MISSISSIPPI RESTORATION SUMMIT

2019

Chris Wells
Director, Office of Restoration, Chief of Staff
MDEQ
RESTORATION SUMMIT PURPOSE

The Restoration Summit was created for the following purposes:

• Have a single venue in which all new restoration projects are announced for the coming year
• Have an opportunity to provide the coastal community an update on restoration projects being implemented
• Create a means to solicit community feedback, input, and suggestions on restoration projects and priorities
RESTORATION FUNDING STREAMS

- RESTORE
- NRDA
- NFWF - GEBF

MDEQ Administered Restoration Funding

MDA Administered

- Economic Damages

Coordination & Leveraged

MDMR Administered

GOMESA
RESTORATION FUNDING STREAMS (MDEQ)

**RESTORE**
- Civil Settlement;
- Ecological and Economic;
  - 5 buckets;
- Restore Council and Treasury involved

**NRDA**
- Civil Settlement;
- Funding by resource;
- Work through TIG;
- Ecological focus

**NFWF GEBF**
- Criminal Settlement;
- Plea Agreement;
- Damage to Resources affected by Spill;
- Ecological focus
ACCOMPLISHMENTS TO DATE
RESTORATION TIMELINE

Deepwater Horizon Event

April 10th, 2010

Projects Implemented:
31

BP Settles with the States

April 2016

Projects Implemented:
50

Today

November 2019
Total Grants Awarded to All States– Bucket 1
(Through August 2017)

Total Grants Awarded – All States: $72,034,810.48
Mississippi Grants Awarded: $50,318,201.39
ACCOMPLISHMENTS NFWF GEBF – ROUND ISLAND

BU Marsh Creation Project - Round Island:

- 220 acres
- 2019 by the numbers:
  - New Mississippi high count for Wilson’s plover – 61
  - Nesting species – 10
  - 2 hatched Snowy Plovers banded and found in Alabama (Dauphin IS. and Bon Secour)
ACCOMPLISHMENTS NFWF GEBF – ROUND ISLAND – FALL 2016
ACCOMPLISHMENTS NFWF GEBF
ROUND ISLAND – SPRING 2017
Infinity Science Center

- Complete – June 30\textsuperscript{th} 2018
- 3D theater, Biome boardwalk
- 11 new exhibits; refurbishment of Xspherience theater
Hancock Marsh Living Shoreline

- 6 miles of living shoreline have been constructed
- 46 acres of oyster reef constructed
- Remaining component 46 acres of marsh
ACCOMPLISHMENTS
HANCOCK MARSH LIVING SHORELINE
ACCOMPLISHMENTS GRAND BAY

Grand Bay Land Acquisition and habitat Management

- Funded under NRDA Long Term Plan I
- Project Partners: MDEQ, DOI, MDMR, USFWS
- Over 1,500 acres acquired
- Invasive Species management
ACCOMPLISHMENTS GRAND BAY

Invasive Species Management /Monitoring

• 110 acres of Timber Stand Improvement
• 127 acres of Prescribed Burns
• 4 miles of fire lanes
• 9 Long Term Monitoring Plots
• 1 year Vegetation and Avian Monitoring
William Carey Pharmacy School at Tradition

• Received RESTORE Funding on 2016 MIP
• 58 enrolled in first year
• 52 enrolled in second year
• First class to graduate in 2021
ACCOMPLISHMENTS MISSISSIPPI GULF COAST COMMUNITY COLLEGE

Workforce training:
• 245 enrolled in work-ready program
• 184 enrolled in industry specific training program
ACCOMPLISHMENTS AQUARIUM

Mississippi Aquarium – Gulfport
• 1 Million gallons of fresh and salt water
• 12 animal habitats
• Will be the home to over 70 species of aquatic creatures
RESTORATION FUNDING

- Economic Restoration: 18.9%
- Ecological Restoration: 81.1%
RESTORATION ECOLOGICAL PRIORITIES

Conservate and Restore Coastal Lands

Sustaining Coastal and Marine Resources

Protect Water Resources

BENEFITS

BENEFITS

BENEFITS

BENEFITS

Courtesy: Robert Smith
WATER QUALITY 101

VS.
WATER QUALITY 101

Mississippi Coast Beach Outfalls

Beach Outfalls
PROCESS TO ACHIEVE IN-SHORE WATER QUALITY GOAL

**Build More Data to Assess the Problem**
Expand bacterial monitoring
• Upstream
• Sediment
• Source tracking

**Coordinate the Effort**
Work with municipalities to hone in on potential stormwater and sewer infrastructure problems

**Review of Current Data**
Analyze MDEQ beach monitoring data to assess trends and problem areas

**Invest with Restoration**
Use the data to invest in problem areas
WATER QUALITY EXAMPLE – COFFEE CREEK
WATER QUALITY EXAMPLE – COFFEE CREEK

