THE STATE OF MISSISSIPPI RESPONSE TO COMMENTS FROM THE
MISSISSIPPI ENVIRONMENTAL FOCUS GROUP REGARDING THE
2015 MISSISSIPPI GULF COAST RESTORATION PLAN

The Mississippi Department of Environmental Quality (MDEQ) prepared the 2015 Mississippi Gulf Coast Restoration Plan (Plan) utilizing a grant from the National Fish and Wildlife Foundation Gulf Environmental Benefit Fund (NFWF GEBF). The Plan is a vision for a coordinated, systematic, and transparent process for sustainable, ecological restoration in Mississippi. The planning process is iterative; therefore, the Plan is scheduled to be updated annually through 2017. In lieu of completely updating the first version of the Plan, MDEQ has developed a 2016 Addendum to the initial 2015 Mississippi Gulf Coast Restoration Plan.

On July 22, 2016, MDEQ received comments regarding the Plan from the Mississippi Environmental Focus Group (MEFG). Where appropriate, MDEQ drafted statements to address the submitted comments or outlined that a comment would be addressed in the 2017 full update of the Mississippi Gulf Coast Restoration Plan.

This document includes comments and responses on the following sections:
> Executive Summary
> Chapter 1: Introduction
> Chapter 2: Mississippi Coastal Landscape Change and Challenges
> Chapter 3: Mississippi Comprehensive Ecosystem Restoration Tool (MCERT)
> Chapter 4: The Plan
> Chapter 5: Looking Forward
> General Comments

Executive Summary
- This section is very effective in communicating the overall objective of the Plan.
- Consider posting this section separately from the full document for those who prefer a less technical overview.
- Consider producing a shorter summary of the Plan such as a four-pager that is easily downloadable and printable, and can be distributed as a handout at public events and meetings.
- If possible, it could be helpful to make available an online Executive Summary video that illustrates how MCERT works.
- Recommend adding the Decision Support System schematic on page 68 to the Executive Summary section.

MDEQ appreciates and acknowledges all comments. The Executive Summary is now available in a downloadable PDF format on www.restore.ms. It is not anticipated that MDEQ will make available an online Executive Summary video that illustrated how MCERT works. For more information about MCERT, visit www.restore.ms. Additionally, due to the complex nature of the Decision Support System graphic, MDEQ believes that it is better suited in the context of Chapter 4.

Chapter 1: Introduction

- This section effectively communicates the level and detail of public engagement that occurred around creating the Plan.
- Recommend adding a timeline that outlines the path of planning and engagement that has occurred around the Plan to-date, the current state of play, and anticipated future events such as the annual calendar cycle of Plan updates and GEBF funding and implementation. Using a linear graphic rather than a narrative would make it easier for readers to follow the multitude of past, current, and future steps. A timeline would also help visually communicate MDEQ's approach to this planning effort by documenting outreach/public engagement as well as data gathering/science, and would provide general information on future opportunities for input as the planning evolves.
- Recommend adding more detail on the process of engaging technical experts and academia in the Plan's development, revision, and review.

MDEQ appreciates and acknowledges all comments. The following graphics have been included in the 2017 Mississippi Gulf Coast Restoration Plan update.

- A timeline graphic that outlines the path of planning and engagement that has occurred around the Plan to date, the current state of play, and anticipated future events (Figure 1);
- A timeline graphic outlining the NFWF funding cycle (Figure 2).

