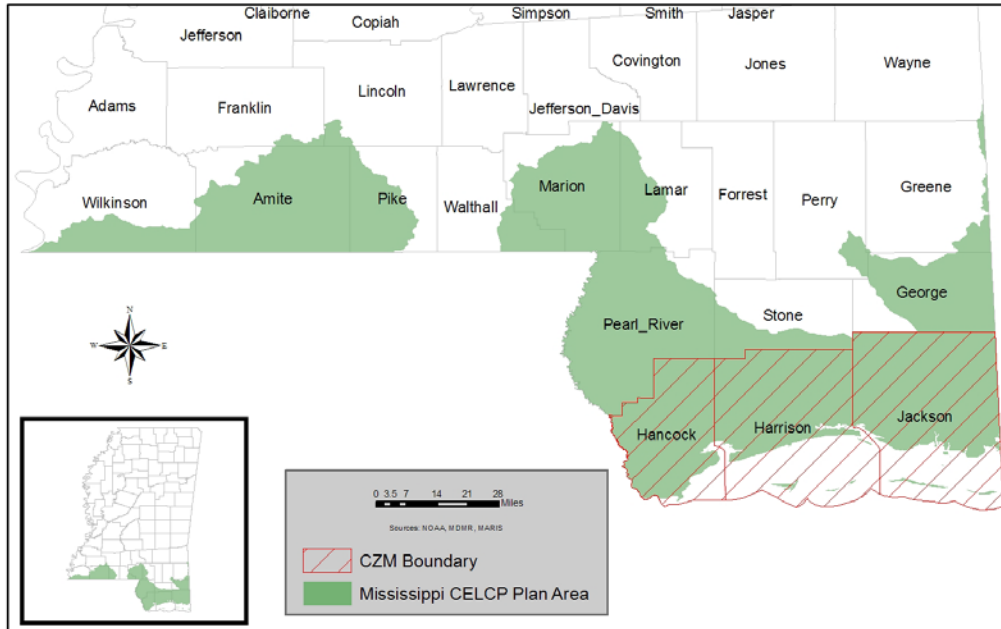


DRAFT State of Mississippi Coastal and Estuarine Land Conservation Program (CELCP) Plan



Prepared by the
Mississippi Department of Marine Resources



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Draft Coastal and Estuarine Land Conservation Plan for the State of Mississippi

I. Introduction

a. Background of the Program

The Department of Commerce, Justice, and State Appropriations Act of 2002 (Public Law 107-77), directed the Secretary of Commerce to establish the Coastal and Estuarine Land Conservation Program “for the purpose of protecting important coastal and estuarine areas that have significant conservation, recreation, ecological, historical, or aesthetic values, or that are threatened by conversion from their natural or recreational state to other uses,” giving priority to lands which can be effectively managed and protected and that have significant ecological value.

As a result of this directive, NOAA developed the Coastal and Estuarine Land Conservation Program Final Guidelines dated June 2003. This document details, among other things, procedures and protocol for qualifying for and submitting requests for funding under this program. Specifically under these guidelines, eligible states through their lead agency must develop and submit a Coastal and Estuarine Land Conservation plan delineating the priority conservation areas of their state and criteria for ranking potential acquisitions in order to be eligible to compete for any available Federal funding under this program.

The intent of this program is to provide financial assistance to eligible coastal states, whereby, important coastal habitats and the function and values they provide can be conserved in perpetuity. Also a purposeful result of this program is to have individual states assess their conservation priority needs and develop a means by which to nominate and select projects, based on those needs, within the state.

b. Purpose of the Mississippi Coastal and Estuarine Land Conservation Program Plan

The Mississippi Gulf Coast in recent years has experienced a boom in growth and development due, for the most part, to the legalization and subsequent success and expansion of casino gaming in Harrison and Hancock Counties. The additional jobs, necessary housing, associated commercial enterprises, related business development, etc. coupled with the ordinary population growth usually seen in coastal areas has placed added strain on the existing coastal ecosystem. Important coastal wetlands, adjacent uplands, and watershed areas are at an ever increasing risk of conversion to developed areas. The premium coastal residents and managers have placed on values such as wildlife habitat,

water quality, water access, natural resource based recreation opportunities, aesthetics, viewshed, and historical/archaeological sites is eroding as critical components of these standards are disappearing at an increasing and alarming rate.

The primary management document for coastal, marine, or wetlands resources of the Mississippi Gulf Coast's three coastal counties, the Mississippi Coastal Program administered by the Mississippi Department of Marine Resources, specifically states among its 10 goals that the coastal wetlands and ecosystems, aquatic life, air and water, historical and archaeological resources, scenic qualities, and the public trust are to be conserved and preserved wherever possible. It is through this mandate and desire that the Mississippi CELCP plan is developed to further propagate these goals and facilitate federal assistance in this effort. Through the development of the CELCP plan, Mississippi can prioritize its conservation efforts and position the state in a fashion to better compete for available federal coastal and estuarine land conservation funding opportunities.

II. Priorities for Coastal and Estuarine Land Protection

a. Geographic Extent

Coastal and estuarine areas are defined by the Coastal and Estuarine Land Conservation Program Final Guidelines section 1.3 definition of terms as those areas within a coastal state that are part of the state's coastal zone as designated in the state's federally approved coastal management plan under the CZMA or within the state's watershed boundary as described by NOAA's Coastal Zone Boundary Review dated October 1992. The watershed boundary is further described as those 8-digit USGS hydrologic cataloguing units (HUC) that contain head of tide. For coastal Mississippi the application of the coastal watershed boundary would entail all or part of seventeen counties including Hancock, Harrison, Jackson, Pearl River, Stone, George, Greene, Wayne, Perry, Lamar, Marion, Walthall, Pike, Lincoln, Franklin, Amite, and Wilkinson. This area contains approximately 4,895 square miles of south Mississippi. The Mississippi CELCP area comprises all land included within the 8-digit HUC boundary, as described above, and an additional 52 square mile portion of Northwest Jackson County outside of this HUC boundary that exists as part of the CZM designated Mississippi Coastal Zone. In total, the Mississippi CELCP area comprises 4,949 square miles (Figure 1).

Table 1. Mississippi CELCP Plan Area Land Cover		
Type	Sq Miles	%
Developed/Urban	263.2988	5.319604006
Agricultural Lands	811.1168	16.3875399
Forested Uplands	2546.361	51.44584294
Palustrine Wetlands	1153.985	23.3147383
Estuarine Wetlands	94.41565	1.907543138
Open Water/Unconsolidated Shore	79.71952	1.610627301
Aquatic Bed	0.698111	0.014104415
Totals	4949.594	100

Source: USGS, National Landcover Database, 2005

The Mississippi CELCP area contains all or portions of two National Forests, three National Wildlife Refuges, and one National Seashore. The program area also contains four State Parks and all or portions of eight state Wildlife Management Areas and directly abuts another. All 20 state Coastal Preserves are completely contained within this boundary as is the federally designated Grand Bay National Estuarine Research Reserve (Figure 2). Black Creek is a National Wild and Scenic River and also has an associated Wilderness Area designation. Portions of five rivers in the area have been designated as state scenic streams. All of Mississippi’s Gulf Ecological Management Sites (GEMS) can also be found within this administrative boundary. Another notable feature of the CELCP area is the Pascagoula River and its attribute of being one of the last free-flowing rivers in the contiguous United States. The lower six counties of coastal Mississippi are also a Congressionally designated National Heritage Area.

b. Lands and values to be protected through CELCP

The stated purpose of the CELCP is to protect “important coastal and estuarine areas that have significant conservation, recreation, ecological, historical, or aesthetic values, or that are threatened by conversion from their natural or recreational state to other uses.” While not all lands within the Mississippi CELCP area would rank high in terms of ecological value, virtually all lands are currently threatened by conversion either directly or indirectly. The Mississippi coast has experienced rapid population growth and economic development since the legalization of dockside gaming in the early 1990s. This boom has resulted in the conversion and fragmentation of many thousands of acres of natural habitats. There are few, if any, remaining places in the Mississippi CELCP area that have not been negatively affected by past and current human activities.