SMOKE testing

Riparian Habitat restoration

Infrastructure improvements

Outfall improvement
WATER QUALITY EXAMPLE

COURTHOUSE

RESTORE Implementation Of Outfall Challenge Ideas
## WATER QUALITY EXAMPLE – LONG BEACH

### PHASE 3 BACTERIA MEDIAN - LOWEST TO HIGHEST

<table>
<thead>
<tr>
<th>Sample Station</th>
<th>Bacteria Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSL-2</td>
<td>260</td>
</tr>
<tr>
<td>GPT-4-9</td>
<td>300</td>
</tr>
<tr>
<td>BSL-2</td>
<td>400</td>
</tr>
<tr>
<td>GPT-4-8</td>
<td>405</td>
</tr>
<tr>
<td>BSL-1.1</td>
<td>420</td>
</tr>
<tr>
<td>OY-3</td>
<td>445</td>
</tr>
<tr>
<td>WAV-8-1</td>
<td>595</td>
</tr>
<tr>
<td>GPT-4-4</td>
<td>640</td>
</tr>
<tr>
<td>OY-2-1</td>
<td>645</td>
</tr>
<tr>
<td>WAV-4.2</td>
<td>645</td>
</tr>
<tr>
<td>WAV-2.3</td>
<td>645</td>
</tr>
<tr>
<td>GPT-4-3</td>
<td>710</td>
</tr>
<tr>
<td>GPT-5</td>
<td>820</td>
</tr>
<tr>
<td>WAV-6</td>
<td>880</td>
</tr>
<tr>
<td>WAV-4.2</td>
<td>880</td>
</tr>
<tr>
<td>GPT-4.5</td>
<td>1040</td>
</tr>
<tr>
<td>GPT-4.7</td>
<td>1075</td>
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<tr>
<td>GPT-4.2</td>
<td>1250</td>
</tr>
<tr>
<td>GPT-4.1</td>
<td>1380</td>
</tr>
<tr>
<td>LB-2.1</td>
<td>1430</td>
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<tr>
<td>GPT-4.5</td>
<td>1500</td>
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<tr>
<td>WAV-8</td>
<td>1530</td>
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<td>GPT-4.1</td>
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<td>OS-3.2</td>
<td>1550</td>
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<tr>
<td>OS-3.1</td>
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<tr>
<td>LB-2.2</td>
<td>2980</td>
</tr>
<tr>
<td>OS-2</td>
<td>3800</td>
</tr>
</tbody>
</table>

**Note:** Bacteria counts are measured in Coliform units per 100 mL.
WATER QUALITY EXAMPLE – LONG BEACH
2019 MISSISSIPPI NEW PROJECTS
## Mississippi Restoration Funding Summary

<table>
<thead>
<tr>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.35 Billion</td>
<td>Total Settlement Payments Over 15 Years (RESTORE Act, National Fish and Wildlife Foundation, Natural Resource Damage Assessment)</td>
</tr>
<tr>
<td>$511 Million</td>
<td>Total Projects Announced to Date</td>
</tr>
<tr>
<td>$53.2 Million</td>
<td>2019 New Projects Announcement</td>
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</tbody>
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BUCKET 1 NEW PROJECTS

$19.00 million RESTORE Act funding

8 Projects Total

2 Existing project amendments

6 New projects from Go Coast 2020 recommendations
NEW PROJECT BUCKET 1 – WATER QUALITY IMPROVEMENT PROGRAM

Location:
Coast Wide

Funding Amount:
$1,000,000 (additional funding)

Info:
• Total: $68 million (Bucket 1 and 3)
• Existing projects in all 3 Coastal Counties
• Further water quality improvements in reducing bacterial pollution
NEW PROJECT BUCKET 1 – USM OYSTER HATCHERY AND RESEARCH CENTER

Location:
Jackson County

Funding Amount:
$4,000,000 (additional funding)

Info:
• Total RESTORE Funding: $9.7 million
• Oyster larvae production and research to support oyster restoration efforts
NEW PROJECT BUCKET 1 – BUCCANEER STATE PARK

Location:
Hancock County

Funding Amount:
$1,000,000

Info:
• Enhance park as regional ecotourism and family recreational attraction
• Implementation of one or more park improvements related to the masterplan to increase tourism.
NEW PROJECT BUCKET 1
BILOXI POINT CADET MARINA UPGRADES

Location:
Harrison County

Funding Amount:
$3,000,000

Info:
• Infrastructure improvements to modernize Point Cadet Marina
• Grow recreational/sports tourism like the Billfish Classic and support East Biloxi redevelopment
NEW PROJECT BUCKET 1 – MGCCC CENTER FOR SECURITY AND EMERGING TECHNOLOGIES

Location:
Harrison County

Funding Amount:
$3,000,000

Info:
• Construction of workforce training center focused on high-tech information systems technologies (Cybersecurity, Coding, Simulation, emerging technologies)
NEW PROJECT BUCKET 1 – USM OCEAN ENTERPRISE ENTREPRENEURSHIP PROGRAM