Additionally, more information regarding the process of engaging technical experts and academia in the Plan's development, revision, and review will be included in the 2017 Mississippi Gulf Coast Restoration Plan.
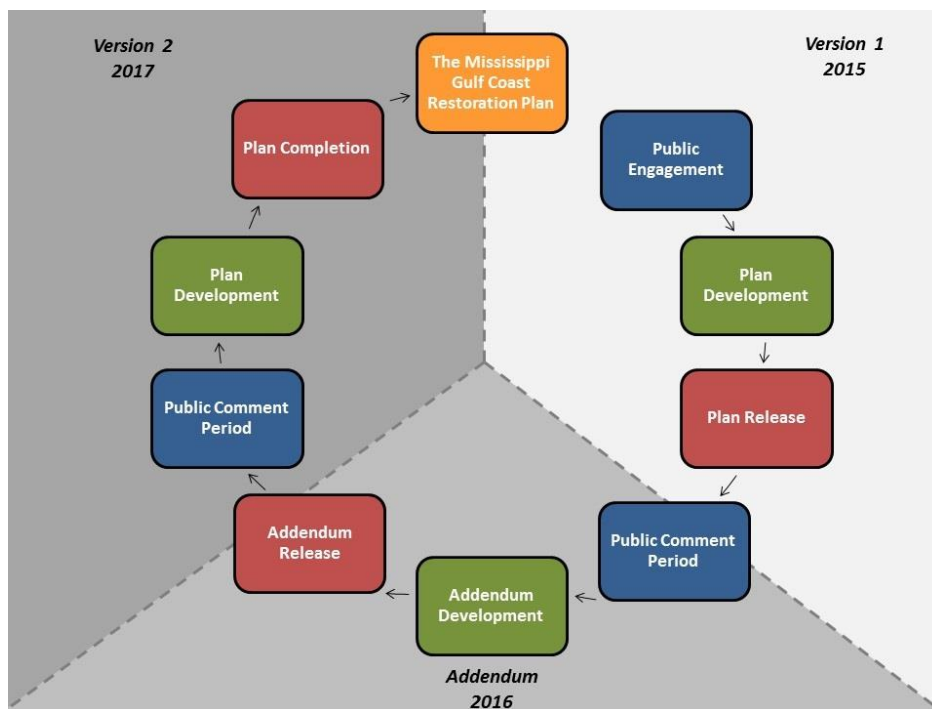
Figure 1: The Mississippi Gulf Coast Restoration Plan Planning Cycle

Figure 2: Annual NFWF Funding Cycle

Chapter 2: Mississippi Coastal Landscape Change and Challenges

- The objective of this chapter, "to provide the reader a sense of the change in land use and challenges to the coastal landscape in Mississippi", is met. However, it is recommended that some elements (noted in the following bullets) be included and/or further detailed, which would make this chapter an even better backdrop for discussing general coastal land use, population, and habitats.
- Good use of charts and graphs to explain land use changes.
- Water resources: Include more discussion on water quantity, historic sheet flow and disruption from linear features such as pipeline and transportation corridors, and instream flows. Also this is a concern upstream in second tier coastal counties, namely Pearl River, George, and Stone.
- Recommend adding information on rapidly growing areas of the coast and predictions for future population growth and development/movement.
- Discuss wetland conversion versus wetland modification. Wetland modification is not well described or discussed.
- Impervious surfaces are referenced as a stressor in Chapter 3, but this also would be a helpful and relevant item for discussion of land use change and urbanization in Chapter 2.
- Upstream challenges are discussed in reference to forestry and agriculture on page 34, however discussing this in reference to urbanized areas is appropriate too.
- Recommend adding more detail on sea-level rise projections, adaptation and human interface, and resilience.

- Fire suppression and invasive species encroachment are mentioned in Chapter 4, but these items seem appropriate to discuss/reference in Chapter 2 as well.

MDEQ appreciates and acknowledges all comments. A discussion on water quality, historic sheet flow, and disruption from linear features will be evaluated for inclusion in the 2017 Mississippi Gulf Coast Restoration Plan update. Additionally, in the 2017 update, Chapter 2 will be bolstered to include more information on the population growth and development of the Mississippi Gulf Coast, wetland modification, land use change and urbanization, fire suppression, and sea-level rise. We anticipated the use of urban growth model data in version 1 of MCERT so that we have the capability to build future scenarios and compare watersheds on those grounds, however, we also have the need to incorporate sea-level rise (SLR) data to better model future conditions. As stated below in the Chapter 3 comments, we are evaluating the accuracy of the available SLR data after an internal review of data quality. We intend to address the data quality issue and proceed with a workflow for the 2017 update to create subwatershed level comparisons based on current and future landscape conditions.

Chapter 3: Mississippi Comprehensive Ecosystem Restoration Tool (MCERT)
- The objective of this chapter is to describe the science behind MCERT. Pulling together this comprehensive tool is commendable, especially in the compressed time MDEQ had to develop it. This chapter includes technical information that may be difficult for the general public to understand, thus we recommend a summary of the MCERT tool as part of the Executive Summary or as a standalone communication product, such as part of a four-page summary handout. To aid in a clearer understanding and more solid grasp of MCERT and its use, visuals such as short tutorials (videos) could be helpful if possible.
- A discussion on urbanization, population growth, vulnerability and resiliency seems needed.
- Explain how new data on sea level rise, and studies such as the Gulf Coast Vulnerability Assessment (GCVA) and Southeast Conservation Adaption Strategy (SECAS) are or will be incorporated into MCERT.
- Recommend adding commercial/recreational fisheries to marine species stressors.
- On page 52 under ER Value Metrics consider adding 16th Section Lands/lieu lands, and Mississippi Species of Greatest Conservation Need (from the Mississippi State Wildlife Action Plan 2015).

