# Sweatt-Whidden 230-kV Transmission Project, TA22-19

# Segment 2: Basinger Waterway
# Post-certification Filing

FPL®

January 2024

*ECT No. 210863-0800*

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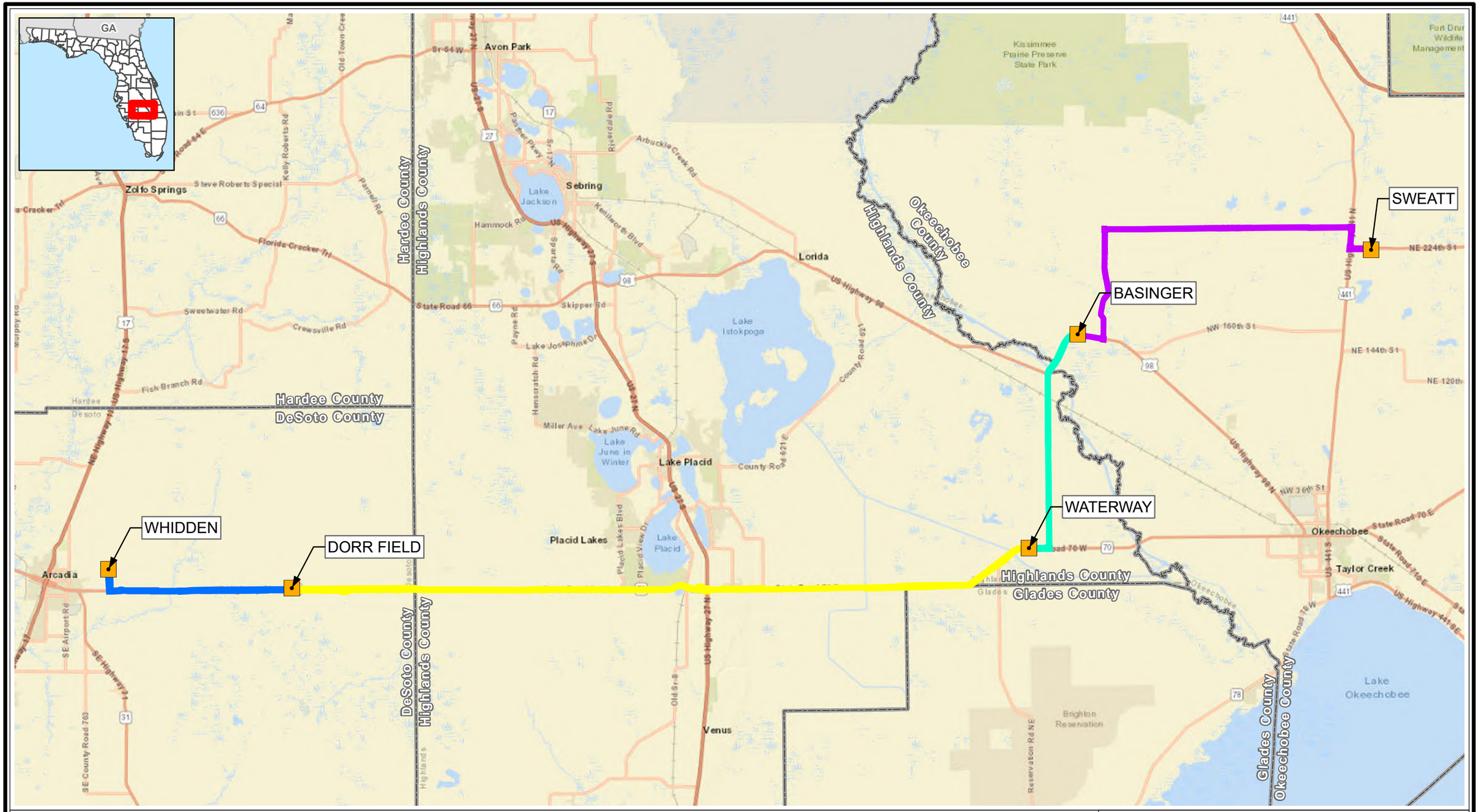
# ATTACHMENTS

# Attachment 1 – Location Map




**Legend**

- Existing Substation
- Segment 1: Sweatt-Basinger
- Segment 2: Basinger-Waterway
- Segment 3: Waterway-Dorr Field
- Segment 4: Dorr Field-Whidden

N

0 2 4

Miles

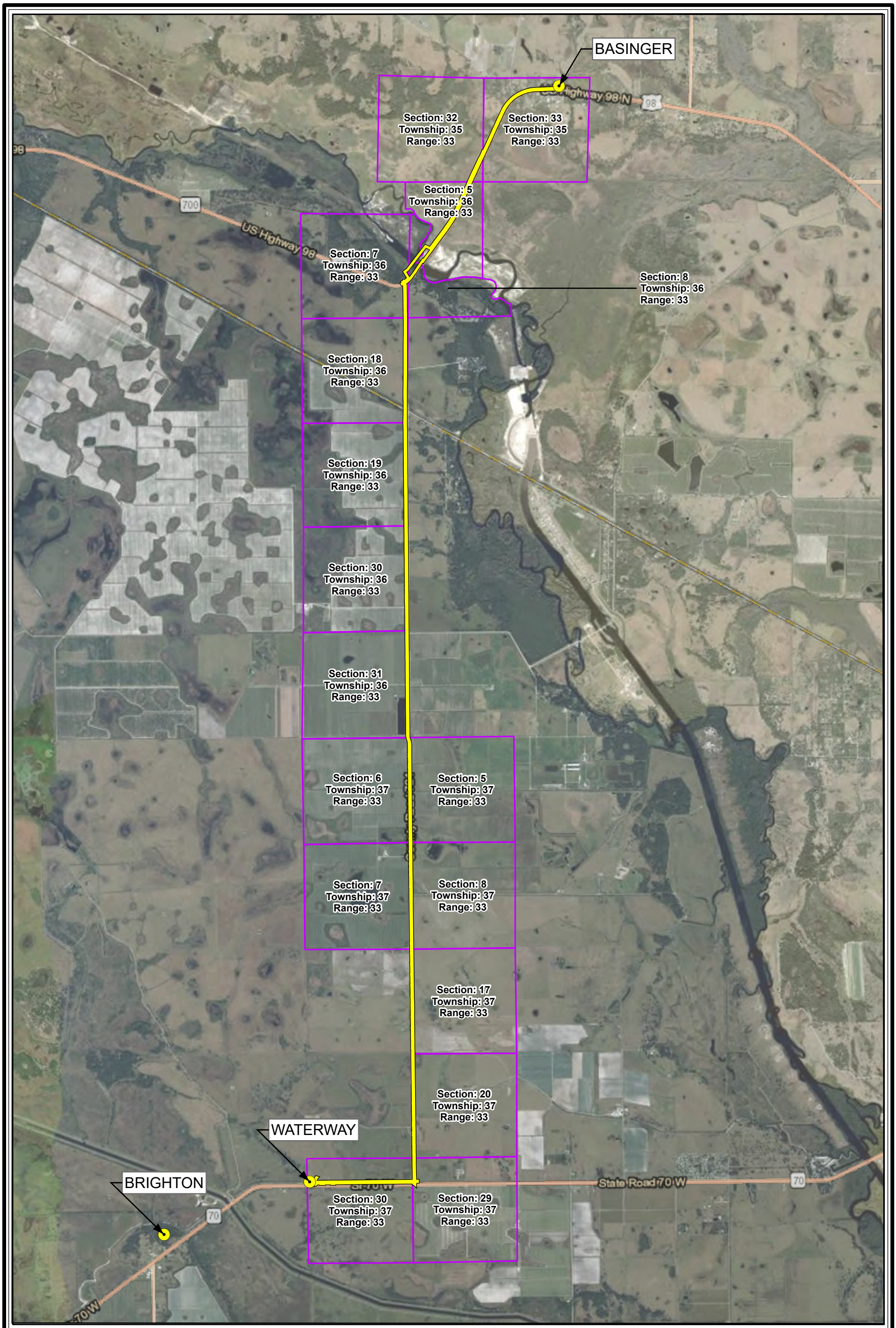
Sources: ESRI World Street map; ECT, 2023.

