

**SENSITIVE HABITAT PROTECTION AND MANAGEMENT PLAN**  
**TOWN OF DAUPHIN ISLAND, ALABAMA**

Prepared for

The Town of Dauphin Island  
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**DRAFT SENSITIVE HABITAT PROTECTION AND MANAGEMENT PLAN  
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## 1.0 Purpose and Need

The Town of Dauphin Island is working with the South Alabama Regional Planning Commission to update and strengthen its sensitive habitat protection plans. The objective is to identify policies to ensure that the integrity and functional values of the Island's sensitive habitats are not compromised by anthropogenic alterations, and to adopt a supplemental Town ordinance incorporating those policies. The Island faces increasing pressure from private landowners to address building permits for construction on sand dunes and wetlands within development lots platted in 1953.

The Town has developed a Dune Protection Overlay District (DPOD) for the central and eastern portion of the Island's main dune system, and enacted policies to ensure maintenance of dune functional values in protecting public and private infrastructures and the public investment in beaches and dunes. The Town is now developing policies and procedures to address management and protection of sand dunes, and associated environs with sand deposits, that occur from approximately Pirates Cove Street to the west end of Bienville Blvd. The Island's west end is susceptible to post-storm recovery activities such as clearing of Town rights-of-way, in addition to ongoing development.

The Town is also concerned about development within privately owned lots containing wetlands. Presently, the Town depends on Clean Water Act Section 404 review and permitting by the U.S. Army Corps of Engineers and the Alabama Department of Environmental Management (ADEM). The Town has limited information on the location and extent of wetlands within its jurisdiction, and cannot independently assess building permit applications for potential wetland impacts.

The key elements of this project are as follows:

1. Update existing maps of dunes and associated environs located on the west end of Dauphin Island and develop Town of Dauphin Island management measures that address protection and management of dune and sand resource habitats west of the existing Dune Protection Overlay District, and encompassing the west end of the developed part of the Island; and
2. Identify Island properties with potential wetlands and characterize habitat types to facilitate assessment of impacts in building permit applications and compliance with the Town's wetland ordinance.

While the Town has zoning authority over areas containing wetlands and sand dunes and deposits, additional protection measures are appropriate because these sensitive habitats are unique resources and critical to the protection of adjacent properties. Such measures would supplement existing Town policies, which include the following:

- Wetlands  
[http://townofdauphinisland.org/uploads/files/Ord\\_85\\_wetland.pdf](http://townofdauphinisland.org/uploads/files/Ord_85_wetland.pdf)

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- Land Disturbance  
<http://townofdauphinisland.org/government/town-ordinances/P20>
- Dune Protection Overlay District  
[http://townofdauphinisland.org/uploads/files/Dune\\_Protection\\_Overlay\\_Zoning.pdf](http://townofdauphinisland.org/uploads/files/Dune_Protection_Overlay_Zoning.pdf)
- Flood Damage Prevention  
[http://townofdauphinisland.org/uploads/files/ordinance\\_55.pdf](http://townofdauphinisland.org/uploads/files/ordinance_55.pdf)
- Building Code  
[http://townofdauphinisland.org/uploads/files/ORDINANCE\\_60F.pdf](http://townofdauphinisland.org/uploads/files/ORDINANCE_60F.pdf)
- Telecommunication Towers and Facilities  
[http://townofdauphinisland.org/uploads/files/Ord\\_67A\\_Telecommunications\\_Towers.pdf](http://townofdauphinisland.org/uploads/files/Ord_67A_Telecommunications_Towers.pdf)
- Sand Removal  
<http://townofdauphinisland.org/government/town-ordinances/P40>
- Zoning  
[http://townofdauphinisland.org/uploads/files/D.IS.Zoning\\_Ordinance-Amended\\_4-2019.pdf](http://townofdauphinisland.org/uploads/files/D.IS.Zoning_Ordinance-Amended_4-2019.pdf)

The Town's objective in this planning effort is to identify uses permitted, uses subject to review, and uses that may be prohibited because they could adversely affect sensitive Island habitats. Measures that could be beneficial in protecting and managing the Island's west end dune system and sand deposits, while also preserving landowners' opportunities to develop/use their properties, include planting of native dune vegetation, placement of sand fences for stabilizing dunes, and post-storm relocation of sand removed from lots and roadways. Prohibited activities could include those that impair the natural functions of the dune and beach sand resource system. West end dune and sand resource protection measures including best management practices will be incorporated into the Town's Coastal Use Permitting Program.

Measures that could be beneficial in protecting and managing the Island's wetlands include avoidance and minimization of wetland impacts from construction and development, enforcement of the Town's existing wetland ordinance, and mitigation of impacts that result from such activities. Prohibited activities could include those that significantly impair the natural functions of the Island's wetland systems. Wetland protection including best management practices is already incorporated into the Town's Coastal Use Permitting Program to protect wetland resources from adverse impacts associated with construction and other activities.

The public benefits of this project include: (1) establishing additional guidance for maintaining the Island's dune and beach sand supply, which is critical to protection of property and infrastructure from storm hazards; and (2) providing guidance for improving the level of protection for wetlands that provide ecosystem benefits to landowners and residents.

