

Applicant Information

The applicant for the proposed project is the Liberty County Board of Commissioners. The applicant is represented by Sam LaBarba of LaBarba Environmental Services for this project.

Agent

LaBarba Environmental Services
Sam LaBarba
139 Altama Connector, #161
Brunswick, GA 31525
Email: sam@labarbaenvironmentalservices.com
Phone: (912) 215-1255

Applicant

Liberty County Board of Commissioners
c/o Joseph W. Brown
112 North Main Street
Hinesville, GA 31313
Email: joey.brown@libertycountyga.gov
Phone: (912) 876-2164

Engineer

TR Long Engineering
Trent Long
114 North Commerce Street
Hinesville, Georgia 31313
Email: trlong@trlongeng.com
Phone: (912)-368-5664

Project Summary

The Islands Highway Box Culvert Replacement Project is an infrastructure initiative located along Islands Highway in Midway, Liberty County, Georgia. The project, initiated by the Liberty County Board of Commissioners and funded by the Federal Emergency Management Agency, aims to address the deteriorating condition of the existing box culvert and enhance its hydraulic capacity by replacing it with a larger double box culvert. This Environmental Assessment (EA) was conducted under the National Environmental Policy Act (NEPA) to evaluate the environmental and socioeconomic impacts of the proposed project and determine its compliance with relevant federal, state, and local regulations.

Marshland Component

Existing Conditions

The existing double 9'x9' box culvert, over fifty years old, is in poor structural condition and has sustained damage from past storm events. The culvert exhibits cracks, delamination, and spalling, with significant erosion behind the northwest wingwall, which has separated from the culvert. While the current culvert meets hydraulic requirements for existing land use, it risks inundation with continued area development. The roadway, which serves as the sole ingress and egress route for approximately 1,000 residents in the Colonels Island area, highlights the critical nature of this infrastructure. The site is situated within a 100-year floodplain and is surrounded by coastal flatwoods. The existing structure impacts approximately 1,617 SF (0.037 acres) of coastal marshlands.

Proposed Marshland Component

The proposed action involves the replacement of the existing culvert with a new double 10'x10' box culvert, along with two (2) 30" reinforced concrete pipes to tie the southern roadside ditches into the new box culvert. The box culverts will be 78.00' long for a total impact area of 1,560 SF. The southern side of the box culvert will have a 458 SF concrete apron and wing walls, as well as 235 SF of rip rap. The

northern side of the box culvert will have a 137 SF apron and modified wing wall, as well as 212 SF of rip rap.

The pipes connecting the east-west running ditches on the southern side of the roadway will be 40 LF on the west side and 36 LF on the east side of the main box culvert. The western pipe and flared end section will result in 121 SF permanent impacts, while the eastern pipe and flared end section will result in 133 SF of permanent impacts. These pipes will redirect the ditches to the south end of the new box culvert which will be further south than the previous box culvert. The ditches that were previously present on the southern side of the roadway will be filled after pipe installation. This fill will result in a total permanent impact of 1,173 SF.

The site will also require 1,363 SF of temporary impacts for equipment access to the culvert location. All equipment will be operated from mats, and the impacted marsh will be restored to its natural topographic and vegetated condition.

Summary of Permanent Impacts:

- Box Culvert (including apron and wing walls): **2,155 square feet**
- Rip Rap: **447 square feet (17 cubic yards)**
- Southeast RCP (including FES): **121 square feet**
- Southwest RCP (Including FES): **133 square feet**
- Earthfill: **1,173 square feet (71 cubic yards)**
- Total Impacts: **4,029 square feet** – 1,617 square feet of existing impacts

Total New Impacts: 2,412 square feet (0.055 acres) (88 cubic yards)

This project qualifies as a “minor alteration” as defined in O.C.G.A. § 12-5-282 (9).

Upland Component

The upland component of the project will include temporary and permanent impacts to facilitate safe movement of vehicles while the culvert is replaced and to restore the roadway once culvert replacement is completed. The 50' uplands buffer consists of 24,837 SF and consists of an existing asphalt roadway with guard rails on either side of the road.

Temporary Impacts

The temporary impacts associated with the proposed project consist of a 60" CMP bypass pipe (350 SF) and a temporary bypass lane (1,529 SF). The buffer area is also anticipated to have 22,958 SF of impacts from the movement of materials and equipment in association with the project. All temporary impacts, outside of the following permanent impact areas, will be restored to their pre-construction topographic and vegetated conditions.

Permanent Impacts

The permanent impacts associated with the project involve restoring the existing roadway in the same location and footprint. This will involve the asphalt road (6,996 SF), guard rails (457 SF), 30" RCP with flared end sections (90 SF). The remainder of the area (17,294 SF) will be seeded with permanent grasses according to GSWCC standards for the location. This includes the areas used for the temporary bypass road and pipe

Adjoining Landowners

Maxwellton Propcp LLC & Dunham Farms Property LLC
c/o Meredith Devendorf Belford
5836 Islands Highway
Midway, GA 31320

John W. Underwood Jr.
155 Screven Street
Midway, GA 31320

Landfill/Hazardous Waste Statement

The Georgia Environmental Protection Division Hazardous Site Inventory indicates that the project location does not contain any landfills or hazardous waste sites. Please see the NEPA Environmental Assessment for more details.