**Attachment 1**
**Segment 2: Basinger - Waterway**
**Location Map**

Sweatt-Whidden Transmission Line
Desoto/Glades/Highlands/Okeechobee Counties, Florida

ECT

# Attachment 2 – Section, Township, Range Map




Substation

Basinger-Waterway Project Footprint

Section/Township/ Range Boundary

N

0 0.5 1

Miles

Sources: USGS 2023; FDOT 2020; ECT, 2023.

**Attachment 2**
**Segment 2: Basinger - Waterway**
**Section, Township, Range Map**

Okeechobee & Highland Counties, Florida

Date: 9/28/2023

ECT

# Attachment 3 – Section, Township, Range List

| Attachment 3: Basinger - Waterway | | | | | |
|---|---|---|---|---|---|
| Section/Township/Range Table | | | | | |
| **Section** | **Township** | **Range** | **TD** | **RD** | **County** |
| 05 | 36 | 33 | S | E | OKEECHOBEE |
| 05 | 37 | 33 | S | E | HIGHLANDS |
| 06 | 37 | 33 | S | E | HIGHLANDS |
| 07 | 36 | 33 | S | E | HIGHLANDS |
| 07 | 37 | 33 | S | E | HIGHLANDS |
| 08 | 36 | 33 | S | E | HIGHLANDS |
| 08 | 36 | 33 | S | E | HIGHLANDS |
| 08 | 36 | 33 | S | E | HIGHLANDS |
| 08 | 37 | 33 | S | E | HIGHLANDS |
| 17 | 37 | 33 | S | E | HIGHLANDS |
| 18 | 36 | 33 | S | E | HIGHLANDS |
| 19 | 36 | 33 | S | E | HIGHLANDS |
| 20 | 37 | 33 | S | E | HIGHLANDS |
| 29 | 37 | 33 | S | E | HIGHLANDS |
| 30 | 36 | 33 | S | E | HIGHLANDS |
| 30 | 37 | 33 | S | E | HIGHLANDS |
| 31 | 36 | 33 | S | E | HIGHLANDS |
| 32 | 35 | 33 | S | E | OKEECHOBEE |
| 33 | 35 | 33 | S | E | OKEECHOBEE |

# Attachment 4 – Parcel Table

**Attachment 4: Basinger - Waterway Parcel Table**

| Parcel ID |
|---|
| C073633A0000500000 |
| C183633A0000200000 |
| C083733A0000100000 |
| C253732A0000100000 |
| C29373301000400000 |
| C053733A0000200000 |
| C20373301000100000 |
| C17373301004500000 |
| C17373301000100000 |
| C20373301000200000 |
| C053633A0000100000 |
| C073633A0000300000 |
| C073633A0000400000 |
| C17363301000500010 |
| C0637330100AA00000 |
| C073633A0000100000 |
| C313633A0000200000 |
| C363632A0000100000 |
| C083733A0000200000 |
| C303733A0000100000 |
| C3635310100080001B |
| C06373301M0AA00000 |
| C313633A0000100000 |
| C313430A0000200000 |
| 10536330A00000020000 |
| 13235330A00000010000 |
| 13335330010000000030 |
| 13335330A00000030000 |
| 13335330A0000003A000 |
| 13335330A0000003B000 |
| 13335330A00000040000 |
| 13335330A00000060000 |
| 13335330A00000070000 |
| 13335330A00000150000 |
| 13335330A00000200000 |
| 13335330A0000020A000 |
| 13335330A00000210000 |
| 13335330A00000240000 |

# Attachment 5 – State Lands Determination of Waterbodies Crossed – Highlands and Okeechobee Counties

# FLORIDA DEPARTMENT OF
# Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, FL 32399

**Ron DeSantis**
Governor

**Jeanette Nuñez**
Lt. Governor

**Shawn Hamilton**
Secretary


May 31, 2022

Jude Dawson
Environmental Consulting & Technology, Inc.

RE: Sweatt-Whidden Corridor-Highlands County
Worksheet # 124376

Dear Mr. Dawson:

This letter is in response to your recent inquiry requesting a determination of state owned lands in along the project route in Highlands County.

Our records indicate the lands lying below the ordinary high water line of the Kissimmee River, prior to alterations for the C-38 Canal in Sections 7 & 8, Township 36S, Range 33E are state owned and subject to Easement No. 29173(4674) and Lease No. 4099.

The subject area known as C-41 Canal in Section 25, Township 37S, Range 32E appears to have been dredged. The other canal area along the entire project area appears to have been dredged also. Therefore, we recommend that the proprietary requirements that would normally apply to state lands not apply to these areas.

