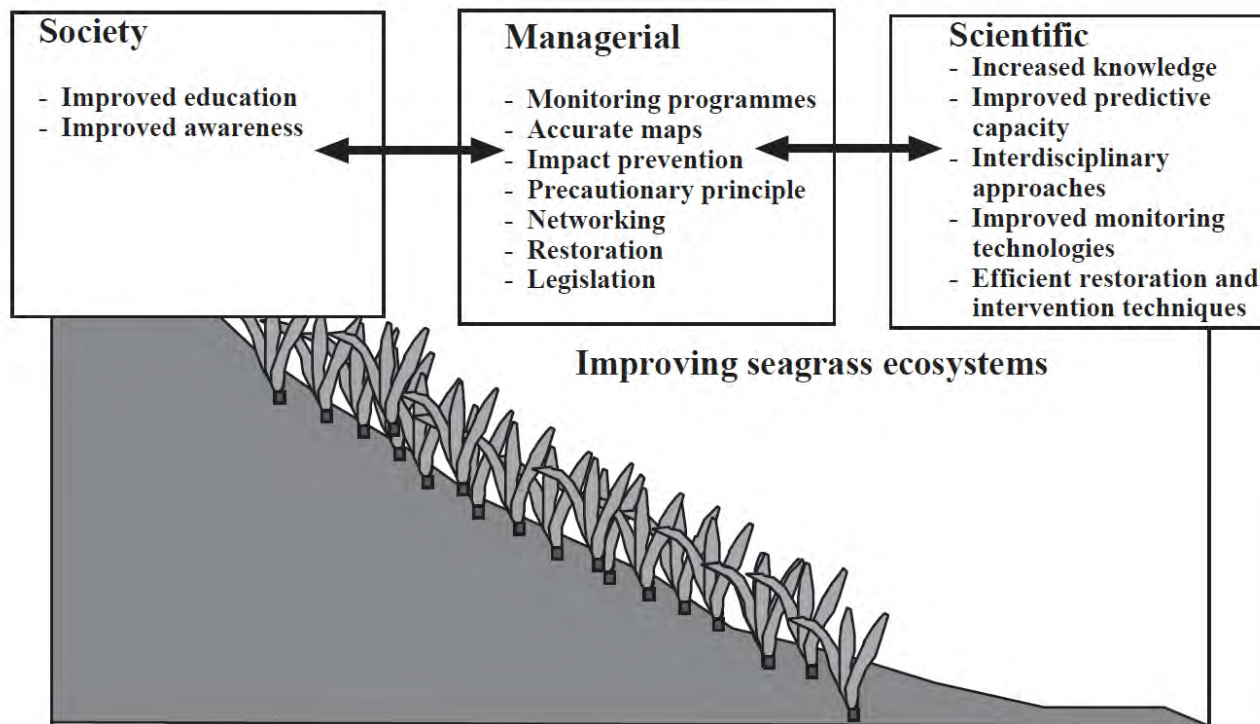


Figure 3 Cooperative elements required to prevent present trend towards seagrass decline and efficiently conserve seagrass ecosystems.

Questions



Image provided by NOARC

Request for Permit by:
MS Department of Environmental Quality
File: DMR-190087

- **Location:** Just south of the mouth of the Wolf River in St. Louis Bay, Harrison County, MS.
- **Use District:** (G) General Use District
- **Project Purpose/Need:**
 - **NRDA Early Restoration Project**
 - Reduce erosion
 - Breakwater
 - Support secondary productivity
 - High profile reef
 - Subtidal reef

Project Description

- **Subtidal reef creation:**
 - Approximately 30 acres in St. Louis Bay
- **Breakwater/High profile reef creation**
 - 1,600 linear feet

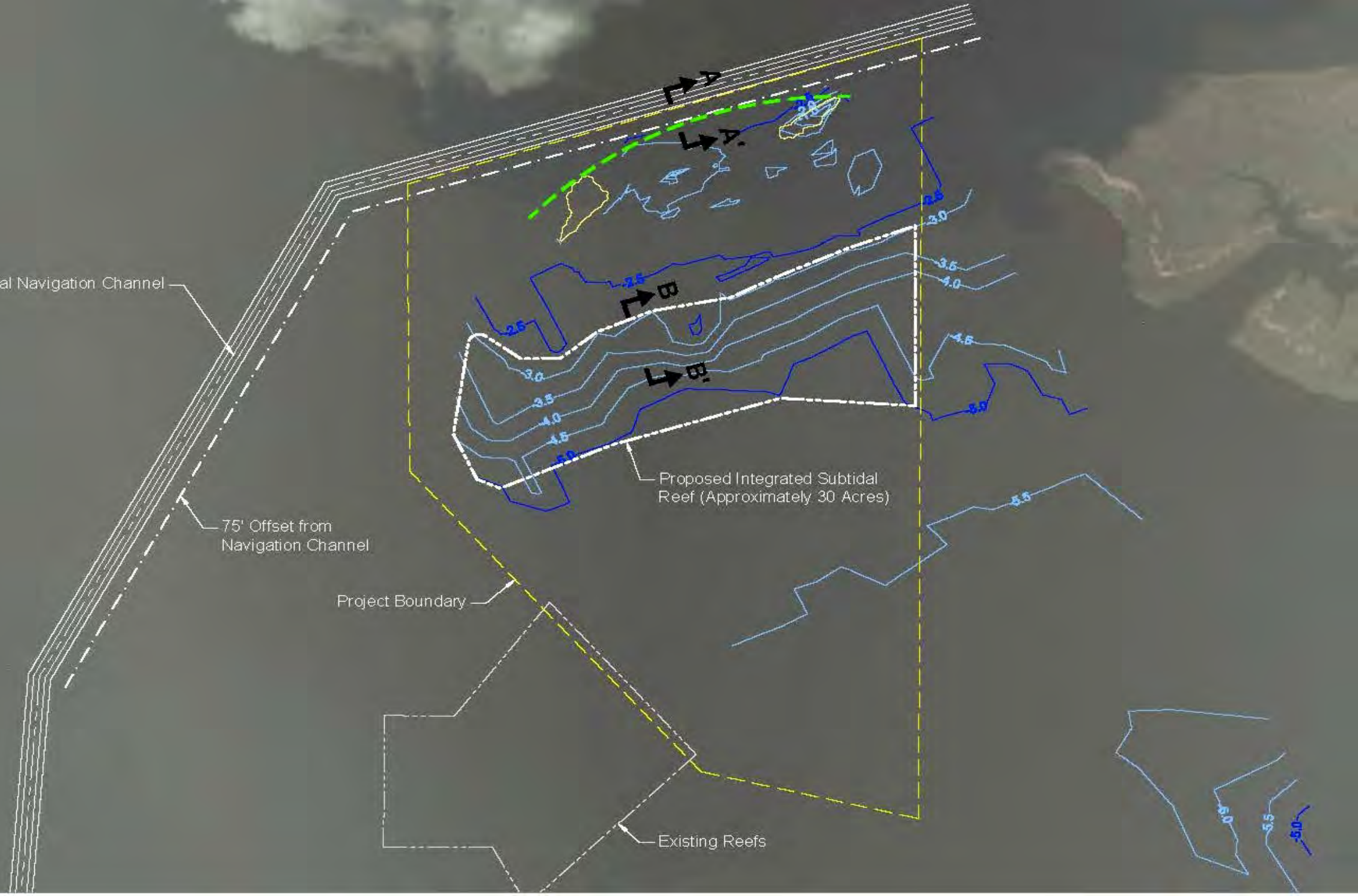
Federal Navigation Channel

75' Offset from
Navigation Channel

Project Boundary

Proposed Integrated Subtidal
Reef (Approximately 30 Acres)

Existing Reefs



Project Description

continued

- The applicant has requested a change to the Coastal Wetlands Use Plan in the footprint of the proposed project.
- This change request was justified under Ch. VIII, Sect. 2, Part I.E.2.b.ii.
 - There is a significant public benefit in the activity
 - Impacts to public access and adverse environmental impacts have been minimized
 - The general public as well as governmental entities were notified of the project
 - A public hearing will be held on November 15, 2018

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Project Description

continued

- The applicant has requested a variance to Chapter VIII, Section 2, Part III.O.1. of the MCP.
 - Permanent filling of Coastal Wetlands because of potential adverse and cumulative environmental impacts is discouraged.
- This variance request was 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.

Public and Agency Notification

- Notification of this project appeared in *The Sun Herald* on October 7, October 14, and October 21, 2018.
 - No public comments were received
- MS DEQ: No comments to date
- MS DAH: No objections
- MS SOS: The project will require a rent exempt lease
- MS DWFP: No comments to date
- A public hearing was held on November 15, 2018. No public comments were received.

