WETLAND EVALUATION REPORT
Technical Memorandum

S.R. 710
from U.S. 441 to the SFWMD L-63N Canal
Okeechobee County, Florida

Financial Project ID No.: 419344-3-32-01

Prepared for:

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August 2018

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. §327 and a Memorandum of Understanding (MOU) dated December 14, 2016 and executed by the Federal Highway Administration and FDOT.

SECTION 1.0 PROJECT DESCRIPTION

As a component of a Project Development and Environment (PD&E) study, a Wetland Evaluation Report (WER) was completed in June of 2012 for State Road (S.R.) 710 between U.S. 441 and County Road (C.R.) 714 (S.W. Martin Highway), a distance of 12.6 miles. Due to the length of the project area, the alignment was separated into four segments where Segments 1 and 2 were later combined.

- Segment 1 – Extends from U.S. 441 to S.R. 70
- Segment 2 – Extends from S.R. 70 to L-63N Canal
- Segment 3 – Extends from L-63N Canal to Sherman Wood Ranches
- Segment 4 – Extends from Sherman Wood Ranches to C.R. 714

This technical memorandum serves as an update to the previously completed WER which focuses on the new alignment of SR 710 from the L-63N canal to US 441 within the subsequently combined Segments 1 and 2. This new alignment was the preferred alignment of the approved PD&E study and extends 3.84 miles in total project length.

This design update focuses on the new alignment of SR 710 and associated areas. The purpose of the project is to extend SR 710 from SR 70 to the L-63N Canal. The need to extend SR 710 is to reduce traffic congestion at SR 70 and US 441 and reduce through truck traffic in the City of Okeechobee. Additionally, the proposed project is designed to meet several needs of Okeechobee County, detailed below.

- Improve Regional Connectivity: As stated in the Project Development and Environment (PD&E) Study, SR 710 is part of the Strategic Intermodal System (SIS) and connects to other SIS or Emerging SIS facilities at each end (SR 70 in Okeechobee County, SR 76 in Martin County, Florida's Turnpike and I-95 in Palm Beach County). The project will enhance the ability to ship freight and goods by improving access to local agricultural and ranching operations, and also to freight activity centers located near the populated coastal areas east of Okeechobee. The Fiscal Year (FY) 2009/2010-FY 2013/2014 Adopted SIS Five Year Plan, Capacity Improvement Projects – Highway (July 2009) District 1 Non-Interstate Plan identifies SR 710 from US 441 to the Martin County Line as being a SIS Capacity Improvement Project with SIS funds being used to fund the PD&E study.

- Enhance Emergency Evacuation Capabilities: SR 710 is a hurricane evacuation route and is one of the few east-west roadways in this area connecting Florida's east coast to inland areas.

- Accommodate Future Population and Growth: The population of Okeechobee County is projected to grow from 35,910 in 2000 to 51,100 in 2030 and employment is expected to increase from 13,050 in 2000 to 17,000 by 2030.

The project is located on SR 710, in Okeechobee County, Florida. The proposed project is a new alignment that begins at the intersection with US 441 and extends south easterly to south of L-63N Canal (Interceptor Creek), where it ties into the existing SR 710, in Okeechobee, Florida.

The project consists of new alignment of SR 710. SR 710 is designated as an Urban and Rural Principal Arterial and an SIS facility. The existing SR 710 is currently classified by FDOT as an Access Management Class Four facility. The proposed access classification for the new roadway extension is class three from US 441 to Taylor Creek and class two from Taylor Creek to SR 70, the remainder of the corridor would be classified as class three from SR 70 to Mosquito Creek. The design speed for the facility is 40 miles-per-hour (mph) from US 441 to just east of Taylor Creek and 50 mph for the remainder of the new alignment.

A four-lane high speed urban typical section is proposed. The roadway will consist of two 12-foot wide travel lanes in each direction, separated by a raised 30-foot wide grassed median. This roadway section will also include four foot shoulders to the inside of the travel lanes and six and one-half foot (eight-foot useable) shoulders adjacent to the outside travel lanes. Type E curb and gutter will be provided along the median and outside edges of the roadway along with a closed stormwater conveyance system. A continuous six-foot wide concrete sidewalk will be provided on the south side of the roadway and a 10-foot wide shared-use path will be provided on the north side of the roadway. Appropriate left and/or right turn lanes will be provided at major intersections. This high-speed urban typical section has a 29-foot border width and is to be constructed within 160 foot minimum of right-of-way. The surrounding land uses consist primarily of large areas of rangeland, pastureland, residential developments, and rural residences.

The purpose of this re-evaluation is to identify wetland and surface water impacts identified in the PD&E study's Wetland Evaluation Report (WER) and compare them to impacts proposed from the current design. This includes permitting changes, mitigation opportunities and other regulatory issues associated with wetlands and surface waters. The prior PD&E study evaluated approximately 12.6 miles of roadway. This current study evaluates changes in impacts within a Segments 1 and 2 where new alignment is proposed.

SECTION 2.0 EXISTING CONDITIONS

The proposed project corridor is located in Okeechobee County, Florida. The project is located in Sections 9, 10, 11, 13, 14, 15, 16 & 24, Township 37S, and Range 35E. The project corridor consists primarily of improved and unimproved pastures. General surrounding land use include both improved and unimproved pastures, a single family residential neighborhood, and some light industrial uses.

SECTION 3.0 WETLANDS AND SURFACE WATERS

A WER was completed for the PD&E study in December 2010 and revised in June 2012. The PD&E study limits extended from US 441 to CR 714. The study limits of the current project include Segments 1 and 2 of the PD&E study extending from US 441 to the L-63N Canal. In the

vicinity of the current project, there are 13 wetlands that fall within the proposed alignment, Taylor Creek, the L-63N canal, and a small man-made swale on the south side of the existing SR 710. **Figure 1** depicts the location of all wetlands and surface waters within the current project area.

3.1 Avoidance and Minimization

The proposed new alignment ROW was developed through requirements involving a combination of available land to acquire, location of existing wetlands and other natural resources, and the turn radii required to meet Florida Department of Transportation requirements. Avoidance and minimization of impacts to wetlands and surface waters within the proposed alignment ROW becomes an inherently significant challenge, as the acquired ROW is only as large as what is needed to accommodate the proposed road and stormwater management facilities, so no additional lands were acquired. Retaining walls are used where required to ensure that the roadway embankment slopes tie down within the ROW, while having the additional benefit of reducing *actual* wetland impacts; however, these reduced areas are negligible in size, and consequently will be permitted as full direct impacts but will not actually be filled during construction. To further reduce wetland impacts, stormwater management facilities were placed in upland areas where practicable, from a water conveyance perspective or refined in their design/placement to minimize impacts to or avoid surface waters altogether where possible.

3.2 Wetland and Surface Water Impacts

Wetlands and surface waters within the vicinity of the project and their impacts are shown on **Figure 1** and a detailed description of each type of wetland according to the Florida Land Use Classification, Forms, and Covers (FLUCFCS) codes is provided below. **Table 1** provides the FLUCFCS and U.S. Fish and Wildlife Service (USFWS) Wetlands and Deepwater Habitats Classification (Cowardin, et. al. 1979) for each wetland and surface water within the project area, as well as the proposed impacts to each.

Wetlands WTL-01, WTL-03, WTL-05a, WTL-05b, WTL-05c, WTL-08, WTL-17, and surface waters OSW and SW-01 were not identified in the original PD&E study. In addition, surface waters previously identified in the original PD&E study were not identified in the current study. These surface waters include OSW 1-1, OSW 1-2, OSW 1-5, OSW 1-15, OSW 1-16, OSW 1-17, OSW 1-18, OSW 1-19, OSW 1-20, OSW 1-21, OSW 2-30, and OSW 2-31. The PD&E study identified wetlands and surface waters through aerial photo interpretation and limited ground truthing, whereas the design phase delineations were performed entirely in the field. This difference in the level of review contributes to an additional 2.12 acres of wetlands and associated impacts. The remaining 1.6 acres of additional wetland impacts is a result of roadway geometry, typical section revisions and the addition of Pond 5.

