NFWF ALABAMA BARRIER ISLAND ASSESSMENT
Potential Projects

Mobile County, Alabama

Project Type

- Data Collection
- Beach and Dune Restoration
- Dune Restoration
- Nearshore Placement
- Sand Bypassing
- Restore Dredged Holes
- Saltmarsh Restoration
- Stormwater Drainage Improvements
- Water Supply
- Wastewater Treatment Plant Upgrades
- Control Burns and Invasive Species Management
- Land Acquisition

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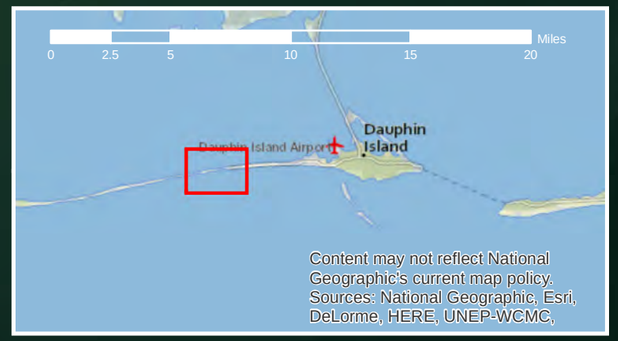
Miles

Date: September 2016

Id	Project Name	Project Type	Benefits	Cost
1	Dauphin Island Public Beach and Dune Restoration	Beach and Dune Restoration	Restoration to reduce breaching potential and increase protection of habitat for a variety of unique plant and animal assemblages.	$10,000,000
2	West End Beach and Dune Restoration	Beach and Dune Restoration	Restoration to reduce breaching potetnial and increase protection of habitat for a variatety of unique plant and animal assemlages.	$61,501,000
3	Mid-Island Land Acquisition and Management - Phase I	Land Acquisition	Conservation of coastal barrier beach and dune habitat for variety of unique plant and animal assemblages including neotropical birds and wintering migratory species.	$2,500,000
4	Mid-Island Land Acquisition and Management - Phase II	Land Acquisition	Public access to natural resources.	$1,000,000
5	Dauphin Island Audubon Bird Sanctuary Shoreline Restoration & Management	Dune Restoration	Increase protection and habitat for a variety of unique plant and animal assemblages.	$445,650
6	Dauphin Island Audubon Bird Sanctuary Shoreline Restoration & Management	Control Burns and Invasive Species Management	Increase in heathly maritime forrest and beach and dune habitiat types.	$1,079,350
7	Little Dauphin Island Nearshore Placement	Nearshore Placement	Increased sediment supply to Little Dauphin Island complex. Subaerial and subtidal habitats benefiting various wildlife including aquatic and avian species.	$2,850,000
8	Improved Bypassing of Beach Sands Dredged from the Mobile Ship Channel	Sand Bypassing	Increased sediment supply to Sand/Pelican complex. Subaerial and subtidal habitats benefiting various wildlife including aquatic and avian species.	$3,960,000
9	Aloe Bay Beneficial Use Restoration	Saltmarsh Restoration	Restore nursery habitat for aquatic and avian wildlife.	$2,445,000
10	Fill Borrow Pits Dug in 2010 to Protect Against Oil Spill Damage	Restore Dredged Holes	Reduce potential for island breaching and potential associated impacts in the Mississippi Sound. Restore Subaerial and subtidal habitats.	$5,600,000
11	Stormwater Quality Rehabilitation Project	Stormwater Drainage Improvements	Improve the overall health of the estuaries in and around Dauphin Island including fishery and shellfish habitats.	$500,000
12	Aloe Bay/Mississippi Sound Water Quality Enhancement Project - Phase I	Wastewater Treatment Plant Upgrades	Improve the overall health of the estuaries in and around Dauphin Island including fishery and shellfish habitats.	$10,050,000
13	Aloe Bay/Mississippi Sound Water Quality Enhancement Project - Phase II	Wastewater Treatment Plant Upgrades	Improve the overall health of the estuaries in and around Dauphin Island including fishery and shellfish habitats.	$13,050,000
14	Dauphin Island Wastewater Collection System Rehabilitation	Wastewater Treatment Plant Upgrades	Improve the overall health of the estuaries in and around Dauphin Island including fishery and shellfish habitats.	$3,145,000
15	Dauphin Island Water Supply Aquifer Improvements	Water Supply	Reduce the impact on existing water aquifers.	$1,842,000
16	Dauphin Island Water Supply Elevated Storage Tank	Water Supply	Provide adequate water supply to the island.	$3,428,000
17	West End Land Acquisition	Land Acquisition	Conservation of coastal barrier resource land that provides stop over habitat for neotropical birds and critical wintering habitat for migtratory species.	$10,000,000
18	Tupelo Gum Swamp Land Acquisition	Land Acquisition	Conservation of migratory bird habitat that includes brackish ponds that become rich sand flats during low tide, rich interior wetlands and maritime forest.	$700,000
19	Gorgas Swamp Land Acquisition	Land Acquisition	Conservation of migratory bird habitat that includes brackish ponds that become rich sand flats during low tide, rich interior wetlands and maritime forest.	$700,000
20	Steiner Property Acquisition	Land Acquisition	Conservation of migratory bird habitat that includes brackish ponds that become rich sand flats during low tide, rich interior wetlands, and maritime forest.	$600,000
21	US Coast Guard Property Disposal / Acquisition	Land Acquisition	Conservation of coastal barrier beach, dune and shurb habitat that act as buffer to adjacent maritime forests.	$2,500,000
22a	Dauphin Island 39 Parcel Property Acquisition - West End	Land Acquisition	Conservation of coastal barrier back beach, washover fans, and island platform.	$900,000
22b	Dauphin Island 39 Parcel Property Acquisition - Graveline Bay	Land Acquisition	Conservation of marsh and nearshore coastal bay bottoms.	$400,000
22c	Dauphin Island 39 Parcel Property Acquisition - Aloe Bay	Land Acquisition	Conservation of nearshore coastal bay bottoms.	$100,000
22d	Dauphin Island 39 Parcel Property Acquisition - Little Dauphin Island and Bay	Land Acquisition	Conservation of coastal barrier beach, dune and shurb habitat that act as buffer to adjacent marsh and bay systems.	$200,000
22e	Dauphin Island 39 Parcel Property Acquisition - East End	Land Acquisition	Conservation of coastal barrier habitat.	$620,000
23	Dauphin Island Management Support System	Data Collection	Better realization of current and future habitat management efforts.	$1,141,000

Project Name	Dauphin Island Public Beach and Dune Restoration Project				
Map ID # / Location	ID # 1 / Latitude: 30.249965, Longitude: -88.161446 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Alabama Coastal Comprehensive Plan – Public Outreach Input / http://www.sam.usace.army.mil/Missions/Program-and-Project-Management/Alabama-Coastal-Comprehensive-Plan/ACCP-Interactive-Map/				
Description	The proposed action is to widen the beach along the west end public beach from the end of Bienville Blvd. to the vicinity of the Katrina Cut closure structure at its natural elevation and install a dune system using an offshore sediment source to restore historic conditions. The objective of the restoration project is to increase island longevity and reduce overwash and breaching potential by nourishing the beach and dune system. Design for the restoration of the public area is consistent with a similar action proposed entitled West End Beach and Dune Restoration Project (ID #2) and beach fill will be hydraulically dredged from an offshore borrow area located in the Gulf of Mexico about a mile south-southwest of the Sand Island Lighthouse and pumped to the project area. The beach fill would extend along approximately 4,500 feet of shoreline with a rough estimate of approximately 600,000 cubic yards to construct based on the west end beach and dune restoration project fill density.				
Benefits	Create approximately 35 acres of new public beach and improved dune habitat as well as increase storm protection to upland property, habitats, and adjacent coastal areas. Also significantly reduce the likelihood, frequency, and extent of future breaches along this stretch of the barrier island.				
Potential Impediments to Meeting Criteria	• Nourishment updrift of the property may be required thus private properties currently under water may have to be acquired to avoid placement of sands on private property. • Permitting requirements				
Estimated Implementation Cost	$9,500,000	Estimated Monitoring Cost	$500,000	Estimated Maintenance / Operational Cost	$0

Dauphin Island Public Beach and Dune Restoration Project



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Approximate Template Location for Public Beach and Dune Restoration Project

Description

The proposed action is to widen the beach along the west end public beach from the end of Bienville Blvd. to the vicinity of the Katrina Cut closure structure at its natural elevation and install a dune system using an offshore sediment source to restore historic conditions. The objective of the restoration project is to increase island longevity and reduce overwash and breaching potential by nourishing the beach and dune system. Design for the restoration of the public area is consistent with a similar action proposed entitled West End Beach and Dune Restoration Project (ID #2) and beach fill will be hydraulically dredged from an offshore borrow area located in the Gulf of Mexico about a mile south-southwest of the Sand Island Lighthouse and pumped to the project area. The beach fill would extend along approximately 4,500 feet of shoreline with a rough estimate of approximately 600,000 cubic yards to construct based on the west end beach and dune restoration project fill density.

Benefits

Create approximately 35 acres of new public beach and improved dune habitat as well as increase storm protection to upland property, habitats, and adjacent coastal areas. Also significantly reduce the likelihood, frequency, and extent of future breaches along this stretch of the barrier island.

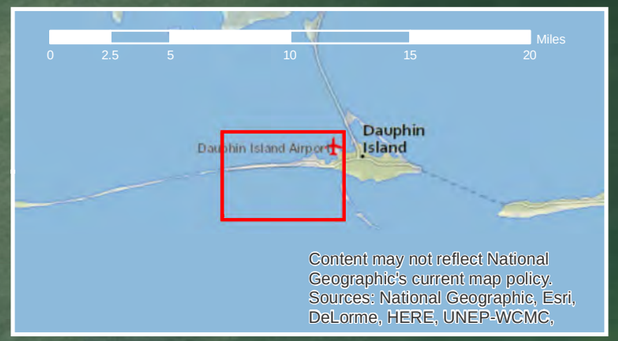
Estimated Implementation Cost
$9,500,000

Estimated Monitoring Cost
$500,000

Estimated Yearly Operational Maintenance Cost
$0

Project Name	West End Beach and Dune Restoration Project				
Map ID # / Location	ID #2 / Latitude: 30.25, Longitude: -88.17 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Town of Dauphin Island (Mayor Jeff Collier) / Alabama Coastal Restoration Portal http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=92. The original proposal has been modified to reflect restoration to historic conditions.				
Description	The Town of Dauphin Island proposes to widen the beach at its natural elevation and install a dune system using an offshore sediment source. The objective of the restoration project is to increase island longevity and reduce overwash by nourishing the beach and dune system. In addition, the project would protect existing infrastructure and habitats that would otherwise be subject to degradation if the current land loss trends continued. The project area extends west from the current pier near monument DI-18 to monument DI-2. Beach fill will be hydraulically dredged from an offshore borrow area located in the Gulf of Mexico about a mile south-southwest of the Sand Island Lighthouse and pumped to the project area. The beach fill extends along approximately 4.25 miles of shoreline and requires approximately 3.59 million cubic yards to construct based on surveys conducted in July 2010. The fill template is designed seaward of the existing houses and infrastructure. Between DI-2 and DI-16, the template has a 25 foot wide dune crest at an elevation of +12.0 feet, NAVD with side slopes of 1V:5H. To protect the dune, a beach berm extends approximately 300 feet seaward at an elevation of +5.5 feet, NAVD. The beach berm has a 1V:12H slope to the seaward construction toe of fill. The construction template will shift the MHW shoreline an average of 427 feet seaward of its existing condition. Between DI-16 and DI-18, the existing beach widens and the fill template is designed on top of the existing profile warranting only the dune portion to be constructed. Transport of excavated material from the borrow area to the project area will occur with a hopper dredge or hydraulic dredge through a series of submerged, floating and shore-supported pipelines. Once deposition of material occurs at the fill site, the contractor will move the sand using heavy equipment to shape the beach to the design cross-sections. Final design volume will be based upon pre-construction surveys. Three levels of projects were proposed in the original proposal but for evaluation purposes this project represents full restoration to historic conditions.				
Benefits	Create acres of new public beach and improved dune habitat as well as increase storm protection to upland properties, infrastructures, habitats, and adjacent coastal areas. Also significantly reduce the likelihood, frequency, and extent of future breaches in the west end of Dauphin Island.				
Potential Impediments to Meeting Criteria	• Private properties currently under water may have to be acquired to avoid placement of sands on private property. • Permitting requirements				
Estimated Implementation Cost	$58,601,000	Estimated Monitoring Cost	$2,900,000	Estimated Maintenance / Operational Cost	$0

West End Beach and Dune Restoration Project



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N W E S

Approximate Template Location for West End Beach and Dune Restoration Project

Description

The Town of Dauphin Island proposes to widen the beach at its natural elevation and install a dune system using an offshore sediment source. The objective of the restoration project is to increase island longevity and reduce overwash by nourishing the beach and dune system. In addition, the project would protect existing infrastructure and habitats that would otherwise be subject to degradation if the current land loss trends continued. The project area extends west from the current pier near monument DI-18 to monument DI-2. Beach fill will be hydraulically dredged from an offshore borrow area located in the Gulf of Mexico about a mile south-southwest of the Sand Island Lighthouse and pumped to the project area. The beach fill extends along approximately 4.25 miles of shoreline and requires approximately 3.59 million cubic yards to construct based on surveys conducted in July 2010. The fill template is designed seaward of the existing houses and infrastructure. Between DI-2 and DI-16, the template has a 25 foot wide dune crest at an elevation of +12.0 feet, NAVD with side slopes of 1V:5H. To protect the dune, a beach berm extends approximately 300 feet seaward at an elevation of +5.5 feet, NAVD. The beach berm has a 1V:12H slope to the seaward construction toe of fill. The construction template will shift the MHW shoreline an average of 427 feet seaward of its existing condition. Between DI-16 and DI-18, the existing beach widens and the fill template is designed on top of the existing profile warranting only the dune portion to be constructed. Transport of excavated material from the borrow area to the project area will occur with a hopper dredge or hydraulic dredge through a series of submerged, floating and shore-supported pipelines. Once deposition of material occurs at the fill site, the contractor will move the sand using heavy equipment to shape the beach to the design cross-sections. Final design volume will be based upon pre-construction surveys. Three levels of projects were proposed in the original proposal but for evaluation purposes this project represents full restoration to historic conditions.

Benefits

Create acres of new public beach and improved dune habitat as well as increase storm protection to upland properties, infrastructures, habitats, and adjacent coastal areas. Also significantly reduce the likelihood, frequency, and extent of future breaches in the west end of Dauphin Island.

