

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
MISSISSIPPI STATE EXPENDITURE PLAN
2021 AMENDMENT

Submitted Pursuant to the
Oil Spill Impact Component of the RESTORE Act
33 U.S.C. § 1321(t)(3)

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Introduction

Projects, and corresponding project details/provisions, approved in the Mississippi State Expenditure Plan (MSEP), as amended, remain in full force and effect to the extent not modified in this MSEP 2021 Amendment.

Overview of the Oil Spill

On or about April 20, 2010, the mobile offshore drilling unit Deepwater Horizon, which was being used to drill a well for BP Exploration and Production, Inc. (BP) in the Macondo prospect (Mississippi Canyon 252 – MC252), experienced an explosion, caught fire, and subsequently sank in the Gulf of Mexico (the Gulf). This incident resulted in the discharge of oil and other substances into the Gulf from the rig and the submerged wellhead. The Deepwater Horizon oil spill (Spill) is the largest maritime oil spill in U.S. history. The Spill discharged millions of barrels of oil over a period of 87 days. In addition, well over one million gallons of dispersants were applied to the waters of the Spill area in an attempt to disperse the spilled oil. An undetermined amount of natural gas was also released to the environment as a result of the Spill. After several failed attempts to stop the release of oil, the well was declared “sealed” on September 19, 2010.

As a result of civil and criminal settlements with the parties responsible for the Spill, the State of Mississippi (Mississippi) has and will continue to receive funding from several sources to restore or benefit the natural resources or the economy of Mississippi including, but not limited to, funding received through the following: (1) the Oil Pollution Act of 1990 (OPA) and the corresponding Natural Resource Damage Assessment (NRDA); (2) the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE Act); and (3) the National Fish and Wildlife Foundation (NFWF) Gulf Environmental Benefit Fund (GEBF).

The Executive Director of the Mississippi Department of Environmental Quality (MDEQ) is the designated natural resource trustee under OPA and the Governor’s designee for the RESTORE Act and NFWF GEBF for the State of Mississippi.

RESTORE Act

On July 6, 2012, the President signed into law the RESTORE Act, Subtitle F of Public Law 112-141. The RESTORE Act makes available 80% of the Clean Water Act (CWA) civil and administrative penalties paid by the responsible parties for the Spill (i.e., BP and Transocean) for programs, projects, and activities that restore and protect the environment and economy of the Gulf Coast region through the Gulf Coast Restoration Trust Fund established in the U.S. Department of the Treasury (Treasury). Within the RESTORE Act, there are five funding components (commonly referred to as “buckets”), which make funds available to each of the Gulf States in accordance with certain legal parameters. These components are:

- Direct Component (Bucket 1)
- Comprehensive Plan Component (Bucket 2)
- Oil Spill Impact Component (Bucket 3)
- National Oceanic and Atmospheric Administration (NOAA) Science Program (Bucket 4)
- Centers of Excellence Research Grants Program (Bucket 5)

The Oil Spill Impact Component, also referred to as Bucket 3, accounts for 30% of the funds available in the Gulf Coast Restoration Trust Fund. In accordance with the requirements of the RESTORE Act and as set out in the allocation regulation at 40 C.F.R. § 1800.500, the State of Mississippi will receive 19.07% of the 30% allocation of the Oil Spill Impact Component. The RESTORE Act requires Mississippi, through MDEQ, to prepare a Mississippi State Expenditure Plan (MSEP) describing each activity, project, or program for which Mississippi seeks funding under the Oil Spill Impact Component.

As defined in 31 C.F.R. § 34.503, the MSEP includes a narrative description for each activity, project, or program for which Oil Spill Impact Component funding is being sought. The narrative description for each activity in the MSEP contains the following information:

- The need, purpose, and objectives of the activity;
- How the activity is eligible for funding and meets all requirements of § 34.203 and § 34.503;

- Location of the activity;
- Budget for the activity;
- Milestones for the activity;
- Projected completion dates for the activity;
- Criteria MDEQ will use to evaluate the success of each activity in helping restore and protect the Gulf Coast Region;
- If funding has been requested from other sources, including other components of the Act, the plan identifies the source, states how much funding was requested, and provides the current status of the request;
- How the activities in the plan contribute to the overall economic and ecological recovery of the Gulf Coast; and
- How each activity that would restore and protect natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, coastal wetlands or the economy of the Gulf Coast, is based on the best available science.

New and/or amended MSEP(s) may be written as additional funds become available and as additional projects are identified for funding.

Eligible Activities for the Oil Spill Impact Component

The RESTORE Act dedicates 80% of any civil and administrative penalties paid under the Clean Water Act by responsible parties in connection with the Deepwater Horizon oil spill to the Gulf Coast Restoration Trust Fund for ecosystem restoration (environmental), economic recovery, and tourism promotion in the Gulf Coast region. The RESTORE Act differs from other restoration funding sources (i.e., NFWF, NRDA) in that it specifically allows and anticipates that restoration projects will be developed for the restoration of natural resources and the restoration of the economy, both of which were affected as a result of the Spill.

The eligible activities for the Oil Spill Impact Component cover both ecological and economic projects. The RESTORE Act defines eligible activities for which the Oil Spill Impact Component funds may be used. The eligible activities, projects, and programs as defined in 31 C.F.R. § 34.203 are:

1. Restoration and protection of the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region;
2. Mitigation of damage to fish, wildlife, and natural resources;
3. Implementation of a federally approved marine, coastal, or comprehensive conservation management plan, including fisheries monitoring;
4. Workforce development and job creation;
5. Improvements to or on state parks located in coastal areas affected by the Deepwater Horizon Oil Spill;
6. Infrastructure projects benefitting the economy or ecological resources, including port infrastructure;
7. Coastal flood protection and related infrastructure;
8. Planning assistance;
9. Administrative costs;
10. Promotion of tourism in the Gulf Coast Region, including recreational fishing; and
11. Promotion of the consumption of seafood harvested from the Gulf Coast Region.

Designated State Entity

The State of Mississippi, Office of the Governor, is the entity designated under the Oil Spill Impact Component of the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 (RESTORE Act) to develop the required State Expenditure Plan. The Office of the Governor appointed Chris Wells, the Executive Director of the Mississippi Department of Environmental Quality, as his appointee.

Points of Contact

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Section I: State Certification of RESTORE Act Compliance

Certifications of RESTORE Act Compliance

The Mississippi Department of Environmental Quality hereby certifies to the following:

- Pursuant to the RESTORE Act, 33 U.S.C. § 1321(t)(3)(B)(i)(I), the MSEP includes projects, programs, and activities which will be implemented within the Gulf Coast Region and are eligible for funding under the RESTORE Act.
- Pursuant to the RESTORE Act, 33 U.S.C. § 1321(t)(3)(B)(i)(II), the projects, programs, and activities in the MSEP contribute to the overall economic and ecological recovery of the Gulf Coast.
- Pursuant to the RESTORE Act, 33 U.S.C. § 1321(t)(3)(B)(i)(III), the MSEP takes into consideration and is consistent with the goals and objectives of the Comprehensive Plan adopted by the RESTORE Council.
- Pursuant to the RESTORE Act, 33 U.S.C. § 1321(t)(2)(B)(i), the projects and programs that would restore and protect the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, coastal wetlands, and economy of the Gulf Coast included on the MSEP will be based on the best available science as defined by the RESTORE Act.
- Pursuant to the RESTORE Act, 33 U.S.C. § 1321(t)(3)(B)(ii), not more than 25% of the funds will be used for infrastructure projects for the eligible activities described in 33 U.S.C. § 1321(t)(1)(B)(i)(VI-VII).
- Issues crossing Gulf State boundaries have been evaluated to ensure that a comprehensive, collaborative ecological and economic recovery is furthered by the MSEP.