The Title & Land Records Section has not conducted the research and analysis necessary to determine the original location of the ordinary high water line of Fisheating Creek in Section 31, Township 37S, Range 29E and Section 6, Township 38S, Range 29E at the subject site. Therefore, this is not a determination of the boundaries of Board of Trustees owned sovereignty lands. For regulatory permitting purposes only, we recommend proprietary authorization normally required for the use of state owned lands not be required for the subject site at this time.

The conclusions stated herein are based on a review of records currently available within the Department of Environmental Protection as supplemented, in some cases, by information furnished by the requesting party and do not constitute a legal opinion of title. A permit from the Department of Environmental Protection and other federal, state and local agencies may be required prior to conducting activities.

Should you have any questions regarding this determination, please contact Donelle White, Program Consultant, at mail station 108 at the above address or call at (850) 245-2788.

Sincerely,

Karen McMillan, for

Scott Woolam, PSM, Bureau Chief
Division of State Lands
Bureau of Survey and Mapping
SW/dw
G:\TITLE\Donelle\2022 April-June\Highlands\letter to jude @ ect highlands county 5-31-2022dsl.docx

# FLORIDA DEPARTMENT OF
# Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, FL 32399

**Ron DeSantis**
Governor

**Jeanette Nuñez**
Lt. Governor

**Shawn Hamilton**
Secretary


May 24, 2022

Mr. Jude Dawson
Environmental Consulting & Technology, Inc.

RE: Water Crossings

Dear Mr. Dawson:

This letter is in response to your recent inquiry based on the information provided, requesting a submerged lands determination of state-owned lands in multiple sections, Okeechobee County.

Our records indicate that the lands lying below the ordinary high water line of the Kissimmee River, prior to alterations for the C-38 Canal are state owned and are subject to Sovereignty Submerged Lands Easement 29173(4674) to Florida Department of Transportation and subject to SSL Easement 41337 to South Florida Water Management District relative to Current Uplands Lease 4099.

Our records contain insufficient information to determine the ordinary high water line of Fish Slough prior to alterations, at the subject site. Additionally, our records contain insufficient information to determine the ordinary high water line of Gore Branch and Ash Slough. Therefore, we recommend proprietary requirements that would normally apply to state owned lands not apply to Fish Slough, Gore Branch, Ash Slough and wetlands along the corridor route.

The conclusions stated herein are based on a review of records currently available within the Department of Environmental Protection as supplemented, in some cases, by information furnished by the requesting party and do not constitute a legal opinion of title. A permit from the Department of Environmental Protection and other federal, state and local agencies may be required prior to conducting activities.

Should you have any questions regarding this determination, please contact Sarah Branham, Government Operations Consultant II, at mail station 108 at the above address or call at (850) 245-2788.

Sincerely,

*Karen McMillan, for*

Scott Woolam, Bureau Chief
Division of State Lands
Bureau of Survey and Mapping
SW/sb
F:\TITLE\Sarah\2022\TITLE DETERMINATIONS\OKEECHOBEE\WS 124320\LETTER TO Jude Dawson

# Attachment 5A – Sovereign Submerged Lands Exhibit

# SPECIFIC PURPOSE SURVEY

KISSIMMEE RIVER SUBMERGED LAND
EASEMENT REQUEST

## Legal Description:

*All sovereignty lands lying within the following described lands:*
*A portion of Sections 5, Township 36 South, Range 33 East, Highlands and Okeechobee County, Florida, being described as follows:*

*Commence at the east quarter corner of Section 7, Township 36 South, Range 33 East; thence South 00°03'00" East, along the east line of said Section 7 and west line of said Section 5, a distance of 368.19 feet to the meander corner of Sections 7 and 8, Township 36 South, Range 33 East; thence continue South 00°03'00" East, along the west line of said Section 8, a distance of 409.51 feet to the northerly right-of-way line of US Highway 98 (State Road 700) per Florida State Road Department Right of Way Map Section 09110-2503 and point on a non-tangent curve concave northwesterly having a radius of 882.91 feet; thence northeasterly along said curve to the left through a central angle of 15°52'06", an arc distance of 244.53 feet (Chord Bearing = North 48°23'15" East, Chord Distance = 243.75 feet); thence North 37°30'19" East along said northerly right-of-way line, a distance of 113.45 feet to the the north line of said Section 8 and the south line of said Section 5; thence continue North 37°30'19" East along said northerly right-of-way line, a distance of 83.10 feet; thence North 33°48"19" East along said northerly right-of-way line, a distance of 273.48 feet to the west Safe Upland Line (Approximate Ordinary High Water Line) of the Kissimmee River and the Point of Beginning; thence North 54°29'43" West along the said west safe Upland Line, a distance of 29.13 feet; thence North 34°56'42" East, a distance of 692.04 feet to the east Safe Upland Line (Approximate Ordinary High Water Line) of the Kissimmee River; thence South 39°29'39" East along the said east Safe Upland Line, a distance of 76.82 feet; thence South 34°56'42" West, a distance of 78.59 feet to the intersection with the said northerly right-of-way line of US Highway 98 (State Road 700); thence continue South 34°56'42" West, a distance of 593.57 feet to the said westerly safe Upland Line; thence North 54°29'43" West along the said westerly safe Upland Line, a distance of 44.87 feet to the Point of Beginning.*
*Contains 1.16 Acres (50,475 square feet), more or less*

## Surveyor's Notes:

1. *North and the bearings shown hereon are referenced to the west line of Southwest 1/4 of Section 8, Township 36 North, Range 33 East, Highlands County, Florida, as being South 00°03'00" East.*
2. *All measurements shown hereon are in U.S. Survey Feet.*
3. *An abstract of title was not performed by or furnished to Pickett and Associates, LLC Any easements or encumbrances that may appear as a result of said abstract are not warranted by this sketch.*
4. *Legal description was prepared by Pickett and Associates, LLC per client request and is based on deeds of record and a field survey to locate the controlling corners needed to establish the parcels, right-of-way and easement shown in the legal description and sketch hereon.*
5. *This sketch meets the applicable "Standards of Practice" as set forth by the Florida Board of Professional Surveyors and Mappers in rule 5J-17.051-.053, Florida Administrative Code. Not valid without the original signature and the raised seal or the electronic signature and computer generated seal of a Florida Licensed Surveyor and Mapper.*
6. *The Safe Upland Line (SUL) and approximate ordinary high water line (OHWL) are based on the Florida Department of Transportation right-of-way map of US Highway 98, Section 091100-2503 and prior submerged land lease recorded in Official Records Book 2279, Page 1868, of the Public Records of Highlands County, Florida, wherein a Florida Department of Environmental Protection approved SUL elevation of 32.50 feet (N.G.V.D. 1929) is noted. The banks of the Kissimmee River near the proposed easement are unimproved.*
7. *The parcel boundaries and owner information shown hereon are taken from the records of the highlands County Property Appraiser and the Okeechobee County Property Appraiser and do not represent boundaries established by field work. This sheet shows a general relationship between the proposed easement, the Kissimmee River and the upland properties affected. The easement boundary shown hereon is based on a field survey performed by Pickett and Associates, LLC, on February 20, 2023, and is shown in detail on Sheet 3.*
8. *This is not a Field Survey.*