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A public scoping meeting for this Project was held on November 12, 2020. Public comments and official responses made at meeting are presented in Appendix A.

## 2.0 Existing Regulations

### 2.1 Dune and Sand Resource Regulations

Presently, the only regulatory guidance to address building permits for construction on Gulf front sand dunes is afforded by the Alabama Coastal Area Management Plan (ACAMP), administered by Alabama Department of Environmental Management (ADEM). ACAMP stipulates a Coastal Construction Line (CCL) that delimits the permissible seaward extent of construction along Alabama's Gulf of Mexico shoreline. On parts of Dauphin Island, the CCL lies in open water as a result of shoreline erosion and sea level rise. The CCL provides minimal protection for the remnant primary (seaward) dune system on the Island. The primary dunes that do occur have generally formed north of the CCL.

#### Sand Removal Ordinance (Ordinance No. 79)

The Town's Sand Removal Ordinance establishes regulations for the control of Gulf beach sand, so that it does not become a hazard, a nuisance, or is improperly disposed of. The Ordinance was established to improve the overall stability of Gulf beaches in an effort to control erosion and protect and enhance the value of public properties, utilities and infrastructure on Dauphin Island. Beach sand is sometimes moved onto private property and the Town's rights-of-way by turbulent weather and storm surges.

The Ordinance requires any person or company intending to remove sand deposited on private property due to turbulent weather and/or Gulf storm surge to obtain a special permit from the Town authorizing its removal. Removal of sand from the Town's rights-of-way by any contractor, homeowner, person, corporation or other entity is prohibited and is a violation of the Ordinance except with written permission of the Town. Property owners are encouraged to restore the sand to the Gulf beaches whenever possible.

Removal of sand from any waterway or bay side of any lot on the north side of Dauphin Island also requires a written permit from the Town. Property owners are permitted to reclaim sand moved into north side waterways by the operation of turbulent weather and/or Gulf storm surge to restore their lot to the pre-storm condition. The Ordinance stipulates that any and all excess sand should be returned to the Gulf beach whenever possible. Removal of sand from the Town of Dauphin Island is prohibited, except with written permission of the Town.

### 2.2 Wetland Regulations

The filling of jurisdictional wetlands requires permits and/or certifications from the Alabama Department of Environmental Management (ADEM) and the U.S. Army Corps

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of Engineers (USACE), under Section 404 of the Clean Water Act, as amended. All wetlands on Dauphin Island are classified as “coastal” wetlands, and all applications for wetland fill must be approved by ADEM before the USACE can issue a Sec. 404 permit. For wetlands determined by the USACE to be non-jurisdictional, ADEM coastal regulations may require a state permit for non-regulated use. Regulatory guidance for wetland fill or alteration is provided in the Alabama Coastal Area Management Plan (ACAMP) administered by ADEM, and can be found at <http://www.adem.state.al.us/programs/coastal/coastalPermitting.cnt>.

ADEM review of projects affecting wetlands is normally initiated when the property owner makes application to the USACE. The ADEM-USACE Joint Application process generally requires a plan showing the entire property and the proposed project; a delineation of any wetlands present on the property; a description of the types of wetlands present; and a cross-section of the fill area and any proposed structures. It should be noted that filling or excavation of tidal wetlands (emergent marsh) is prohibited for residential or commercial developments and generally will only be authorized for projects that are water-dependent, such as marinas and harbor developments, or are uses of regional benefit, such as public roads. ADEM has provided coastal consistency certification for residential and commercial projects that involve placement of fill in up to 0.1 acre of non-tidal wetlands; this certification applies to all coastal area properties platted prior to August 14, 1979 and thus applies to nearly all undeveloped parcels on Dauphin Island. Support pilings for buildings and walkways are generally not considered fill unless they essentially have fill effects, including impairment or elimination of wetland vegetation or wetland hydrology.

Compensatory mitigation is generally required for any authorized wetland filling or excavation. The amount of mitigation required depends on the amount of proposed wetland impacts and the quality of the affected wetland area. ADEM typically requires that mitigation for wetland impacts in Mobile County be accomplished within the County; impacts to tidal wetlands must be mitigated through restoration or creation of tidal wetlands.

The Town of Dauphin Island’s Wetland Ordinance (Ordinance No. 85) provides a sound approach to protecting wetland resources while acknowledging private property rights of landowners. The ordinance was adopted in August 2004 with the purpose of protecting the Island’s “wetlands, water bodies, and watercourses by preventing damage from erosion or siltation, minimizing disturbance, preserving natural habitats and protecting against flood and pollution by protecting the quality of such areas for their conservation, economic, aesthetic, recreational and other public uses and values.” The ordinance provides a definition of wetlands that is consistent with Section 404 of the Clean Water Act, and requires mitigation for any authorized wetland impacts. It applies to all lands within the corporate limits of the Town and stipulates that any proposed development that would have an “adverse impact” upon wetlands within the Town of Dauphin Island must be permitted by the Town or by its Town Council and must be mitigated at a 2-to-1 ratio within the corporate limits of Dauphin Island.