Recommendation

- Based upon departmental review and evaluation based on the decision factors in Ch. 8, Sect. 2, Part I.E.2. of the MCP, it has been determined that the project will have a significant public benefit. Therefore, staff recommends that the CMR approve the variance request and Use Plan change and issue the requested permit with the following conditions:
 - The project area should be re-checked for the presence of SAV during the growing season prior to implementation of the project.
 - The survey report should be submitted to MDMR Wetlands Permitting staff at least 30 days prior to project commencement
 - If SAV is found in the project area, a final review and approval by MDMR staff should be required prior to project commencement

**Request for Permit Modification by:
City of Biloxi
File: DMR-03400**

- **Location:** Popp's Ferry Causeway on the Back Bay of Biloxi in Biloxi, Harrison County, MS.
- **Use District:** (G) General Use District
- **Project Purpose/Need:** Allow more boat access to the existing Popp's Ferry Causeway park, and future bait shop and restaurant.

Project Description

- **Previously Permitted:**
 - 500 linear feet of concrete walkway
 - 813 linear feet of boardwalk
 - 1,366 linear feet of riprap
 - Two (2) Piers – 20' x 30'
 - Two (2) Piers – 40' x 40'
 - Access Pier – 150' x 5'
 - Pier – 25' x 25'
 - Access Pier – 55' x 5'
 - Pier – 55' x 5'
 - Gangway Pier – 30' x 5'
 - Kayak Launch Dock – 20' x 10'
 - Kayak Launch Platform – 25' x 5'
 - Amenities included, but were not limited to, a bait shop/concessions, nature trails, picnic areas, road improvements, parking areas, and an interpretative center.

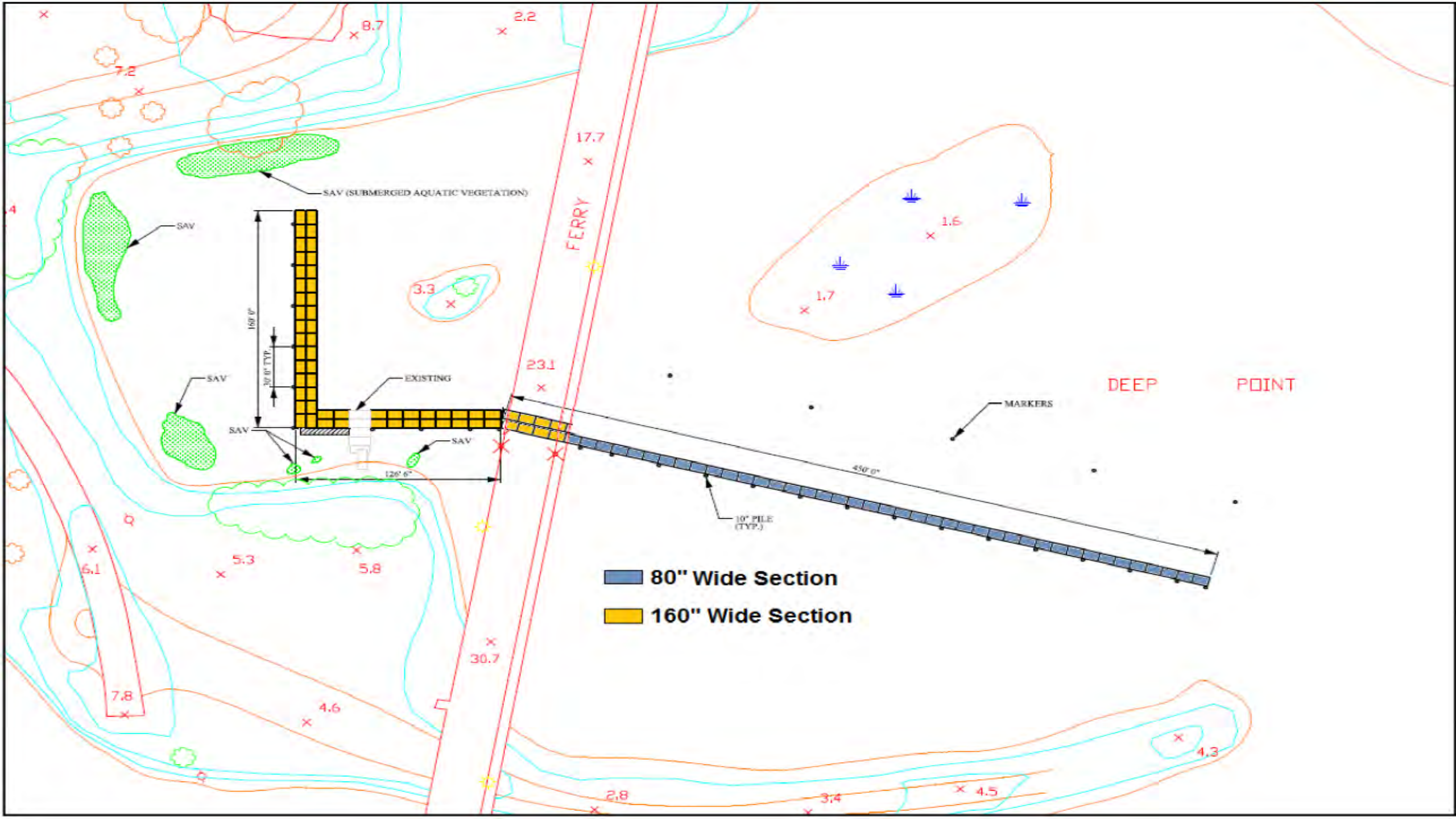
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Project Description

continued

- **Proposed:**
 - **Floating Docks – 737' x 7'-13.5' (Allow 35-45 to dock)**
 - **Pilings – 1 wood piling and 4 PVC pilings for navigation markers**

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Public and Agency Notification

- Notification of this project appeared in *The Sun Herald* on November 11, November 18, and November 25, 2018.
 - No public comments were received
- MS DEQ: Currently reviewing the project
- MS DAH: No objections
- MS SOS: The project will require an amendment to the existing rent exempt lease
- MS DWFP: Recommends best management practices

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Recommendation

- The modification request to install floating docks and pilings has not changed the findings made on the previous 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 will have a significant public benefit. Therefore, staff recommends that the Commission approve the requested Permit Modification.



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Mississippi

Department of Marine Resources

Agency Financial Results

as of October 31, 2018

Commission on Marine Resources
November 27, 2018

Key Metrics:

- State Revenue of \$3.9M
- Agency Revenue of \$5.3M
- State Net Income of \$1.7M
- Agency Net Income of (\$1.1M)
- Tidelands funds of \$10M will be transferred from the Secretary of State by November 9th.

MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

Income Statement - Fiscal Year 2019

As of October 31, 2018

| | State | Federal : NFWF: | Operating Subtotal | Tidelands | Total DMR |
|-----------------------------------------------|--------------|--------------------|-----------------------|----------------|----------------|
| Revenue: | | | | | |
| Transfer in from Other Governments | - | - | - | - | - |
| Off-road Fuel Tax | 3,050,000 | - | 3,050,000 | - | 3,050,000 |
| Federal Grants | - | 1,252,013 | 1,252,013 | - | 1,252,013 |
| Sales Revenue | 328,342 | - | 328,342 | 125 | 328,467 |
| Indirect Cost Recovery | 218,071 | - | 218,071 | - | 218,071 |
| Other Revenue | 327,502 | 46,973 | 374,474 | 94,977 | 469,452 |
| Current Budget Year Revenue: | 3,923,915 | 1,298,985 | 5,222,900 | 95,102 | 5,318,002 |
| Expenditures: | | | | | |
| Salaries, Wages, Fringe | 1,678,225 | 691,016 | 2,369,241 | 322,630 | 2,691,871 |
| Travel | 9,465 | 17,682 | 27,146 | 10,649 | 37,796 |
| Contractual Services | 173,659 | 466,630 | 640,289 | 253,504 | 893,793 |
| Commodities | 117,994 | 655,064 | 773,058 | 67,439 | 840,497 |
| Other than Equipment | - | - | - | - | - |
| Equipment | 147,101 | 31,383 | 178,484 | 14,551 | 193,035 |
| Vehicles | - | 4,049 | 4,049 | - | 4,049 |
| Wireless Devices | 351 | 433 | 785 | 274 | 1,058 |
| Subsidies, Loans, and Grants | 23,296 | 703,047 | 726,343 | 1,078,210 | 1,804,553 |
| Current Budget Year Expenditures: | 2,150,090 | 2,569,305 | 4,719,395 | 1,747,257 | 6,466,652 |
| Current Budget Year Net Income/(Loss): | \$ 1,773,825 | \$ (1,270,319) | \$ 503,505 | \$ (1,652,155) | \$ (1,148,650) |