Gregory A Prather
2024.01.26 09:54:14 -05'00'

*Gregory A. Prather, P.S.M. Florida Registration No. LS. 5135*
*Pickett and Associates, LLC Florida Registration No. LB 364*

*8/30/2023*
*DATE*

*NOT COMPLETE WITHOUT SHEETS 1-4 INCLUSIVE*



*SPECIFIC PURPOSE SURVEY*
*LOCATED IN SECTION 5,*
*TOWNSHIP 36 SOUTH, RANGE 33 EAST*
*HIGHLANDS & OKEECHOBEE COUNTY, FLORIDA*
*PREPARED FOR: FLORIDA POWER & LIGHT CO.*

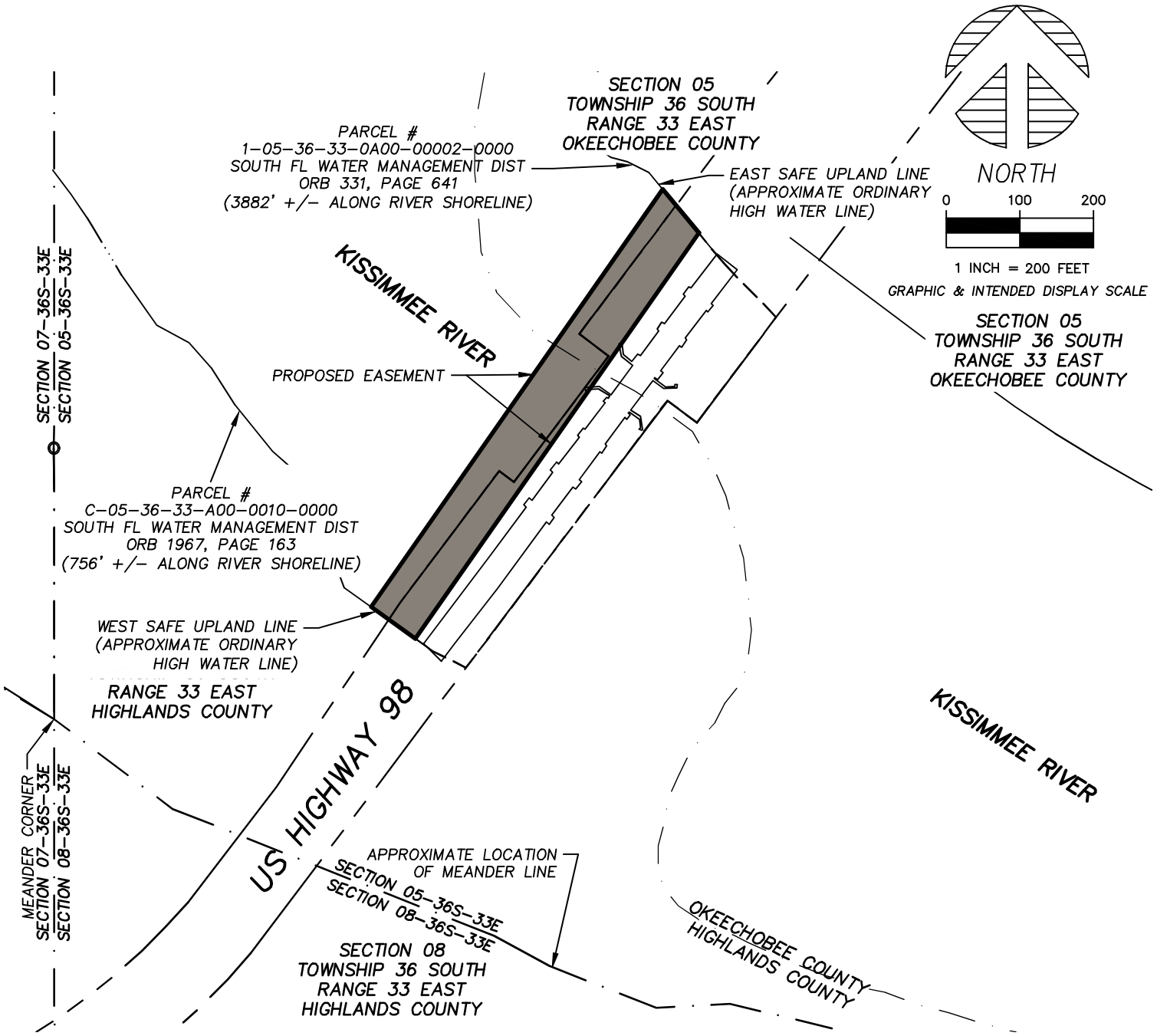
PICKETT®
SURVEYING • ENGINEERING
PICKETT AND ASSOCIATES, LLC
3710 AIRPORT COMMERCE DR
SUITE 10
LAKELAND, FLORIDA 33811
PHONE: (863)-533-9095
FAX: (863)-534-1464
LICENSED BUSINESS No. LB364

| | | | | | |
|---|---|---|---|---|---|
| Project No.: | 22-FPL-1596 | No. | Date | Approved | REVISION |
| Horiz. Scale: | N/A | O.R. | 08/30/23 | GAP | Original Release |
| Drawing No.: | 22-FPL-1596-SSL | | | | |
| Drawn By: | MFJ | | | | |
| Field Bk / Pg.: | N/A | | | | |
| DWG. Name: | 22-FPL-1596 (T30424) SSL | | | | PLOTTED: Wednesday, August 30, 2023 |

*NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND THE RAISED SEAL OR THE ELECTRONIC SIGNATURE AND COMPUTER GENERATED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER*

# SPECIFIC PURPOSE SURVEY

KISSIMMEE RIVER SUBMERGED LAND
EASEMENT REQUEST




NOT COMPLETE WITHOUT SHEETS 1-4 INCLUSIVE

SHEET 2 OF 4

*SPECIFIC PURPOSE SURVEY*
*LOCATED IN SECTION 5,*
*TOWNSHIP 36 SOUTH, RANGE 33 EAST*
*HIGHLANDS & OKEECHOBEE COUNTY, FLORIDA*
*PREPARED FOR: FLORIDA POWER & LIGHT CO.*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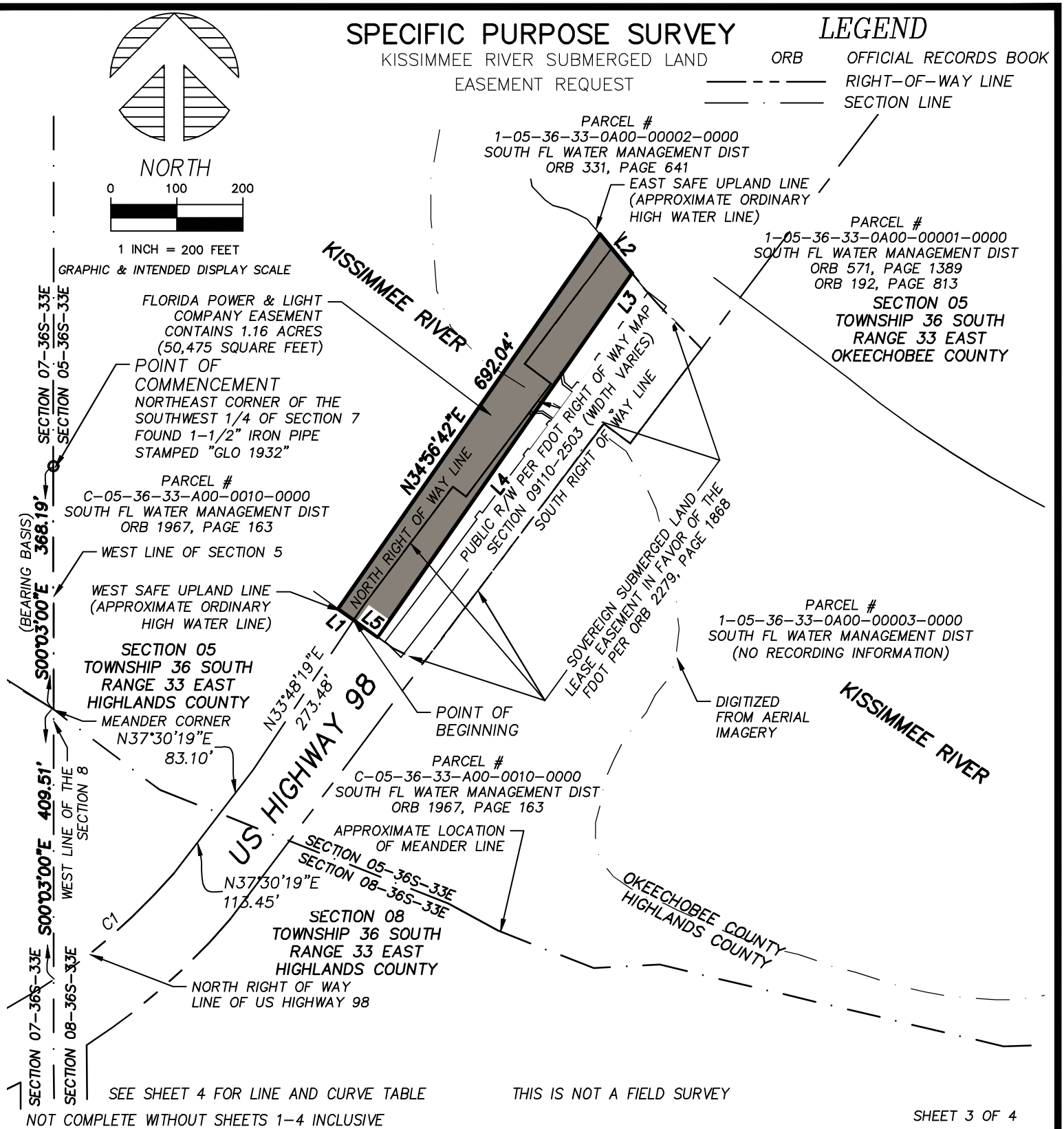
PHONE: (863)-533-9095
FAX: (863)-534-1464
LICENSED BUSINESS No. LB364


| | | | | | |
|---|---|---|---|---|---|
| Project No.: | 22-FPL-1596 | No. | Date | Approved | REVISION |
| Horiz. Scale: | 1"=200' | O.R. | 08/30/23 | GAP | Original Release |
| Drawing No.: | 22-FPL-1596-SSL | | | | |
| Drawn By: | MFJ | | | | |
| Field Bk / Pg.: | N/A | | | | |
| DWG. Name: | 22-FPL-1596 (T30424) SSL | | | | PLOTTED: Wednesday, August 30, 2023 |

SEE SHEET 1 FOR THE SIGNATURE, SEAL AND NOTES

# SPECIFIC PURPOSE SURVEY

KISSIMMEE RIVER SUBMERGED LAND
EASEMENT REQUEST




SEE SHEET 4 FOR LINE AND CURVE TABLE

THIS IS NOT A FIELD SURVEY

NOT COMPLETE WITHOUT SHEETS 1-4 INCLUSIVE



*SPECIFIC PURPOSE SURVEY*
*LOCATED IN SECTION 5,*
*TOWNSHIP 36 SOUTH, RANGE 33 EAST*
*HIGHLANDS & OKEECHOBEE COUNTY, FLORIDA*
*PREPARED FOR: FLORIDA POWER & LIGHT CO.*