### 3.0 Dauphin Island Sensitive Habitat Characteristics

#### 3.1 West End Dune and Sand Resources

The United States Geological Survey (USGS) mapped Island dunes as part of the Alabama Barrier Island Restoration Assessment, in collaboration with the U.S. Army Corps of Engineers and in cooperation with the State of Alabama (USGS, 2017). A map showing the locations of USGS-delineated dunes on the western part of the Island is shown in Figure 3-1. Recent tropical storms (especially during Fall 2020) caused significant changes in most of these dune systems. Many roadside berms and low dunes south of Bienville Blvd. were leveled with sand being relocated to the north side of the Island. Subsequent sand removal operations have reestablished most of the roadside berms, but these areas lack vegetative cover and are susceptible to future erosion. An updated map of the remaining dunes has not been developed.

The Gulf-fronting dune system includes primary and secondary dunes. The primary dune system is a ridge or series of ridges or mounds of unconsolidated and usually mobile sands lying immediately landward of the upper limit of the Gulf beach and contiguous to mean high water (ADEM Section 8). Secondary dunes include the dune field landward of the primary dunes. Natural primary and secondary dunes are restricted to the immediate Gulf-fronting areas (Photos 1 and 3, Appendix B).

Roadside right-of-way berms comprise relocated sand deposits, with many of these having fairly dense plant cover (Photos 4, 5, and 6). The most abundant species on these "artificial dunes" are sea oats (*Uniola paniculata*) and Gulf bluestem (*Schizachyrium maritimum*). Other common species include shell mound prickly pear cactus (*Optunia stricta*), camphor weed (*Heterotheca subaxillaris*), large-leaf pennywort (*Hydrocotyle bonariensis*), common reed (*Phragmites mauritianus*), and bladderpod (*Sesbania vesicaria*). Torpedo grass (*Panicum repens*), a highly invasive species also occurs on the roadside berms.

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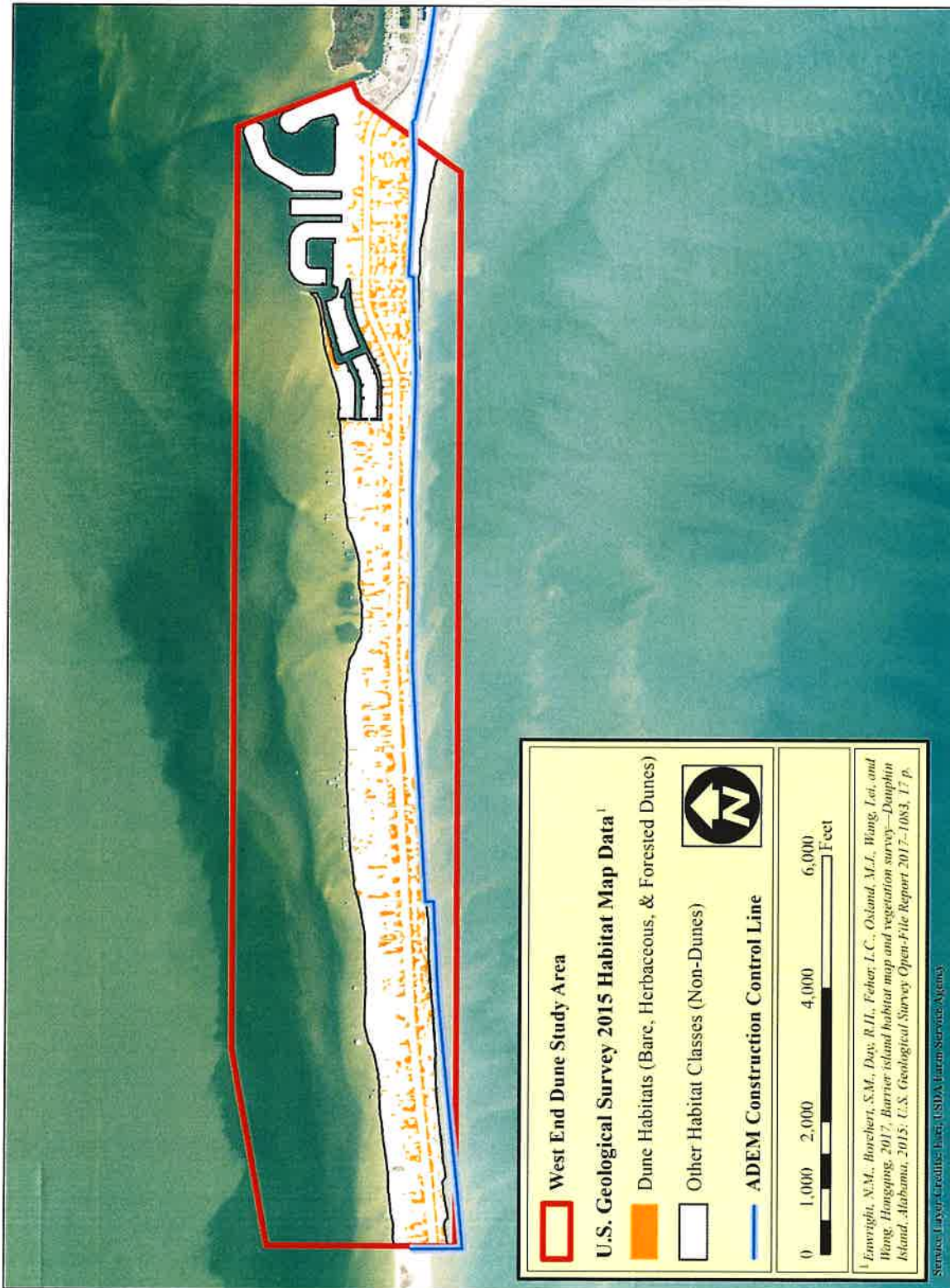


Figure 3-1. West end dunes and sand deposits.