Financial Budget Comparison

- After four months of Fiscal Year 2019:

| MISSISSIPPI DEPARTMENT OF MARINE RESOURCES | | | | | | | | | |
|--------------------------------------------|----------------------------------|--------------|--------------|--------------------|---------------|---------------|-------------------|-----------|-------|
| 2019 Budget Comparison | | | | | | | | | |
| As of October 31, 2018 | | | | | | | | | |
| | Actual Year to Date Expenditures | | | Budget Year Totals | | | Percent Remaining | | |
| | Operating | Tidelands | Total | Operating | Tidelands | Total | Operating | Tidelands | Total |
| Expenditures: | | | | | | | | | |
| Salaries, Wages, Fringe | \$ 2,369,241 | \$ 322,630 | \$ 2,691,871 | \$ 10,897,765 | \$ 1,012,526 | \$ 11,910,291 | 78.3% | 68.1% | 77.4% |
| Travel | 27,146 | 10,649 | 37,796 | 325,487 | 30,000 | 355,487 | 91.7% | 64.5% | 89.4% |
| Contractual Services | 640,289 | 253,504 | 893,793 | 9,601,848 | 1,627,590 | 11,229,438 | 93.3% | 84.4% | 92.0% |
| Commodities | 773,058 | 67,439 | 840,497 | 2,055,674 | 450,000 | 2,505,674 | 62.4% | 85.0% | 66.5% |
| Equipment | 178,484 | 14,551 | 193,035 | 1,109,408 | 225,000 | 1,334,408 | 83.9% | 93.5% | 85.5% |
| Vehicles | 4,049 | - | 4,049 | 170,000 | - | 170,000 | 97.6% | 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 | 726,343 | 1,078,210 | 1,804,553 | 14,756,150 | 6,654,384 | 21,410,534 | 95.1% | 83.8% | 91.6% |
| Total Expenditures: | \$ 4,719,395 | \$ 1,747,257 | \$ 6,466,652 | \$ 38,992,667 | \$ 10,000,000 | \$ 48,992,667 | 87.9% | 82.5% | 86.8% |

- Operating Funds have 87.9% of Budget remaining
- Tidelands Trust Fund has 82.5% of Budget remaining



Public Affairs – November 2018

The MS Department of Marine Resources was mentioned 22 times in local, state and national media since the October CMR meeting. Popular news items included the \$10 million Tidelands check presented by Secretary Hosemann, Governor Bryant unveiling the new beach water outfall designs and the approval of RESTORE funding for the Seafood Marketing program.

So far in FY19, Marine Patrol has taught six boat and water safety classes and certified 106 students. Marine Patrol also participated in Night Out Against Crime events in Diamondhead and Long Beach, the Hope Outdoors event on the Biloxi Fishing Bridge, Kids Safety Fair at Big Play Entertainment Center, Injury Prevention Fair at Garden Park Medical Center and Touch a Truck for CASA in Hancock County. Also, Marine Patrol and Marine Fisheries both took part in Biloxi High School's Career Day.

The Office of Coastal Restoration and Resiliency took part in the Piney Woods Heritage Festival at the Crosby Arboretum and Shaw Homestead Festival in Poplarville. The agency was also represented by CRR at the following meetings: American Shore and Beach Preservation Association Meeting in Galveston, the Gulf of Mexico Offshore Sand Management Working Group Meeting in New Orleans and the Gulf of Mexico Alliance Coordinator meeting in Pensacola.

We had five members of our Fisheries staff participate in the Deer Island Clean-Up on October 20. The Seafood Technology Bureau, along with agency volunteers, manned an agency booth at the Jackson County Fair October 21-28.

On November 13, MDMR participated in MDEQ's Restoration Summit in Biloxi. Carly Somerset in the Office of Marine Fisheries gave a Red Snapper presentation, Tammy Reese and Kevin Landry gave a presentation on oyster aquaculture to 60-80 Gulfport High School students, Jason Rider gave a presentation about off-bottom aquaculture and our agency provided an outreach booth for summit attendees.

Fisheries staff participated in the following: annual meeting of the Gulf States Marine Fisheries Commission on South Padre Island in Texas, the Gulf of Mexico Fisheries Management Council Meeting in Mobile and the the Gulf States Gulf Fisheries Information Network Committee in New Orleans.

In November, the Seafood Technology Bureau taught both the Basic Seafood HACCP course and Sanitation Control Procedures Course with students representing our seafood industry and partners.

On November 7, the Shellfish Bureau held oyster harvester training sessions as required by the Interstate Shellfish Sanitation Conference. The seminar covered basic oyster handling, hygiene and regulations involving oyster harvesting practices.



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Mississippi Oyster Task Force: Add Industry Member

Kristina Broussard
November 2018

K.1.

Recommended Voting Members (9)

| Voting Members (9) | Name | Title |
|--------------------------|------------------|--------------------------------------|
| Dealer/Processor | Jennifer Jenkins | Crystal Seas Seafood |
| Dealer/Processor | Jeremy Forte | Jerry Forte Seafood |
| Dredger | John Livings | Pass C. Harvester (Dredger & Tonger) |
| Dredger | Keo Nguyen | Bayou Harvester (Dredger) |
| Tonger | George Storrs | Pass C. Harvester |
| Tonger | Andrew Livings | Pass C. Harvester (Dredger & Tonger) |
| Oyster Aquaculture | Walter Boasso | Spat Tech |
| Recreational Harvester | Dennis Laubmeir | Recreational Tonger |
| MDMR Shellfish Scientist | Erik Broussard | MDMR Shellfish Bureau Director |

Required

Motion:

Approval of the Final Voting Members and
Proceed with the Establishment of the
Mississippi Oyster Task Force



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2018-19 Oyster Season Update

Erik Broussard
November 27, 2018

2018 Mississippi Oyster Stock Assessment

| Reef | 2018 Est. Sack Total | Sacks @30% Harvest | Status |
|--------------------------------|----------------------|--------------------|-------------------------------|
| Pass Tonging | 652 | 196 | Near depletion |
| Pass Dredging | 0 | 0 | Near depletion |
| Henderson Point | 2,064 | 619 | Near depletion |
| Pass Marianne | 1,309 | 393 | Near depletion |
| Telegraph | 0 | 0 | No resource |
| St. Joe | 21,230 | 6,369 | Fished heavily |
| St. Stanislaus | 1,427 | 428 | Fished heavily |
| Waveland | 29 | 9 | Recovering (limited resource) |
| Between the Bridges | 550 | 165 | Resource recovering |
| Western Reefs | 27,261 | 8,178 | |
| Biloxi Bay Cultch Plant | 675 | 203 | |
| TOTALS | 27,936 | 8,381 | |