MDEQ appreciates and acknowledges all comments. As mentioned above, MDEQ does not anticipate including a video tutorial of MCERT. A discussion on urbanization, population growth, and sea-level rise will be included in the 2017 Mississippi Gulf Coast Restoration Plan update. Sea-level rise (SLR) information can be very useful for restoration and conservation planning, however, direct use of SLR data in the MCERT framework has been excluded as we are currently evaluating data quality. MDEQ will incorporate SLR data into the spatial framework when updates are available. The incorporation of other studies, such as the GCVA, are considered and analyzed for model compatibility and agreement with the goals and objectives of the Plan. The GCVA, in particular, cannot be incorporated into the MCERT framework due to data incompatibility. The GCVA approach uses a spreadsheet tool and qualitative information to score broad geographic areas. Both the geographic extent and data types are not suitable for inclusion in the MCERT models. The SECAS is a conservation strategy, not a quantitative tool like MCERT. MDEQ has, however, used data from the LCC network through its conservation planning data

outlet. MDEQ strives to include data, tools, and outputs from various partners and stakeholders and will continue to review those products and include them in the MCERT platform when appropriate. MDEQ is currently a member of the core working group for the upcoming RESTORE project, *Strategic Conservation Assessment for Gulf Coast Landscapes*, led by the Department of Interior which will provide a synthesis of planning efforts across the Gulf states. Data outputs from MCERT and the Plan will be an important contribution to that effort. Commercial and recreational fisheries data are unavailable to include in spatial models for the Mississippi Sound. MDEQ explored the option to include this data type and discussed options through technical engagement, but observational data was not temporally or spatially complete enough to be used in the modeling process. Additionally, the catch per unit data that is collected by NOAA only covers a portion of the Mississippi Sound and the resolution of the unit area is far too low for inclusion. 16th Section Lands/lieu lands will be added to the analysis.

Chapter 4: The Plan
- The two objectives of this chapter are to 1) outline the outcomes of the restoration program as a result of public engagement as well as outcomes from MCERT, and 2) communicate the decision process for implementing restoration projects in Mississippi. The objectives are met and the schematics, diagrams and flow-charts are helpful explainers. A few suggestions include:
- The DSS schematic on page 68 is a very helpful visual. Consider using it in the Executive Summary as well.
- To make the Decision Support System (DSS) more tangible, recommend providing more explanation of the possible programmatic inputs, including specific examples of inputs and how they would be run through the tool (page 69). For instance, what is meant by "strategic partners" or "public inputs", and how are these inputs different from portal project inputs? It is hard to conceptualize how these different types of inputs feed into the DSS.
- MCERT allows the decision-maker to visualize where restoration efforts may have the greatest positive benefits, based upon other known ecosystem stressors and conditions; however, the plan narrative does not adequately describe the intended utility of the tool in the context of the decision-making process. For example, how might MCERT be used to inform project siting and selection? Additional details connecting the tool to the decision-making process would increase the public's understanding of and confidence in MCERT.
- In the DSS show how the public can re-engage throughout the planning and implementation processes.
- Explain and provide examples of how the MCERT tool and the DSS are used when starting with different types of inputs. For example, how does the DSS work when starting with a project type, rather than a specific project?
- Discuss how risk assessment is or will be incorporated into the DSS.
- Note that references such as the Gulf Regional Planning Commission's A Plan for Opportunity may provide insight on land use plans and future areas of potential growth.

MDEQ appreciates and acknowledges all comments. Programmatic inputs come from a diverse array of sources, including public comment, portal projects, and state and federal priorities. Regardless of the input though, the concept, idea, or specific project is run through the DSS in the same fashion. Furthermore, for all inputs, MDEQ identifies the leverage opportunities to maximize ecological benefits of projects and utilizes coordination and leverage as a critical variable in restoration project prioritization.