Process Used to Verify Compliance

The development of the MSEP involves a series of activities that create an iterative process while maintaining transparency to stakeholders and are designed to achieve the following criteria:

- Identify eligible projects, programs, and activities for inclusion on the MSEP;
- Ensure that eligible projects, programs, and activities included on the MSEP contribute to overall ecological and economic recovery of the Gulf Coast;
- Ensure the MSEP takes into consideration and is consistent with the goals, objectives, and commitments of the RESTORE Council's Comprehensive Plan; and
- Promote funded projects to be as successful and sustainable as possible.

In 2016 -2019, Mississippi's MSEP planning effort included five phases:

- Phase 1: Establishing a Foundation
- Phase 2: Project Contribution, Benefit, and Coordination
- Phase 3: Project Filtering
- Phase 4: Project Vetting
- Phase 5: Project Selection and MSEP development

In 2020, the State of Mississippi did not publish an MSEP amendment due to COVID-19.

Beginning in 2021, the Governor of the State of Mississippi formed the Governor's Gulf Coast Advisory Committee (GCAC or Committee). The Committee is comprised of over seventy (70) stakeholders, including private citizens, non-governmental organizations, business owners, elected officials, and other community leaders from the Mississippi Coast. The Committee is divided into seven (7) advisory sub-committees representing the following categories:

- Economic Development,
- Eco-Restoration,
- Workforce Development and Research and Education,
- Tourism,
- Small Business,
- Seafood, and
- Infrastructure.

Utilizing feedback from the 2020 MDEQ Restoration Summit, as well as individual stakeholder feedback, Phase 1 and Phase 2 for this MSEP planning effort were accomplished by summarizing the projects captured in the MDEQ Project Portal and sorting the projects by the seven respective sub-committee categories. Then, Phases 3-5 for this MSEP planning effort were undertaken through the GCAC process. The GCAC process was as follows:

- The sub-committees were tasked by the Governor to provide a list of agreed upon project recommendations.
- August 12, 2021 – The Governor and MDEQ Executive Director held the initial meeting of the GCAC. This meeting occurred in Diamondhead, MS, was open to the public, and was streamed live. The purpose of the meeting was to provide high-level restoration information to the committee members as well as begin the project selection process.
- August 20-25, 2021 – Each sub-committee member was sent a list of projects previously selected for funding within their respective category and provided a list of remaining portal projects related to their respective sub-committee category. The sub-committees discussed their assignment and next steps. Each sub-committee meeting was open to the public. Each sub-committee undertook their own project selection process to provide project recommendations from the respective committees.
- September 8-9, 2021 – MDEQ reconvened virtual meetings for the sub-committees and requested that they present and formally approve project recommendations for the Governor's consideration for funding. Each sub-committee discussed projects and provided their respective recommendations to MDEQ by the end of the meeting, and via email by close of business on September 9, 2021. Each sub-committee meeting was open to the public.

Twenty-eight (28) projects were recommended for funding from the GCAC to the Governor's Office. MDEQ evaluated these projects for eligibility under the Oil Spill Impact Component and presented these projects to the Governor for consideration in project selection for this MSEP Amendment. Of these projects, the Governor selected six (6) projects for this MSEP Amendment.

Section II: Public Participation Statement

There were multiple phases of public engagement for the 2021 MSEP Amendment in order to gather the appropriate public participation necessary to conform with the public participation requirements outlined in 31 C.F.R. § 34.503(g). In accordance with 31 C.F.R. § 34.503(g), the MSEP will be available for public review and comment for a minimum of forty-five (45) days. Each activity on the MSEP will only be adopted after consideration of all meaningful input. MDEQ will make the MSEP available for public comment and review in a manner that is consistent with other MDEQ-administered public comment periods related to the Deepwater Horizon oil spill.

Section III: Financial Integrity

On behalf of the State of Mississippi, MDEQ understands its fiduciary responsibilities under the RESTORE Act and is committed to maintaining the highest level of fiscal accountability and transparency to assure the public and Congress that funds have been managed appropriately to further the purposes of the RESTORE Act. These responsibilities include RESTORE Act project administration functions, such as maintaining financial records and ensuring complete and accurate reporting through project oversight. MDEQ's financial system was developed around the basic principles of sound financial management. These principles are internationally accepted accounting and financial management practices recognized worldwide by leading public and private sector organizations. The basic principles of sound financial management include, among others, principles of transparency, internal checks and balances, and independent external auditing.

Transparency – MDEQ is committed to maintaining transparency with the public and to reporting on RESTORE Act projects, programs, and activities.

Internal checks and balances – To maintain effective controls, MDEQ properly segregates duties among state personnel performing financial functions for RESTORE Act projects, programs, and activities.

Independent external auditing – All state agencies are subject to annual audits to be conducted by the Office of the State Auditor or its contracted designee as prescribed by state law. Agency audits are performed at the fund level in conjunction with the State Auditor's annual audit of the State's Comprehensive Annual Financial Report (CAFR).

These principles of sound financial management are designed to:

- Prevent corruption and reduce or eliminate financial risk and loss;
- Ensure that funds are spent in accordance with the respective grant awards, state law and federal law, as applicable;
- Ensure that personnel responsible for implementing the activities in the project work plans have the resources needed to support the job; and
- Assist state personnel in spending funds efficiently and effectively and report expenditures accurately.

MDEQ is responsible for:

- Fiscally managing and safeguarding RESTORE Act project funds;
- Disbursing funds to sub-recipients in a timely manner for reimbursement of eligible project expenditures;
- Keeping accurate and up-to-date records of all financial transactions related to project activities;
- Providing accurate financial reports as requested or required;
- Assisting state personnel with financial planning, budgeting, monitoring, and evaluation; and
- Assisting state personnel in understanding and complying with financial policies and procedures needed to ensure efficient and effective stewardship of RESTORE Act funds.
- Effective financial operations depend on clear policies and procedures for different areas of activity such as:
 - Cash management policies (e.g., project budgets, requests for funds, and disbursement of funds);
 - Personnel policies;
 - Policies regarding delegation of signature authority for expenditures or reimbursements in excess of established thresholds;
 - Purchasing and procurement laws, regulations, and policies;
 - Policies regarding reimbursement of administrative expenses;
 - Policies regarding supporting documentation required for disbursement of funds; and
 - Policies establishing financial reporting requirements and schedules, including documented review processes by appropriate supervisory personnel.

Financial Controls

Financial controls are designed to enable state agencies to accomplish fiduciary responsibilities. These controls also reduce the risk of asset loss, ensure that RESTORE Act project documentation is complete and accurate, that financial reports are reliable, and ensure compliance with laws and regulations. A financial control system includes both preventative controls (designed to discourage errors or fraud) and detective controls (designed to identify an error or fraud after it has occurred).

Mississippi law requires "...each state agency, through its governing board or executive head, to maintain continuous internal audit covering the activities of such agency affecting its revenue and expenditures, and maintain an adequate internal system of pre-auditing claims, demands and accounts against such agency as to ensure that only valid claims, demands and accounts will be paid...". Miss. Code Ann. § 7-7-3(6)(d), (2016). Consistent with the RESTORE Act and the MSEP, sub-recipients must operate and use resources with minimal potential for waste, fraud, and mismanagement. The State's financial control system provides assurance that significant weaknesses that could affect the State's ability to meet its objectives would be prevented or detected in a timely manner.

Project management, other personnel, and those charged with governance will apply internal control processes that are designed to provide reasonable assurance in the reliability of project financial reporting. The system includes characteristics such as:

- Policies and procedures that provide for appropriate segregation of duties to reduce the likelihood of deliberate fraud;
- Personnel training materials that ensure employees are qualified to perform their assigned responsibilities;
- Sound practices to be followed by personnel in performing their duties and functions; and
- Proper authorization and recording procedures for financial transactions.