### 3.2 Dauphin Island Wetlands

Figure 3-2 shows Island properties with potential wetlands. Wetlands are predominantly of three types: Forested depressions, wet pinewoods, and tidally influenced marshes. Locations of wetlands are based on visual observations from the public rights-of-way, in consideration of property rights of landowners. Visual cues for identifying wetlands involved primarily plant communities, while many wetland areas were recognized by ponding and other evidence of wetland hydrology. Figure 3-2 should not be viewed as representing all parcels that contain wetlands, because it was not possible to view areas that are heavily wooded from roadways. Also, some parcels that are highlighted in Figure 3-2 may not contain wetlands as defined by Section 404 of the Clean Water Act; definitive wetland determinations require soil testing for evidence of hydrologic indicators and hydric soil features associated with wetlands, in addition to assessment of vegetation. Those analyses were beyond the scope of this project.

Approximately 630 parcels appear to contain wetlands. Most of these are residential lots that were platted prior to August 1979 and thus could be grandfathered under the ACAMP, in regard to non-tidal wetland developments. This large number of parcels, and the significant ecosystem functions of the Island's wetlands (flood water storage, groundwater re-charge, wildlife habitat, etc.), underscores the importance of updating and enforcing the Town's existing wetland ordinance.

The forested depressions are topographically isolated and seasonally inundated by rainwater, primarily during late winter and early spring, and again in the fall. When flooded they are pond-like with standing water reaching 2 feet in depth (or more) that can persist for several weeks (See Photo 2, Appendix C). Swamp tupelo (*Nyssa biflora*) typically dominates the upper canopy of these gum swamps. Older individuals often possess buttressed trunks indicating the periods of inundation (Photo 3). Outside of the wetter center, slash pine (*Pinus elliottii*), red maple (*Acer rubrum*), sweet bay magnolia (*Magnolia virginiana*), sweetgum (*Liquidambar styraciflua*), water oak (*Quercus nigra*), live oak (*Q. virginiana*), and southern magnolia (*Magnolia grandiflora*) are frequently encountered.

Wet pine forests naturally have a sparse or absent midstory and a dense groundcover of hydrophytic grasses, herbs, and low shrubs. The understory of moist pinelands may be very dense, especially if fire has been prevented, consisting largely of gallberry (*Ilex glabra*), wax myrtle, and saw palmetto (*Serenoa repens*). Herbs include grass-like plants, mostly of the sedge family (Cyperaceae), but also with true grasses (Poaceae), such as switch cane (*Arundinaria tecta*) (Photo 6), rushes (Juncaceae), and yellow-eyed grasses (*Xyris* spp.).