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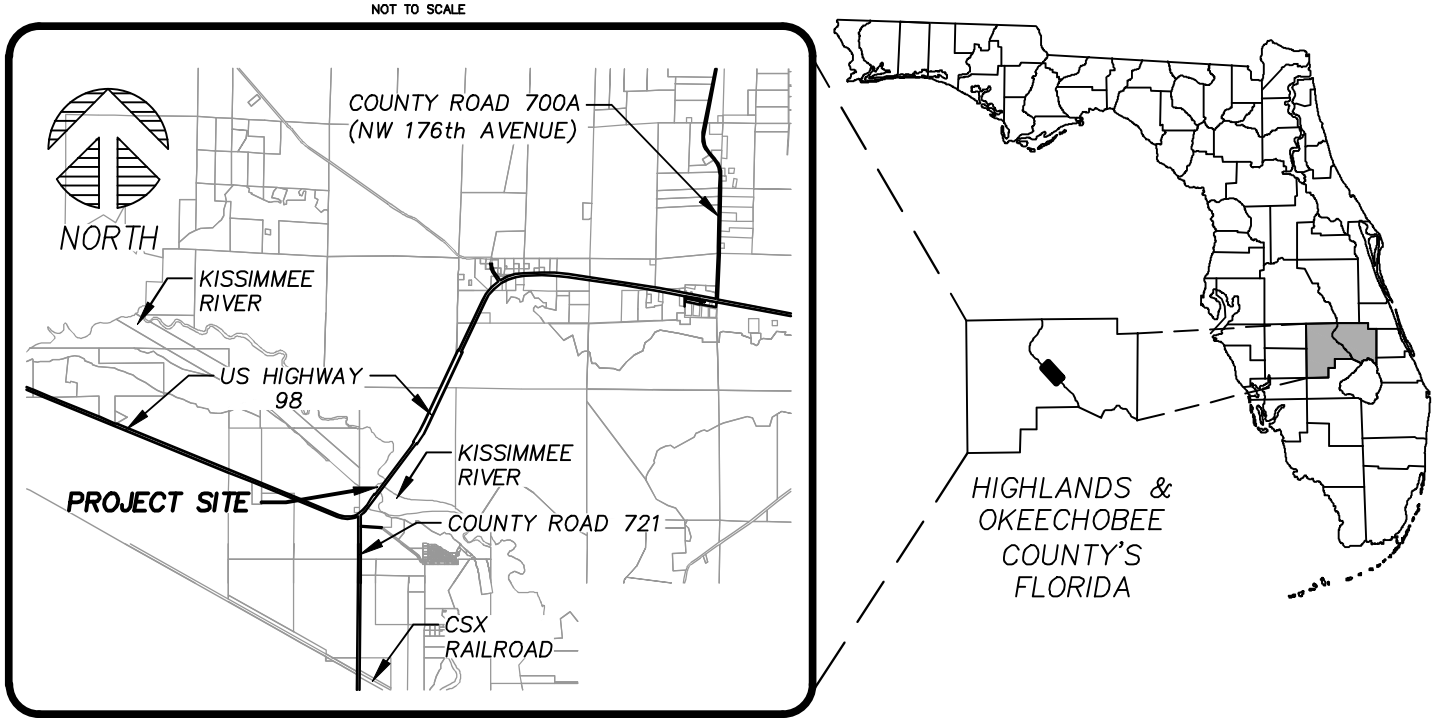
| | | | | | |
|---|---|---|---|---|---|
| Project No.: | 22-FPL-1596 | No. | Date | Approved | REVISION |
| Horiz. Scale: | 1"=200' | O.R. | 08/30/23 | GAP | Original Release |
| Drawing No.: | 22-FPL-1596-SSL | | | | |
| Drawn By: | MFJ | | | | |
| Field Bk / Pg.: | N/A | | | | |
| DWG. Name: | 22-FPL-1596 (T30424) SSL | | | | PLOTTED: Wednesday, August 30, 2023 |

SEE SHEET 1 FOR THE SIGNATURE, SEAL AND NOTES

# SPECIFIC PURPOSE SURVEY

KISSIMMEE RIVER SUBMERGED LAND
EASEMENT REQUEST

*LOCATION MAP*
NOT TO SCALE




| Line Table | | |
|---|---|---|
| Line # | Direction | Length |
| L1 | N54°29'43"W | 29.13' |
| L2 | S39°29'39"E | 76.82' |
| L3 | S34°56'42"W | 78.59' |
| L4 | S34°56'42"W | 593.57' |
| L5 | N54°29'43"W | 44.87' |

| Curve Table | | | | | |
|---|---|---|---|---|---|
| Curve # | Length | Radius | Central Angle | Chord Bearing | Chord |
| C1 | 244.53' | 882.91' | 15°52'06" | N48°23'15"E | 243.75' |

NOT COMPLETE WITHOUT SHEETS 1–4 INCLUSIVE



*SPECIFIC PURPOSE SURVEY*
*LOCATED IN SECTION 5,*
*TOWNSHIP 36 SOUTH, RANGE 33 EAST*
*HIGHLANDS & OKEECHOBEE COUNTY, FLORIDA*
*PREPARED FOR: FLORIDA POWER & LIGHT CO.*

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| | | | | | |
|---|---|---|---|---|---|
| Project No.: | 22–FPL–1596 | No. | Date | Approved | REVISION |
| Horiz. Scale: | NTS | O.R. | 8/30/23 | GAP | Original Release |
| Drawing No.: | 22–FPL–1596–SSL | | | | |
| Drawn By: | MFJ | | | | |
| Field Bk / Pg.: | N/A | | | | |
| DWG. Name: | 22–FPL–1596 (T30424) SSL | | | | PLOTTED: Wednesday, August 30, 2023 |