Table 1 - Wetland and Surface Water Impacts

Current ID	Previous ID	FLUCFCS Classification[1]	USFWS Classification[2]	PD&E Impact Acreage	Current Impact Acreage
Wetlands					
WTL-01	-	641	PEM1C	-	0.27
WTL-03	-	641	PEM1C	-	0.05
WTL-05a	-	619	PEM1F	-	0.11
WTL-05b	-	643	PEM1F	-	0.01
WTL-05c	-	621	PEM1F	-	0.69
WTL-08	-	617	PFO2/3C	-	0.47
WTL-09	WL 1-5	643	PEM1F	0.51	0.83
WTL-10	-	643	PEM1C	-	0.40
WTL-11	-	643	PEM1C	-	0.02
WTL-12	WL 1-6	643	PEM1F	0.62	0.71
WTL-13	WL 1-7	643	PEM1C	0.13	1.02
WTL-15	WL 2-2	643	PEM1F	0.30	0.18
WTL-17	-	617	PEM1C	-	0.52
			Total Wetlands	**1.56**	**5.28**
Surface Waters					
-	OSW 1-1	510	PUBH	0.50	-
-	OSW 1-2	534	PUBH	0.01	-
SW-02	OSW 1-6	512	PUBH	0.29	0.68
-	OSW 1-5	534	PUBH	0.18	-
-	OSW 1-17	510	PUBH	0.60	-
-	OSW 1-15	510	PUBH	0.09	-
-	OSW 1-16	510	PUBH	0.11	-
-	OSW 1-18	534	PUBHx	0.09	-
-	OSW 1-20	510	PUBHx	0.03	-
-	OSW 1-19	510	PUBHx	0.02	-
-	OSW 1-21	510	PUBHx	0.04	-
-	OSW 2-30	510	PUBHx	0.01	-
-	OSW 2-31	534	PUBHx	0.03	-
OSW-4	-	512	PUBHx	-	0.01
SW-01	-	512	PUBHx	-	0.44
			Total Surface Waters	**2.00**	**1.13**
			Total Wetlands and Surface Waters	**3.56**	**6.41**

[1] FDOT 1999
[2] Cowardin *et al*., 1979

USFWS Classification Descriptions:
PUBH: Palustrine; Unconsolidated bottom; Permanently flooded
PUBHx: Palustrine; Unconsolidated bottom; Permanently flooded; Excavated
PEM1C: Palustrine; Emergent; Persistent; Seasonally flooded
PEM1F: Palustrine; Emergent; Persistent; Semi-permanently flooded
PFO2/3C: Palustrine; Forested; Needle-leaved deciduous/Broad-leaved evergreen; Seasonally flooded/Saturated

Based on this re-evaluation, there are approximately 5.28 acres of wetland impacts and 1.13 acres of surface water impacts anticipated for this project (see **Table 1**). In lieu of using the Uniform Mitigation Assessment Methodology (UMAM) (as required per F.A.C., Chapter 62-345) to assess the proposed functional loss, the Wetland Rapid Assessment Procedure (WRAP) was used due to Bluefield Ranch Mitigation Bank (the proposed mitigation bank) being permitted using WRAP. A wetland functional analysis is provided in **Section 3.4**.

3.3 FLUCFCS Wetlands

510 – Streams and Waterways

The proposed new alignment of SR 710 intersects Taylor Creek in the western portion of the project and the L-63N canal in the eastern portion of the project.

617 - Mixed Wetland Hardwoods

There are two wetlands classified as Mixed Wetland Hardwoods within the project area (WTL-08 and WTL-17). These wetlands are made up primarily of pond cypress trees (*Taxodium ascendens*), red maple *(Acer rubrum),* and sabal palms *(Sabal palmetto)* with an herbaceous ground cover consisting of red root *(Lachnanthes caroliniana),* hydrocotyle spp., and maidencane *(Panicum hemitomon).* Both of these wetlands have minimal exotic vegetation influence.

619 – Exotic Wetland Hardwoods

There is one wetland area located on the western portion of the project classified as an exotic wetland hardwood (WTL-05A). This wetland is dominated by Brazilian pepper *(Schinus terebinthifolius)* with little understory or ground cover.

621 – Cypress

One wetland parcel located in the western segment of the project is classified as a cypress wetland (WTL-05C). The canopy is dominated by bald cypress with an understory of Brazilian pepper and ground cover of sword fern and common rush.

641 – Freshwater Marsh

Two wetlands were identified as freshwater marshes (WTL-01 and WTL-03). Both wetlands are located west of Taylor Creek on the extreme western end of the proposed new alignment. The wetlands are located in mowed fields with little functional value. Typical vegetation in the wetlands includes hydrocotyle spp., maidencane (*Panicum hemitomon*), and duck potato *(Sagittaria lancifolia).*

643 – Wet Prairie

There are seven wetlands classified as Wet Prairie within the project limits (WTL-05B, 09, 10, 11, 12, 13, and 15). These wetlands are generally located within improved pasture areas and have been impacted by the presence of cattle with minimal vegetation.

3.4 WRAP Assessment Results

WRAP assessments are used to determine the amount of mitigation required to offset adverse impacts to wetlands as a result of the proposed project. The methodology was designed to assess functions provided by wetlands, the amount those functions are reduced by a proposed impact, and the amount of mitigation necessary to offset the proposed functional losses.

In order to calculate the functional loss, the difference between the existing condition (current) scores and the proposed condition (with) scores for each wetland was multiplied by the acreage of proposed impact to determine the lost value of functions to fish and wildlife resulting from construction of the proposed project (see **Table 2**). The completed WRAP data sheets for each wetland are provided in **Attachment A**. A total functional loss calculated using UMAM in the previous PD&E associated with this project was 1.03; a result of impacts to what was previously referred to as W 1-5, W 1-6, W 1-7, and W 2-2. The proposed project now uses WRAP for the wetland assessments due to the requirements of the proposed mitigation bank. **Table 2** below summarizes impact acreage and functional loss for each wetland and surface water to be impacted by the proposed project in comparison to the previous PD&E.

Table 2 - Wetland and Surface Water Summary/Functional Loss

ID	FLUCFCS Classification[1]	USFWS Classification 2	WRAP Delta	PD&E Impact Acreage	PD&E Secondary Impact Acreage[3]	Current Impact Acreage	Current Secondary Impact Acreage	PD&E Functional Loss	PD&E Secondary Functional Loss[3]	Current Functional Loss	Current Secondary Functional Loss
Wetlands											
WTL-01	641	PEM1C	0.4	-		0.27	0	-		0.11	0
WTL-03	641	PEM1C	0.27	-		0.05	0	-		0.01	0
WTL-05a	619	PEM1F	0.28	-		0.11	0.03	-		0.03	0.002
WTL-05b	643	PEM1F	0.4	-		0.01	0.05	-		0.01	0.004
WTL-05c	621	PEM1F	0.42	-		0.69	0.15	-		0.29	0.009
WTL-08	617	PFO2/3C	0.78	-		0.47	0.05	-		0.37	0.003
WTL-09	643	PEM1F	0.37	0.51		0.83	0.18	0.19		0.31	0.013
WTL-10	643	PEM1C	0.37	-		0.4	0.13	-		0.15	0.009
WTL-11	643	PEM1C	0.37	-		0.02	0.04	-		0.01	0.003
WTL-12	643	PEM1F	0.63	0.62		0.71	0.20	0.39		0.45	0.012
WTL-13	643	PEM1C	0.4	0.13		1.02	0.12	0.12		0.41	0.008
WTL-15	643	PEM1F	0.47	0.3		0.18	0.14	0.14		0.09	0.010
WTL-17	617	PEM1C	0.75	-		0.52	0.25	-		0.39	0.015
Total Wetlands				**1.56**		**5.28**	**1.34**	**0.84**		**2.63**	**0.088**
Surface Waters											
OSW 1-1	510	PUBH	-	0.5		-	-	0		-	-
OSW 1-2	534	PUBH	-	0.01		-	-	0		-	-
SW-02	512	PUBH	-	0.29		0.68	0	0		0	0
OSW 1-5	534	PUBH	-	0.18		-	-	0		-	-
OSW 1-17	510	PUBH	-	0.6		-	-	0		-	-
OSW 1-15	510	PUBH	-	0.09		-	-	0		-	-
OSW 1-16	510	PUBH	-	0.11		-	-	0		-	-
OSW 1-18	534	PUBHx	-	0.09		-	-	0		-	-
OSW 1-20	510	PUBHx	-	0.03		-	-	0		-	-
OSW 1-19	510	PUBHx	-	0.02		-	-	0		-	-
OSW 1-21	510	PUBHx	-	0.04		-	-	0		-	-
OSW 2-30	510	PUBHx	-	0.01		-	-	0		-	-
OSW 2-31	534	PUBHx	-	0.03		-	-	0		-	-
OSW	512	PUBHx	-	-		0.01	0	-		0	0
SW-01	512	PUBHx	-	-		0.44	0	-		0	0
Total Surface Waters				**2**		**1.13**	**0**	**0**		**0**	**0**
Total Wetlands and Surface Waters				**3.56**		**6.41**	**1.34**	**0.84**		**2.63**	**0.088**