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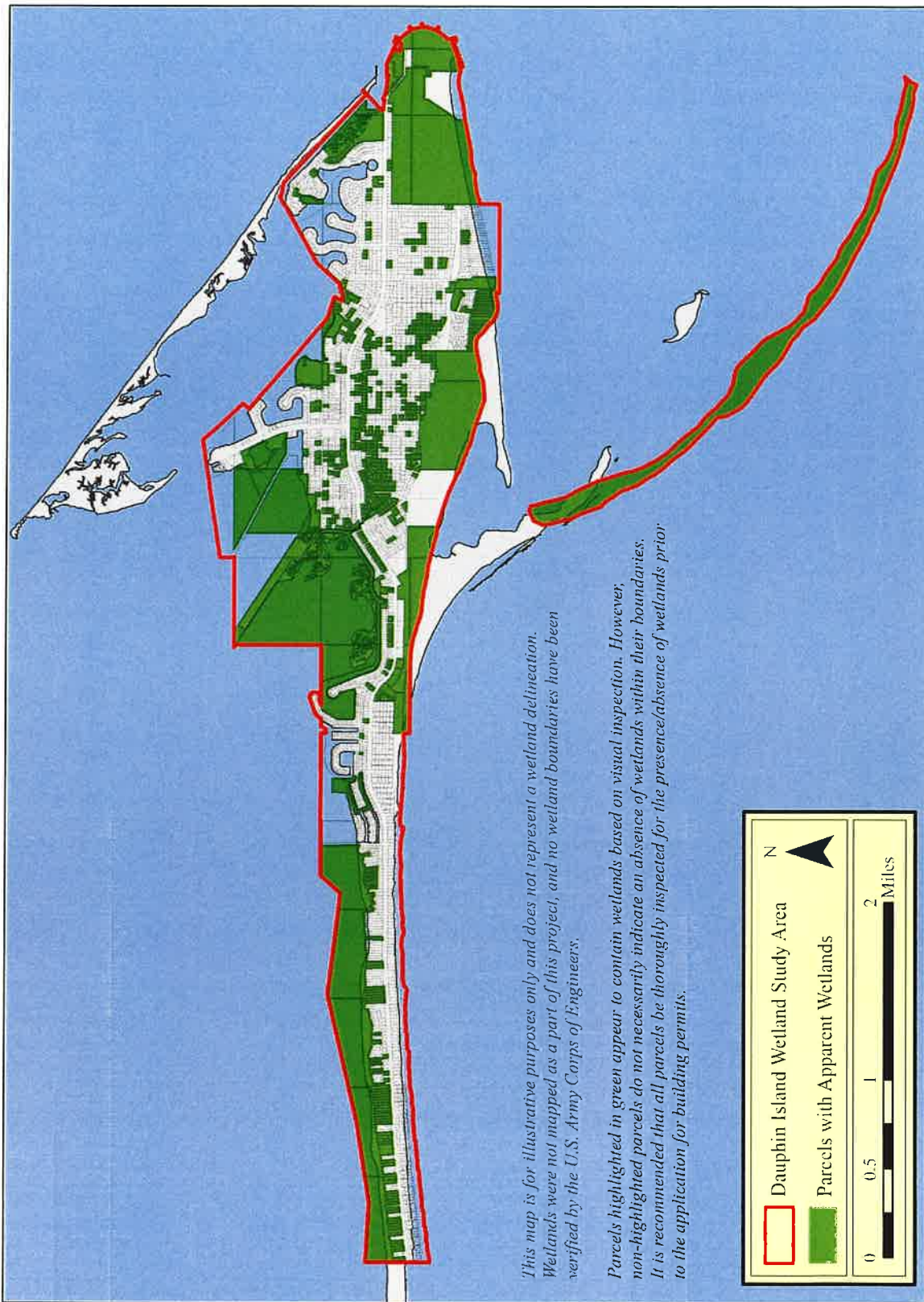


Figure 3-2. Dauphin Island lots with potential wetlands.

Tidal marshes occur primarily along the Island's northern shoreline. These areas are inundated mainly by daily tides but include high marsh which is inundated by wind-driven high tides. Dominant marsh species include smooth cordgrass (*Spartina alterniflora*) in lower elevations, black needlerush (*Juncus roemarianus*) in areas where elevations range from +1 to +2 feet above mean sea level, and saltmeadow cordgrass (*Spartina patens*), which occurs in areas above +2 feet (Photos 11 and 12). Other species typical of tidal marshes include common cane (*Phragmites australis*) and groundsel bush (*Baccharis halimifolia*), which generally occur at the upper margins of tidal marsh. Tidal wetlands are considered to be the most sensitive and essential type of coastal wetland, and are afforded the highest level of regulatory protection.

#### 4.0 Best Practices to Maintain West End Sand Dunes and Sand Resources

The existing Town Sand Removal Ordinance provides the only regulations governing west end sand dunes and sand resources occurring landward of the CCL. In general, the Ordinance requires any person or company intending to remove sand deposited on private property due to turbulent weather and/or Gulf storm surge to obtain a special permit from the Town authorizing its removal. The Ordinance further stipulates that any and all excess sand should be returned to the Gulf beach whenever possible, and that removal of sand from the Town of Dauphin Island is prohibited, except with written permission of the Town. The Best Practices presented in this section are recommended to provide enhanced protection to sand dunes and sand resources on the west end of the Island.

Construction should be conducted without reducing sand dune heights.

Loss of real estate, damage to structures, and reduction in property values are potential significant consequences of dune and sand deposit alteration or removal. Where sand dunes comprise a majority of a platted lot, construction should involve placement of pile-supported structures that do not require leveling of the dune.

Excavation of sand dunes should be avoided.

Dunes provide a reservoir of sand that erodes naturally to replenish adjacent beaches. During storms, sand erodes from the beach-dune system and redeposits as shallow sandbars offshore. In a stable beach-dune system, sand moved offshore during storms is returned during calm weather. Removal or alteration of barrier island dunes can exacerbate beach erosion due to a reduction of the amount of sand in the system and the capacity to withstand storm surge.

Sand dune vegetation should not be removed.

Dune plants trap blowing sand, enhancing dune formation and stabilizing barrier island soils. Colonization of ridges and dunes by vegetation enhances ridge stability and preservation, and removal or loss of dune plants can accelerate erosion and degrade or

eliminate habitats for numerous species of resident and transient birds and wildlife.

Construction near or on relatively barren sand dunes usually can be accomplished with minimal vegetation disturbance. Post-construction supplemental planting of appropriate native plant species will enhance the stability of such dunes, reducing ongoing maintenance of improvements such as driveways. Any construction-stage, temporary alteration of dune vegetation should be repaired after completion.

Sand removed from roadways and lots after storms should be relocated to areas within the dune and beach system.