MDEQ's internal control system has been modeled after the Committee of Sponsoring Organizations (COSO) internal control framework and the following five inter-related components. Annually, each state agency is required to certify that it has performed an internal control risk assessment, identify weaknesses, and describe a corrective action plan, if applicable.

Control Environment – In Mississippi, responsibility for implementing internal controls at each state agency begins with the chief executive officer and extends to everyone in the agency. Each agency director personally holds those in leadership positions responsible for helping to design, implement, maintain, and champion an internal control program that encompasses all agency fiscal programs and related activities. Each agency's chief financial officer shares this leadership role, yet ultimate accountability remains with the agency head.

Personnel are adequately trained to carry out their responsibilities and are required to understand their responsibilities. The State provides its employees with the authority to perform the tasks assigned to them.

Risk Assessment – As part of establishing proper controls and procedures, an assessment is performed to identify, analyze, and manage risks relevant to achieving the state's goals and objectives for RESTORE Act projects. This assessment identifies internal and external events or circumstances that could adversely affect the state's ability to carry out its fiduciary responsibilities. Identified risks according to potential impact on the RESTORE Act projects and the likelihood of occurrence will be considered. The MSEP is considered in the risk assessment process by considering the goals and objectives of the RESTORE Act activities while assessing the control environment, the overall financial management process, the role of the accounting system, and other financial management activities.

Identification of component systems comprising the complete accounting system is also included in the risk assessment process. Transaction cycles were identified and considered along with inherent risks. These will be continuously reviewed, and strategies will be updated as needed to manage the risks.

Control Activities – MDEQ’s internal control activities include written policies, procedures, techniques, and mechanisms that help ensure management’s directives are carried out in compliance with the RESTORE Act criteria. Control activities help identify, prevent, or reduce the risks that can impede accomplishment of state objectives. Control activities occur throughout the financial department, at all levels and in all functions; control activities include things such as approvals, authorizations, verifications, reconciliations, documentation, separation of duties, and safeguarding of assets.

For each transaction cycle identified in the risk assessment, the flow of information through the process and the internal control activities taken will be documented and analyzed.

Documentation may include organizational charts, standard operation procedures, manuals, flowcharts, decision tables, questionnaires, and/or review checklists.

Communication and Information – The state’s financial system provides adequate processes and procedures to ensure that each agency or department has relevant, valid, reliable, and timely communications related to internal and external events to effectively run and control its operations. Agency directors can obtain reliable information to make informed business decisions, determine their risks, and communicate policies and other important information to those who need it.

Communication is vital to effective project management, and MDEQ’s financial information system has mechanisms in place to properly capture and communicate RESTORE Act project financial data at the level appropriate for sound financial management. Policy manuals, accounting and financial reporting manuals, internal memoranda, verbal directives, and management actions are a few of the means of communicating across state agencies.

Monitoring – Monitoring of the internal control system will be performed to assess whether controls are effective and operating as intended. Monitoring is built into normal, recurring operations, is performed on a real-time basis, reacts dynamically to changing conditions, and is ingrained in each state agency. Ongoing monitoring occurs through routine managerial activities such as supervision, reconciliations, checklists, comparisons, performance evaluations, and status reports. Monitoring may also occur through separate internal evaluations (e.g., internal audits/reviews) or from external evaluations (e.g., independent audits, comparison to industry standards, surveys). Any deficiencies found during monitoring will be reported to the appropriate authority.

MDEQ requires prompt evaluation of any findings and recommendations. Formal procedures are documented for responding to findings and recommendations. Those that generate action items are properly outlined for timely response and resolution. Responsible parties are required to complete action items to correct or otherwise resolve the deficiencies within an established timeframe. The monitoring process also includes analysis of whether exceptions are reported and resolved quickly.

Accountability

While each state employee has personal internal control responsibility, the state agency director holds ultimate responsibility and assumes ownership for internal control over financial reporting of RESTORE Act funds. Other directors and managers support the state’s internal control philosophy, promote compliance, and maintain control within their areas of responsibility. Chief financial officers have key oversight and policy enforcement roles over fiscal matters. Other state personnel hold lead responsibility for compliance with nonfinancial aspects of laws, directives, policies, procedures, and codes of ethics.

The state agency director has designated a senior manager as the RESTORE Act project manager specialist who is responsible for coordinating the overall state-wide effort of evaluating, improving, and reporting on internal controls over RESTORE Act project management. A risk assessment of project internal control systems will be performed annually. If the risk assessment indicates a high level of risk associated with the financial control system, internal controls will be evaluated. Any serious deficiencies will be reported to the

appropriate authority.

Key Controls

MDEQ applies key controls for financial operating functions that serve as strategic risk mitigation tools within each area. These key controls are developed around financial management policies of segregation of duties, systematic reviews and reconciliations, and documented approval processes. These key controls serve as the framework for financial processes used in the flow of information for capturing and reporting financial data.

Other Financial Integrity Mechanisms

MDEQ has developed detailed written policies and procedures as part of its financial control systems and financial control system plan. The plan, policies, and procedures provide assurance that RESTORE Act funds are being safeguarded and that applicable statutes, rules, and regulations are being followed while also ensuring that the goals and objectives of the RESTORE Act are being met.

The financial control system plan is more than just a list of procedures or flowcharts of how activities operate. Rather, the plan is a comprehensive document that encompasses all components of internal controls. Likewise, the plan documents the financial control structure as it relates to those functions. Key financial integrity mechanisms of internal control over financial reporting are described in the following paragraphs.

Risk assessments of sub-recipients – Pursuant to the Uniform Guidance requirements in 2 C.F.R. Part 200, MDEQ will emphasize components of sub-recipients' financial system internal checks and balances that address fraud, waste, and performance. MDEQ's financial management system is designed for the prevention of fraud, waste, and abuse. As such, risk assessments of all sub-recipients' financial management systems will be conducted before awarding RESTORE funding. MDEQ's formalized risk assessment process for sub-recipients is described in the document titled "Mississippi Department of Environmental Quality, Office of Restoration, Sub-recipient Monitoring Procedures," which outlines MDEQ's process to assess the capabilities of sub-recipients to implement activities in the MSEP consistent with the requirements of 2 C.F.R. § 200, including the sub-recipient risk evaluation in 2 C.F.R. 200.332(b).

Project budgets – Project budgets represent the financial plans for projects throughout their lifespans. The budgets match planned expenditures with revenues that the state expects to receive, which is essential for effective cash flow planning and management. Budgets also help prevent the misuse of project funds and control spending.

Segregation of duties – MDEQ employs several levels of control to achieve proper segregation of duties in financial processes. Departmental controls allow for proper segregation among functions related to the recording and reporting of project transactions. Supervisory approval is required for all expenditures by personnel independent of the recording process. Stewardship over project funds is essential for proper fiduciary accountability, and the State has established the framework to achieve this component of internal control.

Safeguarding of assets – Access to financial project information is restricted to essential personnel. Passwords and other physical safeguards are employed by the State to restrict access to financial data. By restricting access, risk of misappropriation and fraud is reduced because only the personnel who will be working on the financial data for the projects have access to those functions. Regular backups of financial information are done and stored off-site to minimize loss of data due to an unforeseen occurrence.

Sub-recipient monitoring – MDEQ developed a process for sub-recipient monitoring using an effective risk assessment model. As part of the initial risk assessment process, sub-recipients are required to complete an Organizational Self-Assessment (OSA) questionnaire and provide copies of standard financial policies and procedures that the state evaluates as part of designing the sub-recipient monitoring program. The OSA is required to be updated annually by each sub-recipient. On-site assistance and reviews for a sub-recipient based on appropriate risk levels will be provided throughout the life of the projects. MDEQ will require and review financial and progress reports for accuracy, completeness, and alignment with RESTORE goals. Budget reports may also be required for comparison to actual expenditures, in detail if necessary.