[1] FDOT 1999
[2] Cowardin *et al*., 1979
[3] PD&E Study did not quantify secondary impacts

USFWS Classification Descriptions:
PUBH: Palustrine; Unconsolidated bottom; Permanently flooded
PUBHx: Palustrine; Unconsolidated bottom; Permanently flooded; Excavated
PEM1C: Palustrine; Emergent; Persistent; Seasonally flooded
PEM1F: Palustrine; Emergent; Persistent; Semi permanently flooded
PFO2/3C: Palustrine; Forested; Needle-leaved deciduous/Broad-leaved evergreen; Seasonally flooded/Saturated

3.4 Mitigation

Mitigation for impacted wetlands will be provided in the form of the purchase of credits from the Bluefield Ranch Mitigation Bank (BRMB). The proposed wetland impacts are outside of the drainage basin that contains the BRMB (Nubbins Slough and C-23 Basins). Consequently, it is imperative that cumulative impacts resulting from mitigating outside of the drainage basin of the proposed work (South Kissimmee) are avoided. In this case, the impacted wetland community types are common within the basin. In addition, a large percentage of the wetland community types are protected under conservation easements or within publicly owned natural lands like the Kissimmee Prairie Preserve State Park and the Taylor Creek/Nubbins Slough Stormwater Treatment Area (STA). Finally, the dividing line between the S. Kissimmee basin and the Nubbins Slough basin is the L-63N canal. As such, the wetland impacts are immediately adjacent to the Nubbins Slough basin where some benefits for wildlife are shared between the two basins. As a result, unacceptable cumulative impacts to the South Kissimmee basin are not anticipated with the proposed project.

As the BRMB was permitted using the Wetland Rapid Assessment Procedure (WRAP) methodology to establish the available number of credits at the bank, all impacted wetlands within this project scope have also been assessed using WRAP. Secondary impacts were calculated by assessing the remaining wetland as if the ROW were constructed for the identified zone (25' out from edge of ROW). The difference in the score used for the direct impact and the secondary impact score provides a delta score. The delta score was multiplied by the acreage of the secondary impact zone to determine the required amount of credits to be provided. Please refer to the included WRAP scoring sheets and summary tables for details on mitigation calculations. Due to differences in rules between the SFWMD and the USACE, mitigation amounts will vary between the agencies. A discussion for the proposed mitigation to each agency follows.

SFWMD

Isolated wetlands that are less than one half acre in size do not require mitigation as stated in Section 10.2.2.1 of the Applicant's Handbook Volume I. Wetlands WTL-01, WTL-03, and WTL-11 are less than one half acre in size and therefore will not require mitigation for impacts. Impacts to the remaining wetlands, both direct and secondary, will result in a total of 1.11 forested credits and 1.46 herbaceous credits required to be purchased from the BRMB (2.57 total state credits).

USACE

Isolated wetlands that do not have a significant nexus to navigable waters via a physical, chemical, or biological connection are not jurisdictional under Section 404 of the Clean Water Act according to the U.S. Supreme Court ruling *Rapanos v. United States*. Wetlands WTL-09, WTL-10, and WTL-11 are considered isolated wetlands and not jurisdictional under this ruling. These three wetlands are located within improved pastures with no natural upland habitat in the vicinity and no natural or artificial hydrological connection to a navigable waterway. The L-63N canal, the closest connection to a navigable water, is located 1,600 feet to the northeast of wetland WTL-09,

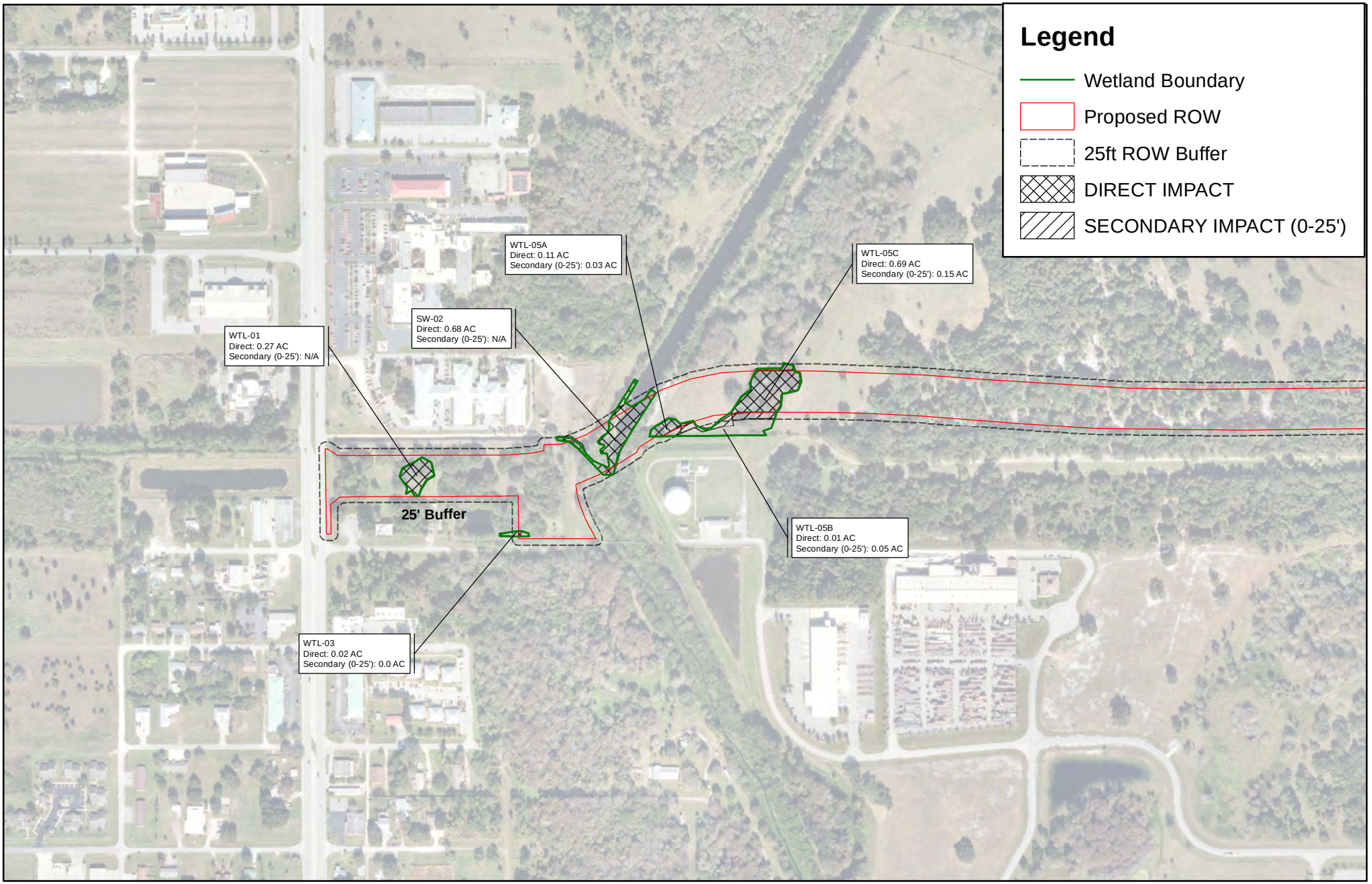
500 feet to the north of wetland 10, and 800 feet to the north of wetland WTL-11. These three wetlands are historically isolated depressions that have been highly disturbed from cattle grazing and maintain little functional value. Impacts to the remaining wetlands will result in a total of 1.11 forested credits and 1.10 herbaceous credits required to be purchased from the BRMB (2.21 total federal credits).