November 14, 2018

165/0 Sacks

196/0 Sacks

428/0 Sacks

No Catch

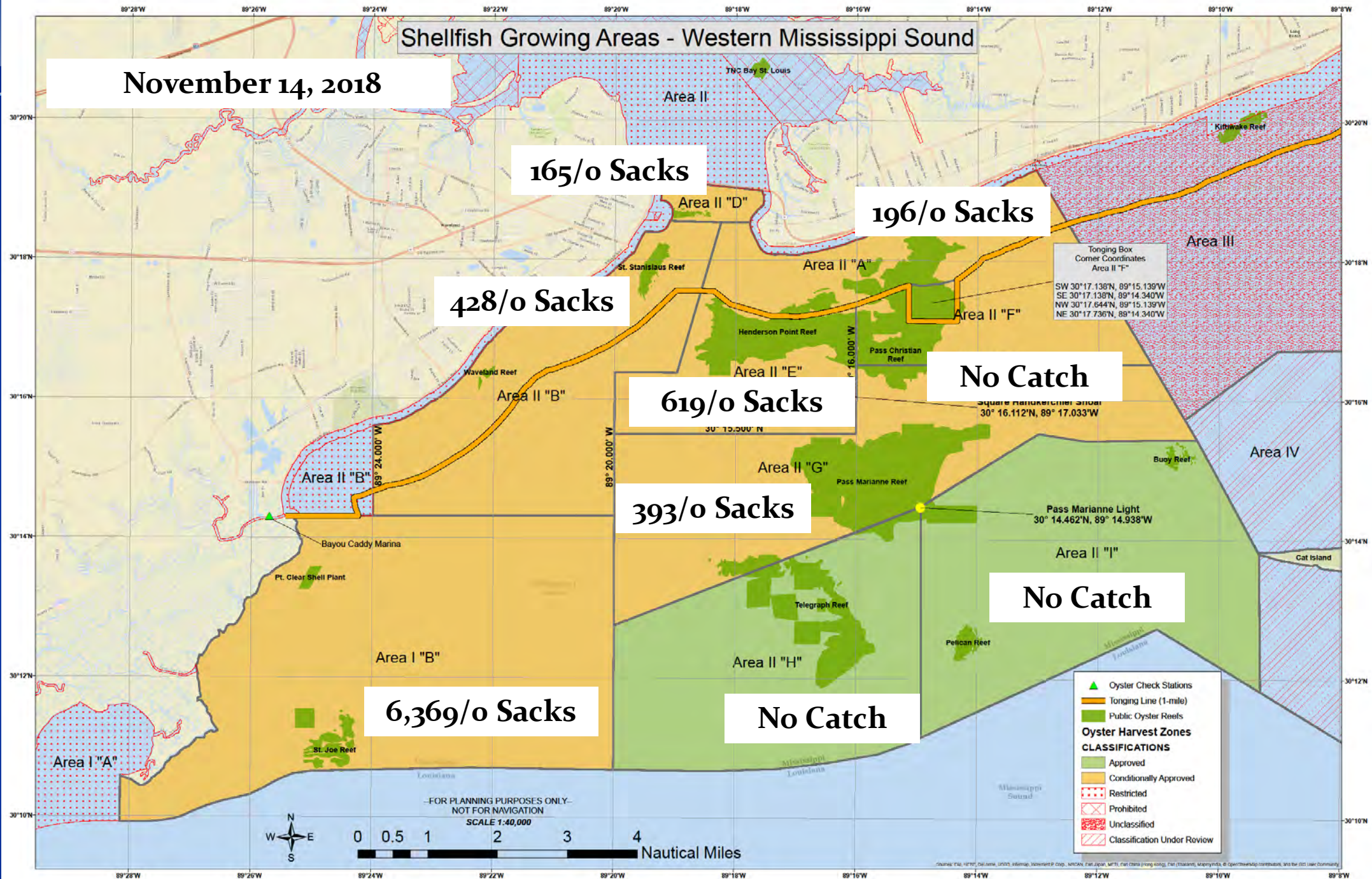
619/0 Sacks

393/0 Sacks

No Catch

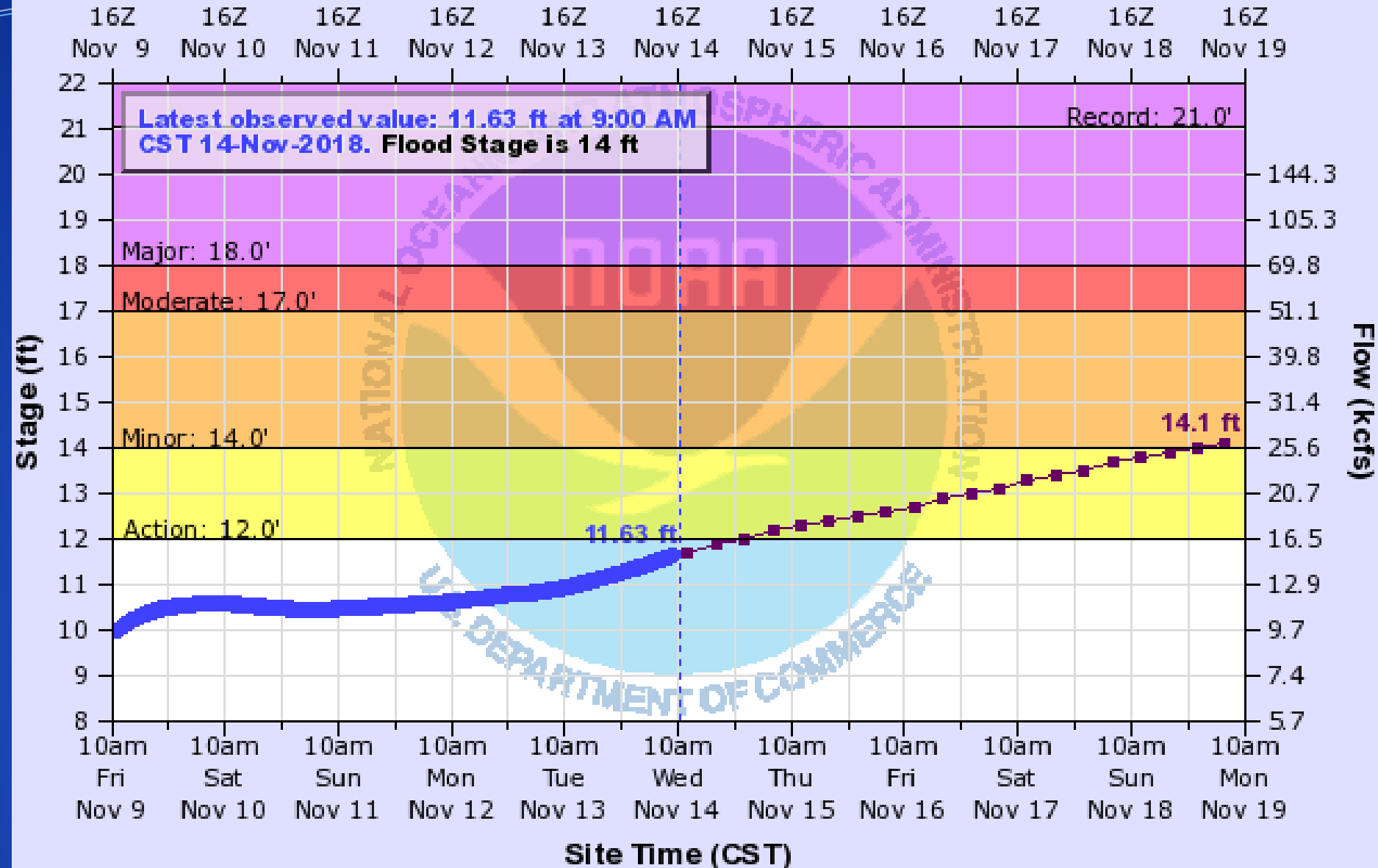
6,369/0 Sacks

No Catch



PEARL RIVER NEAR PEARL RIVER

Universal Time (UTC)





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Questions



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2018 Mississippi Spotted Seatrout Stock Assessment Annual Update

Matt Hill
November 27, 2018

Stock Assessment Update

- Completed in September 2018 by the Mississippi Stock Assessment Panel
- The panel is comprised of staff from MDMR and the Gulf Coast Research Laboratory
- Completed internal MDMR review in August 2018
- Final analysis and edits completed in September 2018

Management History in Mississippi

| Year | Recreational | Commercial |
|------|--------------------------------------------------------------------------------------------|------------------------------|
| 1978 | 50 Fish Bag, 3 Day Possession | 12-inch Minimum |
| 1986 | 25 Fish Bag, 14-inch Minimum, 3 Day Possession (5< Size Minimum May Be Retained) | 14-inch Minimum |
| 1991 | 14-inch Minimum Bag Limit 25 Per Person | |
| 1992 | 5< Size Minimum May Be Retained But No Below 12-inches Bag Limit 25 Per Person (14 inches) | |
| 1995 | Bag limit 10 Fish Per Person No Fish Below The Minimum (14-inches) | 40,000 lb. Commercial Quota |
| 1996 | Bag limit 15 Fish Per Person No Fish Below The Minimum (14-inches) | |
| 2008 | 13-inch Minimum | 14-inch Minimum |
| 2012 | | 50,000 lb. Commercial Quota |
| 2014 | | Spotted Seatrout Endorsement |
| 2017 | 15-inch Minimum | |