MDEQ may also employ other financial integrity mechanisms if necessary or for specific RESTORE Act project types. Modifications will be based on updated risk assessments for the RESTORE Act financial control system.

Conflict of Interest

The processes that MDEQ uses to prevent conflicts of interest in the development and implementation of the MSEP, as required by 31 C.F.R. § 34.503(b)(3), are guided by applicable Mississippi law. Under Mississippi Code § 25-4-1, it is essential to the proper operation of democratic government that public officials and employees be independent and impartial, that governmental decisions and public policy be made on the proper channels of the government structure; that public office is not used for private gain other than the remuneration provided by law; that there be public confidence in the integrity of government; and that public officials be assisted in determinations of conflicts of interest.”

Further, MDEQ requires, where applicable, the completion of a non-collusion and conflict of interest affidavit certifying that there are no present or currently planned interests (financial, contractual, organizational, or otherwise) relating to the work to be performed under any contract resulting from the proposed work that would create any actual or potential conflict of interest (or apparent conflicts of interest)(including conflicts of interest for immediate family members: spouses, parents, children) that would impinge on its ability to render impartial, technically sound, and objective assistance or advice or result in it being given an unfair competitive advantage. MDEQ also requires sub-recipients and contractors to notify MDEQ immediately of any potential or actual conflicts that may arise. If any potential or actual conflict cannot be resolved to MDEQ’s satisfaction, MDEQ reserves the right to terminate the sub-award agreement or contract in place pursuant to the Termination for Convenience clause of the sub-award agreement or contract.

Section IV: Overall Consistency with the Goals and Objectives of the Comprehensive Plan

Mississippi’s 2021 MSEP Amendment focuses on four of the goals identified in the Comprehensive Plan:

- Restore Water Quality and Quantity – Restore and protect the water quality and quantity of the Gulf Coast region’s fresh, estuarine, and marine waters.
- Restore and Revitalize the Gulf Economy – Enhance the sustainability and resiliency of the Gulf economy.
- Enhance Community Resilience – Build upon and sustain communities with capacity to adapt to short- and long-term changes.
- Restore and Conserve Habitat – Restore and conserve the health, diversity, and resilience of key coastal, estuarine, and marine habitats

Mississippi’s 2021 MSEP Amendment focuses on four objectives identified in the Comprehensive Plan:

- Promote community resilience.
- Restore, improve, and protect water resources.
- Protect and restore living and coastal marine resources.
- Restore, enhance, and protect habitats.

Section V: Projects, Programs, and Activities

	<i>Project Title</i>	<i>Estimated Cost</i>	<i>Infrastructure (Yes/No)</i>	<i>Start Date</i>	<i>End Date</i>	<i>Primary Eligible Activity (number 1-11; see section 4.1.1 of Submittal Guidelines)</i>	<i>Informed by Best Available Science (Yes/No)</i>	<i>Status</i>
1	Mississippi Gulf Coast Water Quality Improvement Program	\$56 Million	No	08/01/2018	07/31/2023	1	Yes	Activity Approved (2016 Initial MSEP). Activity Amended (2017 MSEP Amendment). Activity Amended (2019 MSEP Amendment).
2	Pascagoula Oyster Reef Complex Relay and Enhancement	\$4.1 Million	No	08/01/2018	07/31/2023	1	Yes	Activity Approved (2016 Initial MSEP). Activity Amended (2017 MSEP Amendment).
3	Compatibility, Coordination, and Restoration Planning	\$1.8 Million	No	08/01/2018	07/31/2022	8	No	Activity Approved (2016 Initial MSEP). Activity Amended (2017 MSEP Amendment). Scope clarification (2018 MSEP Amendment).

	<i>Project Title</i>	<i>Estimated Cost</i>	<i>Infrastructure (Yes/No)</i>	<i>Start Date</i>	<i>End Date</i>	<i>Primary Eligible Activity (number 1-11; see section 4.1.1 of Submittal Guidelines)</i>	<i>Informed by Best Available Science (Yes/No)</i>	<i>Status</i>
4	Gulf of Mexico Citizen Led Initiative (GMCLI)	\$1.9 Million	No	08/01/2018	7/31/2023	1	Yes	Activity Approved (2017 MSEP Amendment).
5	Remote Oyster Setting Facility	\$9.36 Million	No	01/01/2019	12/31/2023	1	Yes	Activity Approved (2017 MSEP Amendment).
6	Coastal Headwater Land Conservation Program	\$8 Million	No	08/01/2018	12/31/2021	1	Yes	Activity Approved (2017 MSEP Amendment).
7	Round Island Living Shoreline Demonstration and Protection Project (Planning)	\$2.2 Million	No	08/01/2018	12/31/2020	8	Yes	Activity Approved (2017 MSEP Amendment).
8	Mississippi Sound Oyster Shell Recycling Program	\$650,000	No	12/01/2019	11/30/2021	1	Yes	Activity Approved (2018 MSEP Amendment).
9	Beneficial Use of Dredge Material for Marsh Creation and Restoration in Mississippi	\$19 Million	No	12/01/2019	11/30/2024	1	Yes	Activity Approved (2018 MSEP Amendment). Activity Amended (2019 MSEP Amendment).

	<i>Project Title</i>	<i>Estimated Cost</i>	<i>Infrastructure (Yes/No)</i>	<i>Start Date</i>	<i>End Date</i>	<i>Primary Eligible Activity (number 1-11; see section 4.1.1 of Submittal Guidelines)</i>	<i>Informed by Best Available Science (Yes/No)</i>	<i>Status</i>
10	Hancock County Marsh Living Shoreline Extension	\$6 Million	No	10/01/2019	09/30/2021	1	Yes	Activity Approved (2018 MSEP Amendment).
11	Mississippi Beachfront Resilience	\$9.95 Million	No	10/01/2020	12/31/2024	1	Yes	Activity Approved (2019 MSEP Amendment). Activity Amended (2021 MSEP Amendment)
12	Public / Private Training Partnership (Accelerate MS)	\$2.2 Million	No	1/1/2023	12/31/2027	4	Yes	New Activity (2021 Amendment)
13	Coastal Habitat Management Program	\$3.3 Million	No	1/1/2023	12/31/2027	1	Yes	New Activity (2021 Amendment)
14	Gulf Coast Center of Security and Emerging Technology (CSET) Fusion	\$5.5 Million	No	1/1/2023	12/31/2027	4	Yes	New Activity (2021 Amendment)
15	Improvement of Wastewater Quality and Solid Waste Disposal from Shrimp Processing Industry	\$5.5 Million	No	1/1/2023	12/31/2027	1	Yes	New Activity (2021 Amendment)
16	D'Iberville Working Waterfront and Commercial Seafood Harbor	\$6.6 Million	No	1/1/2023	12/31/2027	6	Yes	New Activity (2021 Amendment)

Activity #11: Mississippi Beachfront Resilience

Project Summary: The Mississippi Beachfront Resilience project was approved on the 2019 MSEP Amendment. This program supports the restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region through the restoration and development of sand dunes and protection of beaches with additional boardwalks on Mississippi Gulf Coast beaches. This program would mitigate beach erosion and promote the health and integrity of the beach ecosystem by utilizing methods which accelerate and maximize dune formation, such as planting native plants, installing sand fencing, and providing additional boardwalk to the concrete beach boardwalk/seawall system. These measures would provide resilience and mitigate sand migration.

Project Modifications – 2021 MSEP Amendment

The 2021 MSEP Amendment increases the program budget by \$4.95 million to support activities approved in the 2019 MSEP Amendment.