Sand removed from Town roadways at the Town's expense, or using Federal assistance, creates some constraints on where that sand can be placed. In general, the relocated sand has been used to create berms along the south side of Bienville Blvd. within the public right-of-way, or it has been placed at the ends of side roads, in the public rights-of way. It would be more beneficial to use this sand to reestablish dunes south of Bienville Blvd.; this may require relocation at landowner's expense. Because dune reestablishment can create a benefit to the structural integrity of the west end of the Island, the potential for reimbursing some of that expense should be considered. Sand relocation to the public shoreline (at or near mean high water) could also be considered. It is likely that sand placed in those areas would be relocated by storm tides to the north, where dunes could be formed naturally. A program of dune planting should be strongly encouraged for any locations where sand is placed, to contribute to dune resilience.

Bulkheads or other similar structures should not be installed on Gulf-frontage lots.

Bulkheads are vertical shoreline structures designed to prevent loss of land along the Gulf of Mexico or other coastal waters. While these structures do afford protection to the property where they are installed, they also alter the wave energy and circulation patterns of adjacent properties and can cause significant erosional damage to unprotected shorelines, often resulting in a loss of sand deposits. The Gulf frontage of Dauphin Island is susceptible to tropical storm-induced erosion and any substantial loss of sand could diminish the structural integrity of the Island. A new Town ordinance should be considered, to prevent these types of impacts from occurring.

## 5.0 Proposed Policies and Rules

### 5.1 Proposed Dune and Sand Resource Policies and Rules

The Town's objective in this effort was to identify policies important in ensuring that the integrity and functional values of the Island's west end sand dune system and sand resources are not compromised by anthropogenic alterations such as removal, leveling, excavation, vegetation removal, or bulkheading.

Dune and sand resource protection standards developed through this Project would apply to the area from approximately Pirates Cove Street to the west end of Bienville Blvd. The

Town could process land disturbance and Coastal Use permit applications in accordance with the dune and sand resource protection provisions of a modified Dune Overlay District.

#### Uses Permitted

The following permissible activities associated with the west end Dune Overlay District would be authorized if otherwise allowable by law:

1. The construction and maintenance of noncommercial walkovers that adopts ADEM Section 8 standards, which do not alter the contour of the primary or secondary dunes.
2. The construction and maintenance of observation platforms which are not an integral part of any dwelling and which do not alter the contour of the coastal primary and secondary sand dunes;
3. The planting of beach grasses or other appropriate dune vegetation for the purpose of stabilizing sand dunes;
4. The placement of sand fences on or adjacent to sand dunes for the purpose of stabilizing and enhancing the formation of such features;
5. Outdoor recreational activities, other than operation of motorized vehicles, provided the activities do not alter the natural contour of the dunes or destroy dune vegetation, for example accessing the beach by walking or dragging wheeled carts over or on the dunes or vegetation, or by placing beach equipment (blankets, tents, chairs, umbrellas, etc.) on the dunes or vegetation; and
6. The conservation and research activities of the Dauphin Island Sea Lab, Alabama Department of Conservation and Natural Resources, Audubon Society, and other conservation- and research-related agencies and entities.

#### Prohibited Activities

The following activities should be prohibited in sand dunes and sand resource areas:

1. Development would be generally prohibited on dunes, except in cases for which there are no practicable or feasible alternatives. In general, prohibited activities would be those with potential to cause significant adverse long-term impacts on the natural functioning of the dune system, either individually or in combination with other existing or proposed structures, land disturbances, or activities. Prohibited activities on the dunes would include the operation of motorized vehicles and any activities that alter the natural contour of the dunes or destroy dune vegetation, for example accessing the beach by walking or dragging wheeled carts over or on the dunes or vegetation, or by placing beach equipment (blankets, tents, chairs, umbrellas, etc.) on the dunes or vegetation.

2. Within the area of the primary and secondary dune system, the removal of vegetation from any dune, and the excavation, bulldozing, or alteration of dunes would be prohibited, unless these activities are a component of a Town-approved beach and dune management plan.
3. Any pre-approved construction-stage, temporary alteration of the dune or dune vegetation must be repaired after completion. If re-vegetation is necessary, the dune must be re-stabilized with native dune plants.
4. Encroaching sand removed from roadways and lots would be required to be relocated within the dune and beach sand system. A plan including methods for sand removal, transport, and placement is recommended to adhere to existing land disturbance regulations and permitting.
5. Installation of bulkheads would be prohibited on lots that have frontage on the Gulf of Mexico; alternative methods of shoreline protection should be considered and could include planting of appropriate dune vegetation and installation of sand fence.

## 5.2 Proposed Wetland Policies and Rules

The Town's objective in this effort was to identify policies important in ensuring that the integrity and functional values of the Island's wetland resources are not compromised by anthropogenic alterations such as filling or vegetation removal, without a USACE-ADEM wetland permit that includes appropriate mitigation.

The Town's existing Wetland Ordinance (Ordinance No. 85, Adopted 08-03-04) defines Adverse Impact as, "Anything that would destroy, harm, impair, diminish or degrade the value or utility of a wetland for pollution control, flood prevention, ground water recharge or habitat for fish and wildlife."