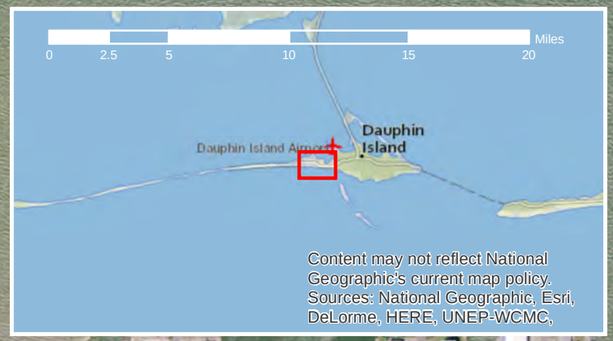
Estimated Implementation Cost
$58,601,000

Estimated Monitoring Cost
$2,900,000

Estimated Yearly Operational Maintenance Cost
$0

Project Name	Mid-Island Land Acquisition and Management – Phase I				
Map ID # / Location	ID #3 Latitude: 30.25168, Longitude: -88.137059 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Town of Dauphin Island (Mayor Jeff Collier) & Alabama Department of Conservation & Natural Resources (ADCNR), State Lands Division / Alabama Coastal Restoration Portal The properties described in the original proposal entitled Mid-Island Parks (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=295) were divided into two phases (Phase I – ID #3 and Phase II – ID #4) by USACE for evaluation as part of this effort due to the different nature of the proposed uses.				
Description	This Project is described as Phase I of Mid-Island Land Acquisition: Acquisition and conservation of up to 10 acres of undeveloped gulf front property between the condos on the east and Ponce De Leon Court on the west. The management goal for this 10 acres of gulf front property is to preserve and increase the natural habitat and their ecosystem functions. Additionally controlled public access across the dune habit will be constructed and maintained.				
Benefits	Restoration and conservation of approximately 10 acres of island dune habitat on a coastal barrier island would protect and conserve some of the last remaining undisturbed beach/dune habitat in coastal Alabama and the vital functions this habitat provides to flora and fauna as well as providing risk reduction to occupied areas to the north of this land. Specifically, significant benefit would be provided to resident avian species, neotropical migrants from South America, Federally Endangered sea turtles and other organisms. Significant educational benefits would also be gained through the use of signage on the boardwalk.				
Potential Impediments to Meeting Criteria	• Willingness of land owners to sell or enter into conservation easements.				
Estimated Implementation Cost	$2,500,000.00	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Mid-Island Land Acquisition and Management
Phase I



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N W E S

Phase I Mid-Island Land Acquisition

Description

This Project is described as Phase I of Mid-Island Land Acquisition: Acquisition and conservation of up to 10 acres of undeveloped gulf front property between the condos on the east and Ponce De Leon Court on the west. The management goal for this 10 acres of gulf front property is to preserve and increase the natural habitat and their ecosystem functions. Additionally controlled public access across the dune habit will be constructed and maintained.

Benefits

Restoration and conservation of approximately 10 acres of island dune habitat on a coastal barrier island would protect and conserve some of the last remaining undisturbed beach/dune habitat in coastal Alabama and the vital functions this habitat provides to flora and fauna as well as providing risk reduction to occupied areas to the north of this land. Specifically, significant benefit would be provided to resident avian species, neotropical migrants from South America, Federally Endangered sea turtles and other organisms. Significant educational benefits would also be gained through the use of signage on the boardwalk.

Estimated Implementation Cost

$2,500,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0

Project Name	Mid-Island Land Acquisition and Management – Phase II				
Map ID # / Location	ID #4 / Latitude: 30.25168, Longitude: -88.137059 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Town of Dauphin Island (Mayor Jeff Collier) & Alabama Department of Conservation & Natural Resources (ADCNR), State Lands Division / Alabama Coastal Restoration Portal The properties described in the original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=295) were divided into two areas (Phase I – ID #3 and Phase II – ID #4) by USACE for evaluation as part of this effort due to the different nature of the proposed uses.				
Description	This Project is described as Phase II of Mid-Island Land Acquisition: Acquisition of approximately 0.94 acre of land bounded by Pirates Cove Street on the west, Cadillac Avenue on the north, and Bienville Blvd on the south and approximate 1.15 acres abutting Graveline Bay on the east, Pineda Street on the west, and Cadillac Avenue on the south with subsequent improvement for public use. The properties north of Bienville Boulevard would be used to aid in accessing the waters of Graveline Bay, Mississippi Sound, and the Gulf of Mexico.				
Benefits	Significant educational benefits could be gained through the use of signage on the boardwalk. Acquisition of land to be used for parking, restrooms, etc. will provide needed passive recreational access for the public to enjoy the surrounding habitat.				
Potential Impediments to Meeting Criteria	• Appropriateness to NFWF funding • Willingness of land owners to sell or enter into conservation easements. • Permitting requirements				
Estimated Implementation Cost	$1,000,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Phase II Mid-Island Land Acquisition

Description

This Project is described as Phase II of Mid-Island Land Acquisition: Acquisition of approximately 0.94 acres of land bounded by Pirates Cove Street on the west, Cadillac Avenue on the north, and Bienville Blvd on the south and approximate 1.15 acres abutting Graveline Bay on the east, Pineda Street on the west, and Cadillac Avenue on the south with subsequent improvement for public use. The properties north of Bienville Boulevard would be used to aid in accessing the waters of Graveline Bay, Mississippi Sound, and the Gulf of Mexico.

Benefits

Significant educational benefits could be gained through the use of signage on the boardwalk. Acquisition of land to be used for parking, restrooms, etc. will provide needed access for the public to enjoy the beach habitat.

Estimated Implementation Cost

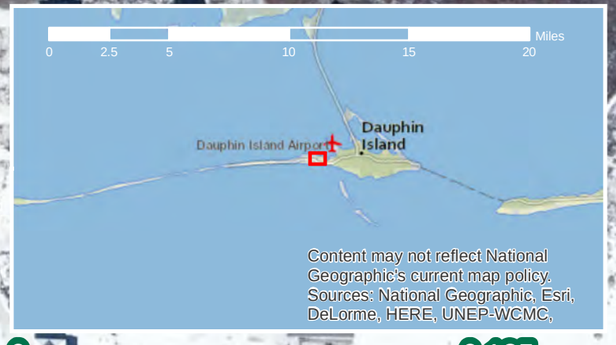
$1,000,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0



Mid-Island Land Acquisition and Management Phase II

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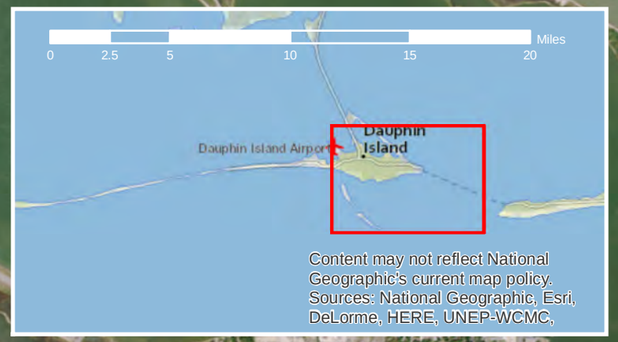
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Project Name	Dauphin Island Audubon Bird Sanctuary Shoreline Restoration and Management				
Map ID # / Location	ID #5 & #6 / Latitude: 30.245759, Longitude: -88.086601				
Sponsoring Organization (POC) / Source	Dauphin Island Park & Beach Board (Sherri Cain) / Alabama Coastal Restoration Portal http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=313. The original proposal is divided into 2 projects due to the differing nature of the proposed activities.				
Description	Dauphin Island has been named one of the top four locations in North America for viewing fall and spring migrations! The Audubon Bird Sanctuary consists of 164 acres of maritime forests, marshes, and dunes; including a lake, a swamp, and a beach. Recently, the 3 mile trail system within the Sanctuary has been designated as a National Recreational Trail. It is located at the Eastern end of Dauphin Island, a 14 mile-long barrier island situated off the Alabama Gulf Coast. The Sanctuary is of vital importance because it is the largest segment of protected forest on the Island and the first landfall for neo-tropical migrant birds after their long flight across the Gulf of Mexico from Central and South America each spring. The Bird Sanctuary has allowed Dauphin Island to be recognized by the American Bird Conservancy and the National Audubon Society as being "Globally Important" for bird migrations. Dauphin Island's East End consists of Historic Fort Gaines, the Dauphin Island Sea Lab, the Dauphin Island Campground, and the Audubon Bird Sanctuary. Recently, the Town of Dauphin Island and its partners, the Dauphin Island Sea Lab, the Park & Beach Board, and the U.S. Coast Guard was awarded a CIAP $8M grant for a shoreline restoration project on the East End of the Island. Sand placement along the shoreline and re-orientation of the offshore groins was completed in 2016. This area of the Island is under constant assault of shoreline erosion and it is estimated that this area of the island is losing around nine feet per year. To make this project a true success story, we feel it is important to find a way to make the shoreline more stable by incorporating dune planting, educational signage, and shoreline monitoring (Project ID #5). In addition, the project aims at implementing sustainability, controlled burns, and invasive species management strategies to enhance birding and wildlife habitat for public use (Project ID #6).				
Benefits	The east end of Dauphin Island will be more resilient to natural hazards and the Audubon Bird Sanctuary will be a safer, healthier, and more productive habitat with improved and protected habitat for hundreds of local and migratory birds species. Additionally, an increase in nature based tourism opportunities is anticipated.				
Potential Impediments to Meeting Criteria	• None				
Estimated Implementation Cost	ID #5: $137,500 ID #6: $401,200	Estimated Monitoring Cost	ID #5: $308,150 ID #6: $462,150	Estimated Maintenance / Operational Cost	ID #5: $0 ID #6: $216,000

Dauphin Island Audubon Bird Sanctuary Shoreline Restoration and Management



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Approximate Property Boundaries of Dauphin Island Audubon Bird Sanctuary

Description

Dauphin Island has been named one of the top four locations in North America for viewing fall and spring migrations! The Audubon Bird Sanctuary consists of 164 acres of maritime forests, marshes, and dunes; including a lake, a swamp, and a beach. Recently, the 3 mile trail system within the Sanctuary has been designated as a National Recreational Trail. It is located at the Eastern end of Dauphin Island, a 14 mile-long barrier island situated off the Alabama Gulf Coast. The Sanctuary is of vital importance because it is the largest segment of protected forest on the Island and the first landfall for neo-tropical migrant birds after their long flight across the Gulf of Mexico from Central and South America each spring. The Bird Sanctuary has allowed Dauphin Island to be recognized by the American Bird Conservancy and the National Audubon Society as being "Globally Important" for bird migrations. Dauphin Island's East End consists of Historic Fort Gaines, the Dauphin Island Sea Lab, the Dauphin Island Campground, and the Audubon Bird Sanctuary. Recently, the Town of Dauphin Island and its partners, the Dauphin Island Sea Lab, the Park & Beach Board, and the U.S. Coast Guard was awarded a CIAP $8M grant for a shoreline restoration project on the East End of the Island. Sand placement along the shoreline and re-orientation of the offshore groins was completed in 2016. This area of the Island is under constant assault of shoreline erosion and it is estimated that this area of the island is losing around nine feet per year. To make this project a true success story, we feel it is important to find a way to make the shoreline more stable by incorporating dune planting, educational signage, and shoreline monitoring (Project ID #5). In addition, the project aims at implementing sustainability, controlled burns, and invasive species management strategies to enhance birding and wildlife habitat for public use (Project ID #6).

Benefits

The east end of Dauphin Island will be more resilient to natural hazards and the Audubon Bird Sanctuary will be a safer, healthier, and more productive habitat with improved and protected habitat for hundreds of local and migratory birds species. Additionally, an increase in nature based tourism opportunities is anticipated.

Implementation Cost

ID #5: $137,500

ID #6: $401,200

Monitoring Cost

ID #5: $308,150

ID #6: $462,150

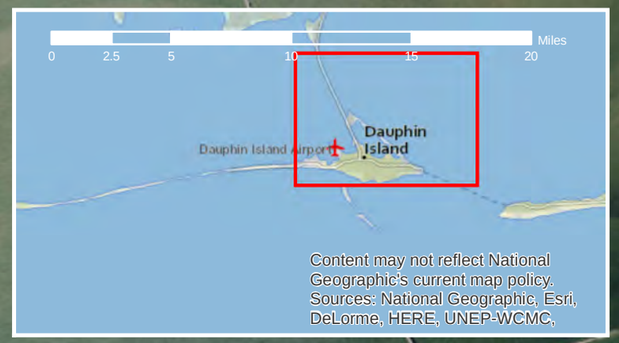
Yearly Operational Maintenance Cost

ID #5: $0

ID #6: $216,000

Project Name	Little Dauphin Island Nearshore Placement				
Map ID # / Location	ID # 7 / Latitude: 30.270262, Longitude: -88.104248				
Sponsoring Organization (POC) / Source	Mobile Bay Regional Sediment Management Interagency Working Group / Project information, as shown below, was provided directly to USACE by the sponsoring organization and is based upon a similar concept as the project suggestion by the Town of Dauphin Island entered in the Alabama Coastal Restoration Portal, http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=87				
Description	The proposed action is for nearshore placement of dredged material (sand) offshore of Little Dauphin Island, a unit of the Bon Secour National Wildlife Refuge (NWR). According to the Geological Survey of Alabama, this area has experienced averaged shoreline erosion rates of 3 feet/year. The U.S. Important Bird Area (IBA) Committee has prioritized the area as globally significant for birds of conservation concern. The area is considered of global significance because the location provides essential habitat for birds classified as critical, endangered, vulnerable or near-threatened including the Semi-palmated Sandpiper and the Piping Plover. Nearshore placement of up to an estimated 200,000 cubic yards based on NOAA surveys will be either hydraulically dredged from existing federal navigation channels or an offshore borrow area located in the Gulf of Mexico about a mile south-southwest of the Sand Island Lighthouse.				
Benefits	Provide a sediment source for conservation of critical upland habitats and adjacent coastal areas.				
Potential Impediments to Meeting Criteria	• Environmental and Engineering analyses are required.				
Estimated Implementation Cost	$2,500,000	Estimated Monitoring Cost	$350,000	Estimated Maintenance / Operational Cost	$0

Little Dauphin Island Nearshore Placement



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Approximate Template for Little DI Nearshore Placement

Description

The proposed action is for nearshore placement of dredged material (sand) offshore of Little Dauphin Island, a unit of the Bon Secour National Wildlife Refuge (NWR). According to the Geological Survey of Alabama, this area has experienced averaged shoreline erosion rates of 3 feet/year. The U.S. Important Bird Area (IBA) Committee has prioritized the area as globally significant for birds of conservation concern. The area is considered of global significance because the location provides essential habitat for birds classified as critical, endangered, vulnerable or near-threatened including the Semi-palmated Sandpiper and the Piping Plover. Nearshore placement of up to an estimated 200,000 cubic yards based on NOAA surveys will be either hydraulically dredged from existing federal navigation channels or an offshore borrow area located in the Gulf of Mexico about a mile south-southwest of the Sand Island Lighthouse.

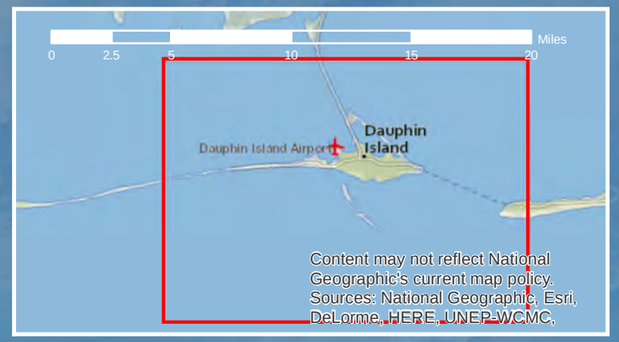
Benefits

Provide a sediment source for conservation of critical upland habitats and adjacent coastal areas.