Increased urbanization, industrialization, hydrological alterations, shoreline hardening, altered fire regimes, incompatible resource extraction, altered sediment budgets, incompatible recreation, vandalism of historical sites, pollution, invasive species, incompatible forestry and agricultural practices, dams and impoundments, excessive nutrients in stormwater runoff, and excessive groundwater and surface water withdrawal, are continuing to degrade the ecological functions of our coastal ecosystem. Coastal Mississippi is at an important juncture and it will be critical over the coming years a delicate balance between resource conservation and economic growth is maintained to ensure that the natural resources that make this area unique and attract so many visitors and residents to the coast are preserved for future generations.

Lands with significant ecological value

Priority lands for protecting significant ecological resources present in the Mississippi CELCP area would provide for or enhance one or more of the following: maintenance of rare, threatened or endangered species or ecological communities; maintenance of important commercial, recreational, or other significant wildlife species; contribute to high biodiversity or provide critical habitat for a large number of species; maintenance of water quality and quantity; maintenance of significant geological features and processes; and maintenance of wetland functions and values. These lands would include offshore islands, waterfront lands, marshlands, wetlands and riparian areas that serve as critical habitat for many important wildlife and fish species as well as providing the water quality and nutrients vital to the health of our aquatic resources. Upland communities such as maritime live oak forests and longleaf pine savannas that adjoin these habitats would also be included in this list. These uplands provide an important buffer to the adjacent wetlands and submerged lands and provide habitat to many rare species and ecological communities. However, unlike the primary lands listed above, these uplands are afforded little or no regulatory protection and are rapidly being converted from their natural state.

Lands with significant conservation value

The Mississippi CELCP area contains many existing conservation lands. The lands that are managed by federal or state agencies include 20 Coastal Preserves, 21 Gulf Ecological Management Sites (GEMS), one National Estuarine Research Reserve, four State Parks, three National Wildlife Refuges, one National Seashore, two National Forests, and eight Wildlife Management Areas. Additionally, NGOs such as The Nature Conservancy and the Land Trust for the Mississippi Coastal Plain own and manage several thousand acres in the CELCP area. Any lands that can make a significant contribution to one or more of these existing areas such as through providing a key acquisition (e.g., large in-holding), building connections between two or more areas, or providing an important buffer that helps protect resources and reduce management costs are considered lands with high conservation value. Also included would be lands that, although they may not rank high on any single CELCP value, when considered as a whole they would provide significant benefits to the coastal area.

Lands that provide opportunities for environmentally responsible recreation

Coastal Mississippi offers an abundance of low impact outdoor recreational opportunities such as fishing, hunting, boating, swimming, hiking, canoeing, kayaking, and wildlife-watching. Most of the citizens and visitors to coastal Mississippi participate in, at least, some of these activities. The acquisition of additional lands for public access will ensure that, as our population grows and the demand increases, these activities will continue to be available to everyone and participation in them will continue to be a positive experience. Priority will be placed on lands where low impact recreation is compatible with natural resource protection.

Lands that protect significant historical & cultural sites

Coastal Mississippi was settled by Europeans more than 300 years ago, but was inhabited by Native American Indians for more than 10,000 years prior. As a consequence of this long occupation, the coastal area has a large number of sites identified by the Mississippi Department of Archives and History as being significant historical, architectural, and archaeological sites as well as a large number of sites on the National Register of Historic Places.

Additionally, the six southernmost coastal counties of the CELCP area are a Congressionally designated National Heritage Area. This designation is designed to promote the national significance of the area while advocating the area's natural resources, recreational opportunities, and historical and cultural aspects. The protection of these values is the foundation of both programs with each being a natural endorsement to the other.

Lands that protect aesthetic or scenic values

The flora, fauna, geology and hydrology of coastal Mississippi has combined to provide us with many areas of exceptional natural beauty, particularly along the rivers, marshlands, barrier islands and pine savannas. The area is home to five State Scenic Streams: the Wolf River, Tangipahoa River, Black Creek, Red Creek, and the Pascagoula River. Black Creek is also a designated National Wild and Scenic River. Long stretches of these streams have natural shorelines with little or no visible development. The barrier islands and marshlands offer extensive views of natural unaltered landscapes. The freshwater swamps and pine savannas support highly diverse plant and animal communities that draw thousands of visitors annually to the Pascagoula River Nature Festival. When ranking lands for their aesthetic and scenic values, the state will give priority to lands that have aesthetic or scenic qualities of local, state, or national significance (e.g., lands along a national or state designated scenic river) or to lands that provide a protective buffer to areas with significant aesthetic or scenic values.

c. Mississippi CELP Project Areas

With the introduction of legalized gaming to Hancock and Harrison counties, the Mississippi Gulf Coast began to experience a rate of growth not witnessed in a number of years prior. The development of casino sites, ancillary gaming related sites such as golf courses, housing and other commercial related support development resulted in greater development pressures on formerly undeveloped tracts. The desire for waterfront properties and other parcels juxtaposed with the already developed urban cores increased and suburban sprawl erupted. Upper tier counties adjacent to the Coastal Zone boundary have sustained a continual increase in population and in spite of, or perhaps as a result of, Hurricane Katrina this trend appears to be sustained.

Table 2. Mississippi CELCP Area Population Trend Analysis

County	Land Area (sq. mi.)	1970pop	1980pop	%Change	1990pop	%Change	2000pop	%Change	2004pop
Amite	730	13,763	13,369	-2.86	13,328	-0.31	13,599	2.03	13,418
George**	478	12,459	15,297	22.78	16,673	9.00	19,144	14.82	20,838
Hancock*	477	17,387	24,537	41.12	31,760	29.44	42,967	35.29	45,933
Harrison*	581	134,582	157,665	17.15	165,365	4.88	189,601	14.66	192,393
Jackson*	727	87,975	118,015	34.15	115,243	-2.35	131,420	14.04	135,436
Lamar	497	15,209	23,821	56.62	30,424	27.72	39,070	28.42	43,262
Marion	542	22,871	25,708	12.40	25,544	-0.64	25,595	0.20	25,440
Pearl River**	811	27,802	33,795	21.56	38,714	14.56	48,621	25.59	51,835
Pike	409	31,756	36,173	13.91	36,882	1.96	38,940	5.58	39,260
Stone**	445	8,101	9,716	19.94	10,750	10.64	13,622	26.72	14,445
Walthall	404	12,500	13,761	10.09	14,352	4.29	15,156	5.60	15,193
Wilkinson	677	11,099	10,021	-9.71	9,678	-3.42	10,312	6.55	10,182
Area Total	6778	395,504	481,878	21.84	508,713	5.57	588,047	15.60	607,635

* - CZM Boundary; ** - Second Tier Counties, Directly Adjacent to CZM Boundary

Source: U.S. Census Bureau; NOAA

****NOTE**** This table details the population trends for all but 5 counties that contain the CELCP project area. The remaining five counties were excluded due to very small percentage of the county area that is covered by the CELCP area.

The project areas addressed by this plan include a two pronged approach taking into account landscape position and habitat type in determining feasibility for inclusion. For example, parcels adjacent to existing conservation lands, parcels within existing acquisition boundaries (Coastal Preserves, GBNERR, etc), or parcels adjacent to high value riverine, bay, or marine systems would all be considered high priority project areas utilizing the landscape position approach.

Comparatively, in qualifying priority areas based on habitat type, it is the intent of this document to outline threatened or declining habitats for inclusion. Information provided by the Mississippi Department of Wildlife, Fisheries and Parks Natural Heritage Program's Comprehensive Wildlife Conservation Strategy (CWCS) and the Mississippi Forestry Commission's Forest Legacy Program (FLP) provide, in great detail, specific habitats that fall into this category. These two complementary plans (CWCS, FLP) rank the threat to these habitats in concurrent fashion to those values set forth in this document, as well as, address the inherent dangers to those values similarly expressed in this plan. Specific examples of threatened habitats considered priority areas in this plan include Wet Pine Savanna, Maritime Woodlands, Estuarine Marshes, and Mesic Longleaf Savanna/Flatwoods. By no means is this listing exhaustive but merely serves to illustrate that many habitat types within the Mississippi CELCP Boundary are small in geographical extent and are subjected to a myriad of pressures that ultimately diminish or completely deplete their function and value. The Mississippi Department of Wildlife, Fisheries and Parks' Museum of Natural Science Natural Heritage Program has also compiled a Biological and Conservation Database that details records of existing high value habitat sites, as well as, observations of specific species of concern, threatened, and/or endangered species. This database, in conjunction with the other plans mentioned above, are used to define and delineate those areas that will be priority areas of consideration for conservation acquisition actions.