Surface Waters

Depending on the State's determination of habitat value, the three surface waters will not require mitigation. The L-63N canal and the ditch on the east side of SR 710 are permitted stormwater management features and are therefore exempt from State required mitigation. The remaining surface water at Taylor Creek does not contain any habitat value and will therefore not require mitigation. The USACE also bases their mitigation requirements on the habitat value of the surface waters.

While no compensatory mitigation is required for impacts to these surface waters, these same waters are most likely to be considered Suitable Foraging Habitat (SFH) for the Wood stork *(Mycteria americana)* by the United States Fish and Wildlife Service (USFWS). Loss of SFH is required to be replaced through compensatory mitigation. Please refer to the Endangered Species Biological Assessment, prepared under separate cover for and detailed discussion of SFH impacts and required credits.

Figure 1

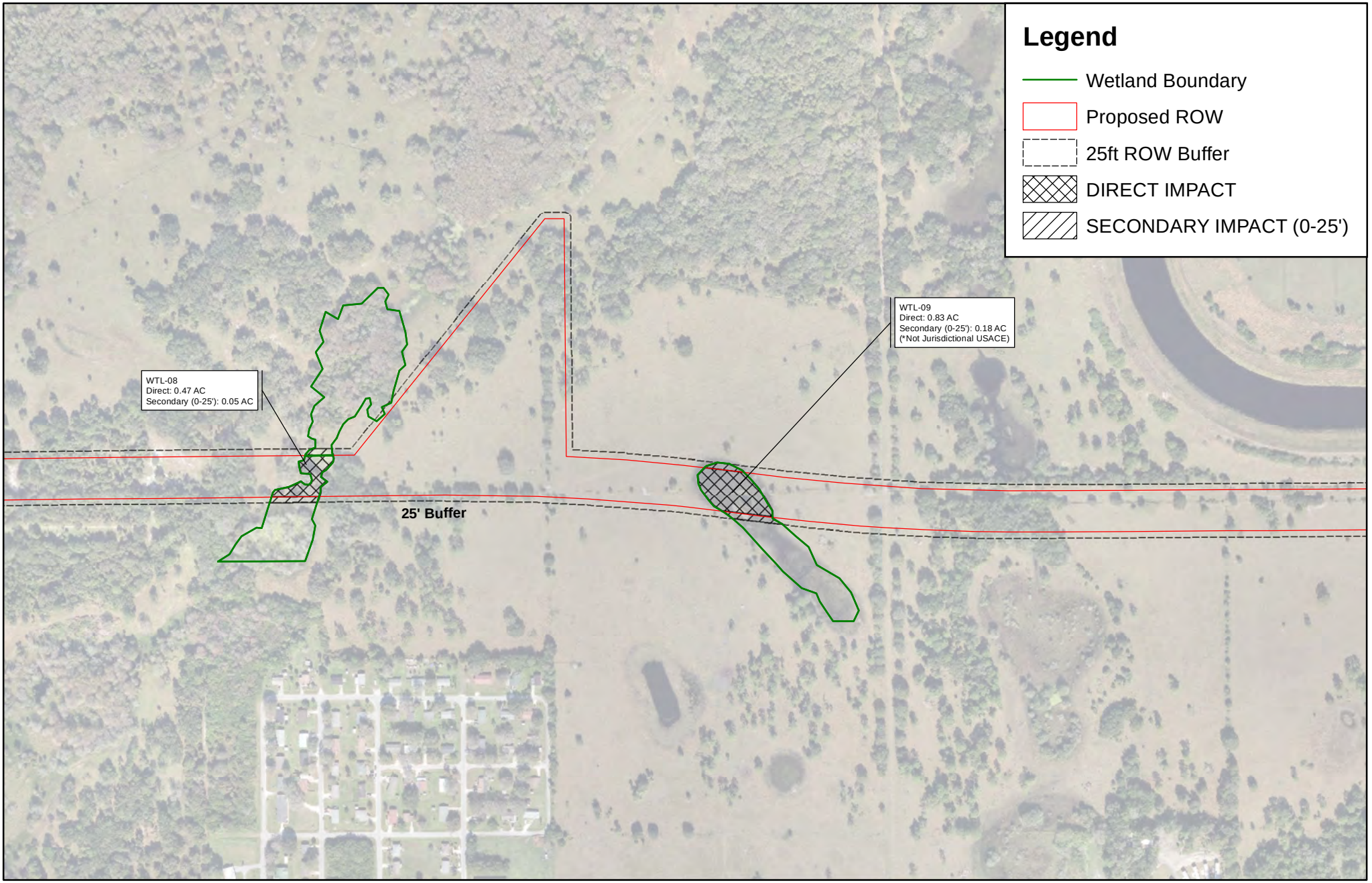


WGI®

Wetland Impact Map - Direct and Secondary Effects
SR 710
US 441 to L-63N Canal
Okeechobee County