The approved 2019 MSEP Amendment can be found at the following link: [2019 Amendment](#)

Activity #12: Public / Private Training Partnership (Accelerate MS)

Project Summary: This project would support workforce development and job creation in the Gulf Coast Region through the development and implementation by enhancing coordination among workforce development partners in Hancock, Harrison, and Jackson Counties. Accelerate MS is the State's rebranded Mississippi Office of Workforce Development with the goal of creating more jobs and bringing economic development and growth to the State of Mississippi. Accelerate MS was created to connect Mississippians to economic opportunity by expanding best practices in workforce readiness and career training to meet current and emerging employment opportunities. This project would allow Accelerate MS to create an enhanced coordination approach to workforce development in Harrison, Hancock, and Jackson Counties in Mississippi to enhance workforce growth and job creation.

The project is designed to launch a large-scale, well-funded project for workforce development in the three coastal counties. Accelerate MS would provide an opportunity for a mix of public, private, and non-governmental organization (NGO) partners to identify labor market needs across targeted industry sectors. Additionally, Accelerate MS would disseminate information obtained from industry partners to assist a mix of K-12, Community College, Institutes of Higher Learning (IHL), and NGO organizations in developing workforce training programs for careers in high-paying industries. Additional activities may also include, but are not limited to, planning, oversight and management, and coordination of sub-award(s) between MDEQ and sub-recipient.

Need: There is a need for enhanced communication and coordination among workforce development institutions to foster enhanced workforce development and job creation.

Objective: To enhance coordination among workforce development partners in Hancock, Harrison, and Jackson Counties in order to enhance workforce growth and job creation.

Location: This project would take place in Hancock, Harrison, and Jackson Counties, Mississippi.

Timeline: This project is anticipated to start 1/1/2023 and end 12/31/2027.

Additional Information: The project would be administered by MDEQ.

Overall Economic or Ecological Contribution to the Recovery of the Gulf Coast: This project would contribute to workforce development and job creation of the Gulf Coast Region through enhanced coordination between workforce development partners.

Eligibility and Statutory Requirements: This project is located in the Gulf Coast Region as defined by 31

C.F.R. § 34.2. This project qualifies as an eligible activity for Oil Spill Impact Component funding through 31 C.F.R. § 34.201(d) – workforce development and job creation, and 33 U.S.C. § 1321(t)(1)(B)(i)(IV) of the RESTORE Act. The primary purpose of the project is to enhance coordination between workforce development partners to improve job creation opportunities.

Comprehensive Plan Goals and Objectives:

This project aligns with the following Comprehensive Plan goals:

- Enhance Community Resilience – build upon and sustain community with capacity to adapt to short- and long-term changes;
- Restore and Revitalize the Gulf Economy – Enhance the sustainability and resiliency of the Gulf

Major Milestones:

Milestone – Development of a hiring and organization structure for Accelerate MS

Milestone – Programmatic engagement of partners in workforce development

Success Criteria/Metrics/Outcomes:

The anticipated success criteria that would be measured are:

- Number of people and institutions engaged in coordination activities;

Activity	Anticipated Project Success Criteria/Metrics/ Outcomes:	Short-term outcome	Long-term outcome
Workforce Coordination	Enhanced coordination between workforce development partners	Syncing of education opportunities with job needs, market demands, or economic needs; Development of programs;	Enhanced number of jobs filled in high demand economic sectors

Monitoring and Evaluation: The Accelerate MS team would monitor the number of people and institutions engaged in monthly coordination activities.

Best Available Science: Planning and coordination of job needs and filling those needs with staff that have the educational requirements is the fundamental building block for economic development and state prosperity (Ozturk, 2008; Berger and Fisher, 2013).

Budget/Funding

Estimated Cost of the Project and Amount to be Requested from Oil Spill Impact Component Funds: \$2,200,000 (100% Implementation)

Partnerships/Collaboration:

- Accelerate MS
- Mississippi Department of Employment Security

Leveraged Resources: None currently anticipated.

Funds Used as Non-Federal Match: None currently anticipated.

Other: None currently anticipated.

References:

- Berger, N., Fisher, P. 2013. A well-educated workforce is key to state prosperity. Economic Analysis and Research Network Report. Published – August 13, 2013. Available online: <https://files.epi.org/2013/A%20well-educated%20workforce%20is%20key%20to%20state%20prosperity.pdf>
- Ozturk, I. 2008. The role of education in economic development: a theoretical perspective. Available at SSRN: <https://ssrn.com/abstract=1137541> or <http://dx.doi.org/10.2139/ssrn.1137541>

Activity # 13: Coastal Habitat Management Program

Project Summary: This program would support the restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region through the development and implementation of management plans for existing and newly acquired tracts within the Coastal Preserves Program in Mississippi. This program would fund the development of management plans and implementation of management activities, such as controlled burning, debris removal, trash removal, and herbaceous and nuisance wildlife invasive species control. These activities would promote the health and integrity of Mississippi's coastal ecosystems and provide long-term benefits to the natural resources and economic value of the region.

The Coastal Preserves Program of the Mississippi Department of Marine Resources is dedicated to effectively preserve, conserve, restore, and manage Mississippi's coastal ecosystems to perpetuate their natural characteristics, features, ecological integrity, social, economic, and aesthetic values for future benefit. The program currently manages twenty unique coastal preserve sites that includes approximately 40,000 acres of coastal habitat. These sites vary in condition and need for restoration and management. Habitat management is needed to effectively promote healthy ecosystem functions for these sites.

This program would support the development and implementation of management activities for the Coastal Preserves Program. Additional activities may also include, but are not limited to, planning, oversight and management, and coordination of sub-award(s) between MDEQ and the sub-recipient.

Need: Mississippi's Coastal Preserve Sites are susceptible to habitat loss and fragmentation, hydrological alterations, and invasive plant and animal species. Habitat management is needed to effectively promote healthy ecosystem functions and preserve Mississippi's coastal ecosystems.

Purpose: Create habitat management plans and implement habitat restoration activities in Mississippi's existing and newly acquired Coastal Preserve tracts.

Objective: The program would support restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal habitats of the Mississippi Gulf Coast Region through the creation of habitat management plans and implementation of habitat restoration activities, including, but not limited to, prescribed fire operations, hydrologic restoration activities, and invasive species control efforts.

Location: This project would take place in the Gulf Coast Region.

Timeline: This project is anticipated to start 1/1/2023 and end 12/31/2027.

Additional Information: The project would be administered by MDEQ.

Overall Economic or Ecological Contribution to the Recovery of the Gulf Coast: This project would allow the State of Mississippi to enhance the resiliency of crucial coastal wetlands habitat and associated upland habitats in existing and newly acquired Coastal Preserve tracts. These habitats provide important ecosystem services and are an essential component of the region's tourism economy and quality life.

Eligibility and Statutory Requirements: This project is located in the Gulf Coast Region as defined by 31 C.F.R. § 34.2. This project qualifies as an eligible activity for funding under the Oil Spill Impact Component funding through 31 C.F.R. § 34.201(a) – restoration and protection of the natural resources, ecosystems, fisheries, marine, and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region, and 33 U.S.C. § 1321(t)(1)(B)(i)(I) of the RESTORE Act. The primary purpose of the project is restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast region.

Comprehensive Plan Goals and Objectives:

This project aligns with the following Comprehensive Plan goals:

- Restore and Conserve Habitat – restore and conserve the health, diversity, and resilience of key coastal, estuarine, and marine habitats.

This project supports the following Comprehensive Plan objectives:

- Restore, Enhance, and Protect Habitats.