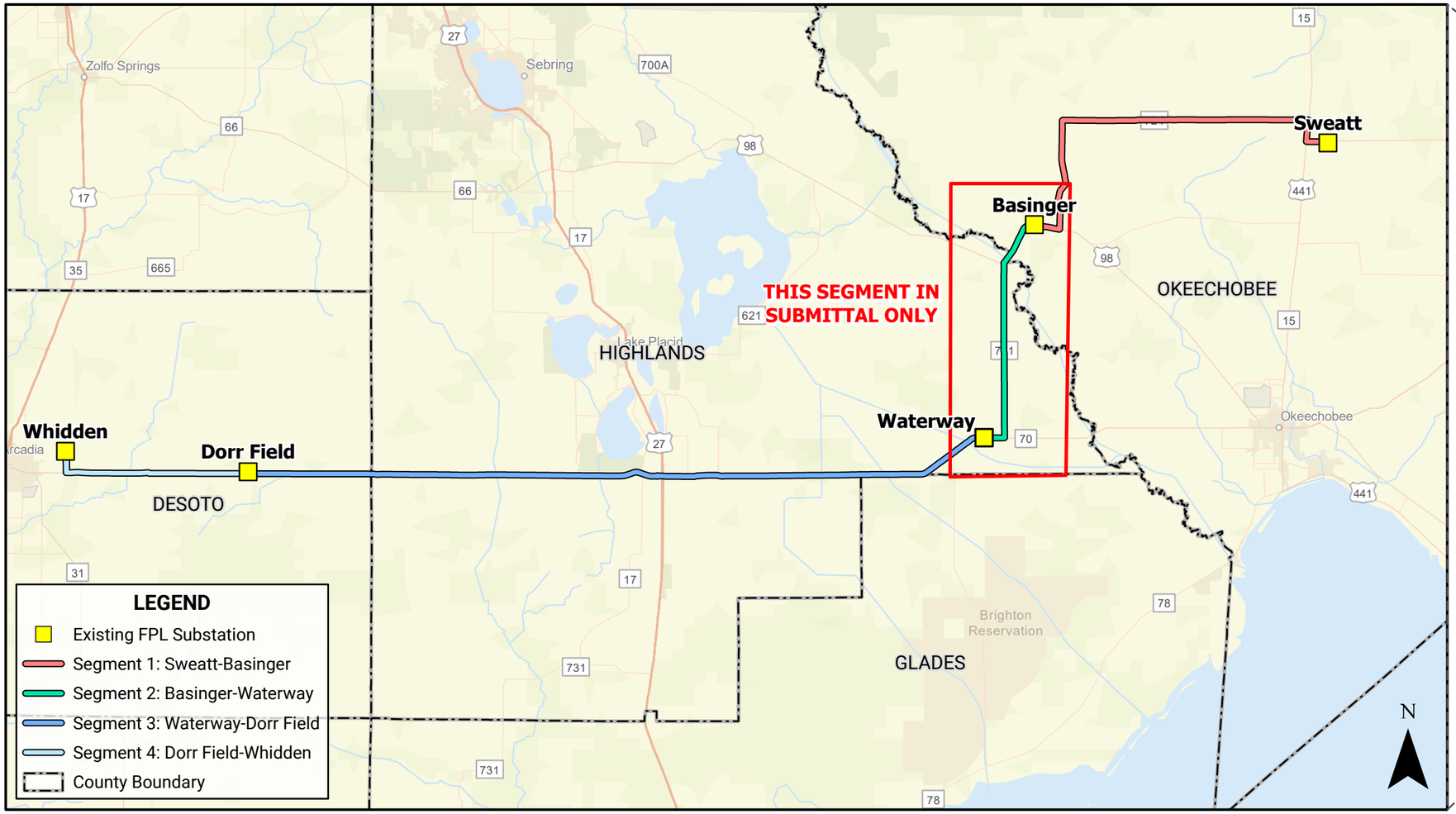
SEE SHEET 1 FOR THE SIGNATURE, SEAL AND NOTES

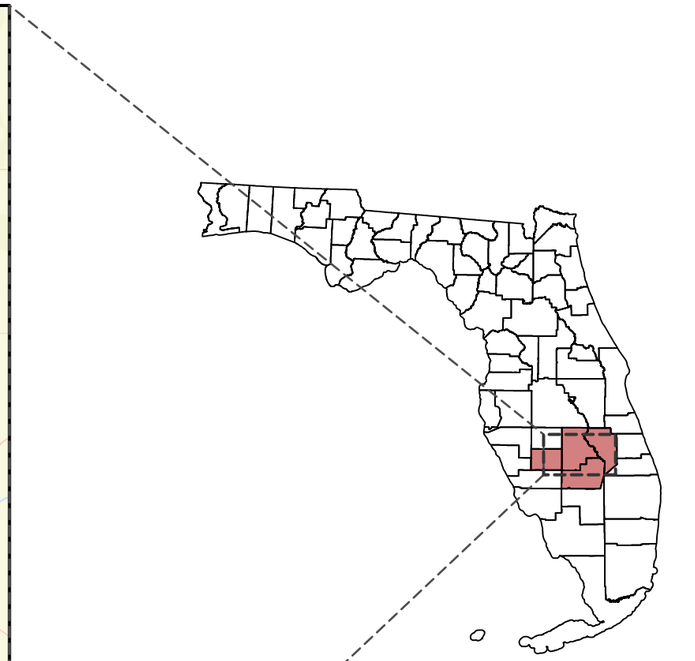
# Attachment 5B – Kissimmee River - Landowners List within 500 ft of Aerial Crossing

| Attachment 5B: Basinger - Waterway Parcel Table<br>Owners Within 500ft of River Crossing | | | | |
|---|---|---|---|---|
| **Parcel ID** | **Owner Name** | **Physical Address** | **Zip Code** | **County Name** |
| C073633A0000900000 | SOUTH FL WATER MANAGEMENT DIST | 15508 US 98 | 33857 | HIGHLANDS |
| C073633A0000500000 | SOUTH FL WATER MANAGEMENT DIST | 15956 US 98 | 33857 | HIGHLANDS |
| C053633A0000100000 | SOUTH FL WATER MANAGEMENT DIST | 16138 US 98 | 33857 | HIGHLANDS |
| C073633A0000300000 | 5 IRON LLC | 15416 US 98 | 33857 | HIGHLANDS |
| C073633A0000400000 | SOUTH FL WATER MANAGEMENT DIST | 15800 US 98 | 33857 | HIGHLANDS |
| C073633A0000100000 | TIITF/SFWMD | | 33857 | HIGHLANDS |
| C083633A0000400000 | THOMPSON BEACH PROPERTY LLC | 116 LOCKETT LN | 33857 | HIGHLANDS |
| 10536330A00000010000 | SOUTH FLA WATER MGMT DIST | 21501 HWY 98 N | 34972 | OKEECHOBEE |
| 10536330A00000020000 | SOUTH FLA WATER MGMT DIST | HWY 98 N | 34972 | OKEECHOBEE |
| 10536330A00000030000 | SOUTH FLA WATER MGMT DIST | HWY 98 N | 34972 | OKEECHOBEE |