Within Chapter 4 we have provided several examples of how the DSS and MCERT operate in concert. Those examples begin with different input types (one example is more project type and thematic in nature - salt marsh identification for sea-level rise; vs. another example that is project specific in building an oyster reef in the mouth of the Pascagoula river). The DSS itself is a risk assessment tool. The DSS, by asking decision based questions of science and foundational root causes, is mitigating risk on the prioritization of restoration. MDEQ does not believe an additional risk assessment would be needed and incorporated into the DSS. Due to the complex nature of the DSS graphic, MDEQ believes that it is better suited in the context of Chapter 4. In the 2017 Mississippi Gulf Coast Restoration Plan update, the DSS graphic will be bolstered and more details will be provided regarding the definitions of "strategic partners".

Chapter 5: Looking Forward
- The objective of this chapter is to succinctly define what the principle tenets of every restoration project must be, how MDEQ is synergistically looking across all funding streams, and articulating the path forward for the next fiscal cycle of the Plan. These are important components of the Plan and more detail of them is needed.
- This chapter points to synergies but a fuller discussion is needed as to how MDEQ is coordinating and leveraging the various Gulf restoration processes (i.e. NFWF GEBF, RESTORE, and Natural Resource Damage process) to achieve comprehensive ecological benefits and maximize restoration funding.
- The tenets of all restoration projects should be more clearly defined (page 90). For example, does "Learning" mean "Adaptive Management"?
- MEFG encourages MDEQ to use the Plan and MCERT to inform other Gulf restoration funding sources and related efforts. Mississippi's forward-thinking effort to invest in developing a coast-wide plan through NFWF GEBF should serve as a foundation for guiding environmental restoration across other funding sources. MCERT can be used to identify priority coastal, marine, and upstream areas for restoration investment as well as areas with sensitive or impaired resources that may not be appropriate for economic development or infrastructure projects.

MDEQ appreciates and acknowledges all comments. MDEQ will take into consideration the comment requesting a more detailed discussion of what the principle tenets of every restoration project must be, how MDEQ is synergistically looking across all funding streams, and articulating the path forward for the next fiscal cycle of the Plan, in developing the 2017 Gulf Restoration Plan. MDEQ will strive to outline leverage and coordination when outlining project implementation for funding streams in the future. At this stage MCERT and the DSS are funded through NFWF and are being used to guide NFWF related projects.

General Comments:
Accessibility and Public Engagement:
- Thank you for providing the Plan as a downloadable link on www.restore.ms versus requiring the public to request a copy.
- In future iterations of the Plan, we suggest adding as an appendix a status report on funded NFWF GEBF projects, including successes and opportunities for improvement (e.g., "Best Practices", "Lessons Learned", and/or "Case Studies").

- To aid in readability and comprehension, it would be helpful to limit the use of acronyms as much as possible and define them where needed in the Plan. It would be useful to move the list of acronyms used from page 104 to the front of the document.

Project updates are available by visiting the Story Map web page on www.restore.ms or by downloading the project descriptions from www.nfwf.org. In the 2017 version of The Mississippi Gulf Coast Restoration Plan, the list of acronyms will be moved to the front of the document.

MCERT Explorer:
- Online tutorials or simple short videos, and/or a PowerPoint and fact sheets, would help the readers better understand MCERT, how MDEQ is using it for decision support, and to illustrate its use (e.g., use selected projects as examples of how MCERT is used to inform decision-making).
- Recommend adding a metadata tree into the Plan or reference the companion document, MCERT Report Chapter 9 – Metadata.
- Embed links into the online Plan as appropriate to direct readers to more information on MCERT explorer (such as the Executive Summary).

It is not anticipated that MDEQ will provide online tutorials or short videos explaining MCERT. Please visit http://www.restore.ms/nfwf-webinar/ to view a webinar that provides an overview of the Mississippi Gulf Coast Restoration Plan, MCERT, and the DSS. There is also a Frequently Asked Question document available for download. For additional questions surrounding MCERT or the Mississippi Gulf Coast Restoration Plan, please email Sarah Tracy at stracy@mdeq.ms.gov.

A metadata tree will be included in the 2017 Mississippi Gulf Coast Restoration Plan update as an additional addendum. There is currently a link to a "Data Guide" that includes metadata for all data used in MCERT included as hyperlink in the Plan (http://www.msrestoreteam.com/NFWF_Plan/NFWF_Plan_Task_2-4_Appendix.pdf). All links throughout the Plan will be updated in the 2017 Mississippi Gulf Coast Restoration Plan update.