Major Milestones:

Milestone – Development of tract specific management plans

Milestone – Implementation of restoration activities based on management plans

Success Criteria/Metrics/Outcomes:

The anticipated success criteria that would be measured are:

- Number of management plans developed
- Number of acres restored

Activity	Anticipated Project Success Criteria/Metrics/Outcomes	Short-term Outcome	Long-term Outcome
Develop management plans	Management and activity plans for existing and newly acquired tracts	Shelf-ready plans available to guide restoration efforts	Enhanced long-term management
Implement habitat management and restoration	Acres of land/habitat restored	Restoration of acres in the Coastal Preserves Program	Enhanced long-term management of Coastal Preserves lands

Monitoring and Evaluation: One success criterion for this proposed project would be determined by the number of management plans developed. These management plans are tied to the number of tracts that currently do not have tract specific management plans or any additional acres acquired by the Coastal Preserves Program over time. The number of acres restored success criteria for this proposed project is not contingent upon the creation of new management plans. This success criteria can also be met by the implementation of habitat management and restoration activities on existing acreage of Coastal Preserve tracts, as needed.

Best Available Science: Coastal habitats are key components of the greater Gulf of Mexico ecosystem. Several strategies and frameworks have identified habitat management as a critical component of ensuring success towards comprehensive ecosystem restoration. The *MS Comprehensive Wildlife Conservation Strategy*, coordinated by the Mississippi Department of Wildlife, Fisheries, and Parks, identified invasive species and lack of habitat management as a threat to healthy ecosystems and made their eradication and control a priority target (Knight and Barber, 2005). The East Gulf Coastal Plain Joint Venture, by the US Fish and Wildlife

Service, identifies invasive species as a target because of their threat to natural habitat (Applegate et al., 2008). The Nature Conservancy, in the *Strategy for Restoring the Gulf of Mexico: Recommendations to the Gulf of Coast Ecosystem Restoration Task Force*, identifies targeting habitat management as a means towards restoring the Gulf of Mexico (Brown, 2011).

Coastal Mississippi habitats are generally subject to the following ecological threats and problems: habitat loss and fragmentation; lack of fire in the ecosystem; alterations to hydrology; proliferation of invasive plants and animals; and sea-level rise. Sea-level rise is exacerbated by other major threats such as invasive species. Rising sea level may result in tidal marsh submergence and habitat migration, as salt marshes transgress landward and replace tidal freshwater habitats, brackish marshes, and upland systems (Paudel and Battaglia, 2013). Overall trends of decline in most upland and transitional coastal habitat are due to lack of comprehensive management. This inaction can lead to invasive species infestations and modified vegetation structure and composition. Additionally, many habitats have been converted for economic reasons, such as conversion of long-leaf or slash pine forests to loblolly pine plantations.

Alteration of natural hydrology (the timing, magnitude, and duration of flow) in these areas is largely due to degraded watershed condition. Degraded watershed conditions result in a reduced capacity to receive and process precipitation to maintain natural baseflow, storm flow, and stream flow. Lack of fire in a fire-dominated system can lead to over-vegetation with areas of high tree density. Over-vegetation in dense forested areas can have a large influence on many components of the hydrologic cycle, primarily precipitation interception, infiltration, evapotranspiration, soil moisture storage, overland flow, and baseflow (Brooks, 2012). The removal and suppression of fire in coastal systems has resulted in significant community shifts with the invasion of non-native and invasive species. Two non-native plant species that have obvious impacts in coastal transitional habitats are Chinese Tallow (*Triadica sebifera*) and Cogongrass (*Imperata cylindrica*). Along the Mississippi coast, both Chinese Tallow and Cogongrass occur in coastal upland and freshwater marsh habitats. Areas heavily infested with invasive species can show significant reductions in native plant and animal diversity (Hedja and Pysek, 2009). This project would support the restoration of habitats through improved management practices by making investments on acquired lands.

Budget/Funding

Estimated Cost of the Project and Amount to be Requested from Oil Spill Impact Component Funds: \$3.3 million (100% Implementation)

Partnerships/Collaboration:

- Mississippi Department of Marine Resources

Leveraged Resources: This project would build on existing management of state lands under the MDMR Coastal Preserves Program. Additionally, NRDA and NFWF GEBF funds have been used for natural resource management activities in several coastal preserves across the coast.

Funds Used as Non-Federal Match: None currently anticipated.

Other: None currently anticipated.

References:

Applegate, R., Brunjes, J., Chebib, L., Demarest, D., Ford, B., Kleiner, K., Pashley, D., Perkins, J., Soehren, E., Somershoe, S., Tipton, H., Vorisek, S. 2008. East Gulf Coastal Plain Joint Venture, Implementation Plan, Vers. 1, pp.106

Brooks, K. N., Ffolliott, P. F., & Magner, J. A. (2012). Hydrology and the Management of Watersheds. John Wiley & Sons.

Brown, C. (2011). Strategy for Restoring the Gulf of Mexico: Recommendations to the Gulf Coast Ecosystem

Restoration Task Force (A cooperative NGO report).

Hejda, M., Pyšek, P., & Jarošík, V. (2009). Impact of invasive plants on the species richness, diversity and composition of invaded communities. *Journal of ecology*, 97(3), 393-403.

Knight, C., and Barber, E. 2005. Mississippi Comprehensive Wildlife Conservation Strategy 2005-2015, Version 1.1 Mississippi Department of Wildlife, Fisheries and Parks on behalf of the State of Mississippi, pp.428

Paudel, S., & Battaglia, L. L. (2013). Germination responses of the invasive *Triadica sebifera* and two co-occurring native woody species to elevated salinity across a Gulf Coast transition ecosystem. *Wetlands*, 33(3), 527-535.

Activity #14: Gulf Coast Center of Security and Emerging Technology (CSET) Program

Project Summary: This project would support workforce training efforts in the Gulf Coast Region through the development of training programs in emerging technology industries such as Cybersecurity, Coding/Programming, Data Analytics, Artificial Intelligence (AI), Virtual Reality (VR)/Augmented Reality (AR), and Simulation/Game Design.

Mississippi Gulf Coast Community College (MGCCC) and the Gulf Coast Center for Security and Emerging Technology (CSET) Tech Fusion project would provide no cost requisite training to students in emerging technologies with the goal of making the Gulf Coast region an international leader in the high-tech sector. These training programs would develop a trained Information Technology (IT) workforce as well as provide opportunities for businesses and industries to upskill incumbent workers. Programs included in this proposed high-tech IT industry include Computer Networking Technology, Computer Programming Technology, Cybersecurity, Coding Technology, Data Analytics Technology, IT Specialist Technology, Simulation and Game Design Technology, Live Entertainment Technology, and Geographic Information Systems/ Broadband Technology. The Gulf Coast CSET program would provide delivery of workforce training in face-to-face, hybrid/virtual, or online students throughout the region and around the world.

The project would fund the implementation of the CSET program including no-cost industry training, staff, and associated administrative support. Additional activities may also include, but are not limited to, planning, oversight and management, and coordination of sub-award(s) between MDEQ and sub-recipient.

Need: There is a need to provide workforce development training in the Security and Emerging Technology market to foster workforce and economic development in the Gulf Coast Region of Mississippi.

Objective: Provide 4 years of no-cost industry training in emerging technology industries such as Cybersecurity, Coding/Programming, Data Analytics, Artificial Intelligence (AI), Virtual Reality (VR)/Augmented Reality (AR), Simulation/Game Design, and Geographic Information Systems/ Broadband Technology.

Location: This project would take place in the Gulf Coast Region.

Timeline: This project is anticipated to start 1/01/2023 and end 12/31/2027.

Additional Information: The project would be administered by MDEQ.

Overall Economic or Ecological Contribution to the Recovery of the Gulf Coast: This project would contribute to workforce development and job creation of the Gulf Coast Region through the development of a CSET program, which would provide workforce training to students in emerging technologies.