The Mississippi CELCP plan development team intends, for future revisions to the Mississippi CELCP plan, to develop a geospatial model incorporating the existing conservation variables such as records of threatened and endangered species/habitats, archaeological/historical sites, important waterways, etc. to further prioritize conservation efforts and create focus areas with greater geographical precision.

d. Complementary Plans

In developing this plan, every effort has been made to locate concurring plans and make use of existing acquisition prioritization efforts. A number of agencies, Federal, State, local, and NGOs have recognized the importance of conserving lands for threatened and endangered species habitat, unique, sensitive, or imperiled habitat types, to preserve public access, to promote natural resource based recreation, and to protect culturally important sites among others and have consequently developed strategies and reports to address these needs. It is Mississippi's intention to utilize applicable components of these plans to more efficiently delineate those areas that most appropriately meet the acquisition priorities and protect those values set forth in this document. The Mississippi Department of Wildlife, Fisheries and Parks' Museum of Natural Science Natural Heritage Program developed and continues to update a comprehensive database of records for threatened, endangered, critical, and of concern species,

as well as, specific habitats of unique or threatened condition. The efforts of this program provide extraordinary information that can be utilized through this plan to delineate priority areas, both general and specific. Additionally, both the FLP and the CWCS in conjunction with the Coastal Preserves and NERR acquisition strategies provide a solid foundation and sound guidance in directing and detailing those areas in most need of conservation. With that in mind, the Mississippi CELCP plan will rely heavily on the extensive efforts these plans have conducted to locate, inventory, and describe priority sites and site types. These plans have also undergone widespread scientific and public review which serves to underscore the far-reaching acceptance and inherent validity of their findings.

Table 3. Applicable Acquisition Plans/Reports/Citations Utilized in MS CELCP Plan Development	
Title	Agency
A Coastal Wetlands Priority Acquisition Plan for Hancock, Harrison, and Jackson Counties, Mississippi	Mississippi Department of Marine Resources/ Mississippi Secretary of State's Office
Mississippi Coastal Program	Mississippi Department of Marine Resources
Biodiversity Significance of Conservation Sites in Hancock, Harrison, and Jackson Counties of Mississippi	Mississippi Museum of Natural Science - Department of Wildlife, Fisheries, and Parks
Coastal County Ecological Inventory and Conservation Planning Project	Mississippi Museum of Natural Science - Department of Wildlife, Fisheries, and Parks
Mississippi Comprehensive Wildlife Conservation Strategy	Mississippi Museum of Natural Science - Department of Wildlife, Fisheries, and Parks
Mississippi Forest Legacy Program	Mississippi Forestry Commission
Acquisition Priorities - Personal Communication	Judy Steckler, Director - The Land Trust for the Mississippi Coastal Plain
East Gulf Coastal Plain Eco-regional Plan & Personal Communication	Mike Murphy/Dan Chichester/Raphael Calderon – The Nature Conservancy
Draft Land Acquisition Plan for the Grand Bay National Estuarine Research Reserve	Grand Bay National Estuarine Research Reserve
Grand Bay National Estuarine Research Reserve Management Plan	Grand Bay National Estuarine Research Reserve
Mississippi Comprehensive Outdoor Recreation Plan	Mississippi Department of Wildlife, Fisheries and Parks
Mississippi Scenic Streams Stewardship Program	Mississippi Department of Wildlife, Fisheries and Parks
Mississippi Scenic Byways Program	Mississippi Department of Transportation

- The Coastal Wetlands Priority Acquisition Plan for Hancock, Harrison, and Jackson Counties, Mississippi is the primary document that outlines those areas that are to be the focus of MDMR Coastal Preserve acquisition efforts. This plan details approximately 83,000 acres of coastal wetlands and adjacent upland, as well as, the functions and values that these lands protect. The prominent habitat type featured in this plan is estuarine marsh with an additional focus on the adjacent upland buffer. This plan also outlines the criteria by which potential acquisitions will be evaluated under this plan.
- The Mississippi Coastal Program (MCP) is a comprehensive document outlining the policies and procedures for the management of Mississippi's coastal natural resources. Included in this document is the designation and delineation of "Areas of Particular Concern" which detail those areas of the three coastal counties that were determined to be in most need of conservation efforts. Additionally, within the MCP's Coastal Wetlands Use Plan, areas were delineated and determined, through the plan development process, to be in need of preservation and therefore identified as such for regulatory purposes.
- The Coastal County Ecological Inventory and Conservation Planning Project details the efforts of the Mississippi Department of Wildlife, Fisheries, and Parks' Natural Heritage Program to identify and map conservation sites based on the contents of their Biological and Conservation Database System. This system consists of a dynamic catalog of occurrence records for threatened and endangered species, as well as, imperiled habitats for Coastal Mississippi. After a map was produced of these areas, a ranking system was applied to categorize the contents according to their Conservation Priority Ranks. The product of this effort is a ranked "list" of areas that are most in need of protection due to their inherent habitat value and function.
 - The Biodiversity Significance of Conservation Sites in Hancock, Harrison, and Jackson Counties of Mississippi is a report outlining the findings of the Coastal County Ecological Inventory and Conservation Planning Project. It essentially provides an expanded dialog of the importance of habitats within the three coastal counties, not only from a local standpoint, but also from a regional perspective.
- The Mississippi Comprehensive Wildlife Conservation Strategy is an effort by the Mississippi Department of Wildlife, Fisheries and Parks (MDWFP) to effectively detail, among other topics, types and relative condition of key habitats and communities and threats to those areas. Additional information is included to outline distribution and abundance of wildlife that

utilize these habitats, descriptions of conservation measures to protect noted wildlife and essential habitat, and monitoring plans for specific species and related habitats.

- The Mississippi Forest Legacy Program details a plan to prioritize, acquire and protect environmentally important forest areas that are threatened by conversion to other uses. Values that are intended to be protected by this plan include fish and wildlife habitat, scenic, cultural, recreational, water quality, and other ecologically important factors.
- The Grand Bay National Estuarine Research Reserve (NERR) Management Plan and as furtherance, the Draft Land Acquisition Plan for the Grand Bay National Estuarine Research Reserve both designate the mandate to prioritize and acquire essential land to promulgate and protect the designated NERR site. As mandated by the management plan, the draft Land Acquisition Plan outlines the ranking criteria by which to prioritize surrounding parcels for potential acquisition.
- The Mississippi Statewide Comprehensive Outdoor Recreation Plan is a MDWFP effort to formalize the method by which the State can inventory and identify the demands, needs, and resources of outdoor recreation. An additional benefit of this plan is to provide guidance for the allocation of outdoor recreation related funds and provide guidance to state and local recreation planners. The assessment of recreation needs and the ranking criteria by which potential recreational improvement activities are scored provide much benefit to the related values set forth in the CELCP plan.
- The Scenic Streams Stewardship Program of the MDWFP, while not an outright acquisition strategy, sets forth the method by which important waterways in Mississippi can be protected for the benefit of all Mississippians. The information provided, in addition to the scoring criteria, is an excellent source to further prioritize areas for inclusion in this program.
- The Scenic Byways Program of the Mississippi Department of Transportation (MDOT) is designed to recognize certain roads for their archaeological, cultural, historical, natural, recreational, and scenic qualities. This state program was developed in furtherance of the National Scenic Byways Program. The goals and objectives of these programs are supplementary to the CELCP in that intrinsic values are protected. The basis of this program and the CELCP plan objectives seem an excellent fit to enhance the byways program and vice versa.

There are other conservation entities involved in priority area acquisition within the CELCP plan boundary, many of which center on particular areas such as

administrative boundaries or specific geographic areas to focus their efforts. Nonetheless, intensive focus on a particular area can often identify specific sites that can have profound benefit to the system as a whole. Particular groups or entities of this type and whose input was sought for inclusion of this plan include:

- Wolf River Conservation Society – It focuses on conserving, managing, and protecting the Wolf River. The focus area is from the river's headwaters in Lamar County to its termination at the Bay of St. Louis.
- Hancock County's Blueways/Greenways Conservation Plan – The County's planner for this project has, through workshops and public involvement, determined the needs and/or goals of the county and developed priority areas to accentuate their recreational and conservation opportunities. The identified areas are intended to provide habitat corridors, link existing conservation/recreation resources, and provide additional opportunities for passive outdoor natural resource related recreation.
- The Nature Conservancy has produced the East Gulf Coastal Plain Eco-regional Plan, which addresses a method by which to identify a suite of sites that if protected would conserve the biodiversity of that eco-region. This plan details several sites within the CELCP area that are priorities for conservation acquisition to further this goal. Most of Mississippi sites within the eco-regional plan are also identified in other parts of the MS CELCP plan.
- The Land Trust for the Mississippi Coastal Plain is active in acquisition of conservation properties in Coastal Mississippi. Though they have yet to produce a hard copy document outlining this effort, they remain steadfast and sure in the direction in which they intend to proceed. The main concentration of this entity's efforts is focused on the acquisition of property adjacent to waterways with the intended effort to connect existing conservation properties, protect water and habitat quality, and provide passive recreational opportunities.

