

NFRC ERP Application

Revised Attachment K—Mitigation Plan

K.1 WETLANDS AND WATER BODIES DELINEATIONS METHODOLOGY

Multiple consultants conducted a wetland/water body delineation and wetland function assessment for the proposed North Florida Resiliency Connection (NFRC) Project environmental survey area (ESA). The ESA generally consisted of a 100-foot-wide survey corridor along the length of the approximately 176-mile transmission line route and an approximately 100-foot-wide survey corridor centered over the potential access roads and additional areas identified for workspace. The wetland delineation was performed using a combination of desktop review of existing data and maps as well as a field survey to verify these data. The following provides a description of the methods employed and the evaluation results.

K.1.1 METHODOLOGY—MAP AND LITERATURE REVIEW

Prior to instigation of the field survey, available maps, data, and literature were gathered and reviewed to determine the approximate extent of wetlands and waters. Relevant data sources included local plant lists, soil survey data, state and federal regulations, county ordinances, and existing reports prepared previously for the project study area. The following sources were examined:

- U.S. Geological Survey (USGS) topographic maps (Figure 3)
- Aerial photography (Google Earth®, Bing®, ESRI® ArcMap)
- County soil surveys (Figure 6)
- National Wetland Inventory (NWI) maps
- Land use/vegetation community maps (Figure 7)
- U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Consultation System (IPaC) report
- 1987 U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual
- Regional Supplement to the USACE Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region¹
- Suwannee River Water Management District (SRWMD) website
- Northwest Florida Water Management District (NFWMD) website
- Florida Natural Areas Inventory (FNAI)

K.1.2 WETLAND DELINEATION

After reviewing the NWI; soils; and Florida Land Use, Cover and Classification System (FLUCCS) maps, ECT conducted wetland delineations for the linear corridor and additional workspaces where survey access was granted. These field surveys were completed between

¹ U.S. Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0). Wetlands Regulatory Assistance Program. Environmental Laboratory ERDC/EL TR-10-20. November. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046490.pdf.

October 15, 2018, and March 30, 2019, by teams of qualified wetland scientists from Ecology and Environment, Golder Associates, and Environmental Consulting & Technology, Inc. (ECT). Additional wetlands were delineated in April 2019 once additional potential access roads and workspace areas were identified. Potentially jurisdictional wetlands/waters were identified using the currently accepted methods for the state of Florida and United States (i.e., Florida Department of Environmental Protection regulations; Sections 62-340, Florida Administrative Code (Delineation of the Landward Extent of Wetlands and Surface Waters), including the Florida Wetlands Delineation Manual [1995] and the Routine Onsite Determination Methods as described in the USACE 1987 Wetlands Delineation manual, the 2010 Regional supplement to the USACE Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region [Version 2.0], and the most current vegetative index, respectively). Both state and federal methodologies involve identification of three wetland criteria: a predominance of hydrophytic vegetation, the presence of hydric soil indicators, and evidence of wetland hydrology.

Typically, each wetland/water body would be flagged and sequentially numbered. Due to access permissions and the fact that at the time of the survey the applicant did not have legal control of the properties, wetland flagging could not occur in all locations. However, each wetland/upland data point for each wetland and water body was recorded using Trimble® Geo XH global positioning system (GPS) units. Each wetland/upland data point was simultaneously recorded by a professionally registered land surveyor using a centimeter-accurate Trimble® R10 GPS Unit. Wetlands and water bodies were photographed, and the required USACE upland/wetland data forms were completed. In addition, the functional quality of each wetland was assessed using the Uniform Mitigation Assessment Methodology (UMAM). Data collection for UMAM scoring purposes included wetland type, location in relation to other wetlands or surface waters, structure, extent, and functional status. Functional attributes, such as value of wildlife habitat, water environment, location in the landscape, and community structure, were evaluated and documented for each wetland.

K.1.2.1 No Survey Access Parcels

A small portion of the corridor ESA corridor was assessed using a desktop evaluation rather than field survey. In limited areas, the baseline ecological characterization was performed using a combination of desktop survey (a review of maps/existing permits and existing reports and literature) and a visual inspection from the roadside or adjacent property where access was granted. However, for these parcels where survey access was denied, there were no wetlands.