Historic/Cultural Resources

TRC Environmental Corporation performed a Cultural Resources Background and Literature Review of the project location and determined that the project location does not contain sites of historical or cultural significance. See Appendix K for their full report.

Water Quality Certification

The Georgia Department of Natural Resources, Environmental Protection Division issued a Section 401 Water Quality Certification for the use of Regional Permit #30 on September 20, 2023. Please see Appendix O for a copy of the certification.

Soil and Erosion Control Statement

The proposed project will adhere to the soil and erosion control responsibilities as required for the proposed project.

Turbidity Statement

The proposed project will be performed in a manner to minimize turbidity in the stream. BMP's will be used throughout the duration of the project and inspections will be performed as required by law.

Other Federal, State, or Local Permits

This project received verification from the U.S. Army Corps of Engineers on October 7th, 2020 that it is consistent with Regional Permit #30. A blanket 401 WQC is relevant to this regional permit and a copy is included in this application. This project was determined to be exempt from the marsh buffer due to the nature of the project being related to a drainage structure associated with a roadway.

Public Interest Statement

A. Whether or not unreasonably harmful obstruction to or alteration of the natural flow of navigational water within the affected area will arise as a result of the proposal.

The proposed replacement of the existing culvert with a larger one is designed to enhance the natural flow of water under Islands Highway without causing an unreasonably harmful obstruction or alteration to the stream's navigational flow. The new culvert will allow for greater water movement, which is

expected to reduce current bottlenecks and improve the stream's ability to manage floodwaters during high-flow events.

Environmental assessments, as outlined in the NEPA Environmental Assessment and Engineering Report, indicate that the proposed culvert size and design will accommodate the natural flow patterns of the stream, preventing future flooding and erosion. Additionally, the design will maintain the stream's ecological health by ensuring that aquatic species can continue to navigate the area effectively.

The proposed culvert will not create new barriers or disrupt the natural flow of water in a way that would negatively affect navigation. Instead, it will serve to restore and stabilize the stream's hydrological balance. Temporary disturbances during construction, such as sedimentation or minor alterations to flow, will be managed through best practices to ensure minimal long-term disruption.

B. Whether or not unreasonably harmful or increased erosion, shoaling of channels, or stagnant areas of water will be created.

The proposed replacement of the existing culvert with a larger structure is designed to mitigate existing issues related to erosion, flooding, and stagnant water. The new culvert will improve the flow of water through the stream, reducing the risk of erosion and the formation of stagnant areas that are currently exacerbated by the undersized culvert.

The design of the larger culvert accounts for potential increases in water velocity and flow volume, which will be managed through appropriate streambank stabilization measures, such as riprap or wing walls, as shown on the project drawings. These measures are intended to prevent the occurrence of harmful erosion and ensure that water flows efficiently through the culvert and downstream.

Additionally, the proposed culvert design takes into consideration the natural hydrology of the stream to avoid the creation of shoaling (accumulation of sediment in areas of low flow) or stagnant pools that could negatively affect water quality and aquatic life. Temporary sedimentation may occur during construction, but these impacts will be minimized through sediment control techniques.

C. Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of fish, shrimp, oysters, crabs, clams, or other marine life, wildlife, or other resources, including but not limited to water and oxygen supply.

The proposed culvert replacement is designed to enhance the flow of water under the road while minimizing negative impacts on aquatic life and natural resources. The larger culvert will improve water movement and reduce the risk of flooding, which is currently a concern due to the undersized culvert. By facilitating more efficient water flow, the project aims to support healthier stream conditions for fish, crabs, and other aquatic species, as it will alleviate areas where stagnant water or reduced oxygen levels could otherwise harm these organisms.

Additionally, the project will incorporate measures to protect water quality, such as minimizing sedimentation during construction and stabilizing streambanks to prevent further erosion. These actions will help maintain a stable water supply and oxygen levels, which are critical for sustaining local wildlife and marine resources.

Overall, the proposed work is expected to have a net positive effect on aquatic life by improving water quality and stream health, without unreasonably interfering with the conservation of fish, shrimp, oysters, crabs, clams, or other resources.

Conclusion

The Islands Highway Box Culvert Replacement Project is a necessary infrastructure improvement to ensure safe and reliable access for the residents of Colonels Island. The proposed action addresses the structural inadequacies of the existing culvert, improves hydraulic capacity for future growth, and adheres to environmental regulations, as evidenced by the Finding of No Significant Impact (FONSI) on the NEPA Environmental Assessment. The project balances the need for enhanced infrastructure with the protection of natural and cultural resources, ensuring sustainable development in Liberty County.