Estimared Implementation Cost
$2,500,000
Estimated Monitoring Cost
$350,000
Estimated Yearly Operational Maintenance Cost
$0

Project Name	Improved Bypassing of Beach Sands Dredged from the Mobile Ship Channel				
Map ID # / Location	ID #8 / Latitude: 30.19, Longitude: -88.05				
Sponsoring Organization (POC) / Source	Town of Dauphin Island (Mayor Jeff Collier) / Alabama Coastal Restoration Portal http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=87				
Description	This project will fund the incremental cost of improved sand bypassing at Mobile Pass. Specifically, this is the additional cost of disposing beach quality sand in depths less than 20 feet in appropriate locations around the Sand Island Lighthouse (or the general area of the 1987 “feeder berm” location on the shoals west of the lighthouse) instead of in the areas currently used for disposal. Dauphin Island, Alabama is located northwest of the ebb-tidal delta of Mobile Pass. The ebb tidal shoal system feeds sand naturally by wave action onto the beaches of Dauphin Island. The ebb-tidal delta (the outer bar) is bisected by the southern end of the Mobile Ship Channel. Sediment is periodically dredged from this outer bar to maintain the channel to the economically vital Port of Mobile. Dredged sediments are typically placed in designated disposal areas along the channel in unconfined open-water in depths of over 30 feet. Placing dredged sands in these deep water areas permanently removes large volumes of sand from the littoral system and has led to the degradation of the beaches on Dauphin Island. The Town of Dauphin Island is committed to working hand-in-hand with the Corps of Engineers in the future to place beach quality sands dredged from the ship channel around the Sand Island Lighthouse to address the long-term problem of removing sand from the littoral system. Dauphin Island is important not only for the residents but for the entire coastal system as it is the sand source for the Mississippi/Alabama barrier island chain. Dauphin Island protects south Mobile County from hurricane storm surge and waves as well as defines and protects the extremely productive estuary of the eastern Mississippi Sound.				
Benefits	Permanently ensure the presence of and health of Alabama's only barrier island for generations. Protect the habitats of Mississippi Sound and the beach and dunes of Dauphin Island. Also improve the "barrier island" storm protection afforded to south Mobile County.				
Potential Impediments to Meeting Criteria	• Concerns related to the ultimate fate of the material placed as well as the most efficient location must be resolved.				
Estimated Implementation Cost	$2,400,000	Estimated Monitoring Cost	$360,000	Estimated Maintenance / Operational Cost	$1,200,000

Improved Bypassing of Beach Sands Dredged from the Mobile Ship Channel



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0 1.5 3 6 Miles

Navigation Channel Section

Approximate Location of "Feeder Berm"

Description

This project will fund the incremental cost of improved sand bypassing at Mobile Pass. Specifically, this is the additional cost of disposing beach quality sand in depths less than 20 feet in appropriate locations around the Sand Island Lighthouse (or the general area of the 1987 “feeder berm” location on the shoals west of the lighthouse) instead of in the areas currently used for disposal. Dauphin Island, Alabama is located northwest of the ebb-tidal delta of Mobile Pass. The ebb tidal shoal system feeds sand naturally by wave action onto the beaches of Dauphin Island. The ebb-tidal delta (the outer bar) is bisected by the southern end of the Mobile Ship Channel. Sediment is periodically dredged from this outer bar to maintain the channel to the economically vital Port of Mobile. Dredged sediments are typically placed in designated disposal areas along the channel in unconfined open-water in depths of over 30 feet. Placing dredged sands in these deep water areas permanently removes large volumes of sand from the littoral system and has led to the degradation of the beaches on Dauphin Island. The Town of Dauphin Island is committed to working hand-in-hand with the Corps of Engineers in the future to place beach quality sands dredged from the ship channel around the Sand Island Lighthouse to address the long-term problem of removing sand from the littoral system. Dauphin Island is important not only for the residents but for the entire coastal system as it is the sand source for the Mississippi/Alabama barrier island chain. Dauphin Island protects south Mobile County from hurricane storm surge and waves as well as defines and protects the extremely productive estuary of the eastern Mississippi Sound.

Benefits

Permanently ensure the presence of and health of Alabama's only barrier island for generations. Protect the habitats of Mississippi Sound and the beach and dunes of Dauphin Island. Also improve the "barrier island" storm protection afforded to south Mobile County.

Estimated Implementation Cost

$2,400,000

Estimated Monitoring Cost

$360,000

Estimated Yearly Operational Maintenance Cost

$1,200,000

Project Name	Aloe Bay Beneficial Use Restoration				
Map ID # / Location	ID #9/ Latitude: 30.259056, Longitude: -88.1168				
Sponsoring Organization (POC) / Source	Alabama Cooperative Extension System (Jody Thompson) / Alabama Coastal Restoration Portal http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=89				
Description	The saltwater marshes along the Gulf Coast of Alabama are significantly productive ecosystems, providing food, shelter, and breeding habitat for important fishing species as well as bird habitat, drawing hundreds of birders to coastal Alabama each year. These habitats were gravely impacted by the Deepwater Horizon oil spill, leading to diminishing productivity of fishable species and ultimately negatively impacting seafood production. Saltwater marsh is an important ecosystem on Dauphin Island, Alabama, providing not only diverse habitat but also providing protection from coastal storm events. Eroding shorelines east of the Dauphin Island Airport have resulted in a loss of saltwater marsh habitat, negatively impacting the lucrative ecotourism draw of birding on the island. At the same time, Aloe Bay, on the north side of the Island, has historically been a thriving working waterfront, providing docking space and support services to the commercial fishing industry. This is currently too shallow to support commercial fishing uses. Our project has two main objects: 1) Restore eroded saltwater marsh habitat on Dauphin Island, between the Airport and Aloe Bay and 2) restore Aloe Bay's channel and basin for commercial boating access. The U.S. Army Corps of Engineers with its partners will dredge Aloe Bay to its historic depth and use the dredged material for beneficial use to create roughly 12.5 acres of saltwater marsh habitat directly west of the bay. This saltwater marsh will be planted with native marsh grasses. In addition, 2,150 feet of segmented living shoreline breakwaters will be installed north of the restored saltwater marsh to combat future erosion. This project will benefit the ecosystem by creating essential saltwater marsh habitat that is used during all stages of life for the animal species impacted by the oil spill. The project will also benefit Alabama's coastal economy, attracting birders to the Gulf Coast, allowing commercial fishermen waterfront access to the historically vibrant bay, increasing the availability and promotion of local seafood and in turn offsetting impacts of the oil spill on this area.				
Benefits	Restoration of the eroded saltwater marsh will create habitat for a diversity of species as well as reduce shoreline erosion and the effects of future storm events. In addition, dredging of the channel will increase the economic activity within Aloe Bay by allowing greater access to recreational and commercial boaters.				
Potential Impediments to Meeting Criteria	• Permitting requirements • Lack of a monitoring and adaptive management plan				
Estimated Implementation Cost	$2,444,952	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Aloe Bay Proposed Saltwater Marsh Creation

Aloe Bay Proposed Breakwater

Description

The saltwater marshes along the Gulf Coast of Alabama are significantly productive ecosystems, providing food, shelter, and breeding habitat for important fishing species as well as bird habitat, drawing hundreds of birders to coastal Alabama each year. These habitats were gravely impacted by the Deepwater Horizon oil spill, leading to diminishing productivity of fishable species and ultimately negatively impacting seafood production. Saltwater marsh is an important ecosystem on Dauphin Island, Alabama, providing not only diverse habitat but also providing protection from coastal storm events. Eroding shorelines east of the Dauphin Island Airport have resulted in a loss of saltwater marsh habitat, negatively impacting the lucrative ecotourism draw of birding on the island. At the same time, Aloe Bay, on the north side of the Island, has historically been a thriving working waterfront, providing docking space and support services to the commercial fishing industry. This is currently too shallow to support commercial fishing uses. Our project has two main objects: 1) Restore eroded saltwater marsh habitat on Dauphin Island, between the Airport and Aloe Bay and 2) restore Aloe Bay's channel and basin for commercial boating access. The U.S. Army Corps of Engineers with its partners will dredge Aloe Bay to its historic depth and use the dredged material for beneficial use to create roughly 12.5 acres of saltwater marsh habitat directly west of the bay. This saltwater marsh will be planted with native marsh grasses. In addition, 2,150 feet of segmented living shoreline breakwaters will be installed north of the restored saltwater marsh to combat future erosion. This project will benefit the ecosystem by creating essential saltwater marsh habitat that is used during all stages of life for the animal species impacted by the oil spill. The project will also benefit Alabama's coastal economy, attracting birders to the Gulf Coast, allowing commercial fishermen waterfront access to the historically vibrant bay, increasing the availability and promotion of local seafood and in turn offsetting impacts of the oil spill on this area.

Benefits

Restoration of the eroded saltwater marsh will create habitat for a diversity of species as well as reduce shoreline erosion and the effects of future storm events. In addition, dredging of the channel will increase the economic activity within Aloe Bay by allowing greater access to recreational and commercial boaters.

Estimated Implementation Cost

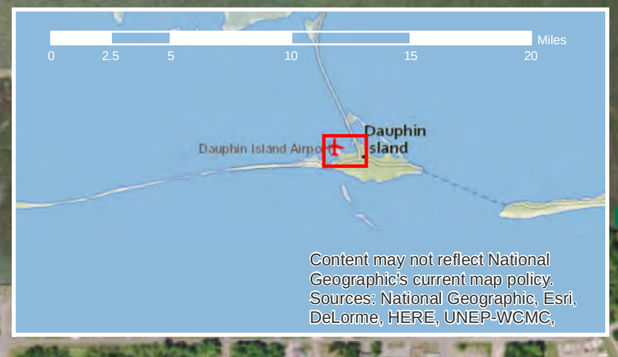
$2,444,952

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0

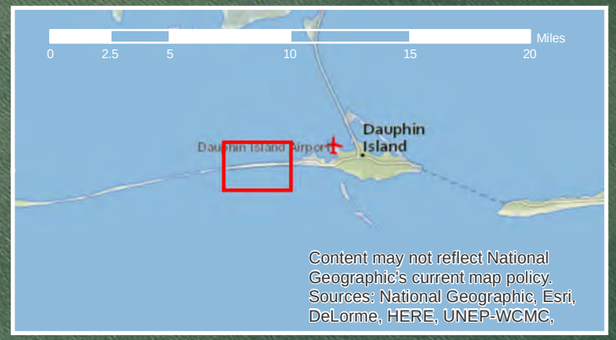


Aloe Bay Beneficial Use Restoration

0 0.25 0.5 1 Miles

N W E S

Project Name	Fill Borrow Pits Dug in 2010 to Protect Against Oil Spill Damage				
Map ID # / Location	ID #10 / Latitude: 30.2524, Longitude: -88.1614 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Town of Dauphin Island (Mayor Jeff Collier) / Alabama Coastal Restoration Portal http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=91				
Description	This project will fill holes dredged on the northern side of the barrier island of Dauphin Island, Alabama in May 2010 in response to the BP oil spill to build small sand piles and dunes as a defense against the impending surface oil slicks. Following a barrier island overwashing event on May 2, 2010, the Town of Dauphin Island constructed emergency sand barriers along the Gulf facing beaches as the BP spill oil was approaching the island. It should be noted that, to date, this response to the oil spill has been a total success. But, the holes on the island must now be filled or this legacy of the response to the oil spill could lead to a new disaster. Because of the emergency nature of the May 2010 operation, a portion of the sand for these barriers was mined from 20 privately owned lots on the north side of Island's west end. Sand from the 20 lots was dug using backhoes up to within 40 feet of Mississippi Sound, creating "ponds" at those locations. The barrier island could breach at these areas (in the general vicinity of the 2400 block of Bienville Blvd) in the next major hurricane if these holes are not filled. Such a breach will sever the developed portion of the island in two and destroy all of the infrastructure in the area and all the access to the houses west of this location. A quasi-permanent inlet could develop (like "Katrina Cut") at these hole/pond locations. This project will fill the holes dug in 2010 with beach and barrier island compatible sands from an offshore source, an upland source, or a riverine source. The Town of Dauphin Island has identified a source of good quality sand already which could be used for this project. The sand source is a submerged shoal roughly 5 miles south of the eastern end of the island. The Town would like to fill the holes with sand from the designated borrow site (alternative sand sources are upland pits, excess dredged sands from the Alabama Port Authority, and sand along the rivers managed by the USACE for beneficial uses). It is possible that this project could be done in conjunction with construction of a planned beach and barrier island restoration project on the island.				
Benefits	Prevention of island breaching will protect the environmentally critical habitats and ecosystem of Mississippi Sound. In addition, it will reduce costs associated with the rehabilitation and repair of damaged town infrastructure (e.g. roads, utilities, etc.).				
Potential Impediments to Meeting Criteria	• Real estate easement acquisition from various private property owners is required for construction. • Permitting requirements				
Estimated Implementation Cost	$5,600,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0



Fill Borrow Pits Dug in 2010 to Protect Against Oil Spill Damage

0 0.25 0.5 1 Miles

N W E S

Location of Borrow Pits Dug in 2010 to Protect Against Oil Spill Damage

Description

This project will fill holes dredged on the northern side of the barrier island of Dauphin Island, Alabama in May 2010 in response to the BP oil spill to build small sand piles and dunes as a defense against the impending surface oil slicks. Following a barrier island overwashing event on May 2, 2010, the Town of Dauphin Island constructed emergency sand barriers along the Gulf facing beaches as the BP spill oil was approaching the island. It should be noted that, to date, this response to the oil spill has been a total success. But, the holes on the island must now be filled or this legacy of the response to the oil spill could lead to a new disaster. Because of the emergency nature of the May 2010 operation, a portion of the sand for these barriers was mined from 20 privately owned lots on the north side of Island's west end. Sand from the 20 lots was dug using backhoes up to within 40 feet of Mississippi Sound, creating "ponds" at those locations. The barrier island could breach at these areas (in the general vicinity of the 2400 block of Bienville Blvd) in the next major hurricane if these holes are not filled. Such a breach will sever the developed portion of the island in two and destroy all of the infrastructure in the area and all the access to the houses west of this location. A quasi-permanent inlet could develop (like "Katrina Cut") at these hole/pond locations. This project will fill the holes dug in 2010 with beach and barrier island compatible sands from an offshore source, an upland source, or a riverine source. The Town of Dauphin Island has identified a source of good quality sand already which could be used for this project. The sand source is a submerged shoal roughly 5 miles south of the eastern end of the island. The Town would like to fill the holes with sand from the designated borrow site (alternative sand sources are upland pits, excess dredged sands from the Alabama Port Authority, and sand along the rivers managed by the USACE for beneficial uses). It is possible that this project could be done in conjunction with construction of a planned beach and barrier island restoration project on the island.

Benefits

Prevention of island breaching will protect the environmentally critical habitats and ecosystem of Mississippi Sound. In addition, it will reduce costs associated with the rehabilitation and repair of damaged town infrastructure (e.g. roads, utilities, etc.).