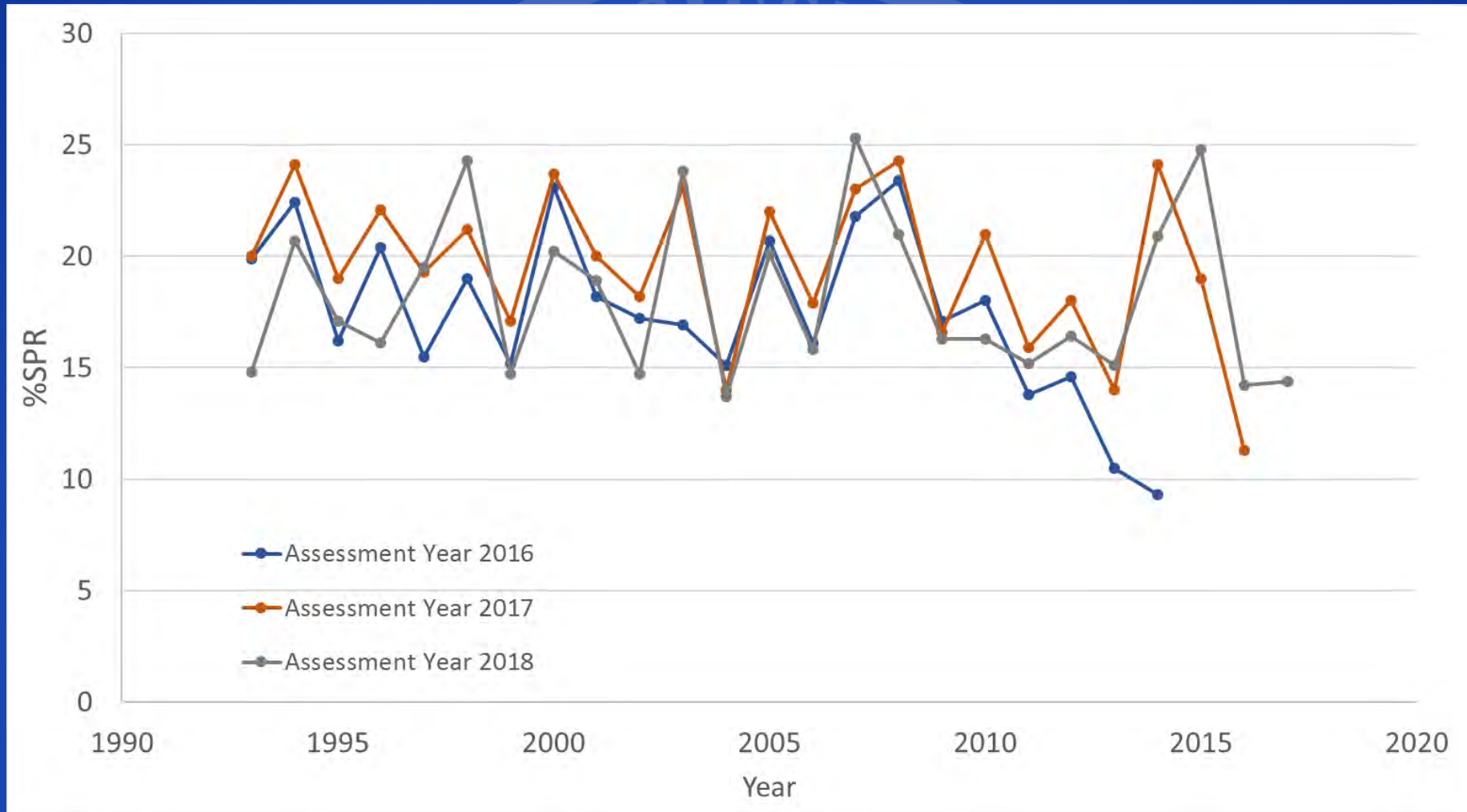
Model Aspects

- Dynamic model that is constantly updating as parameters are more precisely defined and additional data is added on an annual basis through updates.
- After an internal data review, two strong year classes were identified in 2015 and 2016. These year classes are both currently recruiting into the fishery.

Model Conclusions for Informing Management Decisions

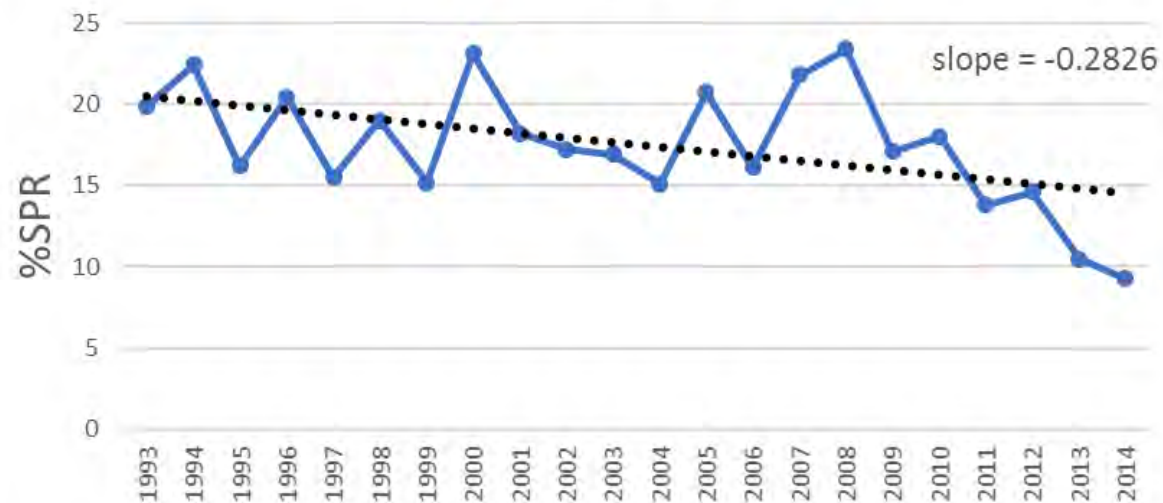
- Presently accepted on a peer reviewed level and models identified as best available science
- Update was completed using the Age Structured Assessment Program (ASAP) from the NOAA Fisheries Toolbox

%SPR for Each Assessment Year

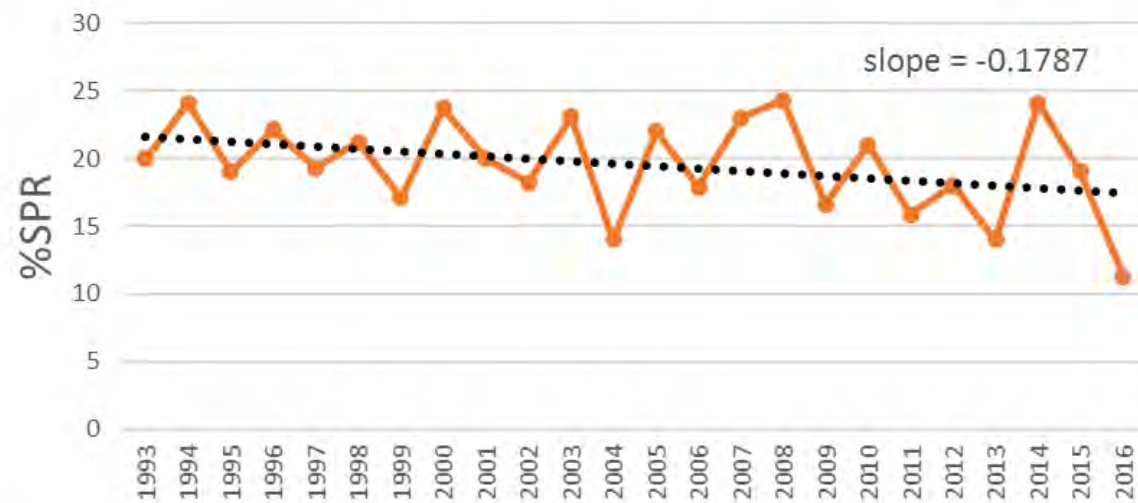


Time series of spawner-per-recruit for the Mississippi SST stock

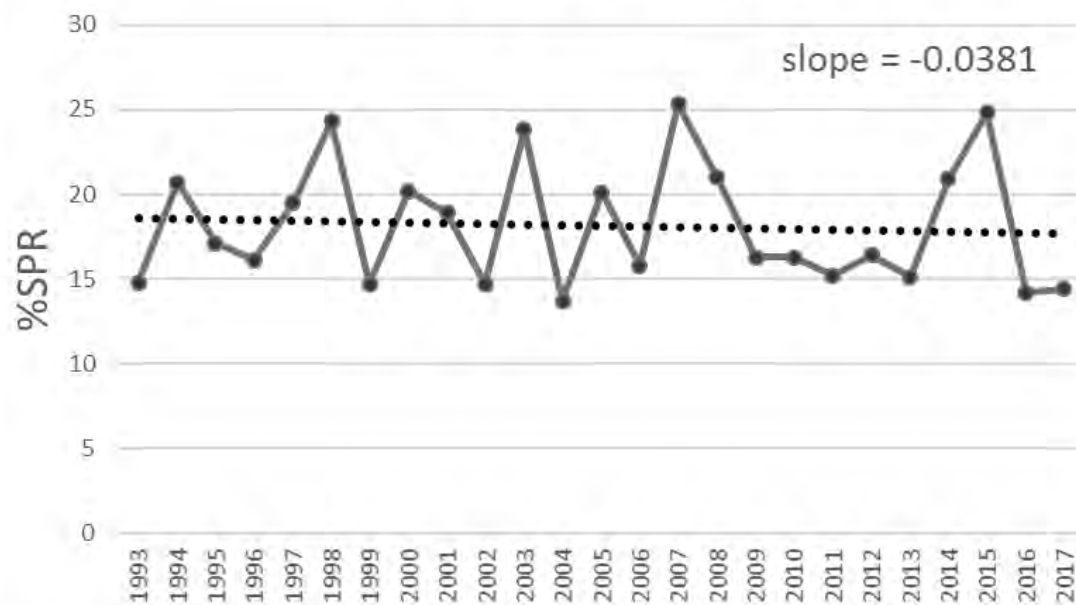
Assessment Year 2016



Update Assessment 2017



Update Assessment 2018



%SPR in Relation to Fishing Mortality

Biomass of the Mature Female portion of the Population

| F _{%SPR} Scenario | 2018 | 2019 | 2020 | 2021 | 2022 | Five-year change (%) |
|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------------|
| 14 | 705,079 | 693,580 | 695,381 | 696,669 | 696,906 | -1% |
| 16 | 747,398 | 772,063 | 788,400 | 795,258 | 797,323 | 6% |
| 18 | 781,051 | 841,427 | 875,916 | 891,119 | 896,508 | 13% |
| 20 | 808,483 | 902,893 | 957,771 | 983,693 | 993,988 | 19% |
| 22 | 831,316 | 957,632 | 1,034,130 | 1,072,660 | 1,089,390 | 24% |
| 24 | 850,657 | 1,006,660 | 1,105,330 | 1,157,910 | 1,182,430 | 28% |