K.1.2.2 Survey Results

Using a combination of desktop data verified by field surveys, numerous wetlands and water bodies were delineated along the length of the proposed transmission line route and along the roads identified for access. Revised Figure 5 (Wetland Impacts Map by County) identifies the location of wetlands and water bodies within the project ESA. Updated Attachment L contains the UMAM datasheets for these features. For the purposes of this report, each wetland or water body polygon (based on FLUCCS type) was given a unique identification number. A total of 450 wetland and 151 water body distinct polygons were delineated within the ESA. The footprint of the project will encompass a subset of these polygons.

K.1.2.3 Wetlands

Overall, wetlands encompass approximately 226.88 acres or approximately 13.8 percent of the project footprint and are distributed throughout the project extent. A variety of wetland types are found present in the project area, with most of the wetlands being comprised of mixed wetland hardwoods, gum swamps, and bay swamps.

Wetland quality varies significantly. Those wetlands in existing linear corridors (i.e., roadside, transmission line) and agricultural areas tend to be of lower quality with weedy and invasive species, impacted hydrology, and lower location and landscape support. UMAM scores for those wetlands generally range between 0.3 and 0.5. The higher quality wetlands are primarily those forested areas associated with the rivers and the creek systems such as St. Marks River, Caney Branch, and others. These systems have higher UMAM scores generally between 0.6 and 0.7.

K.1.2.4 Water Bodies

The three environmental consultant teams delineated all water bodies within the ESA. Table 3 lists and describes those potentially affected by the project limits. The types of water bodies identified include man-made ditches, canals, cattle ponds, lakes, other types of manmade ponds/reservoirs, and natural creeks.

The project traverses rivers, creeks or streams in multiple locations, including the Suwannee, Aucilla, St. Mark's, and Apalachicola rivers, as well as several named and unnamed creeks. A total of 151 water body polygons were delineated within the ESA. Revised Table 3a lists and describes the locations of those rivers potentially affected by the project limits. The types of water bodies identified include man-made ditches, lakes, other types of man-made ponds/reservoirs, and natural creeks. Prevalent wetland types include shrub wetlands, hydric pine, and mixed hardwood/conifer forested wetlands. Freshwater marshes are associated with roadside and agricultural swales and conveyances, wet pastures, and transmission line rights-of-way, as well as natural marshes. Wet prairies have developed in wetter agricultural areas. Forested wetlands are associated with creek systems, hydric hammocks, cypress domes, bay swamps, and wet pinelands. Revised Table 8 provided in this RAI response submittal provides an updated itemization of wetland impacts. Revised Table 9 presents the calculations for the functional loss based on wetland and impact type.

Gulf Power Company (GPC) will employ two types of mitigation to compensate for unavoidable wetland and water body impacts – onsite restoration and the purchase of mitigation credits. Revised Table 9 presents the functional loss of each wetland based on the UMAM.

K.2 IMPACTS AND MITIGATION

K.2.1 NONFORESTED WETLANDS AND SURFACE WATERS

K.2.1.1 Temporary Impacts

Onsite restoration or allowing the area to revert naturally will be the method used to mitigate for the temporary impacts to approximately 41.63 acres of nonforested wetlands and 4.01 acres of surface waters resulting from construction related activities both in the temporary construction area and permanent project footprint. These areas, once restored, are expected to return to their

preconstruction functional condition within one to two growing seasons. No UMAM functional loss has been assigned to these wetlands or water bodies.

K.2.1.2 Permanent Impacts

Mitigation for the permanent fill of 0.03 acres of nonforested wetlands associated with installation of transmission pole structures will be offset by purchasing credits from an approved mitigation bank. Functional loss will be calculated as follows:

$$(Pre\text{-}project\ UMAM\ score - with\ project\ UMAM\ score) \times acreage\ of\ permanent\ impact = functional\ loss$$

In addition, 0.003567 acres of surface water will be impacted by the placement of transmission pole structures.

GPC calculates 0.04 UMAM units would be needed to offset the proposed functional loss associated with pole installation (refer to typical drawing in Attachment C from the original ERP application package) in nonforested wetlands and surface waters.

K.2.2 FORESTED WETLANDS

Impacts to forested wetlands will be mitigated by using a combination of onsite restoration and purchase of mitigation bank credits as noted in the following paragraphs.

K.2.2.1 Temporary Impacts

Onsite restoration will be used to mitigate the temporary impacts to approximately 7.46 acres of forested wetlands, which are outside the permanent variable-width maintenance corridor. These areas will be allowed to reestablish to the preconstruction forested system type following construction. Mitigation credits may be purchased to offset functional loss while the forested wetlands are being restored.