Estimated Implementation Cost

$5,600,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0

Project Name	Stormwater Quality Rehabilitation Project				
Map ID # / Location	ID #11 / Latitude: 30.25, Longitude: -88.116667 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Town of Dauphin Island (Mayor Jeff Collier) / Alabama Coastal Restoration Portal http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=98				
Description	The Town of Dauphin Island is proposing a comprehensive stormwater quality rehabilitation project that will serve to remedy harm and reduce the future risk of harm to Gulf Coast Natural Resources that were impacted by the DWH Oil Spill. The overall majority of the stormwater runoff produced by the Town of Dauphin Island discharges directly into the Mississippi Sound carrying pollutants, sediment, litter, etc. damaging the overall water quality of the sound and the surrounding coastal areas. The shallow coastal waters, coastline, saltwater marshes, and associated wetland habitats in and around the Mississippi Sound on the North side of Dauphin Island provide native and nursery habitat for numerous aquatic and avian species. The main goal of this project is to improve the native habitat along the north side of the island and in the sound by restoring the overall water quality in the sound, improving water quality of the stormwater discharge into the sound, reducing sediment and litter transport into the sound, reducing overall stormwater discharge into the sound, and serving as a model for similarly impacted communities along the gulf coast. These objectives will be accomplished by making necessary repairs and improvements to the existing stormwater drainage facilities, including, but not limited to, grading and stabilization measures, updating and improving existing infrastructure, rerouting stormwater to centralized wetland treatment areas, and retention/detention areas. The project approach is designed to leverage public funds to implement this rehabilitation project and re-establish resources and habitat that will benefit the growth and repopulation of impacted species from the DWH Oil Spill such as shrimp, fish, crab, oysters, sea grasses, blue herons, seagulls, etc. The project approach was developed with a long time goal oriented initiative and is divided into four phases to ensure maximum success as follows: Phase I – Planning; Phase 2 – Develop the design and environmental permitting, establish costs, and prepare construction bid documents; Phase III- Facilitate construction of the project; and Phase 4 – Ongoing maintenance and monitoring of the constructed activities. The cost for Phase I is $500,000. Phases II, III and IV costs are unknown at this time.				
Benefits	Enhance water quality to re-establish nursery habitat for aquatic and avian wildlife in Mississippi Sound.				
Potential Impediments to Meeting Criteria	• Permitting requirements are unknown at this time.				
Estimated Implementation Cost	$500,000 (Phase I only)	Estimated Monitoring Cost	TBD	Estimated Maintenance / Operational Cost	TBD

Treatment Plant Connector

Dauphin Island Water & Sewer Authority Treatment Facilities

Description

The Town of Dauphin Island is proposing a comprehensive stormwater quality rehabilitation project that will serve to remedy harm and reduce the future risk of harm to Gulf Coast Natural Resources that were impacted by the DWH Oil Spill. The overall majority of the stormwater runoff produced by the Town of Dauphin Island discharges directly into the Mississippi Sound carrying pollutants, sediment, litter, etc. damaging the overall water quality of the sound and the surrounding coastal areas. The shallow coastal waters, coastline, saltwater marshes, and associated wetland habitats in and around the Mississippi Sound on the North side of Dauphin Island provide native and nursery habitat for numerous aquatic and avian species. The main goal of this project is to improve the native habitat along the north side of the island and in the sound by restoring the overall water quality in the sound, improving water quality of the stormwater discharge into the sound, reducing sediment and litter transport into the sound, reducing overall stormwater discharge into the sound, and serving as a model for similarly impacted communities along the gulf coast. These objectives will be accomplished by making necessary repairs and improvements to the existing stormwater drainage facilities, including, but not limited to, grading and stabilization measures, updating and improving existing infrastructure, rerouting stormwater to centralized wetland treatment areas, and retention/detention areas. The project approach is designed to leverage public funds to implement this rehabilitation project and re-establish resources and habitat that will benefit the growth and repopulation of impacted species from the DWH Oil Spill such as shrimp, fish, crab, oysters, sea grasses, blue herons, seagulls, etc. The project approach was developed with a long time goal oriented initiative and is divided into four phases to ensure maximum success as follows: Phase I – Planning; Phase 2 – Develop the design and environmental permitting, establish costs, and prepare construction bid documents; Phase III- Facilitate construction of the project; and Phase 4 – Ongoing maintenance and monitoring

Benefits

Enhance water quality to re-establish nursery habitat for aquatic and avian wildlife in Mississippi Sound.

Estimated Implementation Cost

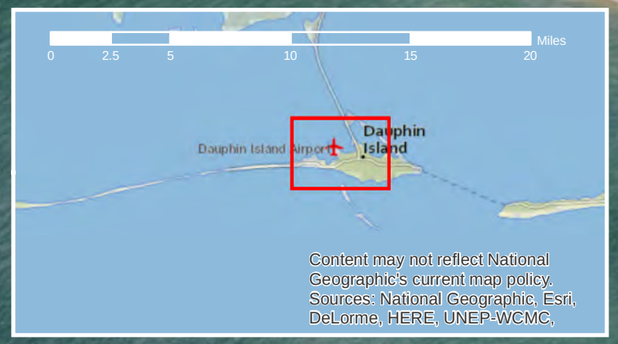
$500,000 (Phase I only)

Estimated Monitoring Cost

TBD

Estimated Yearly Operational Maintenance Cost

TBD



Stormwater Quality Rehabilitation Project

0 0.375 0.75 1.5 Miles

N W E S

Project Name	Aloe Bay/Mississippi Sound Water Quality Enhancement Project – Phase I				
Map ID # / Location	ID #12 / Latitude: 30.253969, Longitude: -88.112436 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Island Water & Sewer Authority (Vaile Feemster) / Alabama Coastal Restoration Portal http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=247				
Description	To improve the overall health of the estuaries in and around Dauphin Island including fishery and shellfish habitats, the Dauphin Island Water and Sewer Authority (DIWSA) plans to upgrade treatment processes and techniques including those practices that directly affect the wastewater plant discharge into Aloe Bay. These improvements will reduce potential or actual impacts on receiving water quality, the general health of the Island's surrounding waters, shellfish harvesting, fishery management, tourism, commercial enterprises, recreational use, and local and regional economic values. Major components of this project include: • Secondary Filtration and Disinfection Upgrades - The project will improve the treatment plant's filtration and disinfection capabilities to provide higher levels of contaminant removal and virus and bacteria deactivation. • Improve Biological Nutrient Removal - The project will improve the treatment plant's ability to biologically remove nutrients thereby reducing nutrient loading to Aloe Bay. • Mechanical upgrades - The project would provide upgrades to mechanical equipment to increase the reliability of the treatment process. • Computer monitoring system improvements - Improved facility monitoring and communication will include remote alarms to notify operators of mechanical failures and help to prevent overflow events. • Structural improvements - Existing tanks and adjacent structures are in need of rehabilitation or replacement to provide reliability and to increase service life. • Improved Solids Handling - The project will upgrade the facilities solids handling system to support the enhanced nutrient removal upgrades.				
Benefits	Project will support the elimination of sanitary sewer overflows and improve wastewater plant discharge quality. The quality of receiving waters (i.e. Aloe Bay) will be positively impacted by enhanced treatment options and disinfection improvements. Improvements will further diversify Dauphin Island's surrounding waterways and the efforts made to: protect the environment and fisheries, support ecotourism, and provide for greater recreational, commercial and economic success.				
Potential Impediments to Meeting Criteria	• Permitting requirements				
Estimated Implementation Cost	$10,000,000 (Updated costs provided by DIWSA))	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$50,000 per year

Dauphin Island Water & Sewer Authority Treatment Facilities Treatment Plant Connector

Description

To improve the overall health of the estuaries in and around Dauphin Island including fishery and shellfish habitats, the Dauphin Island Water and Sewer Authority (DIWSA) plans to upgrade treatment processes and techniques including those practices that directly affect the wastewater plant discharge into Aloe Bay. These improvements will reduce potential or actual impacts on receiving water quality, the general health of the Island's surrounding waters, shellfish harvesting, fishery management, tourism, commercial enterprises, recreational use, and local and regional economic values. Major components of this project include:

- Secondary Filtration and Disinfection Upgrades - The project will improve the treatment plant's filtration and disinfection capabilities to
- Improve Biological Nutrient Removal - The project will improve the treatment plant's ability to biologically remove nutrients thereby reducing nutrient loading to Aloe Bay.
- Mechanical upgrades - The project would provide upgrades to mechanical equipment to increase the reliability of the treatment process.
- Computer monitoring system improvements - Improved facility monitoring and communication will include remote alarms to notify operators of mechanical failures and help to prevent overflow events.
- Structural improvements - Existing tanks and adjacent structures are in need of rehabilitation or replacement to provide reliability and to
- Improved Solids Handling - The project will upgrade the facilities solids handling system to support the enhanced nutrient removal upgrades.

Benefits

Project will support the elimination of sanitary sewer overflows and improve wastewater plant discharge quality. The quality of receiving waters (i.e. Aloe Bay) will be positively impacted by enhanced treatment options and disinfection improvements. Improvements will further diversify Dauphin Island's surrounding waterways and the efforts made to: protect the environment and fisheries, support ecotourism, and provide for greater recreational, commercial and economic success.

Estimated Implementation Cost

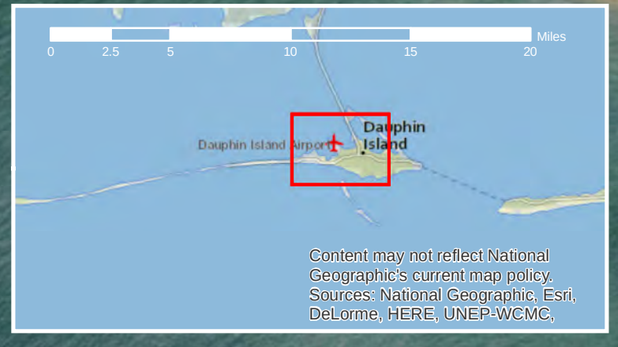
$10,000,000 (Updated costs provided by DIWSA)

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$50,000



Aloe Bay/Mississippi Sound Water Quality Enhancement Project – Phase I

0 0.25 0.5 1 Miles

N
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Project Name	Aloe Bay/Mississippi Sound Water Quality Enhancement Project – Phase II				
Map ID # / Location	ID #13 / Latitude: 30.253969, Longitude: -88.112436 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Island Water & Sewer Authority (Vaile Feemster) / Alabama Coastal Restoration Portal The original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=215) entitled Dauphin Wastewater Treatment and Outfall Improvements was updated by the sponsoring organization as shown below. This update captures Phase I of the original proposal.				
Description	The Dauphin Island wastewater treatment plant currently discharges directly into the waters of Aloe Bay and the Mississippi Sound. The wastewater discharge is located only 140 feet from the shoreline of Dauphin Island. The waters around the wastewater outfall are permanently closed to shellfish harvest and recreation activities due to this discharge. Dauphin Island Water and Sewer recognizes the ongoing struggles of fishermen, and is aware of the commercial and recreational values these waters potentially hold. Unless the outfall is relocated, these waters will forever remain closed to seafood harvesting and recreational activities. This project provides for relocation of the Aloe Bay wastewater discharge outfall to a deeper-water location that provides the least environmental impact. The project includes an environmental impact study to determine the least environmentally impactful location for the new outfall.				
Benefits	This project will extend the wastewater outfall to deeper water, away from the shoreline, and provide for superior mixing at the point of discharge. The quality of receiving waters (i.e. Aloe Bay and Mississippi Sound) will be positively impacted. Improvements will further diversify Dauphin Island's surrounding waterways and the efforts made to: protect the environment and fisheries, support ecotourism, and provide for greater recreational, commercial and economic success.				
Potential Impediments to Meeting Criteria	• Permitting requirements • Environmental impact study required				
Estimated Implementation Cost	$13,000,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$50,000 per year

Wastewater Outfall Location

Treatment Plant Connector

Dauphin Island Water & Sewer Authority Treatment Facilities

Description

The Dauphin Island wastewater treatment plant currently discharges directly into the waters of Aloe Bay and the Mississippi Sound. The wastewater discharge is located only 140 feet from the shoreline of Dauphin Island. The waters around the wastewater outfall are permanently closed to shellfish harvest and recreation activities due to this discharge. Dauphin Island Water and Sewer recognizes the ongoing struggles of fishermen, and is aware of the commercial and recreational values these waters potentially hold. Unless the outfall is relocated, these waters will forever remain closed to seafood harvesting and recreational activities.

This project provides for relocation of the Aloe Bay wastewater discharge outfall to a deeper-water location that provides the least environmental impact. The project includes an environmental impact study to determine the least environmentally impactful location for the new outfall.

Benefits

This project will extend the wastewater outfall to deeper water, away from the shoreline, and provide for superior mixing at the point of discharge. The quality of receiving waters (i.e. Aloe Bay and Mississippi Sound) will be positively impacted. Improvements will further diversify Dauphin Island's surrounding waterways and the efforts made to: protect the environment and fisheries, support ecotourism, and provide for greater recreational, commercial and economic success.

Estimated Implementation Cost

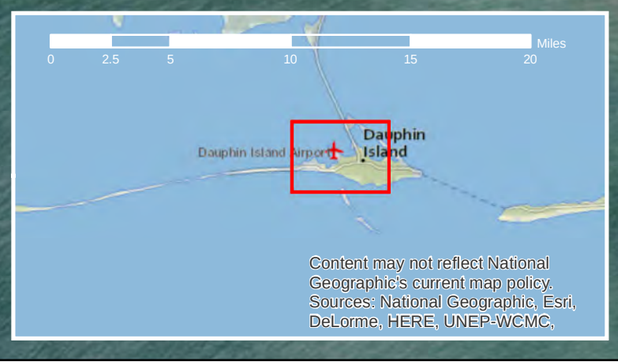
$13,000,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$50,000



Aloe Bay/Mississippi Sound Water Quality Enhancement Project – Phase II

0 0.25 0.5 1 Miles

N W E S

Project Name	Dauphin Island Wastewater Collection System Rehabilitation				
Map ID # / Location	ID #14 / Latitude: 30.253969, Longitude: -88.112436 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Island Water & Sewer Authority (Vaile Feemster) / Alabama Coastal Restoration Portal The original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=215) entitled Dauphin Island Wastewater Treatment and Outfall Improvements was updated by the sponsoring organization as shown below. Current proposal reflects Phases 2 and 3 of the original proposal.				
Description	The Dauphin Island Water & Sewer Authority (DIWSA) provides vital sewage service to the Town of Dauphin Island and consists of sewage collection, conveyance and treatment. The system consists of over 22 miles of gravity sewer and 21 sewer lift stations. The original sewer collection system was constructed in the 1950's and is still in operation today. In 1984, a major construction program provided sewer service to the entire Island. The system is now over 30 years old and parts of the system are beyond 60 years old. The majority of the collection system consists of terracotta (clay) pipe; over time the clay pipe has a tendency to settle and crack, creating a path for infiltration and inflow (I/I) and locations for blockages in the pipe. Infiltration and inflow enters the wastewater collection system through pipe joints, cracked pipe, leaking manholes, storm drain cross connections, and abandoned service lines. I/I has many negative impacts on the collection and treatment system, and among these, increased energy requirements may be the largest impact to customers and the environment. The volume of I/I causes longer run times for pumps, decreases hydraulic capacity in the wastewater treatment plant, decrease pumping capacity in the collection system and decreases gravity sewer pipe capacity. Due to shallow ground water with high chloride content on Dauphin Island, I/I increases corrosion within the collection system and the wastewater treatment system, thereby increasing wear, increasing energy requirements, and shortening equipment life span. Cracking pipe can cause frequent blocks within the gravity sewer system; these blockages in the pipe cause sanitary sewer overflow (SSO). SSO's are a negative impact to the environment, which the DIWSA is looking to completely eliminate. During storm events power is routinely out on Dauphin Island. DIWSA does not have emergency power for operating pumps during a power outage. Short term power outages pose a risk for SSO's since water supply is not interrupted and customer demand continues during outages. This project proposes the following major improvements to the Dauphin Island sewer collection system: • Rehabilitate approximately 10,000 feet of gravity sewer and 60 manholes • Provide for 9 emergency generators at key sewer pump stations • Rehabilitate 18 main sewer pump stations • Provide SCADA monitoring at 8 key pump stations				
Benefits	• Significantly reduce infiltration and inflow • Significantly reduce sanitary sewer overflows • Provide emergency power to key sewer pump stations • Provide SCADA monitoring to key sewer pump stations				
Potential Impediments to Meeting Criteria	• None				
Estimated Implementation Cost	$3,100,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$45,000 per year

Dauphin Island Water & Sewer Authority Treatment Facilities

Treatment Plant Connector

Description

The Dauphin Island Water & Sewer Authority (DIWSA) provides vital sewage service to the Town of Dauphin Island and consists of sewage collection, conveyance and treatment. The system consists of over 22 miles of gravity sewer and 21 sewer lift stations. The original sewer collection system was constructed in the 1950's and is still in operation today. In 1984, a major construction program provided sewer service to the entire Island. The system is now over 30 years old and parts of the system are beyond 60 years old. The majority of the collection system consists of terracotta (clay) pipe; over time the clay pipe has a tendency to settle and crack, creating a path for infiltration and inflow (I/I) and locations for blockages in the pipe.