Existing wetland protection standards would apply to the Town's municipal limits. The Town would process land disturbance and Coastal Use permit applications in accordance with the wetland protection provisions developed in this effort.

### Uses Permitted

The following permissible activities associated with wetlands within the Town limits would be authorized if otherwise allowable by law:

1. The construction and maintenance of pile-supported walkways which meet ADEM requirements for minimization of tidal marsh wetland impacts, such as a maximum width of 5 feet and board spacing to prevent excessive shading and a height above mudline at least the width of the boardwalk, and do not alter the hydrology or vegetation of these wetlands;
2. The construction and maintenance of observation platforms which do not alter the hydrology of wetlands or result in excessive shading of vegetation;

3. The planting of native wetland vegetation for the purpose of restoring or enhancing wetlands;
4. Outdoor recreational activities, other than operation of motorized vehicles, provided the activities do not alter the hydrology or vegetation of wetlands; and
5. The conservation and research activities of the Dauphin Island Sea Lab, Alabama Department of Conservation and Natural Resources, Audubon Society, and other conservation- and research-related agencies and entities.

#### Wetland Habitat Management Recommendations

1. Modify the wetland ordinance to require a minimum 25-foot development setback from wetlands. The ordinance would provide for a variance process to allow development to occur within the setback zone; the Town Council would determine the amount of the fee that would be required to process applications for the variance.
2. Update the wetland ordinance to remove the 2-to-1 mitigation ratio and replace it with the following compensatory mitigation provisions:
  - Any authorized impacts to tidal wetlands (brackish marsh) must be mitigated through restoration of previously altered tidal marsh on Dauphin Island or through creation of similar marsh at an approved location on Dauphin Island, at a ratio of at least 2-to-1.
  - Most non-tidal wetlands on Dauphin Island would be considered to comprise high-quality habitat. A permissible approach to mitigating for impacts to such wetlands would include permittee-responsible enhancement or restoration of lower-quality wetlands on the Island; the ratio for this mitigation approach would be 5-to-1 or higher and mitigation must be accomplished in an approved site on Dauphin Island.
  - Fee-in-lieu of mitigation should be considered as a permissible measure, with the stipulation that the amount of the mitigation fee would be no less than the cost to purchase mitigation bank credits for impacts to high-quality forested wetlands (in 2021, this is approximately \$63,000 per acre of impact). While there are no approved fee-in-lieu of mitigation programs in Alabama at this time, such a program could be developed in cooperation with the Corps of Engineers and a third-party conservation entity. If approved, such funds would be collected by the Town and placed in an escrow account that could only be used to purchase sensitive and potentially developable wetlands.
3. Update the wetland ordinance to require that lot owners obtain a wetland determination from a qualified wetland delineator or from the Corps of Engineers as a condition of obtaining a building permit. A determination could consist of a documented wetland delineation or a letter prepared by a qualified wetland specialist that no wetlands occur within a lot for which a building permit is sought. As stated earlier, the map that is provided as part of this report flags lots that appear to contain wetlands. It does not represent a delineation of wetlands

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within any parcel, nor does it represent all parcels that contain wetlands due to access limitations related to private property rights. It should be noted that there is a strong likelihood that interior lots that adjoin parcels shown to contain wetlands also contain wetlands, even if not flagged in the wetland map.



6.0 References Cited

Alabama Department of Economic and Community Affairs, 1998. Draft Alabama Coastal Area Management Program: Amendment III. ADECA, Coastal Programs, Daphne, AL. 78 pp.

U.S. Geological Survey (USGS), 2017. Draft Alabama Barrier Island Restoration Assessment Interim Report. 93 pp.

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**Appendix A – Public Comments and Administrative Responses  
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Dauphin Island Sensitive Habitats Stakeholders Meeting - November 12, 2020  
Public Comments and Administrative Responses

Comment	Response
	Barry Vittor introduced BVA team members Tim Thibaut and Howard Horne, and presented a preliminary parcel map with potential wetlands. Barry welcomed local knowledge of wetlands to help present the data in the most complete way.
	Jurisdictional wetlands can be difficult to identify without soil assessment.
	Wetland function can still be considered and ADEM can exert authority without a jurisdictional determination.
	We expect approximately 95% of potential wetlands to be identified.
	We want to identify parcels that contain at least some wetland.
	The Town has its own wetland ordinance. The current effort will provide an additional level of information to buyers and sellers for avoidance/minimization.
I don't want to pit neighbor against neighbor.	
Can a group be convened to help identify wetlands?	That would be helpful.
Is there a systematic effort to identify wetlands comprehensively, street by street?	Yes, but we cannot access private property to assess soils, so a strict Section 404 delineation will not be possible in many cases.
	This map is mostly to present formatting; if we can recognize wetlands we will tag the lot.
It would be good for the map to be geographic information systems (GIS).	A website version of the map is being developed so people can provide input and feedback. Citizens can participate by reaching out to BVA.
Is there a scale of wetland quality?	Even a poor quality wetland can provide and environmental benefit. ADEM does not differentiate based on quality, but mitigation ratios are affected. The Corps has a practicability component for wetland impacts.