Total SST Biomass available for harvest

| F _{%SPR} Scenario | 2018 | 2019 | 2020 | 2021 | 2022 | Five-year change (%) |
|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------------|
| 14 | 556,549 | 534,052 | 536,750 | 538,486 | 538,789 | -3% |
| 16 | 498,340 | 517,992 | 535,893 | 543,314 | 545,526 | 9% |
| 18 | 449,501 | 498,142 | 529,943 | 543,873 | 548,787 | 18% |
| 20 | 407,979 | 476,442 | 520,118 | 540,671 | 548,811 | 26% |
| 22 | 372,228 | 454,075 | 507,480 | 534,316 | 545,942 | 32% |
| 24 | 341,090 | 431,740 | 492,871 | 525,400 | 540,554 | 37% |

Estimated SSB (A, kg) and Yield (B, kg) at a range of fishing mortalities corresponding to %SPR values of 14, 16, 18, 20, 22, and 24 for a five-year projection period (2018 to 2022). The line in bold in each table is the current %SPR target reference point.

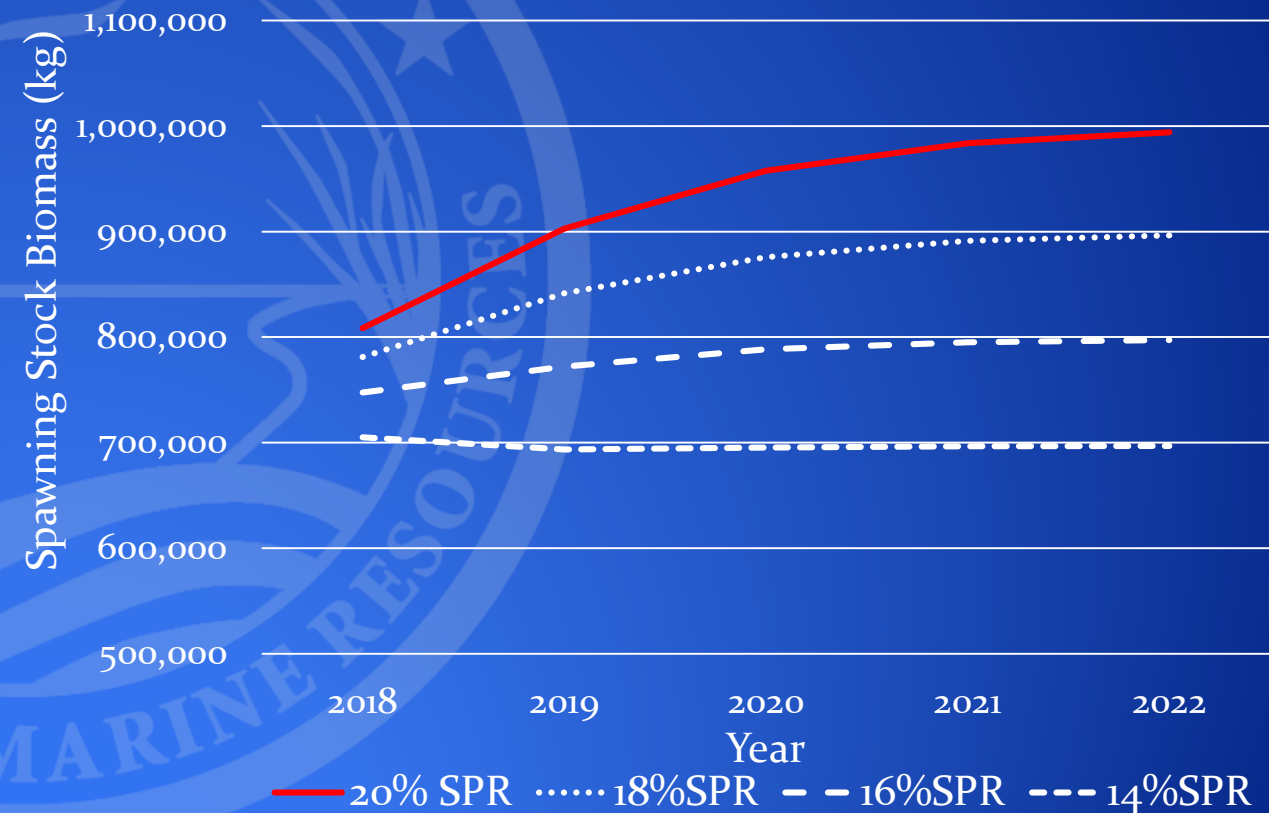
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Gulf and South Atlantic Management Summary

- All Gulf states, Georgia and North and South Carolina have seen dramatic decreases in Catch Per Unit Effort (CPUE) over the last five years
- Seven of these eight states have either raised the minimum size or lowered their bag limits since 2008
- All these states except LA are at a 14” minimum or greater

Spawning Stock Biomass Projection

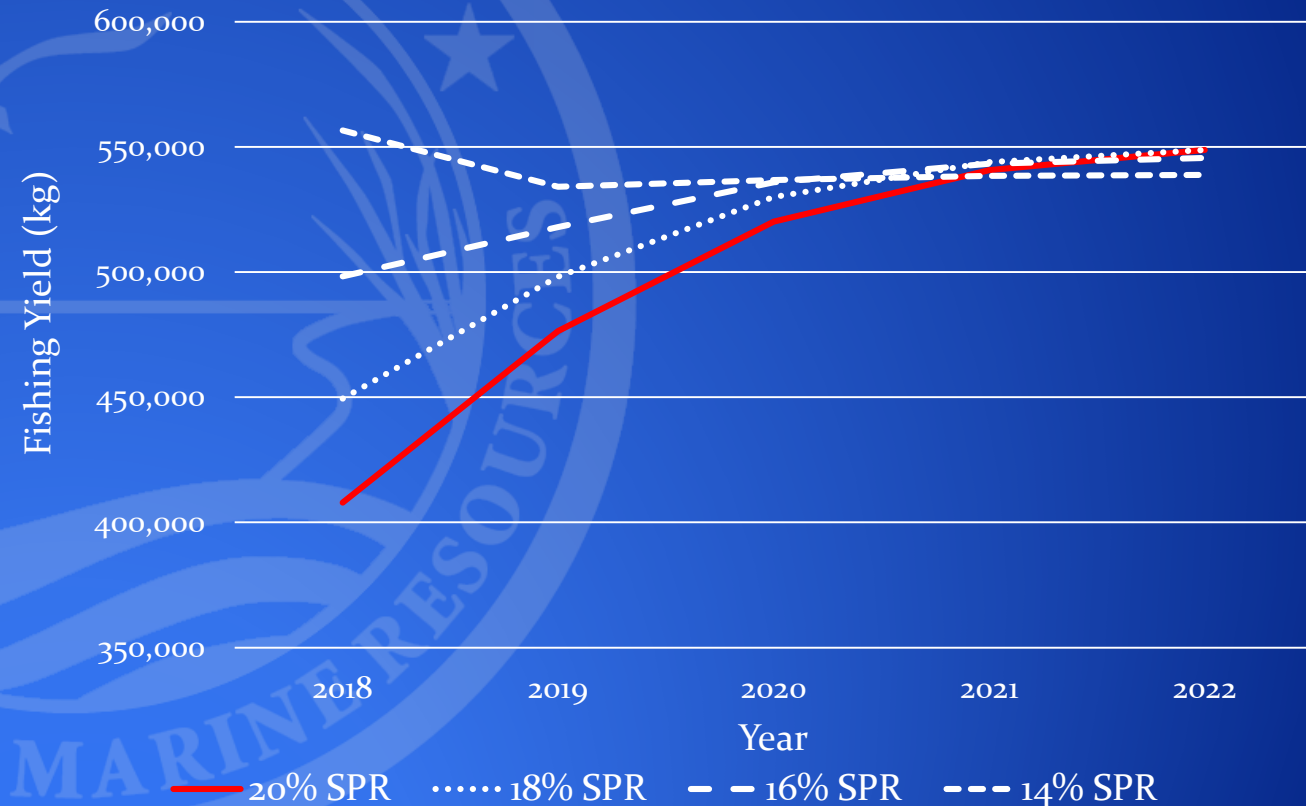
- Scenarios
 - 20% SPR- Current target
 - 18% SPR- Mean %SPR from 2018 SST Update
 - 16% SPR- Mean value from 2017 Update
 - Threshold %SPR recommendation from 2018 SST update
 - 14% SPR- Lower value projection
- 20, 18, and 16% SPR scenarios show a continuous increasing trend in biomass