Infiltration and inflow enters the wastewater collection system through pipe joints, cracked pipe, leaking manholes, storm drain cross connections, and abandoned service lines. I/I has many negative impacts on the collection and treatment system, and among these, increased energy requirements may be the largest impact to customers and the environment. The volume of I/I causes longer run times for pumps, decreases hydraulic capacity in the wastewater treatment plant, decrease pumping capacity in the collection system and decreases gravity sewer pipe capacity. Due to shallow ground water with high chloride content on Dauphin Island, I/I increases corrosion within the collection system and the wastewater treatment system, thereby increasing wear, increasing energy requirements, and shortening equipment life span.

Cracking pipe can cause frequent blocks within the gravity sewer system; these blockages in the pipe cause sanitary sewer overflow (SSO). SSO's are a negative impact to the environment, which the DIWSA is looking to completely eliminate. During storm events power is routinely out on Dauphin Island. DIWSA does not have emergency power for operating pumps during a power outage. Short term power outages pose a risk for SSO's since water supply is not interrupted and customer demand continues during outages.

This project proposes the following major improvements to the Dauphin Island sewer collection system:

- Rehabilitate approximately 10,000 feet of gravity sewer and 60 manholes
- Provide for 9 emergency generators at key sewer pump stations
- Rehabilitate 18 main sewer pump stations
- Provide SCADA monitoring at 8 key pump stations

Benefits

- Significantly reduce infiltration and inflow
- Significantly reduce sanitary sewer overflows
- Provide emergency power to key sewer pump stations
- Provide SCADA monitoring to key sewer pump stations

Estimated Implementation Cost

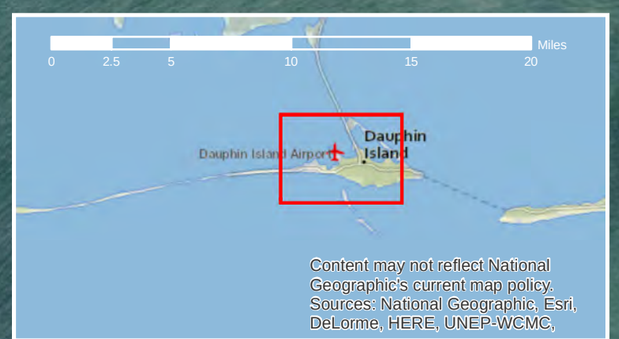
$3,100,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$45,000



Dauphin Island Wastewater Collection System Rehabilitation

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0 0.25 0.5 1 Miles

Project Name	Dauphin Island Water Supply Aquifer Improvements				
Map ID # / Location	ID #15 / Latitude: 30.253969, Longitude: -88.112436 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Island Water & Sewer Authority (Vaile Feemster) / Alabama Coastal Restoration Portal The original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=216) entitled Dauphin Island Water Supply was updated by the sponsoring organization as shown below.				
Description	In 2010 and for the duration of the BP oil-spill and the subsequent cleanup efforts, Dauphin Island's primary source of drinking water originated from a shallow well aquifer. This aquifer is known to be susceptible to surface contaminants and extensive testing, and protection efforts, had to be performed throughout the oil-spill ordeal. The integrity of this aquifer, which now serves as the primary backup to Dauphin Island's drinking water needs, remains ill-fated in the event of another disaster such as that in 2010. The BP oil-spill highlighted the risk with some of the components of Dauphin Island's water production and distribution system, and these issues must be addressed. Planned improvements to find and develop another viable water source must be made to insure uninterrupted clean water supply to the visitors and residents of Dauphin Island. Project involves finding and developing a secondary source of drinking water.				
Benefits	Project will provide Dauphin Island with a critical secondary drinking water source and reduce the impact on existing water aquifers by distributing the raw water demand over other aquifer sources.				
Potential Impediments to Meeting Criteria	• Possible permitting requirements				
Estimated Implementation Cost	$1,800,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$42,000 per year

Dauphin Island Water & Sewer Authority Treatment Facilities Treatment Plant Connector

Description

In 2010 and for the duration of the BP oil-spill and the subsequent cleanup efforts, Dauphin Island's primary source of drinking water originated from a shallow well aquifer. This aquifer is known to be susceptible to surface contaminants and extensive testing, and protection efforts, had to be performed throughout the oil-spill ordeal. The integrity of this aquifer, which now serves as the primary backup to Dauphin Island's drinking water needs, remains ill-fated in the event of another disaster such as that in 2010. The BP oil-spill highlighted the risk with some of the components of Dauphin Island's water production and distribution system, and these issues must be addressed. Planned improvements to find and develop another viable water source must be made to insure uninterrupted clean water supply to the visitors and residents of Dauphin Island. Project involves finding and developing a secondary source of drinking water.

Benefits

Project will provide Dauphin Island with a critical secondary drinking water source and reduce the impact on existing water aquifers by distributing the raw water demand over other aquifer sources.

Estimated Implementation Cost

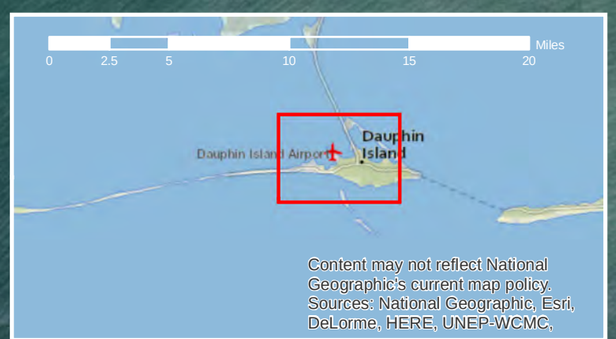
$1,800,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$45,000



Dauphin Island Water Supply Aquifer Improvements

0 0.5 1 2 Miles

N W E S

Project Name	Dauphin Island Water Supply Elevated Storage Tank				
Map ID # / Location	ID #16 / Latitude: 30.253969, Longitude: -88.112436 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Island Water & Sewer Authority (Vaile Feemster) / Alabama Coastal Restoration Portal The original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=216) entitled Dauphin Water Supply was updated by the sponsoring organization as shown below.				
Description	The original water system for Dauphin Island, constructed in the 1950's, was designed primarily for drinking water supply. The small 100,000-gallon elevated storage tank was constructed and continues to give adequate storage capacity and limited fire protection to the residents of Dauphin Island. Over the years the system has grown by the addition of small diameter lines and water service now covers the entire Island. The water storage and distribution system for Dauphin Island is more than adequate to provide drinking water and fire protection to its 1,800 customers. However, during peak summer season the system can become significantly strained from the influx of tourist and visitors to the Island. Recent computer hydraulic analysis has shown that the strategic addition of larger diameter piping will significantly improve fire flow capacity to areas that currently have marginal capacity. Modeling has identified locations where installing loops on dead-end lines will greatly improve water flow and help reduce water age. Also, during high demand summer months', additional storage capacity is needed on the east end of the Island. The addition of an elevated storage tank on the eastern portion of the Island will supply needed peak demands and fire flow reserves. This project will address these needed upgrades to Dauphin Island's water storage and distribution system. These improvements will enable the Island to continue its growth and economic development by serving drinking water and providing fire protection to its residents and visitors.				
Benefits	Project will provide Dauphin Island with a critical drinking water distribution and storage infrastructure upgrades. The improvements will insure continued economic growth by allowing for peak water supply and water storage for peak summer seasons.				
Potential Impediments to Meeting Criteria	• Permitting requirements				
Estimated Implementation Cost	$3,400,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$28,000 per year

Proposed Water Storage Facilities

Description

The original water system for Dauphin Island, constructed in the 1950's, was designed primarily for drinking water supply. The small 100,000-gallon elevated storage tank was constructed and continues to give adequate storage capacity and limited fire protection to the residents of Dauphin Island. Over the years the system has grown by the addition of small diameter lines and water service now covers the entire Island. The water storage and distribution system for Dauphin Island is more than adequate to provide drinking water and fire protection to its 1,800 customers. However, during peak summer season the system can become significantly strained from the influx of tourist and visitors to the Island. Recent computer hydraulic analysis has shown that the strategic addition of larger diameter piping will significantly improve fire flow capacity to areas that currently have marginal capacity. Modeling has identified locations where installing loops on dead-end lines will greatly improve water flow and help reduce water age. Also, during high demand summer months', additional storage capacity is needed on the east end of the Island. The addition of an elevated storage tank on the eastern portion of the Island will supply needed peak demands and fire flow reserves. This project will address these needed upgrades to Dauphin Island's water storage and distribution system. These improvements will enable the Island to continue its growth and economic development by serving drinking water and providing fire protection to its residents and visitors.

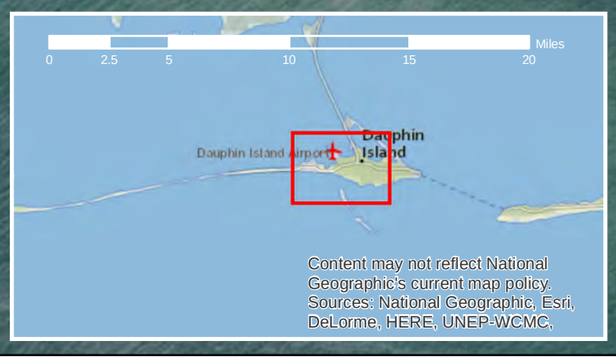
Benefits

Project will provide Dauphin Island with a critical drinking water distribution and storage infrastructure upgrades. The improvements will insure continued economic growth by allowing for peak water supply and water storage for peak summer seasons.

Estimated Implementation Cost
$3,400,000

Estimated Monitoring Cost
$0

Estimated Yearly Operational Maintenance Cost
$28,000



Dauphin Island Water Supply Elevated Storage Tank

0 0.25 0.5 1 Miles

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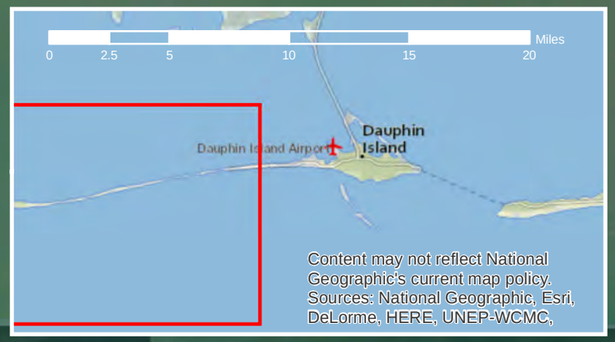
Project Name	West End Land Acquisition				
Map ID # / Location	ID #17 / Latitude: 30.234290, Longitude: -88.275711 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Island Bird Sanctuary & Alabama Department of Conservation and Natural Resources / Alabama's Comprehensive Wildlife Conservation Strategy (http://www.outdooralabama.com/sites/default/files/AL%20SWAP%20FINAL%20POST-REVIEW%2004-22-2016.pdf) (Note: A similar project was added to the Alabama Coastal Restoration Portal by Mobile Baykeeper in February 2017, after completion of the Interim Project evaluations. Link: http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=348).				
Description	The undeveloped west end of Dauphin Island has been recognized by the American Bird Conservancy as a Globally Important Bird Area in the Southeast Coastal Plain Bird Conservation Region. The west end is used as a primary staging area during migration of numerous migratory birds. The area is designated piping plover critical habitat by the United States Fish and Wildlife Service. This approximate 720 acres of undeveloped barrier island contains a variety of habitats including beach, dune, shrub, flats and tidal pools that provide primary constituent elements for wintering piping plover. The beach and dunes are also prime habitat for nesting of various bird species including the Least Tern and Snowy and Wilson's Plover. The entire area provides critical habitat migrants, wading birds, and waterfowl. The purpose of this project would be the conservation of this unique habitat and its maintenance as a critical habitat for a variety of birds. This project alone and in combination with other similar opportunities on Dauphin Island would maintain a network of quality avian stop habitats for a number of species including, the Federally endangered Piping Plover as well as various species of shorebirds, gulls, terns and waterfowl.				
Benefits	Conservation of up to approximately 720 acres of unique habitat on a coastal barrier island providing significant benefit to resident and migratory avian species. The project would also promote the economic value of ecotourism in Dauphin Island, coastal Alabama and the state through involvement in the Alabama Coastal Birding Trail.				
Potential Impediments to Meeting Criteria	• Uncertainty associated with the level of conservation benefits that would accrue above what is currently provided. • Willingness of landowners to sell or enter into conservation easements on the property in question. • Benefits will be proportional to the acreage to be acquired.				
Estimated Implementation Cost	$10,000,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$50,000



West End Land Acquisition

0 0.75 1.5 3 Miles

N W E S

West End Land Acquisition

Description

The undeveloped west end of Dauphin Island has been recognized by the American Bird Conservancy as a Globally Important Bird Area in the Southeast Coastal Plain Bird Conservation Region. The west end is used as a primary staging area during migration of numerous migratory birds. The area is designated piping plover critical habitat by the United States Fish and Wildlife Service. This approximate 720 acres of undeveloped barrier island contains a variety of habitats including beach, dune, shrub, flats and tidal pools that provide primary constituent elements for wintering piping plover. The beach and dunes are also prime habitat for nesting of various bird species including the Least Tern and Snowy and Wilson's Plover. The entire area provides critical habitat migrants, wading birds, and waterfowl.

The purpose of this project would be the conservation of this unique habitat and its maintenance as a critical habitat for a variety of birds.

This project alone and in combination with other similar opportunities on Dauphin Island would maintain a network of quality avian stop habitats for a number of species including, the Federally endangered Piping Plover as well as various species of shorebirds, gulls, terns and waterfowl.

Benefits

Conservation of up to approximately 720 acres of unique habitat on a coastal barrier island providing significant benefit to resident and migratory avian species. The project would also promote the economic value of ecotourism in Dauphin Island, coastal Alabama and the state through involvement in the Alabama Coastal Birding Trail.