As is consistent with the national criteria listed in the Final Guideline and the guiding document for management of the Coastal Zone, the Mississippi Coastal Program, it is the intent, too, of this plan to consider areas of historical and archaeological importance in prioritizing areas for inclusion in this plan. The guiding document for the lower six coastal counties' designated National Heritage Area and its accompanying Environmental Assessment, while not specifically delineating acquisition areas, still provides excellent information which was utilized in the development of this plan. More specifically, however, there are a number of archaeological and historical databases created by agencies such as the Mississippi Gulf Coast National Heritage Area and the

Mississippi Department of Archives and History that note locations of important sites and areas that are naturally considered in the development of this plan and its priority areas. The Mississippi Department of Transportation is actively participating in the Scenic Byways Program that is intended to identify and designate highway, road and street corridors as scenic byways in an attempt to preserve, enhance and protect the state's intrinsic resources for visitors and residents of the state. Those intrinsic archeological, cultural, historic, natural, recreational and scenic values are collaborative with those of the CELCP, and coordination among these programs will be sought.

III. Mississippi CELCP Process Implementation

a. Mississippi Lead Agency

The Final Guidelines define and presume a state's lead agency to be the lead agency designated for implementing the state's coastal management program. Under this presumption and as outlined by the Coastal Zone Management Act and guided via the Mississippi Coastal Program (MCP), the Mississippi Department of Marine Resources shall act as the lead agency for this program.

The Coastal and Estuarine Land Conservation Program's intent is affirmed through the Mississippi Coastal Program goals. Concurrent ideals, as stated within the MCP, include:

- "To favor the preservation of coastal wetlands and ecosystems....."
- "To protect, propagate, and conserve the state's seafood and aquatic life..."
- "To conserve the air and waters of the state, and to protect, maintain, and improve the quality thereof for public use, for the propagation of wildlife, fish and aquatic life....."
- "To preserve the state's historical and archaeological resources, to prevent their destruction, and to enhance these resources....."
- "To encourage the preservation of natural scenic qualities...."

b. Agencies Eligible to hold title to property acquired through the CELCP

There are a number of Mississippi State entities with the authority to hold title to property. It is the intent of this plan to permit any eligible Mississippi state agency, duly authorized to hold title to property by the state, to make application to this program and hold title to said property acquired as a result of their application so long as the management and use of said property strictly adheres to the terms of use set forth in the Final Guidelines.

Authorized State resource agencies include:

- Mississippi Secretary of State
- Mississippi Department of Marine Resources
- Mississippi Department of Wildlife, Fisheries, and Parks
- Mississippi Forestry Commission

Some other state agencies are authorized to hold title, however, those agencies' primary missions are not focused on the conservation and ecological management of natural habitats.

The Final Guidelines explain that NOAA may make financial assistance award to an eligible coastal state's designated lead agency, Mississippi Department of Marine Resources (MDMR). They further elucidates that pursuant to 15 CFR 24.3, the lead agency may then in turn allocate sub-awards to other state agencies or local governments. Section 306A(e) of the CZMA (16 USC 1455a(e)) defines and provides consent to MDMR to also allocate sub-awards to certain other eligible entities as detailed by that section.

c. State Project Nomination Process

Solicitation of Proposals

The state nomination process will begin with notification from NOAA of the availability of funding. Following notification, the Mississippi Department of Marine Resources will announce a request for proposals through various forms of media including, but not limited to, press releases, website postings, and direct contact by email or phone with qualified applicants. The request for proposals will contain all relevant information needed by the applicant to submit a completed proposal to MDMR for review and ranking (e.g., eligibility requirements, ranking criteria, time schedules, sample forms, contact information). Applicants will be kept informed of the status of their proposals.

Proposal Acceptance

To be accepted for the review and ranking process, MDMR will first ensure that the proposals meet the following basic requirements:

1. Proposals must provide all the information requested in the RFP. If a proposal is incomplete, the applicant will be notified and given an opportunity to submit additional information. Any proposals that remain incomplete after the published deadline will not be considered for further review and ranking.
2. Each proposed project must meet the eligibility requirements set forth in Section 2 of the CELCP Final Program Guidelines:
 - located in a coastal or estuarine area within the state's approved Coastal and Estuarine Land Conservation Plan;
 - provides a 1:1 match of federal CECLP funds with non-federal funds;

- be held in public ownership after acquisition and protected in perpetuity; and
- provides for public access where appropriate and consistent with natural resource protection.

Any proposals that do not meet these requirements will not qualify for further review and ranking.

Review and Ranking

Accepted proposals will be reviewed and scored by a team established by MDMR. This team will consist of individuals representing federal, state, local, and non-governmental organizations

The top scoring proposals will be sent to the MDMR Executive Director for final approval. The selected projects will then be sent to NOAA for inclusion in the national competitive review process.

Scoring Criteria for Proposals

NOAA has created a process for ranking proposals at the national level based on the purposes of the CELCP and on the criteria set forth in the final program guidelines. The NOAA process includes four evaluation factors:

- 1) importance and relevance of the proposed project to the program goals;
- 2) technical and scientific merit;
- 3) overall qualifications of applicants; and
- 4) project costs.

For consistency and to ensure that the state's proposals will be competitive at the national level, the state scoring system will also include these four evaluation factors along with some modifications to reflect the state's conservation priorities. The state may choose to modify this ranking system to reflect any changes in guidance from NOAA on evaluating projects at the national level. The state scoring system will rank proposals according to the degree to which they:

- protect important coastal and estuarine areas that have significant conservation, recreation, ecological, historical, or aesthetic values;
- support their primary purpose (whether conservation, recreation, ecological, historical or aesthetic), as well as the degree to which they contribute other values;
- advance the priorities of the state's approved Coastal and Estuarine Land Conservation Plan and the goals, objectives, or implementation of the state's coastal management plan approved under the CZMA, a NERR management plan approved under the CZMA, or regional, state or local watershed protection plan.

Priority is given to projects that:

- protect lands with significant ecological value; and
- advance the priorities within a state's approved Coastal and Estuarine Land Conservation Plan or the goals, objectives, and implementation of the state's coastal management plan.

Each of the evaluation factors are divided into subunits, each of which are given an individual numerical score ranging from 1 to 10. Each subunit will also be given a numerical weighting ranging from 1 to 4 to reflect its relative importance to the overall score. The high, medium and low categories for these subunits are simply a guide to use for ascribing the numerical score. In other words, the reviewer can use these categories to help gage the degree to which the project supports a particular value. The highest score possible is 380 points. Applicants must specify one of the following as the primary purpose of the project: ecological, conservation, aesthetic, historical, or recreational.

1. Importance and/or relevance of proposed project to the program goals. (max. of 190 points)

This factor assesses the degree to which the project supports its primary purpose, benefits to any secondary CELCP values, and advances the priorities of the state's CELCP plan, the Mississippi Coastal Program, the Grand Bay NERR management plan, or a regional, state or local watershed protection plan.

a. Ecological Value: (weight=4)

The CELCP authority states that priority shall be given to lands with significant ecological value; therefore this value has a higher weight than the others.

High

Large tract containing exceptional natural habitat quality and species diversity; supports or able to support rare, threatened and endangered species and ecological communities with state, regional or national importance; invasive species occurrence & threat is minimal; adds or links to existing large conservation areas; provides significant watershed functions.

Medium

Tract contains moderate natural habitat quality and species diversity over the majority of the site; ecological values somewhat degraded due to human activities/neglect; potential for high ecological value with appropriate restoration.