The functional loss associated with temporary forested wetland impacts was calculated using UMAM as follows:

$$(Pre\text{-}project\ UMAM\ score - with\ project\ UMAM\ score) \times acres\ of\ temporary\ construction\ impact = functional\ loss$$

The “with project” UMAM score is the projected functions of the wetland after the project has been installed, ground surface is restored to preconstruction contours, and vegetation has started to establish. The community structure UMAM score was lowered to 3 for all forested wetlands with temporary impacts to account for the loss of trees and structure. The scores for location and landscape support or water environment were not reduced, as these functions should be quickly restored following construction.

As indicated in Revised Table 9, GPC estimates a loss of 0.90 acres of functional loss from temporary construction activities in forested wetlands which will be offset by the purchase of mitigation bank credits.

K.2.2.2 Permanent Impacts (Fill)

Permanent impacts to forested wetlands will be minimal; however, 0.23 acres of forested wetlands will be displaced where transmission line structures are installed (typical drawing in Attachment C from ERP application submittal). Mitigation credits will be purchased from an approved wetland mitigation bank to offset functional loss associated with the permanent fill in these areas. Revised Table 9 indicates the acreage of permanent impacts to forested wetlands.

K.2.2.3 Permanent Impacts (Conversion)

Minimal permanent wetland loss to forested wetlands will occur as a result of this project. However, approximately 177.53 acres of forested wetlands inside the permanent maintenance corridor will be converted to herbaceous wetlands.

To compensate for the functional loss resulting from the conversion of these wetlands GPC will purchase forested wetland mitigation credits from an approved wetland mitigation bank. The functional loss associated with forested conversion wetland impacts was calculated as follows:

$$(Pre\text{-}project\ UAMAM\ Score - With\ project\ UAMAM\ Score) \times acreage\ of\ permanent\ impact$$

The community structure UMAM score was lowered to 3 for all forested wetlands with conversion impacts to account for the loss of trees and structure they provide. No long-term impacts to location and landscape support or water environment are assumed.

As indicated in Revised Table 9, GPC estimates a loss of 22.90 functional UMAM units for the conversion of approximately 177.53 acres of forested wetlands to nonforested wetland within the project's permanent maintenance easement.

Because the service area of no one mitigation bank covers the entire project footprint, GPC consulted with the regulatory agencies to identify the most suitable mitigation bank available to purchase credits of the appropriate type and from the most appropriate watershed basin to offset impacts associated with the construction of this project. Figure 8 from the ERP application submittal depicted the project in relation to the service area for each of the currently accredited mitigation banks in the area. Gaps in the mitigation bank coverage are evident from the shaded polygons. Table 10 from the ERP application submittal showed the current status of those mitigation banks, including availability of credits and types of credit available.

To offset impacts to wetlands and water bodies associate with this project, GPC proposes the following for mitigation:

To offset the 0.27 acre of permanent fill associated with pole structures and guys, GPC would purchase
0.16 credit from San Pedro Mitigation Bank, and
0.11 credit from St Marks Mitigation Bank. for
0.27 total

To offset the 0.90 functional loss units associated with the temporary construction impacts to forested wetlands outside the permanent project footprint resulting from construction of the project , GPC would purchase
0.72 credit from San Pedro Mitigation Bank, and
0.18 credit from St Marks Mitigation Bank, for

0.90 total

To offset the 22.90 functional loss units associated with the permanent conversion of forested wetlands to herbaceous within the permanently maintained project area, GPC would purchase 12.18 credits from San Pedro Mitigation Bank and, 10.72 credits from St Marks Mitigation Bank, for 22.90 credits

GPC has reserved credits in the amount of 13.5 and 11.5 from San Pedro and St Marks Mitigation Banks, respectively, to offset the functional loss associated with impacts from the construction and operation of this project. These numbers also reflect an additional 0.16 credits reserved from St Marks Mitigation Bank needed to offset the impacts to the St Joe Hammock Creek Commerce Center conservation easement discussed in FDEP's 2nd RAI Question 1(d). Please find the executed reservation allocation letters from San Pedro and St Marks Mitigation Banks included as Attachment B-2 to GPC's response to FDEP's 2nd RAI.