Estimated Implementation Cost

$10,000,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$50,000

Project Name	Tupelo Gum Swamp Land Acquisition				
Map ID # / Location	ID #18 / Latitude: 30.249084, Longitude: -88.105478 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Island Bird Sanctuary & Pelican Coast Conservancy / Alabama Coastal Restoration Portal The properties described in the original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=104) entitled Habitat Acquisition and Conservation for Neotropical Migratory Birds were divided into two areas (Tupelo Gum Swamp – ID #18 and Gorgas Swamp – ID #19) by USACE for evaluation as part of this effort.				
Description	Dauphin Island has been identified by The National Audubon Society as a Globally Important Birding area. At least 348 species have been reported on the island including residents and neo-tropical migrants. The location of the island on the Gulf Flyway and the first/last land mass encountered by migrating species to and from South America make the various habitats on the island critical features in maintaining the existence of a number of avian species. One such habitat is the "Tupelo Gum Swamp'. This is a 10-acre swath of wetlands hidden between several dead-end roads branching off Iberville Drive and Hernando Street on the widest part of the island south of Bienville Boulevard. Twenty platted lots total approximately 10 acres containing substantial wetlands populated by tupelo gum trees, saw palmetto and pines interspersed with ponded freshwater wetlands. This area is located just inland of the main dune and is bisected by a 10-foot wide public access right-of-way. Since 2001 the Dauphin Island Bird Sanctuary has acquired four of the 20 lots. The purpose of this project would be the conservation of this unique habitat and its maintenance as a critical habitat for a variety of birds. In addition the acquisition of the land would provide an ecotourism opportunity through the development of a birding trail along the existing right-of-way. This project alone and in combination with other similar opportunities on Dauphin Island would maintain a network of quality avian stop habitats for a number of species including the Federally endangered Piping Plover and Red Knot as well as various species of shorebirds, gulls, terns and waterfowl.				
Benefits	Conservation of up to 10 acres of unique wetland habitat on a coastal barrier island providing significant benefit to resident avian species and neotropical migrants from South America. The project would also promote the economic value of ecotourism in Dauphin Island, coastal Alabama and the state through involvement in the Alabama Coastal Birding Trail. Significant educational benefits would also be gained through the creation of signage along the birding trail as well as for hands-on activities associated with the continued maintenance of the unique habitat.				
Potential Impediments to Meeting Criteria	• Willingness of landowners to sell or enter into conservation easements on the properties in question is the major impediment. • Benefits will be proportional to the number and location of parcels able to be acquired.				
Estimated Implementation Cost	$700,000.00	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Approximate Boundaries of Tupelo Gum Swamp Land

Description

Dauphin Island has been identified by The National Audubon Society as a Globally Important Birding area. At least 348 species have been reported on the island including residents and neo-tropical migrants. The location of the island on the Gulf Flyway and the first/last land mass encountered by migrating species to and from South America make the various habitats on the island critical features in maintaining the existence of a number of avian species. One such habitat is the "Tupelo Gum Swamp'. This is an 10-acre swath of wetlands hidden between several dead-end roads branching off Iberville Drive and Hernando Street on the widest part of the island south of Bienville Boulevard. Twenty platted lots total approximately 10 acres containing substantial wetlands populated by tupelo gum trees, saw palmetto and pines interspersed with ponded freshwater wetlands. This area is located just inland of the main dune and is bisected by a 10-foot wide public access right-of-way. Since 2001 the Dauphin Island Bird Sanctuary has acquired four of the 20 lots.

The purpose of this project would be the conservation of this unique habitat and its maintenance as a critical habitat for a variety of birds. In addition the acquisition of the land would provide an ecotourism opportunity through the development of a birding trail along the existing right-of-way.

This project alone and in combination with other similar opportunities on Dauphin Island would maintain a network of quality avian stop habitats for a number of species including the Federally endangered Piping Plover and Red Knot as well as various species of shorebirds, gulls, terns and waterfowl.

Benefits

Conservation of up to 10 acres of unique wetland habitat on a coastal barrier island providing significant benefit to resident avian species and neotropical migrants from South America. The project would also promote the economic value of ecotourism in Dauphin Island, coastal Alabama and the state through involvement in the Alabama Coastal Birding Trail. Significant educational benefits would also be gained through the creation of signage along the birding trail as well as for hands-on activities associated with the continued maintenance of the unique habitat.

Estimated Implementation Cost

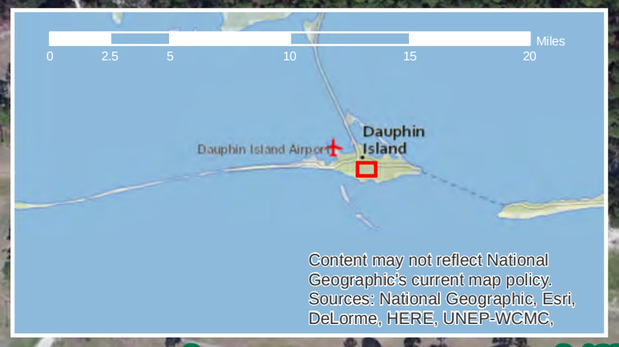
$700,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0



Tupelo Gum Swamp Land Acquisition

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0 0.125 0.25 0.5 Miles

Project Name	Gorgas Swamp Land Acquisition				
Map ID # / Location	ID #19 / Latitude: 30.248502, Longitude: -88.102872 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Island Bird Sanctuary & Pelican Coast Conservancy / Alabama Coastal Restoration Portal The properties described in the original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=104) entitled Habitat Acquisition and Conservation for Neotropical Migratory Birds were divided into two areas (Tupelo Gum Swamp – ID #18 and Gorgas Swamp – ID #19) by USACE for evaluation as part of this effort.				
Description	Dauphin Island has been identified by The National Audubon Society as a Globally Important Birding area. At least 348 species have been reported on the island including residents and neo-tropical migrants. The location of the island on the Gulf Flyway and the first/last land mass encountered by migrating species to and from South America make the various habitats on the island critical features in maintaining the existence of a number of avian species. One such habitat is the "Gorgas Swamp'. This is a 10-acre swath of wetlands east of the Tupelo Gum Swamp that is centered on Gen Gorgas Street between the main dunes and Gen Gaines Place on the widest part of the island. Twenty platted lots total approximately 10 acres containing substantial wetlands populated predominately by tupelo gum trees. Three of the 20 lots have been purchased for conservation by the Dauphin Island Bird Sanctuary. Currently this area is being destroyed by excessive all-terrain vehicular traffic, which compacts the soil, generating ruts and gullies that serve to drain the water off the surface thus interrupting the hydrologic cycle that is critical to maintenance of this unique habitat. The purpose of this project would be the restoration and conservation of this unique habitat and its maintenance as a critical habitat for a variety of birds. In addition the acquisition of the land could provide an ecotourism opportunity through the development of confined birding trails. This project alone and in combination with other similar opportunities on Dauphin Island would maintain a network of quality avian stop habitats for a number of species including neotropical migrants, the Federally endangered Piping Plover and Red Knot as well as various species of shorebirds, gulls, terns and waterfowl.				
Benefits	Prohibition of use by all-terrain vehicles and filling ruts and gullies would serve to improve the hydrology of the area and restore the water storage capacity of the property. Conservation of up to 10 acres of unique wetland habitat on a coastal barrier island providing significant benefit to resident avian species and neo-tropical migrants from South America. The project would also promote the economic value of ecotourism in Dauphin Island, coastal Alabama and the state through involvement in the Alabama Coastal Birding Trail. Significant educational benefits would also be gained through the creation of signage along the birding trail as well as for hands-on activities associated with the continued maintenance of the unique habitat.				
Potential Impediments to Meeting Criteria	• Willingness of landowners to sell or enter into conservation easements on the properties in question is the major impediment. • Benefits will be proportional to the number and location of parcels able to be acquired.				
Estimated Implementation Cost	$700,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Gorgas Swamp Land Acquisition

Description

Dauphin Island has been identified by The National Audubon Society as a Globally Important Birding area. At least 348 species have been reported on the island including residents and neo-tropical migrants. The location of the island on the Gulf Flyway and the first/last land mass encountered by migrating species to and from South America make the various habitats on the island critical features in maintaining the existence of a number of avian species. One such habitat is the "Gorgas Swamp". This is a 10-acre swath of wetlands east of the Tupelo Gum Swamp that is centered on Gen Gorgas Street between the main dunes and Gen Gaines Place on the widest part of the island. Twenty platted lots total approximately 10 acres containing substantial wetlands populated predominately by tupelo gum trees. Three of the 20 lots have been purchased for conservation by the Dauphin Island Bird Sanctuary. Currently this area is being destroyed by excessive all-terrain vehicular traffic, which compacts the soil, generating ruts and gullies that serve to drain the water off the surface thus interrupting the hydrologic cycle that is critical to maintenance of this unique habitat.

The purpose of this project would be the restoration and conservation of this unique habitat and its maintenance as a critical habitat for a variety of birds. In addition the acquisition of the land could provide an ecotourism opportunity through the development of confined birding trails.

This project alone and in combination with other similar opportunities on Dauphin Island would maintain a network of quality avian stop habitats for a number of species including neotropical migrants, the Federally endangered Piping Plover and Red Knot as well as various species of shorebirds, gulls, terns and waterfowl.

Benefits

Prohibition of use by all-terrain vehicles and filling ruts and gullies would serve to improve the hydrology of the area and restore the water storage capacity of the property. Conservation of up to 10 acres of unique wetland habitat on a coastal barrier island providing significant benefit to resident avian species and neo-tropical migrants from South America. The project would also promote the economic value of ecotourism in Dauphin Island, coastal Alabama and the state through involvement in the Alabama Coastal Birding Trail. Significant educational benefits would also be gained through the creation of signage along the birding trail as well as for hands-on activities associated with the continued maintenance of the unique habitat.

Estimated Implementation Cost

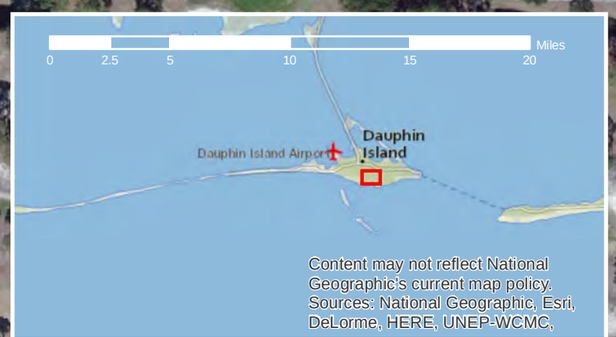
$700,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0



Gorgas Swamp Land Acquisition

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0 0.125 0.25 0.5 Miles

Project Name	Steiner Property Acquisition				
Map ID # / Location	ID #20 / Latitude: 30.2524, Longitude: -88.1614 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Acquisition of lands within this area, as shown below, was provided directly to USACE by a local bird enthusiast and is consistent with the project suggested by Dauphin Island Bird Sanctuary & Pelican Coast Conservancy / Alabama Coastal Restoration Portal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=104) entitled Habitat Acquisition and Conservation for Neotropical Migratory Birds. The original proposal was modified through personal communication to add the Steiner Property.				
Description	Dauphin Island has been identified by The National Audubon Society as a Globally Important Birding area. At least 348 species have been reported on the island including residents and neo-tropical migrants. The location of the island on the Gulf Flyway and the first/last land mass encountered by migrating species to and from South America make the various habitats on the island critical features in maintaining the existence of a number of avian species. One such habitat is the "Steiner Property". This is a 12-acre swath of wetlands on the north side of Bienville Blvd between Grant and fort Conde Streets runs northward with the northern boundary being the main portion of Dauphin Island Bay. Only 2 lots on the entire property have been developed and 5 parcels have been purchased for conservation by the Dauphin Island Bird Sanctuary. This area contains a variety of habitats including forest and an approximately 1.5 acre salt marsh populated with black needle rush on the northern end. The entire area provided critical habitat for neotropical migrants, wading birds, and waterfowl. The purpose of this project would be the conservation of this unique habitat and its maintenance as a critical habitat for a variety of birds. In addition the acquisition of the land could provide an ecotourism opportunity through the development of confined birding trails. This project alone and in combination with other similar opportunities on Dauphin Island would maintain a network of quality avian stop habitats for a number of species including neotropical migrants, the Federally endangered Piping Plover and Red Knot as well as various species of shorebirds, gulls, terns and waterfowl.				
Benefits	Conservation of up to 12 acres of unique wetland habitat on a coastal barrier island providing significant benefit to resident avian species and neotropical migrants from South America. The project would also promote the economic value of ecotourism in Dauphin Island, coastal Alabama and the state through involvement in the Alabama Coastal Birding Trail. Significant educational benefits would also be gained through the creation of signage along the birding trail as well as for hands-on activities associated with the continued maintenance of the unique habitat.				
Potential Impediments to Meeting Criteria	• Willingness of landowners to sell or enter into conservation easements on the properties in question is the major impediment. • Benefits will be proportional to the number and location of parcels able to be acquired.				
Estimated Implementation Cost	$600,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Approximate Boundaries of Steiner Property Land Acquisition

Description

Dauphin Island has been identified by The National Audubon Society as a Globally Important Birding area. At least 348 species have been reported on the island including residents and neo-tropical migrants. The location of the island on the Gulf Flyway and the first/last land mass encountered by migrating species to and from South America make the various habitats on the island critical features in maintaining the existence of a number of avian species. One such habitat is the “Steiner Property”. This is a 12-acre swath of wetlands on the north side of Bienville Blvd between Grant and fort Conde Streets runs northward with the northern boundary being the main portion of Dauphin Island Bay. Only 2 lots on the entire property have been developed and 5 parcels have been purchased for conservation by the Dauphin Island Bird Sanctuary. This area contains a variety of habitats including forest and an approximately 1.5 acre salt marsh populated with black needle rush on the northern end. The entire area provided critical habitat for neotropical migrants, wading birds, and waterfowl.

The purpose of this project would be the conservation of this unique habitat and its maintenance as a critical habitat for a variety of birds. In addition the acquisition of the land could provide an ecotourism opportunity through the development of confined birding trails.

This project alone and in combination with other similar opportunities on Dauphin Island would maintain a network of quality avian stop habitats for a number of species including neotropical migrants, the Federally endangered Piping Plover and Red Knot as well as various species of shorebirds, gulls, terns and waterfowl.

Benefits

Conservation of up to 12 acres of unique wetland habitat on a coastal barrier island providing significant benefit to resident avian species and neotropical migrants from South America. The project would also promote the economic value of ecotourism in Dauphin Island, coastal Alabama and the state through involvement in the Alabama Coastal Birding Trail. Significant educational benefits would also be gained through the creation of signage along the birding trail as well as for hands-on activities associated with the continued maintenance of the unique habitat.

Estimated Implementation Cost

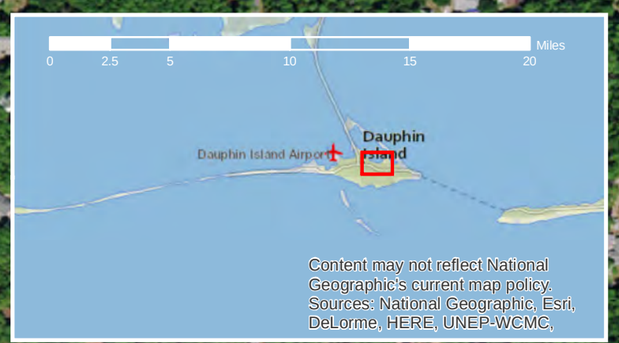
$600,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0

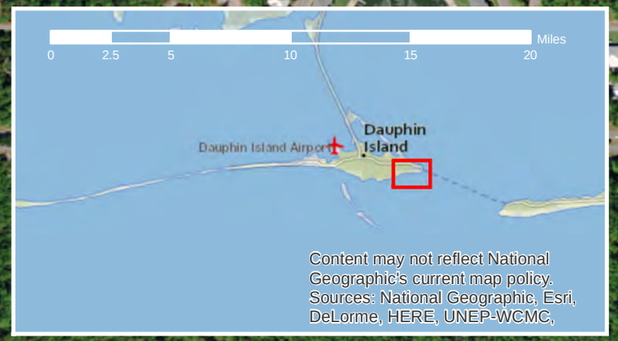


Steiner Property Acquisition

0 0.125 0.25 0.5 Miles

N W E S

Project Name	US Coast Guard Property Disposal / Acquisition				
Map ID # / Location	ID #21 / Latitude: 30.24732, Longitude: -88.080560 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Island Sea Lab, Marine Environmental Sciences Consortium Dr. John Valentine, Executive Director / Project information, as shown below, was provided directly to USACE by the sponsoring organization.				
Description	The USCG operated a Recreation Facility on the eastern end of Dauphin Island until the housing facilities were destroyed by Hurricanes Katrina, Gustav, and Ike by mid-2007. The property is no longer needed by the USGC and is in the process of being disposed by the GSA. The property which fronts on the Gulf of Mexico is bounded on the east by the Dauphin Island Sea Lab, on the west by the Dauphin Island Bird Sanctuary, and on the north by the Dauphin Island Park and Beach Board Campground. The Dauphin Island Sea Lab is Alabama's primary marine education and research center. DISL is the home site of the Marine Environmental Sciences Consortium and was founded by an act of the Alabama State Legislature in 1971. It also has a public aquarium specializing in estuarine organisms, the George F. Crozier Estuarium. The DISL is interested in acquiring the approximately 7.5 acre site through a public benefit conveyance from the GSA Public Buildings Service Office of Real Property Disposal. The DISL would utilize the property for education and wildlife conservation. The property is currently described as island dune habitat which has been slightly modified for public use. The DISL would use the area as an open laboratory for restoration of dune habitat and studies on the development and use of such habitat by shorebirds and small vertebrates.				
Benefits	Restoration and conservation of approximately 7.5 acres of island dune habitat on a coastal barrier island providing significant benefit to resident avian species, neo-tropical migrants from South America, and small vertebrates. Significant educational benefits would also be gained through the use of the area an open laboratory supporting the educational mission of the DISL which includes K-12 and higher education.				
Potential Impediments to Meeting Criteria	• Extent of General Services Administration requirements unknown.				
Estimated Implementation Cost	$2,500,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0



US Coast Guard Property Disposal / Acquisition

0 0.125 0.25 0.5 Miles

N W E S

Approximate Boundaries of US Coast Guard Property

Description

The USCG operated a Recreation Facility on the eastern end of Dauphin Island until the housing facilities were destroyed by Hurricanes Katrina, Gustav, and Ike by mid-2007. The property is no longer needed by the USGC and is in the process of being disposed by the GSA. The property which fronts on the Gulf of Mexico is bounded on the east by the Dauphin Island Sea Lab, on the west by the Dauphin Island Bird Sanctuary, and on the north by the Dauphin Island Park and Beach Board Campground.