N

Date	08/01/18
Project No.	21151201.00
Scale:	1 inch = 500 feet
	1 of 5



WGI

Wetland Impact Map - Direct and Secondary Effects
SR 710
US 441 to L-63N Canal
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Date	08/01/18
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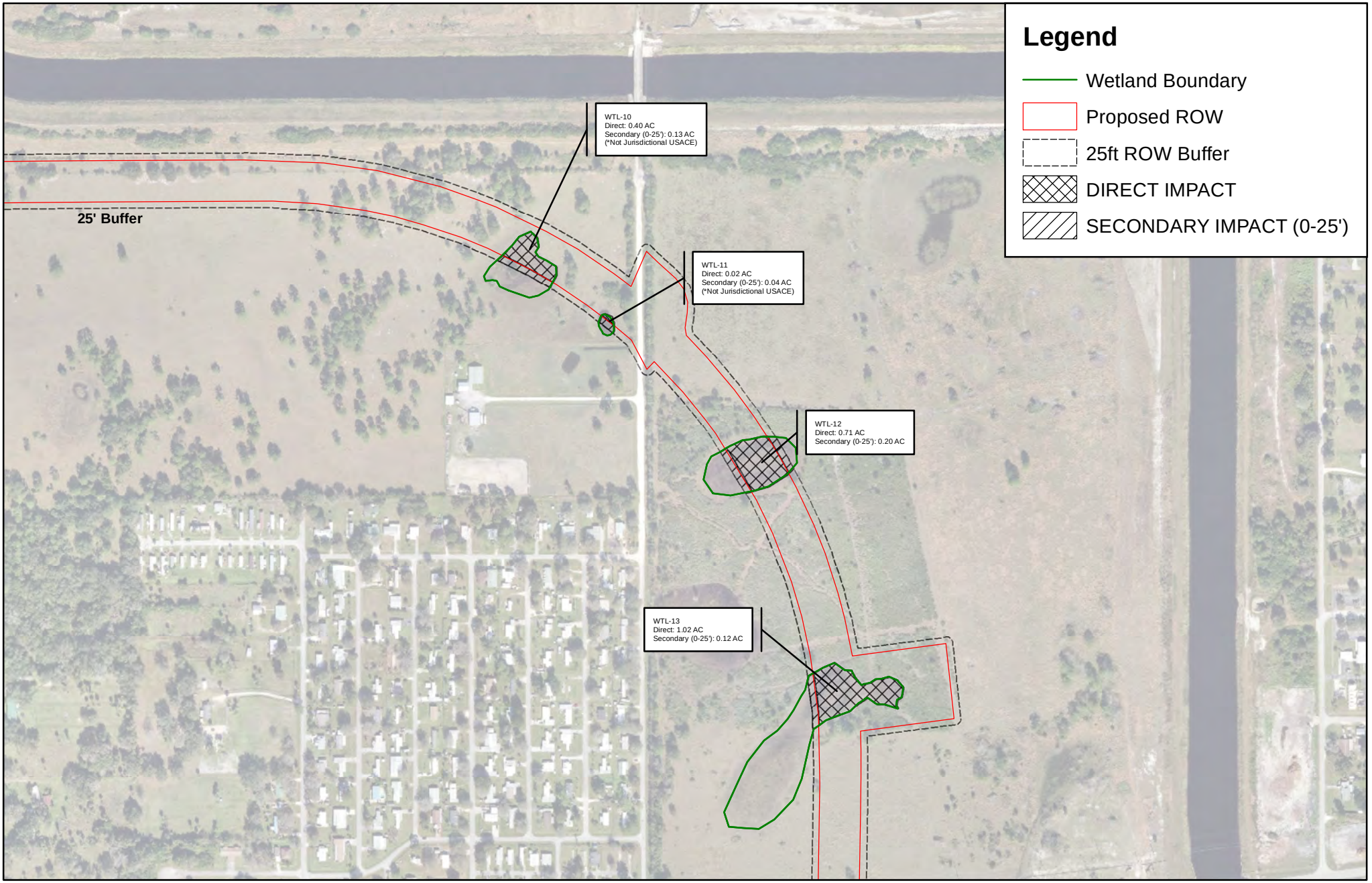

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Wetland Impact Map - Direct and Secondary Effects
SR 710
US 441 to L-63N Canal
Okeechobee County

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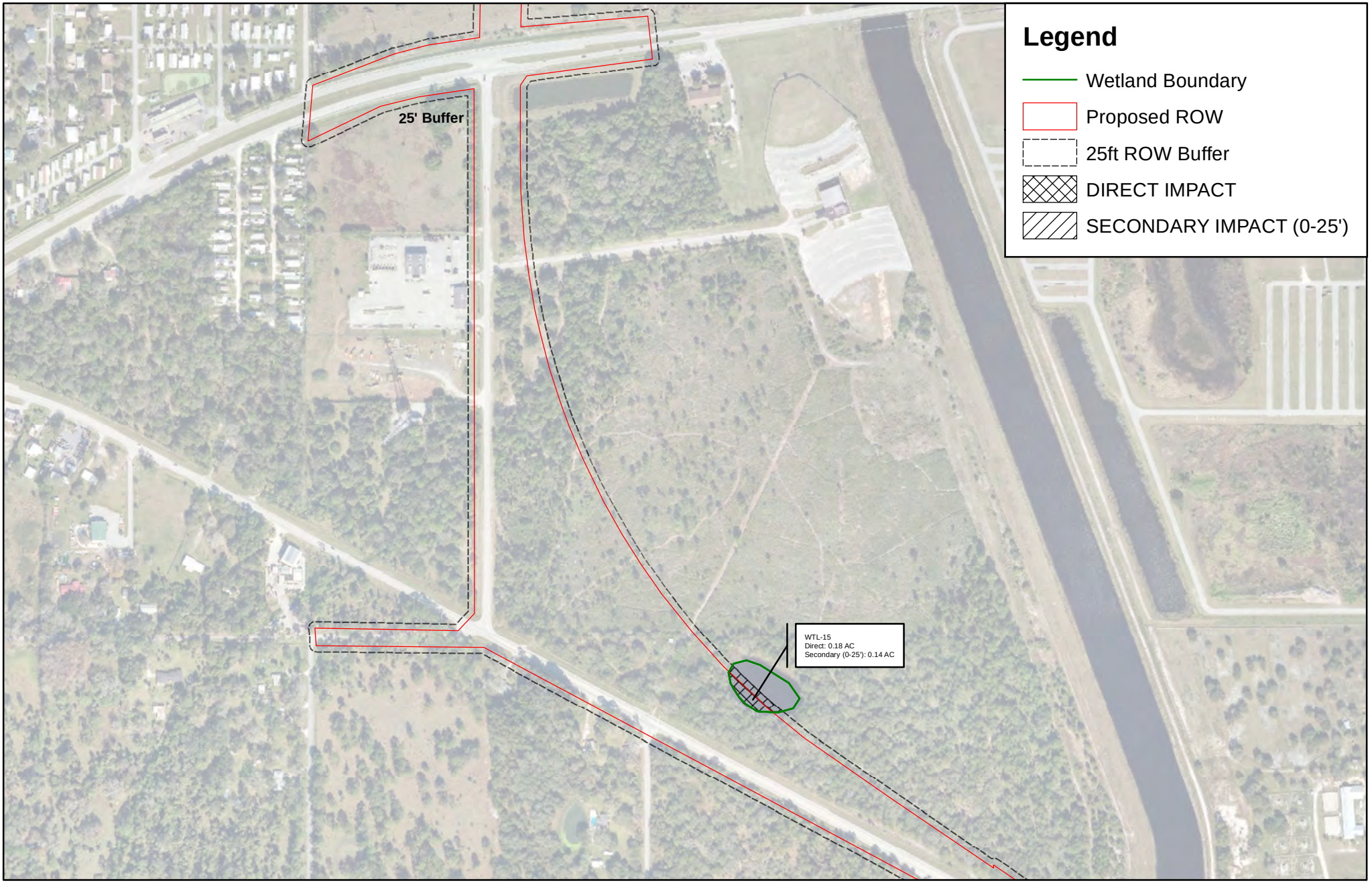
Date	08/01/18
Project No.	21151201.00
Scale:	1 inch = 500 feet
	3 of 5