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Dauphin Island Sensitive Habitats Stakeholders Meeting  
Public Comments and Administrative Responses (Cont'd)

Comment	Response
	Are there any suggestions on the type of information, qualifiers, or prioritization? Some people will get permits to build in wetlands.
	We can distinguish between marsh and forested wetlands.
	Perhaps tidal marsh versus other types of wetlands. We don't want too many qualifiers.
What about a minimum square foot threshold?	0.10 acre is the maximum allowable fill in coastal wetlands.
What if owner can get a permit?	Town Ordinance requires 2:1 mitigation ratio performed on the Island.
	Is there an in-lieu fee option?
The current ordinance can be updated.	
	Many wetland areas don't require mitigation or permit from the Corps.
	Restoration/exotic species removal of degraded wetlands can serve as mitigation.
	Any suggestions?
	A lot of people don't want to know if their property has wetlands. We are constrained by what we can see from road ROWs.
	We need verbiage provided for inclusion in the Town Crier/emails.
Real estate agents might now want this done.	Wetlands will be on some lots. That doesn't change the facts on the ground.
	D.I. Bird Sanctuary buys lots. They've done a lot of legwork that doesn't need to be duplicated.
There are 3 wetland criteria - soils, species indicators; what are considerations for hydrology?	It depends on the timing. We won't see indications of hydrology this time of the year. Saturation is hard to visibly assess.
	Buttress trunks, crayfish burrows, water stained leaves are all indicators. With only 2 indicators present it is usually the soils indicators lacking.

**DRAFT SENSITIVE HABITAT PROTECTION AND MANAGEMENT PLAN  
TOWN OF DAUPHIN ISLAND, ALABAMA**

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Dauphin Island Sensitive Habitats Stakeholders Meeting  
Public Comments and Administrative Responses (Cont'd)

Comment	Response
	A wetland can have the vegetation and soils but not have hydrology due to, for example, ditching. It can take years for hydric soils to change.
What about ponding duration?	Soil features can change year to year. Timing is important, can be subjective. Can have non-hydric soils in ponded areas.
If human activities create wetlands, are they then protected?	A hydrologic connection can make wetlands become jurisdictional, even it a small area. Conversely, wetlands can become isolated and non-jurisdictional.
What deliverables does BVA anticipate?	Deliverables will include hardcopy, digital, and GIS maps; Tabulation of lots with wetland type; Dune types/function at the West End; Management recommendations.
	The end of the road is the limit of the survey and assessment.
	The Town will own everything west of the road and it will all be under a conservation easement.
	Your participation is appreciated. Tell your friends and neighbors. Signing in helps pay for the Town's half of the grant, which should be all in-kind match. Thank you for being here.

***DRAFT SENSITIVE HABITAT PROTECTION AND MANAGEMENT PLAN  
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**Appendix B –Dune and Wetland Photographs**



**Photo 1.** View of natural dunes and adjacent coastal grassland community on south side of Bienville, west of Pensacola Street



**Photo 2.** View of sparsely vegetated sand berm in front of beach house on south side of Bienville Blvd near the island's west end



**Photo 3.** View of natural dunes on south side of Bienville Blvd



**Photo 4.** View of small sand berm on north side of Bienville Blvd.





**Photo 5.** View of densely vegetated berm on south side of Bienville Blvd



**Photo 6.** View of densely vegetated berm on south side of Bienville Blvd



**Photo 7.** View of dunes with drift fence at Ponce de Leon Court



**Photo 8.** View of dune restoration on Ponce de Leon Court



**Photo 9.** View of piled sand at dead of Bienville Blvd on west end of island



**Photo 10.** View looking east down Bienville Blvd showing piled sand on sides of road



**Photo 11.** View of scraped lot with bare sand on north side of Bienville Blvd



**Photo 1.** View showing buttressed trunks of swamp tupelos in wetland on General Wilkinson Place



**Photo 2.** View of ponded tupelo gum swamp lot owned by Dauphin Island Bird Sanctuaries on Epinet Street



**Photo 3.** Additional view of the Dauphin Island Bird Sanctuaries lot on Epinet Street showing draw down conditions



**Photo 4.** View of forested wetland on General Wilkinson Place showing understory with lizard's tail (*Saururus cernuus*)



**Photo 5.** View of forested wetland at Shell Mound Park



**Photo 6.** View of wetland pine forest with an understory of switch cane (*Arundinaria tecta*)



**March 28 2020**

**Photo 7.** View of disturbed scrub-shrub wetland along margin of Shell Mound Park



**July 3, 2019**

**Photo 8.** View of scrub-shrub wetland at the Audubon Bird Sanctuary



**September 3, 2018**

**Photo 9.** Giant cane (*Arundinaria gigantea*) growing in a backyard wetland (Mississippi St.)



**August 18 2018**



**Photo 10.** View giant bristle grass (*Setaria magna*) in herbaceous marsh at the Audubon Bird Sanctuary



**Photo 11.** View of tidal marsh at end of Fort Conde Street with salt meadow cord grass (*Spartina patens*) in foreground

**November 7, 2020**



**Photo 12.** View of tidal marsh on Pelican Island