The Dauphin Island Sea Lab is Alabama's primary marine education and research center. DISL is the home site of the Marine Environmental Sciences Consortium and was founded by an act of the Alabama State Legislature in 1971. It also has a public aquarium specializing in estuarine organisms, the George F. Crozier Estuarium.

The DISL is interested in acquiring the approximately 7.5 acre site through a public benefit conveyance from the GSA Public Buildings Service Office of Real Property Disposal. The DISL would utilize the property for education and wildlife conservation.

The property is currently described as island dune habitat which has been slightly modified for public use. The DISL would use the area as an open laboratory for restoration of dune habitat and studies on the development and use of such habitat by shorebirds and small vertebrates.

Benefits

Restoration and conservation of approximately 7.5 acres of island dune habitat on a coastal barrier island providing significant benefit to resident avian species, neo-tropical migrants from South America, and small vertebrates. Significant educational benefits would also be gained through the use of the area an open laboratory supporting the educational mission of the DISL which includes K-12 and higher education.

Estimated Implementation Cost

$2,500,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0

Project Name	Dauphin Island 39 Parcel Property Acquisition: Parcel A - West End				
Map ID # / Location	ID #22a / Latitude: 30.256389, Longitude: -88.125278 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Management, LLC (Robin Delaney) / Alabama Coastal Restoration Portal The properties described in the original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=224) were divided into five areas (Parcels A – E) by USACE for evaluation as part of this effort.				
Description	This project involves the acquisition of approximately 518 acres on the west end of Dauphin Island along the Mississippi Sound. The property will be transferred to the Dauphin Island Foundation for the ecological and environmental benefit of Dauphin Island and the surrounding environment. Some commercial and residential parcels located from the main boulevard to the village to the west end on Mississippi Sound are included in the transfer for the ecological, environmental, seafood and tourism benefit of Dauphin Island. This acquisition is part of a total of 39 parcels proposed for purchase to represent a broad diversity of significant bottomland, shoreline, wetland, dune and woodland habitat strategically located on this barrier island. Their conservation for ecological and environmental preservation and use for seafood and tourism applications represents a unique and important opportunity for many Dauphin Island stakeholders to preserve, protect and promote Dauphin Island's unique natural habitat and seafood and tourism resources.				
Benefits	Protect critical diverse island and subtidal habitat and protect and promote seafood and tourism resources.				
Potential Impediments to Meeting Criteria	• Uncertainty associated with the level of conservation benefits that would accrue above what is currently provided. • Willingness of landowners to sell or enter into conservation easements on the properties in question is the major impediment. Benefits will be proportional to the number and location of parcels able to be acquired.				
Estimated Implementation Cost	$900,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Acquisition Parcel A - West End

Description

This project involves the acquisition of approximately 518 acres on the west end of Dauphin Island along the Mississippi Sound. The property will be transferred to the Dauphin Island Foundation for the ecological and environmental benefit of Dauphin Island and the surrounding environment. Some commercial and residential parcels located from the main boulevard to the village to the west end on Mississippi Sound are included in the transfer for the ecological, environmental, seafood and tourism benefit of Dauphin Island. This acquisition is part of a total of 39 parcels proposed for purchase to represent a broad diversity of significant bottomland, shoreline, wetland, dune and woodland habitat strategically located on this barrier island. Their conservation for ecological and environmental preservation and use for seafood and tourism applications represents a unique and important opportunity for many Dauphin Island stakeholders to preserve, protect and promote Dauphin Island's unique natural habitat and seafood and tourism resources.

Benefits

Protect critical diverse island and subtidal habitat and protect and promote seafood and tourism resources.

Estimated Implementation Cost

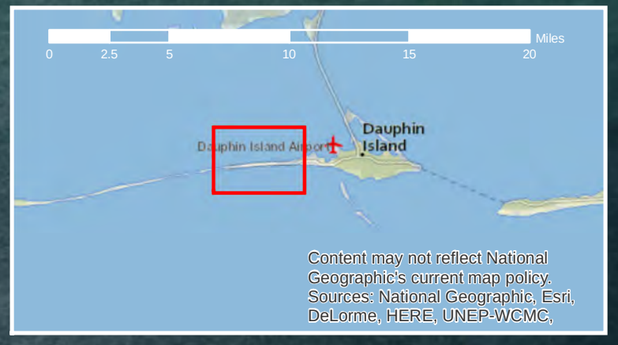
$900,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0



Dauphin Island 39 Parcel Property Acquisition: Parcel A - West End

0 0.25 0.5 1 Miles

N W E S

Project Name	Dauphin Island 39 Parcel Property Acquisition: Parcel B – Graveline Bay				
Map ID # / Location	ID #22 b/ Latitude: 30.256389, Longitude: -88.125278 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Management, LLC (Robin Delaney) / Alabama Coastal Restoration Portal The properties described in the original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=224) were divided into five areas (Parcels A – E) by USACE for evaluation as part of this effort.				
Description	This project involves the acquisition of approximately 340 acres in the Graveline Bay of Dauphin Island along the Mississippi Sound. The property will be transferred to the Dauphin Island Foundation for the ecological and environmental benefit of Dauphin Island and the surrounding environment. Some commercial and residential parcels located from the main boulevard to the village to the west end on Mississippi Sound are included in the transfer for the ecological, environmental, seafood and tourism benefit of Dauphin Island. This acquisition is part of a total of 39 parcels proposed for purchase to represent a broad diversity of significant bottomland, shoreline, wetland, dune and woodland habitat strategically located on this barrier island. Their conservation for ecological and environmental preservation and use for seafood and tourism applications represents a unique and important opportunity for many Dauphin Island stakeholders to preserve, protect and promote Dauphin Island's unique natural habitat and seafood and tourism resources.				
Benefits	Protect critical diverse island and subtidal habitat and protect and promote seafood and tourism resources.				
Potential Impediments to Meeting Criteria	• Uncertainty associated with the level of conservation benefits that would accrue above what is currently provided. • Willingness of landowners to sell or enter into conservation easements on the properties in question is the major impediment. Benefits will be proportional to the number and location of parcels able to be acquired.				
Estimated Implementation Cost	$400,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Acquisition Parcel B - Graveline Bay

Description

This project involves the acquisition of approximately 340 acres in the Graveline Bay of Dauphin Island along the Mississippi Sound. The property will be transferred to the Dauphin Island Foundation for the ecological and environmental benefit of Dauphin Island and the surrounding environment. Some commercial and residential parcels located from the main boulevard to the village to the west end on Mississippi Sound are included in the transfer for the ecological, environmental, seafood and tourism benefit of Dauphin Island. This acquisition is part of a total of 39 parcels proposed for purchase to represent a broad diversity of significant bottomland, shoreline, wetland, dune and woodland habitat strategically located on this barrier island. Their conservation for ecological and environmental preservation and use for seafood and tourism applications represents a unique and important opportunity for many Dauphin Island stakeholders to preserve, protect and promote Dauphin Island's unique natural habitat and seafood and tourism resources.

Benefits

Protect critical diverse island and subtidal habitat and protect and promote seafood and tourism resources.

Estimated Implementation Cost

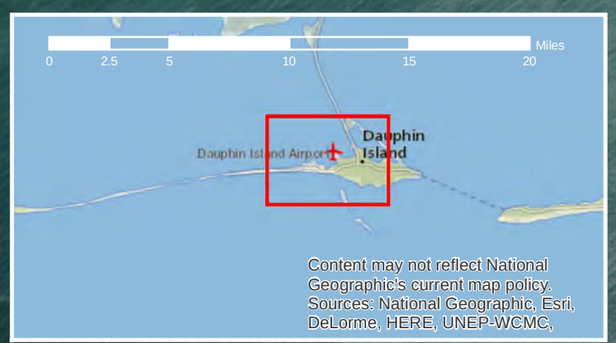
$400,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0



Dauphin Island 39 Parcel Property Acquisition: Parcel B – Graveline Bay

0 0.25 0.5 1 Miles

N
W
E
S

Project Name	Dauphin Island 39 Parcel Property Acquisition: Parcel C – Aloe Bay				
Map ID # / Location	ID #22c / Latitude: 30.256389, Longitude: -88.125278 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Management, LLC (Robin Delaney) / Alabama Coastal Restoration Portal The properties described in the original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=224) were divided into five areas (Parcels A – E) by USACE for evaluation as part of this effort.				
Description	This project involves the acquisition of approximately 76 acres in the Aloe Bay of Dauphin Island along the Mississippi Sound. The property will be transferred to the Dauphin Island Foundation for the ecological and environmental benefit of Dauphin Island and the surrounding environment. Some commercial and residential parcels located from the main boulevard to the village to the west end on Mississippi Sound are included in the transfer for the ecological, environmental, seafood and tourism benefit of Dauphin Island. This acquisition is part of a total of 39 parcels proposed for purchase to represent a broad diversity of significant bottomland, shoreline, wetland, dune and woodland habitat strategically located on this barrier island. Their conservation for ecological and environmental preservation and use for seafood and tourism applications represents a unique and important opportunity for many Dauphin Island stakeholders to preserve, protect and promote Dauphin Island's unique natural habitat and seafood and tourism resources.				
Benefits	Protect critical diverse island and subtidal habitat and protect and promote seafood and tourism resources.				
Potential Impediments to Meeting Criteria	• Uncertainty associated with the level of conservation benefits that would accrue above what is currently provided. • Willingness of landowners to sell or enter into conservation easements on the properties in question is the major impediment. Benefits will be proportional to the number and location of parcels able to be acquired.				
Estimated Implementation Cost	$100,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Acquisition Parcel C - Aloe Bay

Description

This project involves the acquisition of approximately 76 acres in the Aloe Bay of Dauphin Island along the Mississippi Sound. The property will be transferred to the Dauphin Island Foundation for the ecological and environmental benefit of Dauphin Island and the surrounding environment. Some commercial and residential parcels located from the main boulevard to the village to the west end on Mississippi Sound are included in the transfer for the ecological, environmental, seafood and tourism benefit of Dauphin Island. This acquisition is part of a total of 39 parcels proposed for purchase to represent a broad diversity of significant bottomland, shoreline, wetland, dune and woodland habitat strategically located on this barrier island. Their conservation for ecological and environmental preservation and use for seafood and tourism applications represents a unique and important opportunity for many Dauphin Island stakeholders to preserve, protect and promote Dauphin Island's unique natural habitat and seafood and tourism resources.

Benefits

Protect critical diverse island and subtidal habitat and protect and promote seafood and tourism resources.

Estimated Implementation Cost

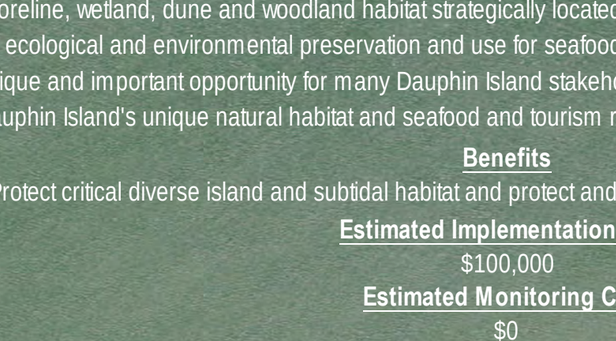
$100,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0



Dauphin Island 39 Parcel Property Acquisition: Parcel C – Aloe Bay

0 0.25 0.5 1 Miles

N W E S

Project Name	Dauphin Island 39 Parcel Property Acquisition: Parcel D – Little Dauphin Island Bay				
Map ID # / Location	ID #22d / Latitude: 30.256389, Longitude: -88.125278 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Management, LLC (Robin Delaney) / Alabama Coastal Restoration Portal The properties described in the original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=224) were divided into five areas (Parcels A – E) by USACE for evaluation as part of this effort.				
Description	This project involves the acquisition of approximately 150 acres in the "Little Dauphin Island" Bay vicinity along the Mississippi Sound. The property will be transferred to the Dauphin Island Foundation for the ecological and environmental benefit of Dauphin Island and the surrounding environment. Some commercial and residential parcels located from the main boulevard to the village to the west end on Mississippi Sound are included in the transfer for the ecological, environmental, seafood and tourism benefit of Dauphin Island. This acquisition is part of a total of 39 parcels proposed for purchase to represent a broad diversity of significant bottomland, shoreline, wetland, dune and woodland habitat strategically located on this barrier island. Their conservation for ecological and environmental preservation and use for seafood and tourism applications represents a unique and important opportunity for many Dauphin Island stakeholders to preserve, protect and promote Dauphin Island's unique natural habitat and seafood and tourism resources.				
Benefits	Protect critical diverse island and subtidal habitat and protect and promote seafood and tourism resources.				
Potential Impediments to Meeting Criteria	• Uncertainty associated with the level of conservation benefits that would accrue above what is currently provided. • Willingness of landowners to sell or enter into conservation easements on the properties in question is the major impediment. Benefits will be proportional to the number and location of parcels able to be acquired.				
Estimated Implementation Cost	$200,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Acquisition Parcel D - Little Dauphin Island Bay

Description

This project involves the acquisition of approximately 150 acres in the "Little Dauphin Island" Bay vicinity along the Mississippi Sound. The property will be transferred to the Dauphin Island Foundation for the ecological and environmental benefit of Dauphin Island and the surrounding environment. Some commercial and residential parcels located from the main boulevard to the village to the west end on Mississippi Sound are included in the transfer for the ecological, environmental, seafood and tourism benefit of Dauphin Island. This acquisition is part of a total of 39 parcels proposed for purchase to represent a broad diversity of significant bottomland, shoreline, wetland, dune and woodland habitat strategically located on this barrier island. Their conservation for ecological and environmental preservation and use for seafood and tourism applications represents a unique and important opportunity for many Dauphin Island stakeholders to preserve, protect and promote Dauphin Island's unique natural habitat and seafood and tourism resources.

Benefits

Protect critical diverse island and subtidal habitat and protect and promote seafood and tourism resources.