Eligibility and Statutory Requirements: This project is located in the Gulf Coast Region as defined by 31 C.F.R. § 34.2. This project qualifies as an eligible activity for Oil Spill Impact Component funding through 31

C.F.R. § 34.201(d) – workforce development and job creation, and 33 U.S.C. § 1321(t)(1)(B)(i)(IV) of the RESTORE Act. The primary purpose of the project is to provide workforce training to students in emerging technologies.

Comprehensive Plan Goals and Objectives:

This project aligns with the following Comprehensive Plan goals:

- Enhance Community Resilience – build upon and sustain community with capacity to adapt to short- and long-term changes;
- Restore and Revitalize the Gulf Economy – Enhance the sustainability and resiliency of the Gulf economy.

Major Milestones:

Milestone – Marketing/Recruitment Plan

Milestone –Development of CSET focused workforce training materials

Milestone –Curriculum implementation

Success Criteria/Metrics/Outcomes:

The anticipated success criteria that would be measured are:

- Number of workforce development programs developed
- Number of students enrolled in respective programs
- Number of students graduated from respective programs

Activity	Anticipated Project Success Criteria/Metrics/Outcomes:	Short-term outcome	Long-term outcome
Marketing/ Recruitment Plan	Development of the plan	Recruitment of program participants	Graduation and job acceptance of graduates from CSET program.
CSET workforce training materials	Development of CSET specific training materials	Implementation of job specific workforce training	Graduation and job acceptance of graduates from CSET program.
Curriculum implementation	Implement and provide workforce training.	Implementation of job specific workforce training	Graduation and job acceptance of graduates from CSET program.

Monitoring and Evaluation: The success of this project would be tied to the number of workforce development programs developed. The number would be contingent on planning and research to ascertain market needs for job creation. Once a program and curricula have been developed, the number of students enrolled in the respective programs and the number of students graduated from the respective programs would be additional success criteria measured.

Best Available Science: Planning and coordination of job needs and filling those needs with educational requirements is the fundamental building block for economic development and state prosperity (Ozturk, 2008; Berger and Fisher, 2013). The cybersecurity and IT sectors understand the needs to hire well trained, suitably skilled professionals, with organizations demanding a highly skilled trained labor force to fill IT related positions (Furnell et al., 2017; Gupta et al., 2018). The Mississippi Gulf Coast faces a severe lack of well-

trained IT workers. Gulf Coast CSET would focus on developing an IT workforce for economic expansion, innovation, and societal growth by providing workforce specific training. The economic impact of the CSET Tech Fusion project would be significant for the MS Gulf Coast and the state of Mississippi. Nationally, the Bureau of Labor (US Bureau of Labor, online) statistics projects a 12% growth rate between 2018 and 2028, which is much faster than the average for all occupations. In Mississippi, examples of the labor market growth for IT occupations includes 29.7% for information security analysts; 22.1% for software developers; 14.7% for web developers; and 12.5% for live entertainment technicians. Through implementation of this project, MGCCC would be capable of filling the workforce needs that are quickly growing in south Mississippi.

Budget/Funding

Estimated Cost of the Project and Amount to be Requested from Oil Spill Impact Component Funds:
\$5,500,000 (100% Implementation)

Partnerships/Collaboration:

- Mississippi Gulf Coast Community College

Leveraged Resources: None currently anticipated.

Funds Used as Non-Federal Match: None currently anticipated.

Other: None currently anticipated.

References:

Berger, N., Fisher, P. 2013. A well-educated workforce is key to state prosperity. Economic Analysis and Research Network Report. Published – August 13, 2013. Available online: <https://files.epi.org/2013/A%20well-educated%20workforce%20is%20key%20to%20state%20prosperity.pdf>

US Bureau of Labor. Online. Available online: https://www.bls.gov/oes/current/oes_ms.htm Last accessed: 12.21.2021

Furnell, S., Fischer, P., Finch, A. 2017 Can't get the staff? The growing need for cyber-security skills. Computer Fraud and Security (2): 5-10.

Gupta, D., Bajramovic, E., Hoppe, H., Ciriello, A. 2018. The need for integrated cybersecurity and safety training. *ASME J of Nuclear Rad Sci*. Oct 2018, 4(4): 041006 (7 pages) <https://doi.org/10.1115/1.4040372>

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Activity #15: Improvement of Wastewater Quality and Solid Waste Disposal from Shrimp Processing Industry

Project Summary: This project would support the restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region through the implementation of water quality improvement technologies for wastewater and solid waste disposal from the shrimp processing industry on the Mississippi coast.

The shrimp processing industry in Mississippi is concentrated in the Back Bay of Biloxi (Back Bay). Today, those shrimp processors process between 25-30% of all Gulf and South Atlantic shrimp production. However, there are two environmental concerns from shrimp processing that need to be addressed: 1) wastewater quality, and 2) solid waste disposal (e.g., shrimp shells from the peeling process). Increasing capacities and efficiencies of processing plants with respect to off-site solid waste disposal and water quality of discharge effluent is critical for growth of the coastal seafood processor industry.

This project could provide funding to design, permit, and implement technological solutions for the

improvement of wastewater quality being discharged into Back Bay, and solid waste removal and disposal from shrimp processing.

Need: Gulf Seafood is an important economic driver in the Gulf Coast Region of Mississippi, and as a result there is a need to improve wastewater quality and solid waste disposal from shrimp processing.

Objective: Implement solutions to improve wastewater quality and solid waste disposal coming from the shrimp processing industry in the Back Bay.

Location: This project would take place in Harrison County, Mississippi.

Timeline: This project is anticipated to start 1/1/2023 and end 12/31/2027.

Additional Information: The project would be administered by MDEQ.

Overall Economic or Ecological Contribution to the Recovery of the Gulf Coast: This project would contribute to the restoration and protection of natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region through the improvement of wastewater quality and solid waste disposal.

Eligibility and Statutory Requirements: This project is located in the Gulf Coast Region as defined by 31 C.F.R. § 34.2. This project qualifies as an eligible activity for Oil Spill Impact Component funding through 31 C.F.R. § 34.201(a) – restoration and protection of the natural resources, ecosystems, fisheries, marine, and wildlife habitats, beaches, and coastal wetlands of the Gulf Coast Region, and 33 U.S.C. § 1321(t)(1)(B)(i)(I) of the RESTORE Act. The primary purpose of the project is to implement solutions for the shrimp processing industry that would improve wastewater quality and solid waste disposal.

Comprehensive Plan Goals and Objectives:

This project aligns with the following Comprehensive Plan goals:

- Restore Water Quality and Quantity – restore and protect the water quality and quantity of the Gulf Coast region’s fresh, estuarine, and marine waters

This project supports the following Comprehensive Plan objectives:

- Restore, Improve, and Protect Water Resources

Major Milestones:

Milestone – Engineering and Design and Permitting for wastewater quality improvement and solid waste disposal solutions

Milestone – Construction and implementation of design solutions

Success Criteria/Metrics/Outcomes:

The anticipated success criteria that would be measured are:

- Differences in pre- and post-construction solutions for wastewater
- Differences in pre- and post-construction solutions for load of solid waste disposal

Activity	Anticipated Project Success Criteria/Metrics/ Outcomes:	Short-term outcome	Long-term outcome
Wastewater	Development of	Mechanism to improve	Water quality

Activity	Anticipated Project Success Criteria/Metrics/ Outcomes:	Short-term outcome	Long-term outcome
Improvement Implementation	improvement activity; E&D and permitting of infrastructure implementation; implementation and construction	wastewater quality outflows	improvement in Back Bay Biloxi and Mississippi Sound
Solid Waste Disposal Improvement	Development of improvement activity; E&D and permitting of infrastructure implementation; implementation and construction	Mechanism to improve solid waste disposal	Water quality improvement in Back Bay Biloxi and Mississippi Sound

Monitoring and Evaluation: The success of this proposed project would be to determine load differences in BOD effluent discharge pre-treatment and post-treatment with the implemented solutions. Standard water quality methods would be used to ensure robust statistical comparisons. Additionally, load differences can be determined pre- and post-solid waste digester insertion, with similar QAQC methods put in place to ensure statistical comparisons.