Location:
Harrison County

Funding Amount:
$1,000,000

Info:
• Support the Ocean Enterprise vision to grow the Blue Economy and establish the MS Gulf Coast as national leader in ocean science and technology development
• New combined degree program in Ocean Engineering and Business to foster Blue Economy entrepreneurship
NEW PROJECT BUCKET 1 – MOSS POINT I-10 COMMERCIAL CORRIDOR IMPROVEMENTS

Location:
Jackson County

Funding Amount:
$3,000,000

Info:
• Enhancing access to existing businesses and supporting additional commercial development in Moss Point
• Transportation network improvements to support economic growth
NEW PROJECT BUCKET 1 – MSU NORTHERN GULF AQUATIC FOOD RESEARCH CENTER

Location:
Jackson / Harrison County

Funding Amount:
$3,000,000

Info:
• Construction of Analytical Lab for testing seafood safety and quality assurance.
• Overall Goal - Research Center to support commercial seafood industry growth (processing, value-added products development)
BUCKET 3 NEW PROJECTS

$18.6m RESTORE Act Funding

2 existing projects

1 new project
EXISTING PROJECT BUCKET 3
BU PROGRAM FOR MARSH CREATION AND RESTORATION

Location:
Coast Wide

ADD funding to EXISTING PROJECT:
$7,000,000 (Additional funding)
• Total: $19,000,000

• Capitalize on dredge material to accelerate marsh creation and restoration

• Leverage RESTORE B2 and NFWF BU efforts to maximize marsh creation
EXISTING PROJECT BUCKET 3
WATER QUALITY IMPROVEMENT PROGRAM

Location:
Coast Wide

Add Funding to existing project:
$7,000,000 (additional funding)

Info:
• Total: $68 million (Bucket 1 and 3)
• Existing projects in all 3 Coastal Counties
• Further water quality improvements in reducing bacterial pollution
NEW PROJECT BUCKET 3
MISSISSIPPI BEACHFRONT RESILIENCE

Location:
Coast Wide

Funding Amount:
$5,000,000

• Restore dune formation along the Mississippi Gulf Coast
• Enhance Boardwalk construction to mitigate sand migration
• Primary purpose: provide resilience to beach, road infrastructure by reducing further beach erosion
NFWF NEW PROJECTS

±$15.69 million NFWF-GEBF funding

6 projects total

1 existing project
NEW PROJECT NFWF GEBF – REEF PHASE III AND IV

Location:
Off-shore

Addition to an EXISTING PROJECT

Funding Amount:
$5.96 million (Two Phases)

- Total Project Cost: $12.9 million
- Project partner: USM and MDMR
- Primary purpose: better understanding of the off-shore reef fishery
NEW PROJECT NFWF GEBF – PILOT OYSTER CULTCH

Location:
Western Mississippi Sound

Funding Amount:
$3.39 million

- Project partner: MDMR
- Primary purpose: implement pilot cultch plants to understand oyster survival for future large scale oyster restoration
NEW PROJECT NFWF GEBF
APPLE SNAILS

Location:
Jackson County, Mississippi

Funding Amount:
$836,000

- Project partner: MDMR
- Primary purpose: control population of apple snails in and around Pascagoula River Coastal Preserve
NEW PROJECT NFWF GEBF– TNC ST LOUIS REEF

Location:
Jackson County

Funding Amount:
$2.8 million

• Project Implementer: TNC
• Primary purpose: restore and enhance the St. Louis Bay TNC oyster reef with a resilient oyster reef habitat
NEW PROJECT NFWF GEBF – INGALLS ARTIFICIAL REEF

Location:
Jackson County + Offshore Reefs

Funding Amount:
$2.2 million

- Project Implementer: MDMR
- Primary purpose: deploy reef materials in new and existing offshore artificial reefs to increase and enhance off-shore reef habitat
NRDA TRUSTEE IMPLEMENTATION GROUP (MS TIG) UPDATE
NRDA MS TIG UPDATE

Members of the MS TIG
NRDA Restoration Types Included in RP#2:

– Oysters

– Wetland Coastal Nearshore Habitats
Alternative A: Oyster Spawning Reefs in Western Mississippi

Alternative B: Oyster Spawning Reefs in Eastern Mississippi

Alternative C: Oyster Spawning Reefs in Mississippi (Alternative A + B)

Alternative D: Mississippi Oyster Gardening Program

Alternative E: No Action
Alternative A: Wolf River Coastal Preserves Habitat Management – Dupont and Bell’s Ferry Tracts

Alternative B: Hancock County Coastal Preserves Habitat Management – Wachovia Tract

Alternative C: Pascagoula River Coastal Preserves Habitat Management-Dantzler Tract

Alternative D: No Action
The MS TIG is in the process of Drafting Restoration Plan 2 to propose for public review and comment.

For current updates sign up for updates at:

https://www.mdeq.ms.gov/restoration/contact/
ROUND TABLE DISCUSSION