Low

Ecological values not significant; site highly degraded; restoration would be a major undertaking.

b. Recreational Value: (weight=3)

High

Tract provides an opportunity for public access to coastal resources in an area that currently has limited access; supports priority recreation needs identified in state or local plans.

Medium

Tract provides opportunities for recreation, but occurs in an area without a demonstrated need for additional access.

Low

Tract has very limited opportunities for public access, e.g., access may have a significant detrimental effect on the tract's natural resources.

c. Historical Value: (weight=3)

High

Tract protects features that have been designated by the National Register of Historic Places or by the State Cultural Resources Survey as significant historical, cultural or archaeological sites.

Medium

Tract protects features that have the potential to be designated significant historical, cultural or archaeological sites by the National Register of Historic Places or by the State Cultural Resources Survey.

Low

Tract does not contain any known significant historical, cultural or archaeological features.

d. Aesthetic Value: (weight=3)

High

Tract contains scenic vistas in a designated national scenic byway, scenic river or trails program; or contains a unique scenic vista within the designated Mississippi CELCP area.

Medium

Tract contains scenic vistas that support local or state scenic route or trail programs.

Low

Scenic vistas of limited value or unknown potential.

e. Conservation Value: (weight=3)

High

Tract provides a key asset to a significant conservation area, e.g., acquisition of a large in-holding, or a corridor linking two or more conservation areas; site integrity is excellent, no restoration required.

Medium

Tract exhibits a mix of ecological, recreation, historic and aesthetic values that together contribute important benefits to the coastal and estuarine environment that are not provided by those values individually; site integrity is not seriously impaired, some restoration may be needed.

Low

Tract does not provide any significant benefits to existing conservation areas or conservation plans; site integrity may be seriously impaired.

f. Relevance to state CELCP and other conservation plans: (weight=3)

High

Project is located in a CELCP priority area and makes a significant contribution to the state CELCP plan, the Coastal Preserves Program plan, Grand Bay NERR management plan, the Mississippi Coastal Program, or other conservation plans.

Medium

Project is not located in a CELCP priority area, but could provide significant indirect benefits to existing conservation areas; may support local, state or regional watershed protection efforts.

Low

Relevance to state CELCP and other conservation plans is not well documented.

2. Technical/Scientific Merit (max. of 100 points)

This evaluation factor ascertains whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives. Projects will be reviewed and ranked according to the degree to which they:

- are threatened by conversion from their natural or recreational state to other uses;
- can be effectively managed and protected over the long-term (in terms of land stewardship and/or restoration) to conserve their ecological, conservation, recreation, aesthetic, or historical/cultural values; and
- can be executed within the performance period.

Priority is given to projects that can be effectively managed and protected.

a. Manageability – Land perspective (weight=3)

The CELCP authority states that priority shall be given to lands which can be effectively managed and protected over the long-term; therefore this item has a higher potential value than the others.

High

Land is currently in the desired state consistent with the intended purpose(s); site would require only monitoring and minor management activity to maintain; and surrounding land uses are compatible with long-term conservation of the site's values.

Medium

Land has been somewhat degraded (e.g., invasive species present, altered hydrology), but the desired state consistent with the intended purpose(s) is achievable with restoration and active management.

Low

Land has been converted or actively managed historically in a manner not consistent with long-term conservation goals; may contain hazardous materials or contamination; extensive restoration

will be necessary, expensive and achieving the desired state consistent with the intended purpose(s) is not a guaranteed outcome.

b. Long-term use of the site (weight=3)

To what degree are the proposed long-term uses of the site compatible with long-term conservation of the site's ecological, conservation, recreation, aesthetic, or historical/cultural values?

High

Existing uses and proposed uses of the site (or portion of site being acquired with CELCP funds) are compatible with the primary purpose of the project and will not impact its ecological, conservation, recreation, aesthetic, historical and cultural values.

Medium

Existing uses are generally consistent with the primary purpose for which the land is being protected. Existing uses may have resulted in some impacts to the site's values, but their continuance will not result in any additional impacts or degradation or result in conversion of lands from their natural or recreational state to other uses. Any new activities will be compatible with the primary purpose of the project and will not impact its ecological, conservation, recreation, aesthetic, historical and cultural values.

Low

Existing uses or proposed uses of the site are likely to result in additional impacts to the values present on the site or result in a conversion of lands from their natural or recreational state to other uses.

c. Threat of Conversion (weight=2)

To what degree is the property threatened by conversion from its natural or recreational state to other uses?

High

Most of the site is developable or the developable area is in high demand (e.g., waterfront); site may have development plans pending or the immediate area around the site has been recently developed; property is listed for sale.

Moderate

Most of the site is developable or the developable area is in high demand (e.g., waterfront); however, site is located in area currently experiencing only moderate development pressures.

Low

Most of the site is virtually undevelopable due to regulatory protections.

d. Project Readiness – (weight=2)

Does the project have clearly stated goals and objectives that can be achieved during the performance period?

High

Site has been identified; negotiations with landowner have resulted in purchase/sale agreement; appraisal, title opinion, and other documentation have been completed; no issues (e.g., title problems, liens) that would delay acquisition.

Moderate

Site has been identified, property is on market and/or discussions with landowner are likely to result in a purchase/sale agreement; appraisal, title opinion and other documentation can be produced within award period; currently no known issues (e.g., title problems, liens) could potentially delay acquisition beyond the award period.

Low

Preliminary contacts with landowner have been made and discussions are underway; or site has uncertainties (willingness to sell, litigation, or other liens or judgments, etc.) that are not likely to be resolved within the award period.

3. Overall Qualifications of Applicants (max. of 40 points)

This evaluation factor measures whether the applicant has the necessary education, experience, training, facilities, and administrative resources to accomplish the project. Specifically, projects will be evaluated according to the degree to which they can be effectively managed and protected over the long-term in terms of the applicant's capacity (staffing, resources, authority and expertise) to implement the project (complete the acquisition) and manage property for long-term conservation of coastal and estuarine lands consistent with CELCP guidelines and state coastal management program policies.

a. Ability to Acquire Land– Agency perspective (weight=2)

Does the applicant have the proven capacity and experience, based on available funding, staff, authority and expertise, to execute the land transaction consistent with CELCP guidelines?

High

Applicant has funding, personnel, expertise, legal authority and demonstrated success for acquiring lands, or interests in lands, for long-term conservation purposes.

Medium

Funding or personnel appears to be limited; and/or state or local recipient appears to have a high caseload relative to resources;

Low

Applicant has not identified, or reviewer is concerned that applicant does not have, the personnel, funding resources, or authority to execute the project or to provide necessary assurances for long-term conservation.

b. Ability to Manage Land– Agency perspective (weight=2)

Does the applicant have the proven capacity and experience, based on available funding, staff, authority and expertise, to manage property for long-term conservation of coastal and estuarine lands consistent with CELCP guidelines?

High

Applicant has funding and personnel or a partnership/stewardship agreement in place to manage new tract and has demonstrated success in managing other properties for conservation purposes.

Medium

Funding or personnel appears to be limited; and/or state or local recipient appears to have a high caseload relative to resources; funding, partnerships or stewardship agreements have been tentatively identified.

Low

Applicant has not identified, or reviewer is concerned that applicant does not have the personnel or funding resources to accommodate the needed management of the tract.

4. Project Costs (max. of 50 points)

This evaluation factor determines if the project budget is realistic and commensurate with the project needs and timeframe. Specifically, the budget is evaluated to determine if land acquisition costs are based on an independent appraisal or other assessment of fair market value, if the source of matching funds is consistent with CELCP guidelines and is likely to be available within the performance period, and if direct and indirect costs for implementation of the project are reasonable and consistent with CELCP guidelines.

a. Acquisition costs (weight=2)

Are land acquisition costs based on an independent appraisal or other assessment of fair market value? Do the costs account for any continuing streams of revenue derived from ongoing uses of the property or will such revenues be applied to long-term stewardship of the property?

High

Acquisition costs are based on an independent appraisal (conducted within a specified timeframe?). Costs account for any continuing streams of revenue derived from ongoing uses of the property.

Medium

Acquisition costs are based on other assessment of fair market value.

Low

Acquisition costs are not based on either an appraisal or other assessment of fair market value.

b. Matching funds (weight=2)

Are the sources of matching funds reasonable, consistent with CELCP guidelines (cash contribution, donated land or land value from properties with similar coastal and estuarine attributes, and in-kind services such as restoration), and likely to be available within the performance period? Are there any sources that appear inconsistent (such as Federal funds, funds previously used or proposed for use to match another Federal grant, mitigation funds)?