Projection of Fishing Yield (Harvest)

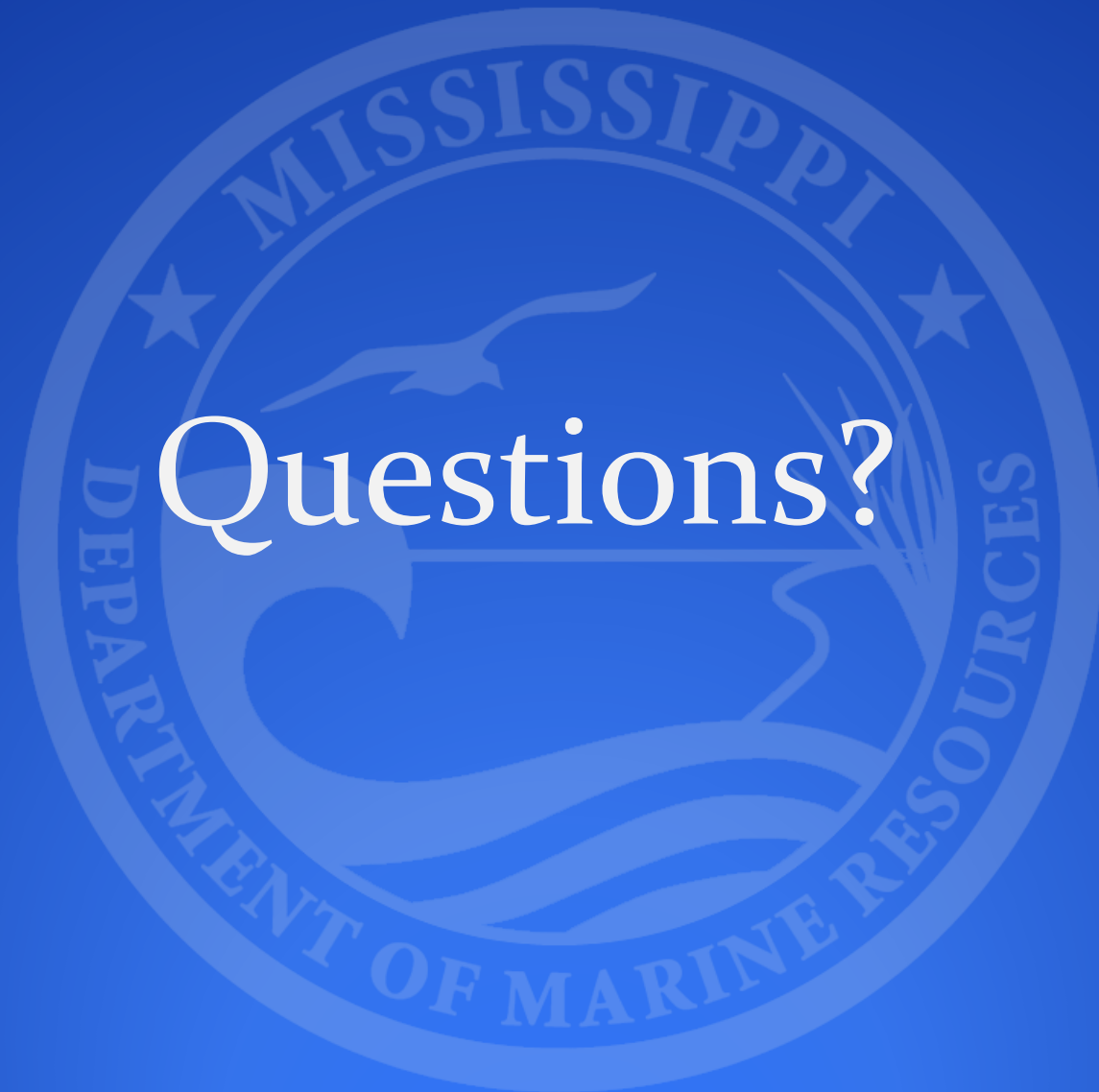
- Scenarios

- 20% SPR- Current target
- 18% SPR- Mean %SPR from 2018 SST Update
- 16% SPR- Mean value from 2017 Update
 - Threshold %SPR recommendation from 2018 SST update
- 14% SPR- Lower value projection
- 20, 18, and 16% SPR scenarios show a continuous increasing trend in yield



Summary

- The mean %SPR in the last five years of the assessment is 17.9% with a terminal year estimate of 14.4%.
- Staff recommends maintaining current regulations to manage to the 20% target SPR.
- Fisheries staff concludes that overfishing is not occurring on the Mississippi Spotted Seatrout stock based on stated reference points.
- A benchmark assessment will be completed in 2019 and will utilize a new age structured model, Stock Synthesis 3 (SS₃).



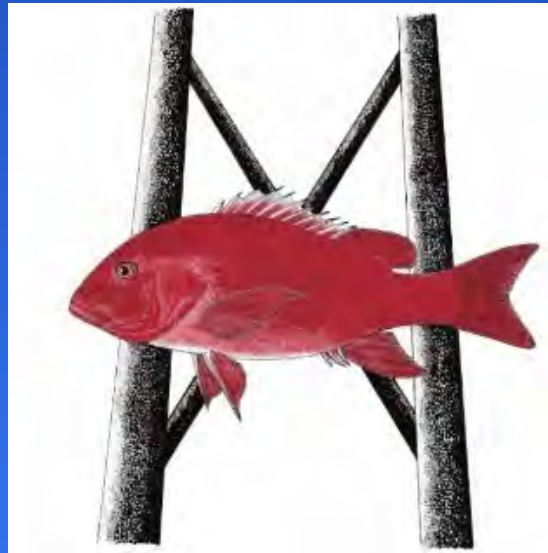
Questions?

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2018 Mississippi Red Snapper Exempted Fishing Permit Year-One Report



Carly Somerset
November 27, 2018

K.4.

Mississippi's Red Snapper EFP

- This year, each Gulf state applied for a two-year Exempted Fishing Permit (EFP) to manage Red Snapper from state waters out to 200 nautical miles
 - Each state monitored landings with state-specific programs
- NOAA approved each EFP, allocating an allowable catch limit (ACL) of 137,949 pounds for Mississippi's recreational sector
 - 135,149 pound ACL for the private recreational sector
 - 2,800 pound ACL for the state for-hire sub-sector
- Both were managed to an annual catch target (ACT) of 10% below the ACL

2018 EFP Season

- Private Recreational

- May 25th – July 9th
- July 23rd – August 17th
- September 1st – 2nd
- September 14th – 16th

| Sector/Sub-sector | Season Length |
|----------------------|---------------|
| Private Recreational | 76 Days |
| State For-Hire | 17 Days |
| Federal For-Hire* | 51 Days* |

- State for-hire

- May 25th – June 10th

*Federal for-hire season and quota was regulated by NOAA for the 2018 season

Tails n' Scales Program Purpose

- CMR adopted a regulatory modification to Title 22 Part 9 *Statistical Reporting and Confidentiality of Statistical Data for Marine Fisheries* requiring reporting of Red Snapper landed in Mississippi
- Anglers targeting Red Snapper must acquire a trip authorization number prior to fishing for them
- Mississippi Department of Marine Resources is responsible for ensuring every angler can acquire a trip number 24 hours a day
- The Tails n' Scales program began mandatory reporting in 2015