Estimated Implementation Cost

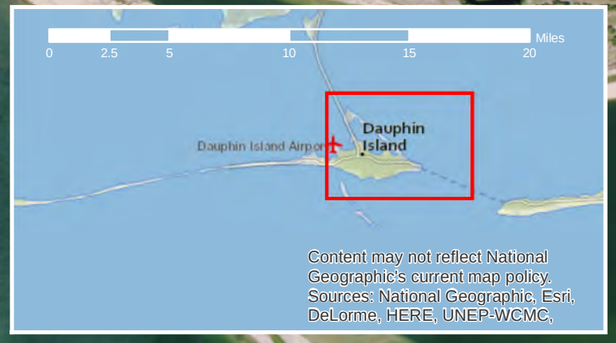
$200,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0



Dauphin Island 39 Parcel Property Acquisition: Parcel D – Little Dauphin Island Bay

0 0.5 1 2 Miles

N W E S

Project Name	Dauphin Island 39 Parcel Property Acquisition: Parcel E – East End				
Map ID # / Location	ID #22e / Latitude: 30.256389, Longitude: -88.125278 (See Figure for further detail)				
Sponsoring Organization (POC) / Source	Dauphin Management, LLC (Robin Delaney) / Alabama Coastal Restoration Portal The properties described in the original proposal (http://alabamacoastalrestoration.org/ProjectView.aspx?projectID=224) were divided into five areas (Parcels A – E) by USACE for evaluation as part of this effort.				
Description	This project involves the acquisition of approximately 4 acres separated in 5 parcels on the East end of Dauphin Island. Four of the properties are zoned commercial or residential parcels located from the main boulevard to the village The fifth property is located on the north side of the main dune system in the vicinity of the golf course. This last parcen has the ability to provide habitat to resident and migratory avian species and small vertebrates. This acquisition is part of a total of 39 parcels proposed for purchase to represent a broad diversity of significant bottomland, shoreline, wetland, dune and woodland habitat strategically located on this barrier island. Their conservation for ecological and environmental preservation and use for seafood and tourism applications represents a unique and important opportunity for many Dauphin Island stakeholders to preserve, protect and promote Dauphin Island's unique natural habitat and seafood and tourism resources.				
Benefits	Protect critical diverse island and subtidal habitat and protect and promote seafood and tourism resources.				
Potential Impediments to Meeting Criteria	• Concern as to the best use of the 4 parcels in the commercial area. • Willingness of landowners to sell or enter into conservation easements on the properties in question is the major impediment. Benefits will be proportional to the number and location of parcels able to be acquired.				
Estimated Implementation Cost	$620,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Acquisition Parcel E - East End

Description

This project involves the acquisition of approximately 4 acres separated in 5 parcels on the East end of Dauphin Island. Four of the properties are zoned commercial or residential parcels located from the main boulevard to the village The fifth property is located on the north side of the main dune system in the vicinity of the golf course. This last parcen has the ability to provide habitat to resident and migratory avian species and small vertebrates. This acquisition is part of a total of 39 parcels proposed for purchase to represent a broad diversity of significant bottomland, shoreline, wetland, dune and woodland habitat strategically located on this barrier island. Their conservation for ecological and environmental preservation and use for seafood and tourism applications represents a unique and important opportunity for many Dauphin Island stakeholders to preserve, protect and promote Dauphin Island's unique natural habitat and seafood and tourism resources.

Benefits

Protect critical diverse island and subtidal habitat and protect and promote seafood and tourism resources.

Estimated Implementation Cost

$620,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0

Dauphin Island 39 Parcel Property Acquisition: Parcel E – East End

0 0.25 0.5 1 Miles

N W E S

Project Name	Dauphin Island Restoration and Management Support System
Map ID #/ Location	ID #23 / Dauphin Island Station: 30° 15.075' N, 88° 04.670' W Katrina Cut Station: 30°15.496 'N, 88°12.785 'W Cedar Point Station: 30°18.507'N, 88°08.372'W FOCAL mooring site: 30°05.410´N, 88°12.694´W
Sponsoring Organization (POC) / Source	Dauphin Island Sea Lab (Renee Collini/Brian Dzwonkowski) / Project information, as shown below, was provided directly to USACE by the sponsoring organization.
Description	Barrier islands are a fundamental component of Alabama's coastal system that serve as protection from many offshore marine hazards (e.g. hurricanes, oil spills) as well as provide vital habitat for highly productive fisheries, native and migratory birds, and other ecologically important species. Proper management of these critical regions of the coastline requires data to support informed policy-making. Currently, there is a concentrated effort by various state and federal agencies on developing viable, sustainable restoration options that protect and restore the natural resources of Dauphin Island, a major barrier island in Alabama's coastal waters. In order to maximize the impact and effectiveness of these efforts, complimentary data collection of critical environment parameters is essential. As such, the objective of this project is to provide critical data streams that facilitate adaptive management to improve on-going restoration efforts as well as allow for the assessment of any potential trends and/or changes/triggers resulting from implementation of current and future restoration efforts. In order to meet the needs of the current habitat management projects underway, as well as understand the historical and future conditions around Dauphin Island, we propose the maintenance and upgrade of four existing environmental monitoring stations: Dauphin Island (DI), Katrina Cut (KC), Cedar Point (CP), and the Fisheries Oceanography of Coastal Alabama (FOCAL) mooring station (See Figure). These four sites are ideal locations from which to collect observation data as there is a long-term historical record (i.e. base-line conditions) and they capture three distinct marine habitats that exist along the island's boundaries (e.g. shelf-estuarine exchange, back-bay and coastal waters). Furthermore, they are critical to accurately assessing the complex mixing (and the resulting regional water quality) of eastern Mississippi Sound waters, fresh water discharge from Mobile Bay, and high salinity Gulf of Mexico waters. These stations collect water quality parameters, meteorological parameters, and off-shore water column water quality conditions and flow data. The DI, CP, and KC stations are components of ARCOS, a real-time observing network. Easily accessible for download and/or current condition viewing, these data have become integrated into coastal decision-making across Alabama. However, the instrumentation packages at all four sites are aging and additional parameters and capabilities could further inform stakeholders associated with Dauphin Island habitat management efforts. Maintaining the existing high quality, reliable data streams, while expanding the coastal observational capacity surrounding Dauphin Island will require different levels of investment at each site and the full implementation will occur in phases over the three-year study period. The first year will consistent of basic maintenance and replacement of the existing sensor packages at each site so the existing data utilized to develop the current project models continues to be available. The second year will consist of upgrading the offshore component (FOCAL site) to be in real-time. Currently those data are housed in a publicly accessible, online repository, but enhancements to real-time will integrate off-shore water column data into adaptive management practices. The third year will focus on adding surface water quality parameters and flow data to the DI, CP, and KC sites and developing new web-based applications for these data. These efforts will allow for a consistent set of water quality parameters (e.g. surface and bottom temperature, salinity, dissolved oxygen and turbidity), meteorological variables, wave conditions, and near-bottom flow (a critical parameter for accurate sediment transport estimates) to provide context and guidance for current and future restoration efforts and assessments.

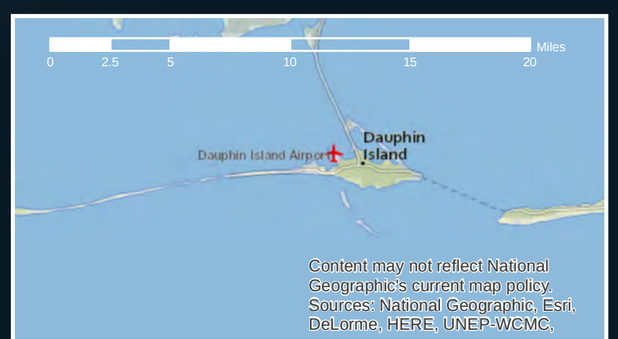
Description (Continued)	In addition to the habitat management projects on Dauphin Island, this data set has a range of uses to different community members. Providing the data in real-time makes it more readily available to regional stakeholders from resource managers to commercial and recreational fishermen to researchers. Developing a reliable, scalable, standardized, integrated, comprehensive monitoring network is critical to establishing baselines and assessing the cumulative impacts from restoration efforts, climate change, and episodic events. This project will be foundational to establishing a system-wide understanding of the conditions that are critical to the overall success of site specific efforts on Dauphin Island. To maximize utilization of data and stakeholder involvement, we will work with local, regional, and federal organizations that are already invested in stakeholder needs, data visualization, and outreach. This network already implements strategies developed by many regional organizations (e.g. GOMA, GCOOS, and GOMURC) and will expand existing relationships with MAWSS, ADEM, ADPH, MBNEP, ADCNR, NWS, NCDDC, NDBC, NERRS, PORTS, and NOAA to coordinate and leverage other watershed monitoring activities.				
Benefits	By maintaining and improving current data collection at these sites, the goal of the current and future habitant management efforts on Dauphin Island can be better realized. Data streams are required to develop accurate hydrodynamic and sediment transport models. The success of restoration efforts across habitat type (oyster, intertidal marshes, dunes) is often critically linked the physical conditions at a given site and the proposed upgrades will allow for assessment of these conditions in key regions around Dauphin Island. These data will also be of value in assessing the overall effectiveness of any restoration-based improvement of these physical conditions. Furthermore, real-time delivery of the data stream will allow for adaptive management strategies for a range of environmental issues. For example, this network allows Mobile Bay oysters to be more accurately and efficiently managed – improving the quality and quantity of the oysters and the habitat they provide to other critical species. This proposal will extend the life of these stations far beyond the restoration project timeframe (as demonstrated by the longevity of the existing stations). This in turn will provide new opportunities to leverage the benefits from these stations to bring additional funds to the Alabama coast. Clear evidence of the benefit of these stations can be found in the wide range of users which span the spectrum of general public to privative industry to state and federal agencies (Letters of support can be provided upon request).				
Potential Impediments to Meeting Criteria	N/A				
Estimated Implementation Cost	Phase 1 (Year 1) - $447,000: Maintain existing data streams at all three sites Phase 2 (Year 2) - $398,000: Real-time data from FOCAL site Phase 3 (Year 3) - $296,000: Enhance DI, CP, and KC sites and modernize web-delivery TOTAL: $1,141,000	Estimated Monitoring Cost	$0	Estimated Maintenance / Operational Cost	$0

Cedar Point Station

Katrina Cut Station

Dauphin Island Station

FOCAL Mooring Site



Dauphin Island Restoration and Management Support System Stations

Description

Barrier islands are a fundamental component of Alabama's coastal system that serve as protection from many offshore marine hazards (e.g. hurricanes, oil spills) as well as provide vital habitat for highly productive fisheries, native and migratory birds, and other ecologically important species. Proper management of these critical regions of the coastline requires data to support informed policy-making. Currently, there is a concentrated effort by various state and federal agencies on developing viable, sustainable restoration options that protect and restore the natural resources of Dauphin Island, a major barrier island in Alabama's coastal waters. In order to maximize the impact and effectiveness of these efforts, complimentary data collection of critical environment parameters is essential. As such, the objective of this project is to provide critical data streams that facilitate adaptive management to improve on-going restoration efforts as well as allow for the assessment of any potential trends and/or changes/triggers resulting from implementation of current and future restoration efforts.

In order to meet the needs of the current habitat management projects underway, as well as understand the historical and future conditions around Dauphin Island, we propose the maintenance and upgrade of four existing environmental monitoring stations: Dauphin Island (DI), Katrina Cut (KC), Cedar Point (CP), and the Fisheries Oceanography of Coastal Alabama (FOCAL) mooring station (See Figure). These four sites are ideal locations from which to collect observation data as there is a long-term historical record (i.e. base-line conditions) and they capture three distinct marine habitats that exist along the island's boundaries (e.g. shelf-estuarine exchange, back-bay and coastal waters). Furthermore, they are critical to accurately assessing the complex mixing (and the resulting regional water quality) of eastern Mississippi Sound waters, fresh water discharge from Mobile Bay, and high salinity Gulf of Mexico waters. These stations collect water quality parameters, meteorological parameters, and off-shore water column water quality conditions and flow data. The DI, CP, and KC stations are components of ARCOS, a real-time observing network. Easily accessible for download and/or current condition viewing, these data have become integrated into coastal decision-making across Alabama. However, the instrumentation packages at all four sites are aging and additional parameters and capabilities could further inform stakeholders associated with Dauphin Island habitat management efforts.

Maintaining the existing high quality, reliable data streams, while expanding the coastal observational capacity surrounding Dauphin Island will require different levels of investment at each site and the full implementation will occur in phases over the three-year study period. The first year will consistent of basic maintenance and replacement of the existing sensor packages at each site so the existing data utilized to develop the current project models continues to be available. The second year will consist of upgrading the offshore component (FOCAL site) to be in real-time. Currently those data are housed in a publicly accessible, online repository, but enhancements to real-time will integrate off-shore water column data into adaptive management practices. The third year will focus on adding surface water quality parameters and flow data to the DI, CP, and KC sites and developing new web-based applications for these data. These efforts will allow for a consistent set of water quality parameters (e.g. surface and bottom temperature, salinity, dissolved oxygen and turbidity), meteorological variables, wave conditions, and near-bottom flow (a critical parameter for accurate sediment transport estimates) to provide context and guidance for current and future restoration efforts and assessments.

In addition to the habitat management projects on Dauphin Island, this data set has a range of uses to different community members. Providing the data in real-time makes it more readily available to regional stakeholders from resource managers to commercial and recreational fishermen to researchers. Developing a reliable, scalable, standardized, integrated, comprehensive monitoring network is critical to establishing baselines and assessing the cumulative impacts from restoration efforts, climate change, and episodic events. This project will be foundational to establishing a system-wide understanding of the conditions that are critical to the overall success of site specific efforts on Dauphin Island. To maximize utilization of data and stakeholder involvement, we will work with local, regional, and federal organizations that are already invested in stakeholder needs, data visualization, and outreach. This network already implements strategies developed by many regional organizations (e.g. GOMA, GCOOS, and GOMURC) and will expand existing relationships with MAWSS, ADEM, ADPH, MBNEP, ADCNR, NWS, NCDDC, NDBC, NERRS, PORTS, and NOAA to coordinate and leverage other watershed monitoring activities.

Benefits

By maintaining and improving current data collection at these sites, the goal of the current and future habitant management efforts on Dauphin Island can be better realized. Data streams are required to develop accurate hydrodynamic and sediment transport models. The success of restoration efforts across habitat type (oyster, intertidal marshes, dunes) is often critically linked the physical conditions at a given site and the proposed upgrades will allow for assessment of these conditions in key regions around Dauphin Island. These data will also be of value in assessing the overall effectiveness of any restoration-based improvement of these physical conditions. Furthermore, real-time delivery of the data stream will allow for adaptive management strategies for a range of environmental issues. For example, this network allows Mobile Bay oysters to be more accurately and efficiently managed – improving the quality and quantity of the oysters and the habitat they provide to other critical species. This proposal will extend the life of these stations far beyond the restoration project timeframe (as demonstrated by the longevity of the existing stations). This in turn will provide new opportunities to leverage the benefits from these stations to bring additional funds to the Alabama coast. Clear evidence of the benefit of these stations can be found in the wide range of users which span the spectrum of general public to privative industry to state and federal agencies (Letters of support can be provided upon request).

Estimated Implementation Cost

Phase 1 (Year 1) - $447,000: Maintain existing data streams at all three sites

Phase 2 (Year 2) - $398,000: Real-time data from FOCAL site

Phase 3 (Year 3) - $296,000: Enhance DI, CP, and KC sites and modernize web- delivery

TOTAL: $1,141,000

Estimated Monitoring Cost

$0

Estimated Yearly Operational Maintenance Cost

$0

Dauphin Island Restoration and Management Support System

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