High

Source of matching funds has been identified, are consistent with CELCP guidelines, and will be readily available at the time of closing or by the end of the grant performance period.

Medium

Source of matching funds has been identified and appear consistent with CELCP guidelines, but it is difficult to determine whether costs are reasonable (e.g., value of in-kind services, applicant has not provided documentation for donated land or land value). Matching funds are contingent on receipt of other non-Federal funding (such as state or local bond funds), agreement with owner of "donated land", or otherwise subject to uncertainty of availability at the time of closing or by the end of the grant performance period.

Low

Reviewer is concerned that source of matching funds is not consistent with CELCP guidelines.

c. Other costs (weight=1)

If associated costs for executing the land transaction, such as appraisal, title opinion, site assessment, etc., are requested, do they appear reasonable for the scope of the project? Are requested funds for salaries and fringe benefits only for those personnel directly involved in implementing the proposed project?

High

Associated costs appear reasonable for the scope of the project; Funds for administration are directly related to the project.

Low

Direct costs appear high for the scope of the project; Funds for administration do not appear to be directly related to the project.

IV. Coordination and Public Involvement

a. Interagency Involvement in Plan Development

A number of federal and state agencies are actively involved in the conservation and management of natural areas for the multitude of values they provide. Wildlife habitat, water quality, aesthetics, and recreation are but a few of these values that are the focus of these resource agencies and many have illustrated this goal by developing conservation plans that detail the manner in which they

intend to accomplish this mission. Included in these plans are habitat types and priority areas that, through conservation and management, provide the highest contribution to the overall ecological health of a particular area or important species. The Mississippi CELCP plan has been developed with great influence from these existing conservation plans, drawing heavily on their extensive scientific evaluation and public review and involvement. All agencies from which plans were used were contacted to ensure the documents' current status and standing. Additionally, those agencies were briefed on the CELCP, informed of Mississippi's intent in developing the plan, and then were asked to collaborate in the plan's development and the ultimate implementation.

Other agencies though having not produced specific conservation plans, but potentially having an interest or mandate in conservation acquisition planning, were also contacted. They, too, were briefed on the CELCP, Mississippi's intent in developing a plan for the coastal area of Mississippi, and, too, were asked to collaborate in the development.

Federal and State agencies contacted include:

- US Fish and Wildlife Service
- Grand Bay National Estuarine Research Reserve
- Mississippi Department of Marine Resources
- Mississippi Secretary of State
- Mississippi Department of Wildlife, Fisheries, and Parks
- Mississippi Forestry Commission
- Mississippi Department of Archives and History

b. Public Involvement in Plan Development

The development of the Mississippi CELCP plan drew heavily upon the previous efforts of sister resource agencies and therefore also relied, in part, on those efforts' public involvement process for the development of the draft CELCP plan. Mississippi's CELCP plan development team also sought the input of several locally active conservation NGOs to provide additional input in the process. These NGOs' priority areas ranged from a specific perspective related to individual waterways and their drainages to global conservation efforts. It was from these varied perspectives that input could be provided from a broad viewpoint.

Additional input and involvement was sought from other local non-agency sources. There are several local municipality efforts underway to assess open/natural space within their communities and it was from their strategies and vision that we drew insight into their conservation priorities. The Nature Conservancy, The Land Trust for the Mississippi Coastal Plain, The Wolf River Conservation Society, and the development team for the Hancock County

Blueways/Greenways Project were all contacted and provided information pertaining to their efforts and how those could be incorporated into the Mississippi CELCP Plan.

It is the intent of the Mississippi CELCP plan development team to continue to advertise the plan development and solicit input, both public and governmental, regarding the content of this plan as the draft plan undergoes evaluation and evolves into the final document. Further dissemination of the draft plan for review is currently planned and soon to be executed with upcoming public meetings and conferences on the schedule. Examples of such assemblies include the Mississippi Department of Marine Resources' Comprehensive Resource Management Program's upcoming Coastal Development Strategies Conference and bi-monthly meetings that convene a broad range of attendees representing such groups as federal, state, and local government entities, planners, natural resource managers, and NGOs.

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CERTIFICATION AND APPROVAL

- A. Certification that the plan is consistent to the State’s approved coastal management program:

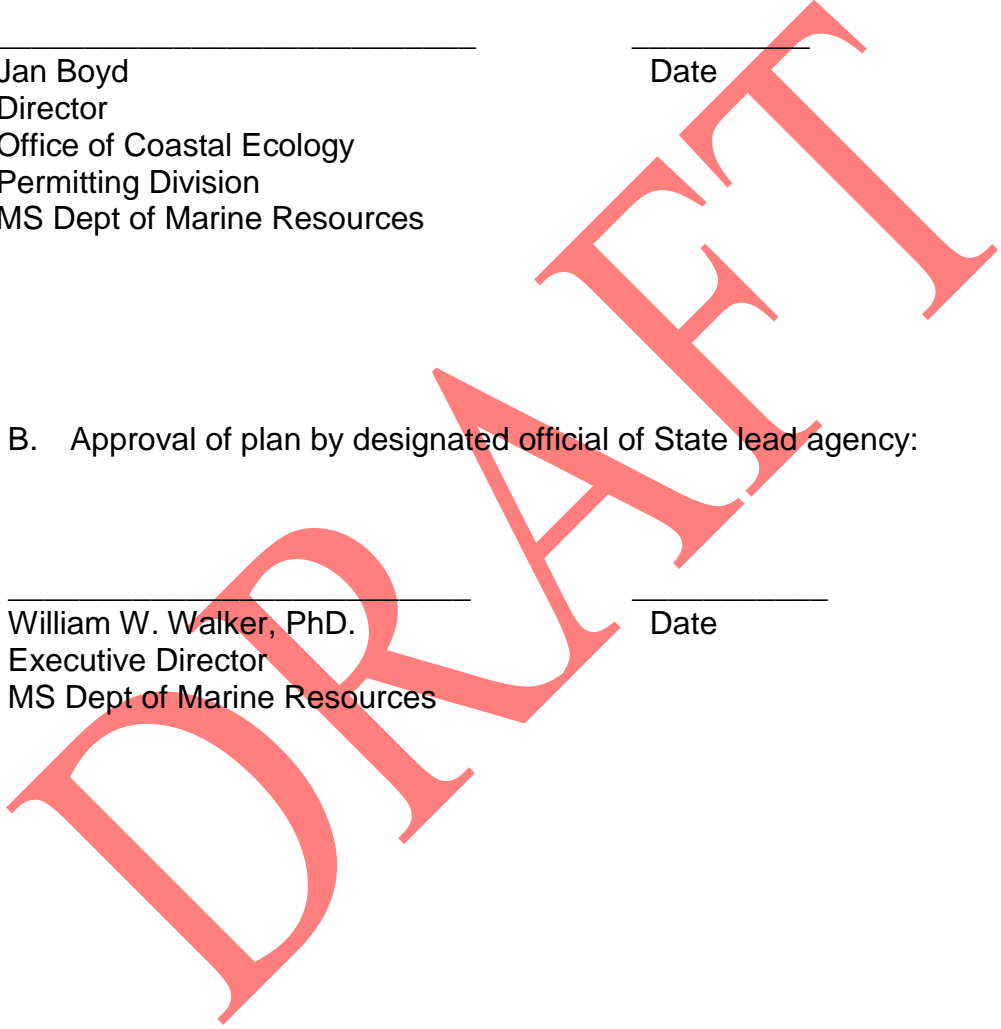
Jan Boyd
Director
Office of Coastal Ecology
Permitting Division
MS Dept of Marine Resources

Date

- B. Approval of plan by designated official of State lead agency:

William W. Walker, PhD.
Executive Director
MS Dept of Marine Resources

Date



References

The following were utilized in the development of Mississippi's CELCP plan.

Chichester, Dan. 2008. *Personal Communication*. The Nature Conservancy.

Coastal Services Center, NOAA. 2006. *C-CAP Land Cover geospatial dataset*. <http://www.csc.noaa.gov/crs/lca/gulfcoast.html>.

Fairbank, Robert. 2008. *Personal Communication*. Wolf River Conservation Society.

Grand Bay National Estuarine Research Reserve. 1999. *Grand Bay National Estuarine Research Reserve Management Plan*.