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Wetland Impact Map - Direct and Secondary Effects
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US 441 to L-63N Canal
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Date	08/01/18
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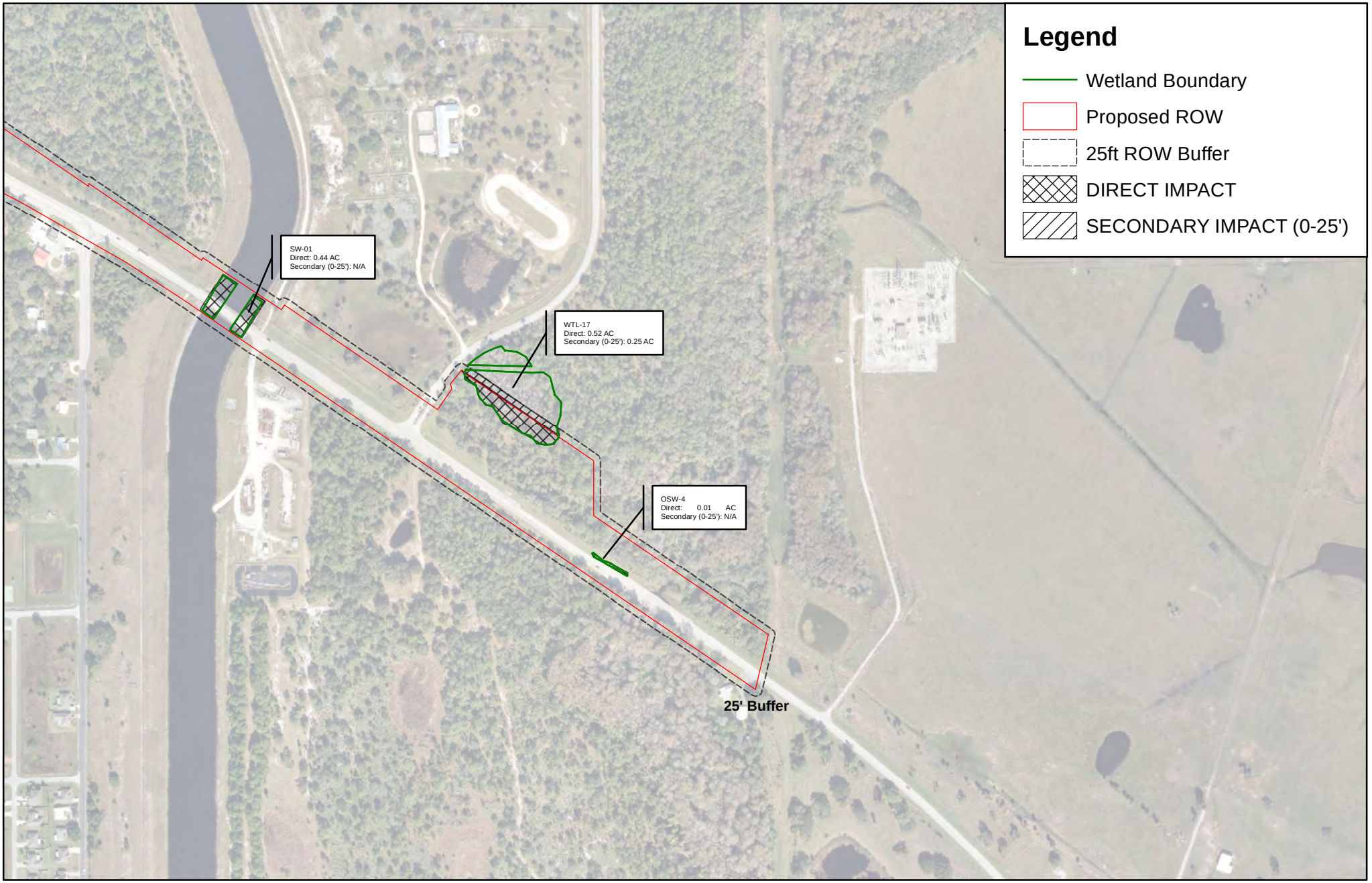

WGI

Wetland Impact Map - Direct and Secondary Effects
SR 710
US 441 to L-63N Canal
Okeechobee County

N

Date	08/01/18
Project No.	21151201.00
Scale:	1 inch = 500 feet
	5 of 5

WRAP Score Sheets

SR 710 from US 441 to L-63N

Wetland Name	Type	Pre-Impact Area (Acres)	Dredge Area (Acres)	Impact Area Fill (Acres)	WRAP (Impact) Delta	25' Secondary Impact Area (Acres)	WRAP (25' Secondary Impact) Delta	25' Secondary WRAP Delta	WRAP Functional Capacity Unit- *Debits*	Preserved/Created Area (Acres)	Mitigation Description	WRAP (Preserve) Delta	SFWMD WRAP Functional Capacity Unit- *Credits*	USACE WRAP Functional Capacity Unit - *Credits*
WTL-01**	641	0.27		0.27	0.40	0.00		0.00	0.11	N/A	Bluefield Ranch Mitigation Bank, Herbaceous	N/A		0.11
WTL-03**	641	0.05		0.05	0.27	0.00		0.00	0.01	N/A	Bluefield Ranch Mitigation Bank, Herbaceous	N/A		0.01
WTL-05a	619	0.14		0.11	0.28	0.03	0.22	0.06	0.03	N/A	Bluefield Ranch Mitigation Bank, Forested	N/A	0.03	0.03
WTL-05b	643	0.26		0.01	0.40	0.05	0.33	0.07	0.01	N/A	Bluefield Ranch Mitigation Bank, Herbaceous	N/A	0.01	0.01
WTL-05c	621	0.98		0.69	0.42	0.15	0.36	0.06	0.30	N/A	Bluefield Ranch Mitigation Bank, Forested	N/A	0.30	0.30
WTL-08	617	5.67		0.47	0.78	0.05	0.72	0.06	0.37	N/A	Bluefield Ranch Mitigation Bank, Forested	N/A	0.37	0.37
WTL-09*	643	2.21		0.83	0.37	0.18	0.30	0.07	0.32	N/A	Bluefield Ranch Mitigation Bank, Herbaceous	N/A	0.32	
WTL-10*	643	0.94		0.40	0.37	0.13	0.30	0.07	0.16	N/A	Bluefield Ranch Mitigation Bank, Herbaceous	N/A	0.16	
WTL-11* **	643	0.08		0.02	0.37	0.04	0.30	0.07	0.01	N/A	Bluefield Ranch Mitigation Bank, Herbaceous	N/A		
WTL-12	643	1.38		0.71	0.63	0.20	0.57	0.06	0.46	N/A	Bluefield Ranch Mitigation Bank, Herbaceous	N/A	0.46	0.46
WTL-13	643	3.25		1.02	0.40	0.12	0.33	0.07	0.42	N/A	Bluefield Ranch Mitigation Bank, Herbaceous	N/A	0.42	0.42
WTL-15	643	0.83		0.18	0.47	0.14	0.40	0.07	0.09	N/A	Bluefield Ranch Mitigation Bank, Herbaceous	N/A	0.09	0.09
WTL-17	617	1.84		0.52	0.75	0.25	0.69	0.06	0.41	N/A	Bluefield Ranch Mitigation Bank, Forested	N/A	0.41	0.41
OSW	512	0.03		0.01				0.00	0.00	N/A	N/A	N/A	0.00	0.00
SW-01	512	0.77		0.44				0.00	0.00	N/A	N/A	N/A	0.00	0.00
SW-02	512	0.68		0.68				0.00	0.00	N/A	N/A	N/A	0.00	0.00
SFWMD		**19.38**	**0.00**	**6.41**		**1.34**			**2.57**	**0.00**		**N/A**	**2.57**	**N/A**
USACE		**16.15**	**0.00**	**5.16**		**0.99**			**2.21**	**0.00**		**N/A**	**N/A**	**2.21**

512 - Streams and Waterways
617 = Mixed Wetland Hardwoods
619 = Exotic Wetland Hardwoods
621 = Cypress
641 = Freshwater Marsh
643 = Wet Prairie
**Not jurisdictional to USACE due to isolated nature of wetland*
***Mitigation for SFWMD not required due to size of less than 0.50 acres*

created by Dale Beter/USACE/not an official document

06/22/2018
Appl. #:

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-01	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Freshwater Marsh

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
641	1.5	N/A	1.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
1	1	LU= 1 - PT= 1 = 1

WRAP Score
0.4

Comments

WU- Provides foraging ground for wading birds. The site is regularly mowed.

O/S- N/A

GC- Groundcover is limited due to regular mowing. Oppotunistic species dominate.

BUFFER- The surrounding area is a combination of improved and unimproved pastures. There is little natural habitat and the buffer does not support adequate vegetation to provide cover for wildlife.

HYD- The wetland is isolated in a pasture so relies on sheet flow from surrounding areas. Hydrology is sufficient to support the presence of hydrophytic vegetation.

WQ- The wetland is entirely surrounded by improved pastures and therefore both LU and PT are 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-03	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Freshwater Marsh

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
641	1	N/A	0.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
0.5	1	LU= 1 - PT= 1 = 1

WRAP Score
0.27

Comments

WU- Provides foraging ground for wading birds. The site is regularly mowed.

O/S- N/A

GC- Groundcover is limited due to regular mowing. Oppotunistic species dominate.

