



PROJECT SUMMARY

Reference: Coastal Marshlands Protection Act Permit Application
Chapel Crossing Drainage Improvements

PURPOSE

The Glynn County Board of Commissioners (County) is applying for a Coastal Marshlands Protection Act (CMPA) permit to implement drainage improvements near the intersection of US Highway 17 (Hwy 17) and Chapel Crossing Road. This area is located within Coastal Marshlands under Coastal Resources Division (CRD) jurisdiction. This document provides a narrative description of the proposed activities per CMPA requirements. Supplemental CMPA application materials are included with this document.

PROJECT SUMMARY

The proposed project titled "Chapel Crossing Drainage Improvements" is intended to maintain and improve existing drainage along Chapel Crossing Road, through the Federal Law Enforcement Training Center (FLETC), and through a parcel owned by the County to Hwy 17. The project includes regrading of an existing ditch to facilitate stormwater flow as well as the replacement of an existing single 8 x 4 foot box culvert on FLETC property with a double 7 x 4 foot reinforced concrete box culvert.

The existing culvert has a footprint of +/- 300 square feet, with wingwalls and headwalls having a total footprint of +/- 48 square feet. The proposed double barrel box culvert will have a footprint of +/- 560 square feet. The proposed wingwalls, headwalls, and apron will have a footprint of +/- 296 square feet.

MARSHLANDS COMPONENT

Activities within CRD jurisdictional marshlands include replacement of a box culvert with a larger culvert to accommodate modeled stormwater flows, placement of temporary rock dams on upstream and downstream sides of the culvert, and minor dredging of accumulated sediment at the upstream and downstream ends of the culvert.

Temporary impacts within the marshland component of the project total +/- 212.55 square feet for placement of temporary rock dams.

Permanent impacts within the marshland component of the project for installation of headwalls, wingwalls, and aprons total +/- 202.36 square feet.

Dredging within the marshland component will occur within an area of +/- 822.70 square feet, removing +/- 5.10 cubic yards of accumulated sediment. Removed material will be hauled from the project site and reused or disposed of in accordance with applicable regulations.

UPLAND COMPONENT

The upland area consists of the 50-foot buffer zone immediately upland of the ordinary high water mark, where CMPA jurisdiction was delineated. The upland area of the project is +/- 54,360.88 square feet. Existing conditions within the upland component, downstream of the culverts, include approximately 15-20 feet of mixed pine and hardwood species from saplings to young trees immediately upland of the ordinary high water mark. Existing ditch banks in this area are steep and highly incised at the ordinary highwater mark. Further upland of the trees consists primarily of maintained grassy areas. At the culverts, the upland component currently consists of steep, eroded banks, with mixed herbaceous vegetation.

Proposed activities in the upland component of the project will include installation of the proposed headwalls, wingwalls, and aprons, temporary placement of rock dams during construction, installation of rip rap for channel stabilization, clearing of existing vegetation to allow access for maintenance of ditch, and reshaping ditch banks to gentler slopes for erosion prevention. Proposed reshaping of ditch banks consists of cutting (removing) material to lay slopes back downstream of the culvert to the project end near US Highway 17.

Permanent impacts within the upland component for clearing of existing vegetation total +/- 15,858.00 square feet. Cleared and disturbed areas will be stabilized with a natural fiber blanket (Slope stabilization BMP) and revegetated with native grasses in accordance with the erosion, sedimentation, and pollution control plans (approved by EPD on 1/8/2025).

Permanent impacts within the upland component for installation of headwalls, wingwalls, and aprons will total +/- 389.32 square feet.

Temporary impacts within the upland component for installation of rock dams will total +/- 166.57 square feet.

Permanent impacts within the upland component for installation of rip rap for channel stabilization will total +/- 899.32 square feet.

Regrading (cutting) ditch banks to shallower slopes to prevent erosion and allow for ease of maintenance will occur over an area of +/- 918.12 square feet, with +/- 2,708.45 cubic yards of existing bank material removed. Removed material will be hauled from the project site and reused or disposed of in accordance with applicable regulations.

Stormwater management within the upland component of the project area will be managed during construction utilizing best management practices in accordance with approved erosion, sedimentation, and pollution control plans. The proposed project will not result in any increase in the contributing stormwater drainage basin. The upland component will be regraded, stabilized, and re-vegetated with native grasses to accommodate overland stormwater flows and prevent further erosion.

After construction is completed, the upland buffer will shift accordingly at the culverts, as the proposed culverts, headwall, wingwalls, and aprons will occupy a larger area than that of the existing infrastructure, increasing the submerged area below the ordinary high water mark.

Existing impervious cover within the upland buffer is limited to the culvert wingwalls, which total approximately 32 square feet, <0.01% of the total upland buffer area. Proposed wingwalls will consist of approximately 128 square feet of impervious cover, <0.01% of the total upland buffer area. GA Rule 319-2-3-.02(6) requires that pervious surfaces shall be used to the maximum extent practicable. We trust that the Commissioner will find this minor increase within reason to accommodate the proposed drainage improvement project.

Table 1: Proposed Impacts within Marshland and Upland Components

| Impact | Units | Temporary | | Permanent | |
|-----------------------------|-------|-----------|-----------|-----------|-----------|
| | | Upland | Marshland | Upland | Marshland |
| Rock Dam | SF | 166.57 | 212.55 | | |
| Headwall/Wingwall/Apron | SF | | | 389.32 | 202.36 |
| Rip Rap | SF | | | 899.32 | |
| Clearing | SF | | | 15,858.00 | |
| Grading Ditch Banks (cut) | SF | | | 918.12 | |
| | CY | | | 2,708.45 | |
| Dredge Accumulated Sediment | SF | | | | 822.70 |
| | CY | | | | 5.10 |

EROSION AND SEDIMENTATION STATEMENT

Erosion, sedimentation, and pollution control plans will be prepared by a Level II certified designer in accordance with applicable erosion and sediment control responsibilities. No impervious surfaces will be added to the upland component.

ALTERNATIVE ANALYSES

This project, due to its purpose to improve drainage within jurisdictional marshlands, must occur partially within jurisdictional marshlands. Alternatives to the proposed improvements include doing nothing or could include more intrusive measures, such as major dredging of the existing ditch where sediment may have an effect on stormwater flow. Doing nothing would not improve drainage and would not achieve the desired outcome. Significant dredging of the existing ditch, within jurisdictional marshlands, may improve stormwater flow but would create a larger impact within jurisdictional marshlands. The County has decided to minimize impacts by avoiding significant dredging of the existing drainage ditch and only performing maintenance on ditch slopes and replacing an undersized culvert, with minor dredging around the culvert.

PUBLIC INTEREST

The proposed improvements are designed to improve drainage and reduce the likelihood of flooding in the project area for the protection of private property, real property, and for improved safety for the surrounding area. Proposed improvements will not unreasonably obstruct or alter navigational waters, increase erosion, alter channel structure, generate stagnant water, or interfere with marine or estuarine wildlife or habitat conservation.

FEDERAL CONSISTENCY

A completed federal consistency statement is included with this submittal. A USACE Nationwide Permit has been issued for the project and is included (USACE project number SAS-2024-00276). A 401 Water Quality Certification requirement was not placed on this project.

LIST OF ADJOINING LAND OWNERS

- First Free Will Baptist Church: 4231 Highway 17 N
- AOK Property Solutions Inc: 4263 Highway 17 N