Best Available Science: Restoration and improvement of the quality of water, as a natural resource, would benefit the marine/coastal ecosystems, habitats, and fisheries, as well as the economy of the Mississippi Gulf Coast Region. Water quality degradation in coastal systems is a global phenomenon (Bennett et al., 2001; Vörösmarty et al., 2010; Lymer et al., 2018) that is not only limited to nutrient pollution and associated hypoxia (Diaz and Rosenberg, 2008) but is also tied to enhanced bacteriological concentrations and loads (Mallin et al., 2000; O’Mullan et al., 2019). There are numerous freshwater inputs into Mississippi’s bays, estuaries, and the Mississippi Sound that result in alterations to water quality (Mickle et al., 2018). This change in water quality is often associated with changes in water column conditions (i.e., hypoxia, eutrophication, and bacterial loads) and can lead to the body of water not meeting its intended use (i.e., recreation or fishery) (Mallin et al., 2000; Pennington and Cech, 2010; Spellman, 2010). Shrimp processing has impacts on water quality with respect to effluent discharge and solid waste (Islam et al., 2004). Solid wastes, including the head, shell, and tail portions accumulate as a result of shrimp processing. Without appropriate utilization, the accumulated biowastes can result in waste disposal and environmental pollution problems (Mao et al., 2017).

Budget/Funding

Estimated Cost of the Project and Amount to be Requested from Oil Spill Impact Component Funds: \$5,500,000 (25% - 35% Planning; 65-75% Implementation)

Partnerships/Collaboration:

- Mississippi Department of Marine Resources

Leveraged Resources: None currently anticipated.

Funds Used as Non-Federal Match: None currently anticipated.

Other: None currently anticipated.

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Activity #16: D'Iberville Working Waterfront and Commercial Seafood Harbor

Project Summary: This project would support the planning activities for infrastructure benefitting the economy in the Gulf Coast Region. Planning activities could include all pre-requisite activities necessary to provide a shovel ready site for the development of a working waterfront and commercial seafood harbor.

The City of D'Iberville has been attempting to develop a working waterfront on the Back Bay of Biloxi (Back Bay) for a number of years. The working waterfront and commercial seafood harbor has been identified as a key component of D'Iberville's economic improvement strategy since the early 1990's and was reaffirmed in

the Citizens Master Plan (D’Iberville, 2005) which was prepared following Hurricane Katrina. Currently, there is a small harbor under the I-110 bridge, limited to the space owned by the City. The City has prepared several plans over the years to construct a working waterfront harbor which is part of the overall plan to revitalize the downtown area. The development of a working waterfront and commercial seafood harbor would be a boost for economic development in downtown D’Iberville by increasing seafood opportunities as well as tourism in this part of the Mississippi Gulf Coast.

This project would include engineering and design, environmental permitting, and other due diligence activities, including land acquisition, to support the construction of a working waterfront and commercial seafood harbor. Additional activities may also include, but are not limited to, planning, oversight and management, and coordination of sub-award(s) between MDEQ and sub-recipient.

Need: For increased economic development and tourism for the City of D’Iberville as well as the seafood sector, there is an opportunity to develop a working waterfront and commercial seafood harbor.

Objective: To support planning activities to develop a construction ready site for a working waterfront and commercial seafood harbor in the City of D’Iberville.

Location: This project would take place in Harrison County, Mississippi.

Timeline: This project is anticipated to start 1/1/2023 and end 12/31/2027

Additional Information: The project would be administered by MDEQ.

Overall Economic or Ecological Contribution to the Recovery of the Gulf Coast: This project would contribute to the support of planning activities for infrastructure benefitting the economy in the Gulf Coast Region to develop a shovel ready site for a working waterfront and commercial seafood harbor in the City of D’Iberville.

Eligibility and Statutory Requirements: This project is located in the Gulf Coast Region as defined by 31 C.F.R. § 34.2. This project qualifies as an eligible activity for Oil Spill Impact Component funding through 31 C.F.R. § 34.201(f) - infrastructure benefitting the economy or ecological resources, and 33 U.S.C. §1321(t)(1)(B)(i)(VI) of the RESTORE Act. This activity would be implemented by the City of D’Iberville and would comply with the definition of infrastructure in 31 C.F.R. §34.2. The primary purpose of the project is to supporting planning activities to develop a shovel ready site for a working waterfront and commercial seafood harbor in the City of D’Iberville.

Comprehensive Plan Goals and Objectives:

This project aligns with the following Comprehensive Plan goals:

- Enhance Community Resilience – build upon and sustain community with capacity to adapt to short- and long-term changes;
- Restore and Revitalize the Gulf Economy – Enhance the sustainability and resiliency of the Gulf economy.

Major Milestones:

Milestone – Planning, Engineering, Design and Permitting, Land Acquisition, and Construction

Success Criteria/Metrics/Outcomes:

The anticipated success criteria that would be measured are:

- Number of engineering design plans and permits acquired
- Number of acres acquired to be developed
- Square footage of initial construction phase

Activity	Anticipated Project Success Criteria/Metrics/ Outcomes:	Short-term outcome	Long-term outcome
Planning	Shovel ready site to development working waterfront and commercial seafood harbor	Engineering and Design, Permitting, Due Diligence Activities, and Land Acquisition	Development of working waterfront and commercial seafood harbor
Construction	Initial phase of waterfront construction	Build out of the initial phase of the working waterfront and commercial seafood harbor	Development of working waterfront and commercial seafood harbor

Monitoring and Evaluation: The success of this project would be evaluated by the number of engineering and design plans and permits acquired to implement the initial phase of construction of the working waterfront and commercial seafood harbor. Additionally, in order for the proposed project to move forward, acreage of land would need to be purchased. Acres acquired would be measured as a success criteria.

Best Available Science: In order for cities to enhance economic development, public access, as well as attract tourism there needs to be an investment in infrastructure (i.e., buildings, attractions, business centers, etc.). Beyond infrastructure development and economic development opportunities, the tourism sector additionally contributes to economic growth and creates jobs (Du et al., 2016). Planning, due diligence, engineering, and design, permitting, and land acquisition are priority action steps for potential economic development / tourism investment. For the D’Iberville working waterfront, public access improvements would create a more resilient waterfront amenity for recreational boaters, sports fishing, and outdoor congregation. Waterfront property located west of the I-110 Marina may become a local escape from the city’s interstate business district.

Budget/Funding

Estimated Cost of the Project and Amount to be Requested from Oil Spill Impact Component Funds: \$6,600,000 (10% Planning; 90% Implementation)

Partnerships/Collaboration:

- City of D’Iberville

Leveraged Resources: The City of D’Iberville has identified Tidelands funding that the City has received which can be used as leveraged funds for planning activities.

Funds Used as Non-Federal Match: None currently anticipated.

Other: None currently anticipated.

References:

D’Iberville 2005. 2005 Citizens Master Plan for D’Iberville, Mississippi. Mississippi Governor’s Commission. Available Online: http://www.mississippirenewal.com/documents/Rep_D-Iberville.pdf Last Accessed 12/1/2021

Du, D., Lew, A.A., Ng, P.T. 2016. Tourism and economic growth. Journal of Travel Research, 55(4), 454-464.

Project Location Map