BUFFER- The surrounding area is a combination of mowed field and an asphalt road/grass berm. There is little natural habitat and the buffer does not support adequate vegetation to provide cover for wildlife.

HYD- The wetland is isolated and is little more than a swale for the adjacent road. Hydrology is sufficient to support the presence of hydrophytic vegetation.

WQ- The wetland is surrounded by improved pasture and a roadway and therefore both LU and PT are 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-05A	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Exotic Wetland Hardwoods

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
619	1	0	0.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
1	1.5	LU= 1 - PT= 1 = 1

WRAP Score
0.28

Comments

WU- The density of the Brazilian pepper prohibits use by avian species and there is little ground cover to provide foraging and nesting opportunities for other wildlife.

O/S- The canopy is dominated by Brazilian pepper, an invasive exotic species.

GC- Ground cover is limited due to the dense canopy coverage of Brazilian pepper. Sword fern and common rush were observed in varying densities.

BUFFER- The surrounding area is pastureland with a berm separating it from Taylor Creek.

HYD- Hydrology is poor but sufficient to provide some wetland functions.

WQ- The wetland area is surrounded on all sides by pasture land. LU = 1 and PT = 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-05A-S25	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Exotic Wetland Hardwoods

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
619	1	0	0.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
0.5	1	LU= 1 - PT= 1 = 1

With Condition WRAP Score: 0.22

Comments

WU- The density of the Brazilian pepper prohibits use by avian species and there is little ground cover to provide foraging and nesting opportunities for other wildlife.

O/S- The canopy is dominated by Brazilian pepper, an invasive exotic species.

GC- Ground cover is limited due to the dense canopy coverage of Brazilian pepper. Sword fern and common rush were observed in varying densities.

BUFFER- The surrounding area is pastureland with a berm separating it from Taylor Creek as well as the adjacent proposed ROW.

HYD- Hydrology is poor but sufficient to provide some wetland functions. Proposed ROW will eliminate contributing area.

WQ- The wetland area is surrounded on all sides by pasture land. LU = 1 and PT = 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-05B	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wet Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1	N/A	1.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
1	1.5	LU= 1 - PT= 1 = 1

WRAP Score
0.4

Comments

WU- The southern portion is bound by a chain link fence preventing access for wildlife other than avian species.

O/S- N/A

GC- Ground cover is limited due to cattle grazing however appropriate wetland species were present.

BUFFER- The surrounding area is pastureland with a berm separating it from Taylor Creek.

HYD- Hydrology is poor but sufficient to provide some wetland functions.

WQ- The wetland area is surrounded on all sides by pasture land. LU = 1 and PT = 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-05B-S25	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wet Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1	N/A	1.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
0.5	1	LU= 1 - PT= 1 = 1

With Condition WRAP Score: 0.33

Comments

WU- The southern portion is bound by a chain link fence preventing access for wildlife other than avian species.

O/S- N/A

GC- Ground cover is limited due to cattle grazing however appropriate wetland species were present.

BUFFER- The surrounding area is pastureland with a berm separating it from Taylor Creek and the adjacent proposed ROW.

HYD- Hydrology is poor but sufficient to provide some wetland functions. Adjacent proposed ROW will reduce contributing area.

WQ- The wetland area is surrounded on all sides by pasture land. LU = 1 and PT = 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-05C	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Cypress

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
621	1.5	1.5	0.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
1	2	LU= 1 - PT= 1 = 1

WRAP Score
0.42

Comments

WU- Small and medium sized mammals, small reptiles, and small crustaceans are expected to use this wetland. Due to Brazilian pepper cover, wading birds are not expected to use this wetland.

O/S- The canopy is made up of native and non-native species including pond cypress and Brazilian pepper.

GC- Groundcover is sparse due to near complete cover from canopy and understory.

BUFFER- The surrounding area is improved pastureland.

HYD- Hydrology appeared sufficient to support the wetland system. Standing water was observed in some areas and water lines were present on trees and cypress knees.

WQ- The wetland area is surrounded on all sides by improved pasture. LU = 1 and PT = 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-05C-S25	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Cypress

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
621	1.5	1.5	0.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
0.5	1.5	LU= 1 - PT= 1 = 1

With Condition WRAP Score
0.36

Comments

WU- Small and medium sized mammals, small reptiles, and small crustaceans are expected to use this wetland. Due to Brazilian pepper cover, wading birds are not expected to use this wetland.

O/S- The canopy is made up of native and non-native species including pond cypress and Brazilian pepper.

GC- Groundcover is sparse due to near complete cover from canopy and understory.

BUFFER- The surrounding area is improved pastureland with the proposed ROW alignment adjacent.

HYD- Hydrology appeared sufficient to support the wetland system. Standing water was observed in some areas and water lines were present on trees and cypress knees. The proposed ROW will reduce the contributing area.

WQ- The wetland area is surrounded on all sides by improved pasture. LU = 1 and PT = 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-08	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Mixed Wetland Hardwoods

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
617	2	2.5	2

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
2	2.5	LU= 3 - PT= 3 = 3

WRAP Score
0.78

Comments

WU- Wading birds, small and medium sized mammals, small reptiles, and small crustaceans are expected to use this wetland.

O/S- The canopy and understory are made up primarily of native trees (cypress, red maple, and sabal palms) and shrubs (wax myrtle and wild coffee).

GC- A variety of native species were observed for groundcover including pickerelweed, red root, and spikerush.

BUFFER- The surrounding area is considered hardwood hammock dominated by live oak, slash pine, and sabal palm that provides habitat for wildlife using the wetland area.

HYD- Hydrology appeared sufficient to support the wetland system. Standing water was observed in some areas and water lines were present on trees.

WQ- The wetland area is surrounded on all sides by natural land. LU = 3 and PT = 3.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-08-S25	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Mixed Wetland Hardwoods

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
617	2	2.5	2

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
1.5	2	LU= 3 - PT= 3 = 3

With Condition WRAP Score: 0.72

Comments

WU- Wading birds, small and medium sized mammals, small reptiles, and small crustaceans are expected to use this wetland.

O/S- The canopy and understory are made up primarily of native trees (cypress, red maple, and sabal palms) and shrubs (wax myrtle and wild coffee).

GC- A variety of native species were observed for groundcover including pickerelweed, red root, and spikerush.

BUFFER- The surrounding area is considered hardwood hammock dominated by live oak, slash pine, and sabal palm that provides habitat for wildlife using the wetland area. The proposed ROW will run adjacent to this area.

HYD- Hydrology appeared sufficient to support the wetland system. Standing water was observed in some areas and water lines were present on trees. The proposed ROW will reduce the contributing area.

WQ- The wetland area is surrounded on all sides by natural land. LU = 3 and PT = 3.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-09	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wet Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1.5	N/A	1

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
1	1	LU= 1 - PT= 1 = 1

WRAP Score
0.37

Comments

WU- Wading birds may use the wetland however due to disturbances from cattle, presence is low.

O/S- N/A

GC- Diversity is limited due to cattle grazing with bare spots present from cattle tracks.

BUFFER- The surrounding area is improved pasture for cattle.

HYD- Hydrology has suffered however is sufficient to support wetland functions

WQ- The wetland area is surrounded on all sides by improved pasture. LU = 1 and PT = 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-09-S25	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wet Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1.5	N/A	1

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
0.5	0.5	LU= 1 - PT= 1 = 1

With Condition WRAP Score
0.3

Comments

WU- Wading birds may use the wetland however due to disturbances from cattle, presence is low.

O/S- N/A

GC- Diversity is limited due to cattle grazing with bare spots present from cattle tracks.

BUFFER- The surrounding area is improved pasture for cattle along with the proposed ROW.

HYD- Hydrology has suffered however is sufficient to support wetland functions however the proposed ROW will reduce the contributing area.