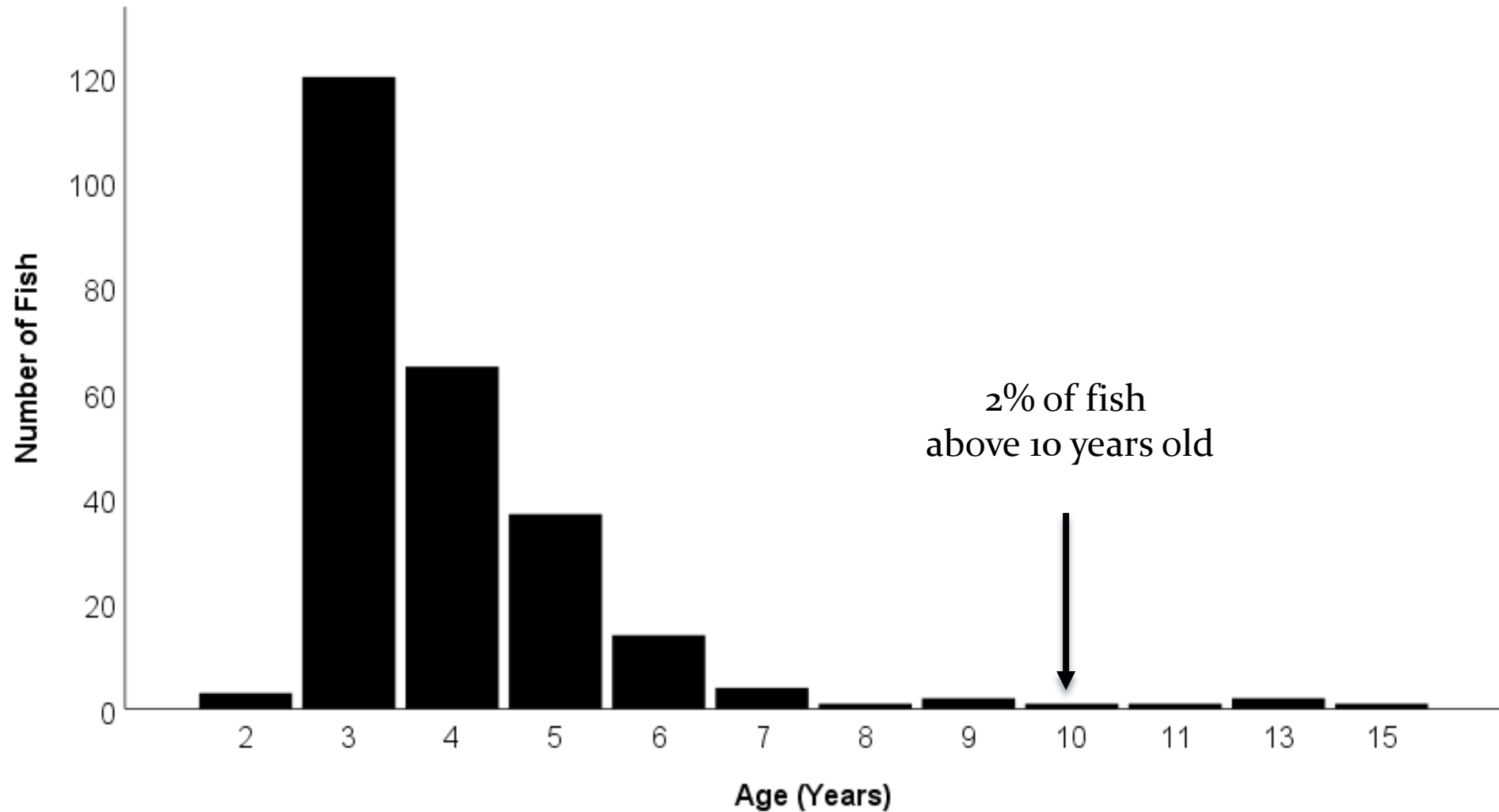
Validation

- Dockside Interviews
- Enforcement reports via IT developed app
- E-Mail messaging and text reminders for expired reports not completed by angler
- Angler not allowed to make new trips until prior trips are reported
- Administrative functionality of opening and closing the program based on season closures

Biological Data

- Finfish staff collected over 400 otoliths from Red Snapper this year
 - 252 ages have been finalized
 - All others are undergoing processing
- Age data is vital to management of a fishery
 - Length-at-age data are direct inputs into stock assessments
 - Age distribution of catch

Recreational Red Snapper Age Distribution



- 92.5% of all trips designated artificial reefs as the primary habitat fished

2018 EFP Season Results

| Sector/Sub-sector | ACL | Estimated Harvest | Percent of ACL |
|----------------------|---------|-------------------|----------------|
| Private Recreational | 135,149 | 128,678.6 | 95.2 |
| State For-hire | 2,800 | 3,235.5 | 115.6 |
| Total | 137,949 | 131,914.1 | 95.6 |

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2018 Red Snapper Season

Finalized Results

2017 (PR-60 days, FFH-49 days)

- Total Harvest: 154,100 pounds
- Number Fish Harvested: 27,189
- Average Weight: 6.08 pounds
- Average Length: 21.91 Inches
- Trips: 4,185
- Effort: 4.36 Anglers/Vessel/Trip
- Harvest: 1.48 Fish/Angler/Trip

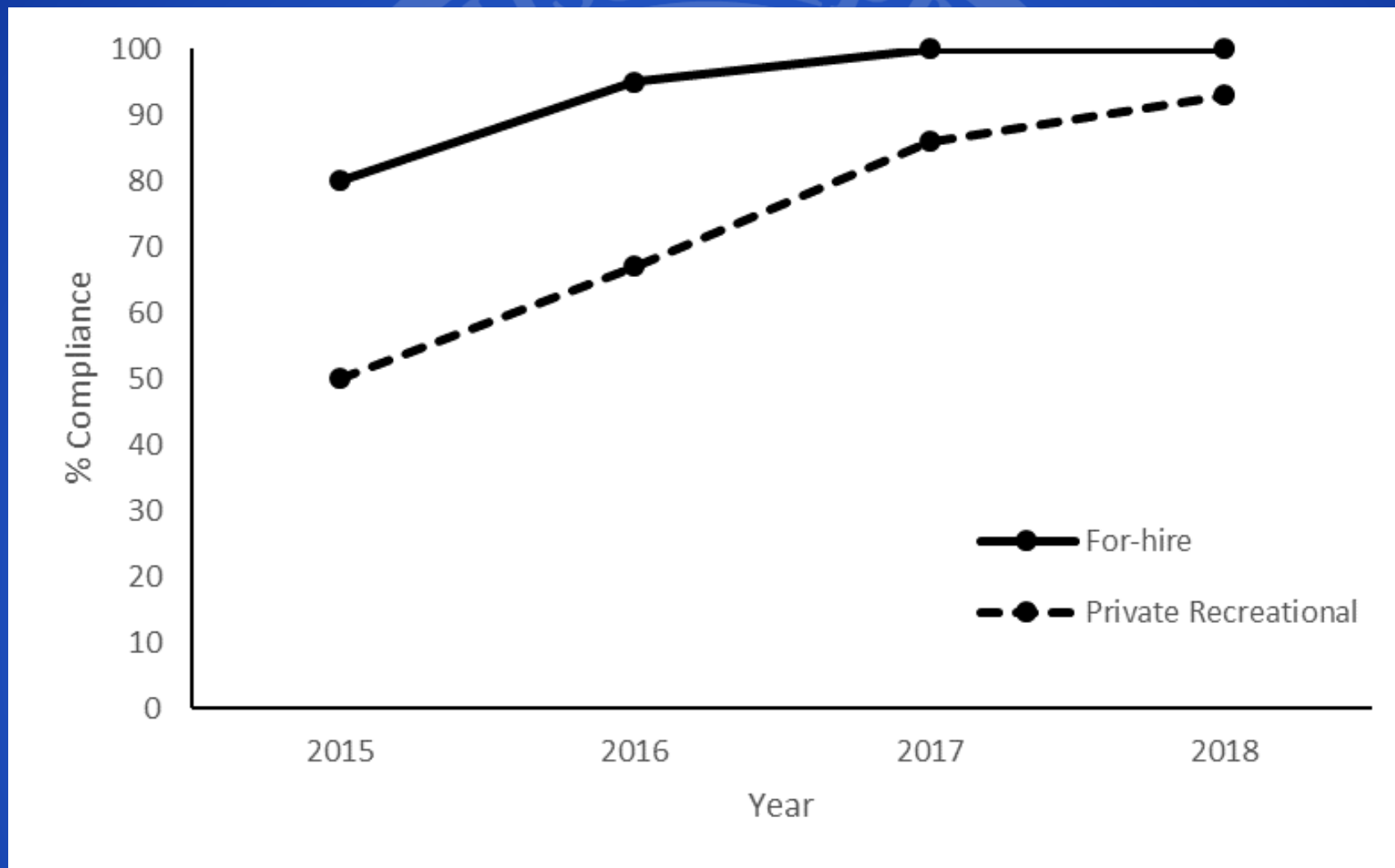
2018 (PR-76 days, SFH-17 days)

- Total Harvest: 131,914 pounds
- Number Fish Harvested: 22,126
- Average Weight: 5.82 pounds
- Average Length: 21.37 Inches
- Trips: 4,511
- Effort: 3.74 Anglers/Vessel/Trip
- Harvest: 1.31 Fish/Angler/Trip

What Is The Value Of Mississippi's Reporting System?

- Represents the most accurate measure of Red Snapper harvest and angler effort in the Gulf of Mexico
- Stock assessments inputs (effort, landings, angler universe changes, biological data, etc.)
- Estimation and projection of harvest in real time
- Can be used as a float plan
- Provides accurate and precise estimates of Red Snapper harvest each year

Trip Compliance Rates



The background features a large, faint, circular seal of the Mississippi Department of Marine Resources. The seal contains the text "MISSISSIPPI" at the top and "DEPARTMENT OF MARINE RESOURCES" at the bottom, separated by two stars. The central image of the seal depicts a bird in flight over wavy lines representing water.

QUESTIONS?

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