May, Christopher A.. 2005. *Draft Land Acquisition Plan for Grand Bay National Estuarine Research Reserve*. Mississippi Department of Marine Resources' Grand Bay National Estuarine Research Reserve.

Mississippi Code of 1972. *Mississippi Scenic Streams Stewardship Act*.

Mississippi Department of Marine Resources. 1988. *Mississippi Coastal Program*.

Mississippi Department of Marine Resources, Gulf Coast National Heritage Area. 2005. *Mississippi Gulf Coast National Heritage Area Management Plan*.

Mississippi Department of Marine Resources Mississippi, Gulf Coast National Heritage Area. 2007. *Mississippi Gulf Coast National Heritage Area Draft Environmental Assessment*.

Mississippi Department of Marine Resources; Mississippi Secretary of State's Office. 1999. *Coastal Wetlands Priority Acquisition Plan for Hancock, Harrison and Jackson Counties, Mississippi*.

Mississippi Department of Transportation. 2002. *Mississippi Scenic Byways Program*.

Mississippi Department of Wildlife, Fisheries and Parks' Museum of Natural Science. 2001. *Biodiversity Significance of Conservation Sites in Hancock, Harrison, and Jackson Counties of Mississippi*.

Mississippi Department of Wildlife, Fisheries and Parks' Museum of Natural Science. 2005. *Mississippi Comprehensive Wildlife Conservation Strategy*.

Mississippi Department of Wildlife, Fisheries and Parks. 2003. *Mississippi Statewide Comprehensive Outdoor Recreation Plan*.

Morgan, Charlie, J. DeMatteis, and E. Barber. 2006. *Mississippi Forest Legacy Program Assessment of Need*.

National Ocean Service, NOAA. 2004. *Population Trends Along the Coastal United States: 1980-2008*.

Office of Ocean and Coastal Resource Management, National Ocean Service, National Oceanic and Atmospheric Administration. 2003. *Coastal and Estuarine Land Conservation Program – Final Guidelines*.

Steckler, Judy. 2008. *Personal Communication*. Land Trust for the Mississippi Coastal Plain.

The Nature Conservancy. 2001. *East Gulf Coastal Plain Ecoregional Plan*.

Whitehurst, Andrew E.. 2003. *Mississippi Streamside Landowner's Handbook*. Mississippi Department of Wildlife, Fisheries and Parks Museum of Natural Science.

Wieland, Ronald G. 2001. *Coastal County Ecological Inventory and Conservation Planning Project*. Mississippi Department of Wildlife, Fisheries and Parks' Museum of Natural Science.

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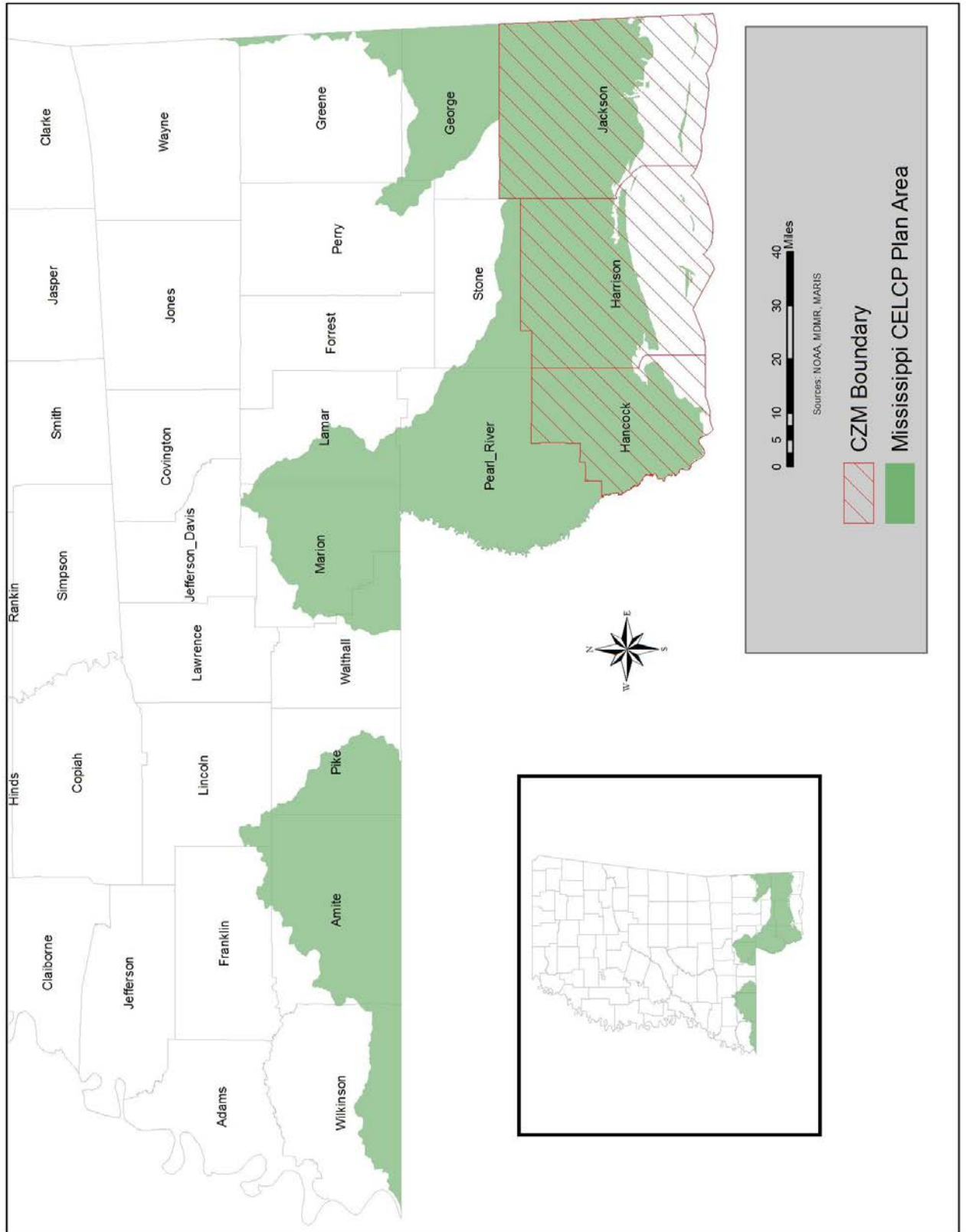