WQ- The wetland area is surrounded on all sides by improved pasture. LU = 1 and PT = 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-10	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wetland Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1.5	N/A	1

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
1	1	LU= 1 - PT= 1 = 1

WRAP Score
0.37

Comments

WU- Provides foraging ground for wading birds. The presence of cattle inhibits use by other wildlife.

O/S- N/A

GC- Groundcover is limited due to grazing by cattle. Opportunistic species dominate.

BUFFER- The surrounding area is a combination of improved and unimproved pastures. There is little natural habitat and the buffer does not support adequate vegetation to provide cover for wildlife.

HYD- The wetland is isolated in a pasture so relies on sheet flow from surrounding areas. Hydrology is sufficient to support the presence of hydrophytic vegetation.

WQ- The wetland is entirely surrounded by improved pastures and therefore both LU and PT are 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-10-S25	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wetland Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1.5	N/A	1

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
0.5	0.5	LU= 1 - PT= 1 = 1

With Condition WRAP Score
0.3

Comments

WU- Provides foraging ground for wading birds. The presence of cattle inhibits use by other wildlife.

O/S- N/A

GC- Groundcover is limited due to grazing by cattle. Opportunistic species dominate.

BUFFER- The surrounding area is a combination of improved and unimproved pastures. There is little natural habitat and the buffer does not support adequate vegetation to provide cover for wildlife. The proposed ROW will run adjacent to the area.

HYD- The wetland is isolated in a pasture so relies on sheet flow from surrounding areas. Hydrology is sufficient to support the presence of hydrophytic vegetation. The proposed ROW will reduce the contributing area.

WQ- The wetland is entirely surrounded by improved pastures and therefore both LU and PT are 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-12	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wet Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1.5	N/A	1.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
2.5	1	LU= 3 - PT= 3 = 3

WRAP Score
0.63

Comments

WU- Wading birds may use the wetland however due to disturbances from cattle, presence is low.

O/S- N/A

GC- Diversity is limited due to cattle grazing with bare spots present from cattle tracks.

BUFFER- The surrounding area is pine flatwoods.

HYD- Hydrology has suffered however is sufficient to support wetland functions.

WQ- The wetland area is surrounded on all sides by unimproved lands. LU = 3 and PT = 3.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-12-S25	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wet Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1.5	N/A	1.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
2	0.5	LU= 3 - PT= 3 = 3

With Condition WRAP Score: 0.57

Comments

WU- Wading birds may use the wetland however due to disturbances from cattle, presence is low.

O/S- N/A

GC- Diversity is limited due to cattle grazing with bare spots present from cattle tracks.

BUFFER- The surrounding area is pine flatwoods. The proposed ROW will be adjacent to the area.

HYD- Hydrology has suffered however is sufficient to support wetland functions. The proposed ROW will reduce the contributing area of the wetland.

WQ- The wetland area is surrounded on all sides by unimproved lands. LU = 3 and PT = 3.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-13	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wetland Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1.5	N/A	1.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
1	1	LU= 1 - PT= 1 = 1

WRAP Score
0.4

Comments

WU- Provides foraging ground for wading birds. The presence of cattle inhibits use by other wildlife.

O/S- N/A

GC- Groundcover is limited due to grazing by cattle. Opportunistic species dominate.

BUFFER- The surrounding area is a combination of improved and unimproved pastures. There is little natural habitat and the buffer does not support adequate vegetation to provide cover for wildlife.

HYD- The wetland is isolated in a pasture so relies on sheet flow from surrounding areas. Hydrology is sufficient to support the presence of hydrophytic vegetation.

WQ- The wetland is entirely surrounded by improved pastures and therefore both LU and PT are 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-13-S25	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wetland Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1.5	N/A	1.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
0.5	0.5	LU= 1 - PT= 1 = 1

With Condition WRAP Score
0.33

Comments

WU- Provides foraging ground for wading birds. The presence of cattle inhibits use by other wildlife.

O/S- N/A

GC- Groundcover is limited due to grazing by cattle. Opportunistic species dominate.

BUFFER- The surrounding area is a combination of improved and unimproved pastures. There is little natural habitat and the buffer does not support adequate vegetation to provide cover for wildlife. The proposed ROW will run adjacent to the area.

HYD- The wetland is isolated in a pasture so relies on sheet flow from surrounding areas. Hydrology is sufficient to support the presence of hydrophytic vegetation. The proposed ROW will reduce the contributing area.

WQ- The wetland is entirely surrounded by improved pastures and therefore both LU and PT are 1.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-15	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wetland Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1.5	N/A	0.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
1	1	LU= 3 - PT= 3 = 3

WRAP Score
0.47

Comments

WU- Provides foraging ground for wading birds. The presence of cattle inhibits use by other wildlife.

O/S- N/A

GC- Groundcover is limited due to cattle grazing.

BUFFER- The surrounding area consists of a pine flatwood with the existing SR 710 ROW approximately 100' to the south.

HYD- Hydrology has suffered within wetland.

WQ- The wetland is entirely surrounded by natural lands and therefore both LU and PT are 3.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-15-S25	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Wetland Prairie

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
643	1.5	N/A	0.5

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
0.5	0.5	LU= 3 - PT= 3 = 3

With Condition WRAP Score: 0.4

Comments

WU- Provides foraging ground for wading birds. The presence of cattle inhibits use by other wildlife.

O/S- N/A

GC- Groundcover is limited due to cattle grazing.

BUFFER- The surrounding area consists of a pine flatwood with the existing SR 710 ROW approximately 100' to the south. The proposed ROW will be adjacent to the area.

HYD- Hydrology has suffered within wetland. The proposed ROW will reduce the contributing area.

WQ- The wetland is entirely surrounded by natural lands and therefore both LU and PT are 3.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-17	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Mixed Wetland Hardwoods

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
617	2	2	2

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
2	2.5	LU= 3 - PT= 3 = 3

WRAP Score
0.75

Comments

WU- Wading birds, small and medium sized mammals, small reptiles, and small crustaceans are expected to use this wetland.

O/S- The canopy and understory are made up primarily of native trees (cypress, red maple, and sabal palms) and shrubs (wax myrtle and wild coffee).

GC- A variety of native species were observed for groundcover including pickerelweed, red root, and spikerush.

BUFFER- The surrounding area is considered hardwood hammock dominated by live oak, slash pine, and sabal palm that provides habitat for wildlife using the wetland area. However the existing SR 710 ROW and another road are within 150' and 60' respectively of the wetland boundaries.

HYD- Hydrology appeared sufficient to support the wetland system. Standing water was observed in some areas and water lines were present on trees.

WQ- The wetland area is surrounded on all sides by natural land. LU = 3 and PT = 3.

2.3.1 WETLAND RAPID ASSESSMENT PROCEDURE
FIELD DATA SHEET

Wetland Number	Project	Date	Evaluator	Wetland Type
WTL-17-S25	SR 710	10/18/2017	Rick Harman, Amanda Montgomery	Mixed Wetland Hardwoods

Land Use	Wildlife Utilization (WU)	Wetland Canopy (O/S)	WL Grndcover (GC)
617	2	2	2

Habitat Support Buffer	Field Hydrology (HYD)	WQ Input & Trtmnt (WQ)
1.5	2	LU= 3 - PT= 3 = 3

With Condition WRAP Score: 0.69

Comments

WU- Wading birds, small and medium sized mammals, small reptiles, and small crustaceans are expected to use this wetland.

O/S- The canopy and understory are made up primarily of native trees (cypress, red maple, and sabal palms) and shrubs (wax myrtle and wild coffee).

GC- A variety of native species were observed for groundcover including pickerelweed, red root, and spikerush.

BUFFER- The surrounding area is considered hardwood hammock dominated by live oak, slash pine, and sabal palm that provides habitat for wildlife using the wetland area. The proposed ROW will be adjacent to the area.

HYD- Hydrology appeared sufficient to support the wetland system. Standing water was observed in some areas and water lines were present on trees. The proposed ROW will reduce the contributing area.

WQ- The wetland area is surrounded on all sides by natural land. LU = 3 and PT = 3.