Figure 1. Mississippi CELCP Plan Boundary

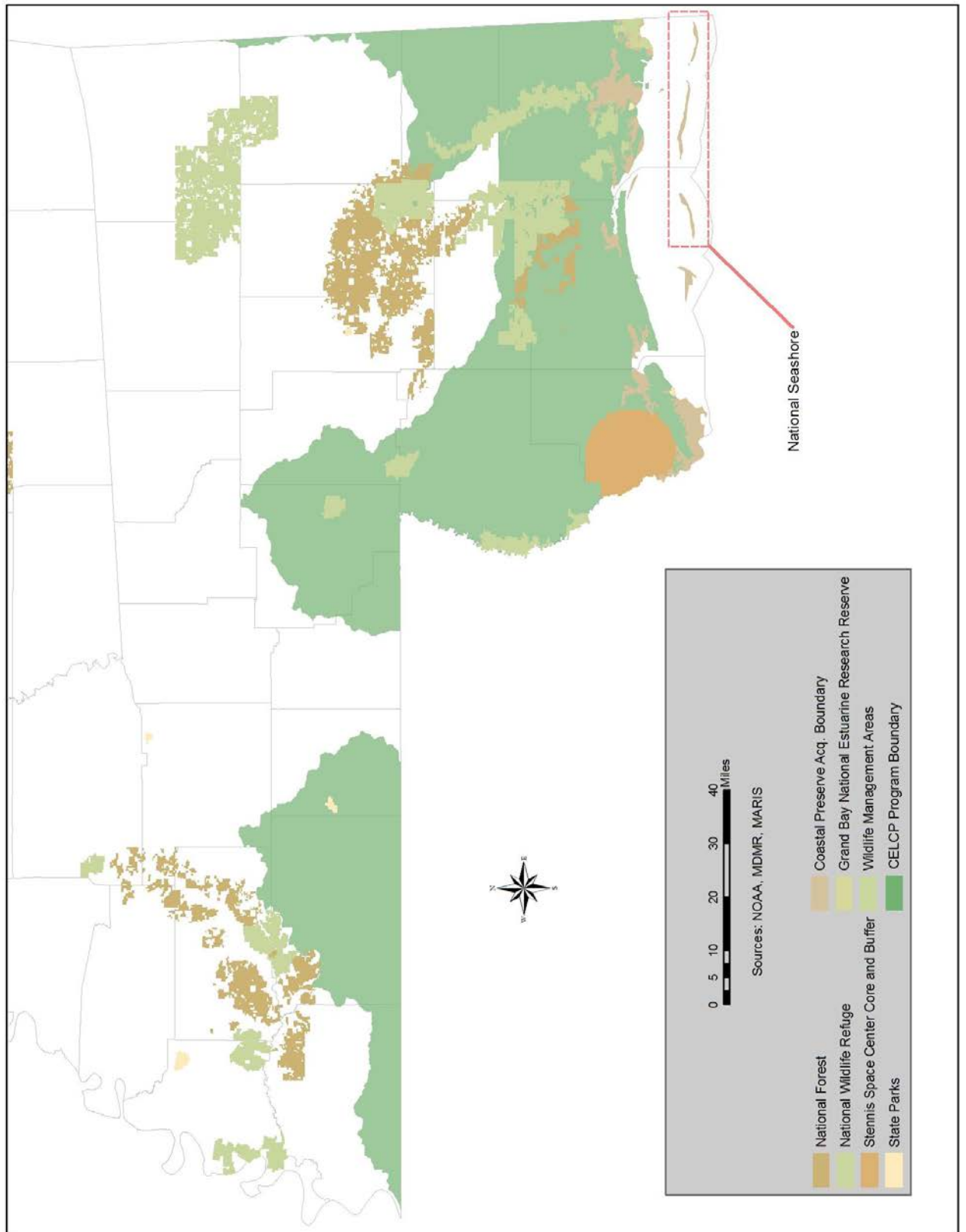


Figure 2. Conservation Areas of the Mississippi CELCP Plan Area

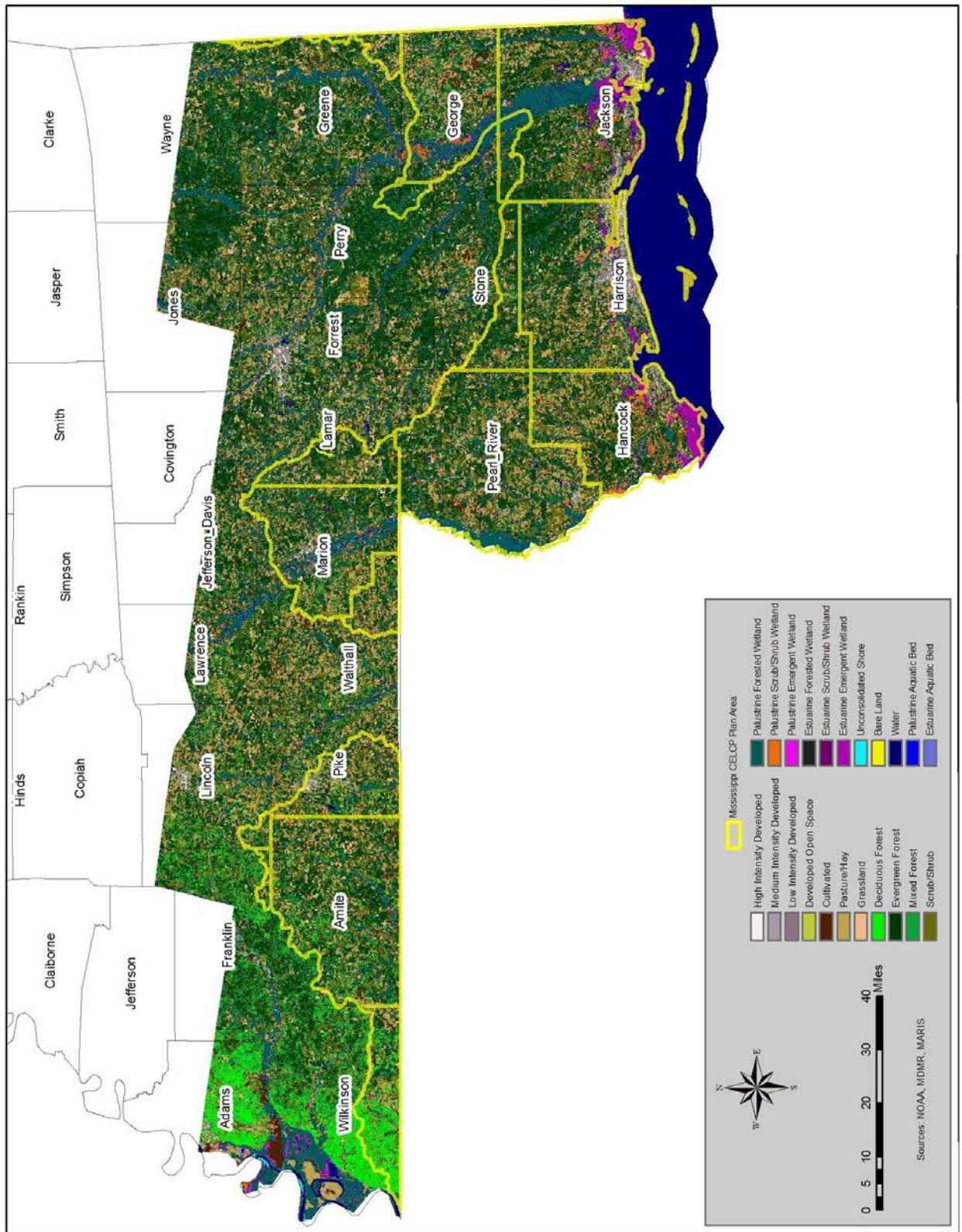


Figure 3. Land Use/ Land Cover for the Mississippi CELCP Plan Area

Appendix 1. State and Federal Conservation Areas

Federal

National Forests

- Desoto
- Homochitto (portion)

National Wildlife Refuges

- Bogue Chitto
- Mississippi Sandhill Crane
- Grand Bay

National Seashore

- Gulf Islands

State

Wildlife Management Areas (state owned or managed)

- Leaf River
- Little Biloxi
- Old River
- Pascagoula
- Ward Bayou
- Red Creek
- Wolf River
- Marion County
- Caston Creek (directly adjacent to CELCP Area)

State Parks

- Buccaneer
- Shepard
- Percy Quinn
- Paul B. Johnson

National Estuarine Research Reserves

- Grand Bay

Coastal Preserves

- Bayou Lacroix
- Bayou Portage
- Biloxi River
- Cat Island
- Davis Bayou
- Deer Island
- Escatawpa river
- Grand Bay
- Grand Bayou
- Graveline Bayou
- Hancock County Marsh
- Horn Island
- Jourdan River
- Old Fort Bayou
- Pascagoula River
- Petit Bois Island
- Round Island
- Ship Island
- Spoil Bank
- Wolf River

Appendix 2.

Major habitat types of conservation concern in the Mississippi CELC area.

Critically Imperiled

1. Mainland Maritime Woodlands
2. Salt Pannes
3. Beech/Magnolia Forests
4. Grady Ponds (subtype of ephemeral pond)
5. Dry Longleaf Pine Forests
6. White Cedar Swamp Forests (subtype of small stream swamp forests)

Imperiled

1. Barrier Island Uplands
2. Barrier Island Wetlands
3. Barrier Island Beaches
4. Mainland Natural Beaches
5. Shell Middens
6. Estuarine Marshes
7. Mesic Longleaf Pine Savanna/Forests
8. Wet Pine Savanna
9. Pitcher Plant Flats/Bogs
10. Pine Seeps
11. Dry Hardwood Forests
12. Rock Outcrops

Vulnerable

1. Estuarine Shrublands
2. Lower Slope/High Terrace Hardwood Forests
3. Bottomland Hardwood Forests
4. Cottonwood/Black Willow/River Birch Woodlands
5. Slash Pine Flatwoods
6. Hardwood Seeps
7. Freshwater Marshes
8. Bald Cypress/Gum Swamp Forests
9. Small Stream Swamp Forests
10. Oxbow Lakes
11. Ephemeral Ponds
12. Marine Hard Bottoms and Oceanic Reefs
13. Dry to Mesic Hardwood Forests