# Attachment 6 – Typical Drawings

# Sweatt to Whidden 230kV Transmission Line - TA22-19
# Attachments
# Segment 2: Basinger - Waterway



## PROJECT LOCATION

HIGHLANDS COUNTY
OKEECHOBEE COUNTY
DESOTO COUNTY
GLADES COUNTY

MICHAEL K. LEAHY LICENSE No. 45287 STATE OF FLORIDA PROFESSIONAL ENGINEER

MICHAEL K. LEAHY P.E. #45287


***PICKETT AND ASSOCIATES, LLC***

5010 West Nassau St. Tampa, FL 33607


1. This document has been digitally signed and sealed by Michael K. Leahy, P.E., P.S.M. on the date above.
2. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

| REV | DATE | DESCRIPTION | BY | CKD | APP |
|---|---|---|---|---|---|
| 0 | 1/19/2024 | **ISSUED FOR PERMIT SUBMITTAL** | ANG | BJW | BJW |

***FLORIDA POWER & LIGHT COMPANY***

***Sweatt-Whidden TLSA Project, TA22-19***

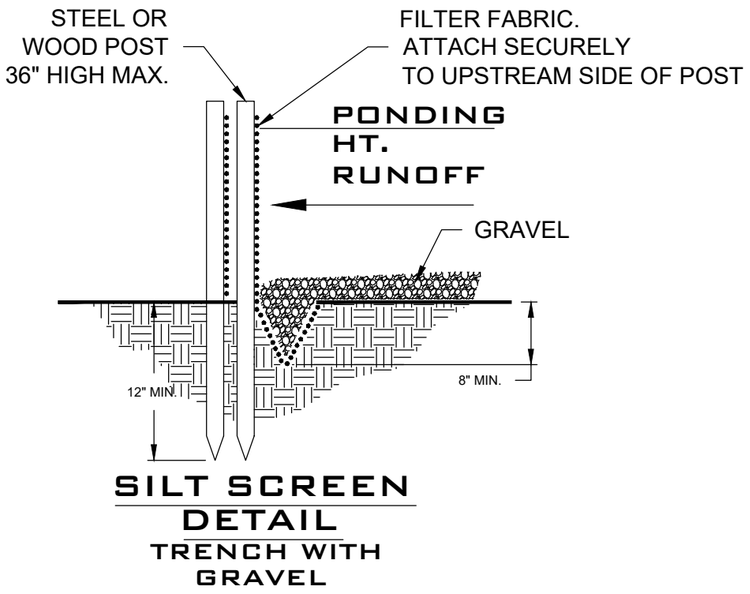
*SCALE: NTS*
*DRAWN BY: ANG*
*ENGINEER: MKL*
*COUNTY: HIGHLANDS, OKEECHOBEE*

*DATE: **1/19/2024***
*CHECKED BY: BJW*
*SECTION: AS SHOWN*
*SHEET 1 OF 12*

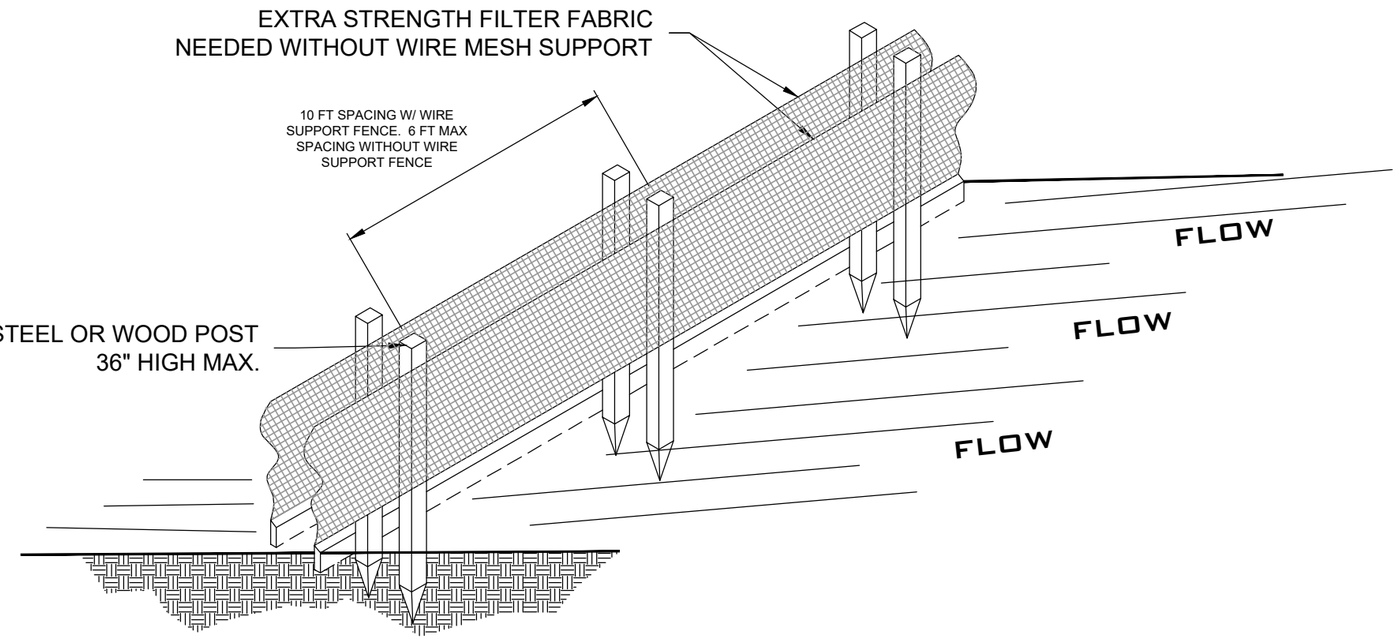
PROPOSED SWEATT - WHIDDEN 230KV LINE
SEGMENT 2: BASINGER - WATERWAY
COVER SHEET


This product is for informational purposes only and may not have been prepared for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of displayed information. Issued for permitting purposes only.

# EROSION CONTROL DETAILS




SILT SCREEN
DETAIL
TRENCH WITH
GRAVEL




NOTES:
1. THE STRAW BALES SHALL BE PLACED ON SLOPE CONTOUR.
2. BALES TO BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING. USE STRAW, ROCKS AND/OR FILTER FABRIC TO FILL GAPS BETWEEN THE BALES AND TAMP THE BACKFILL MATERIAL TO PREVENT EROSION OR FLOW AROUND BALES.
3. DURING CONSTRUCTION, SILT SCREENS WILL BE INSTALLED AROUND, WITHIN, OR IN PROXIMITY TO A JURISDICTIONAL AREA.

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**FLORIDA POWER & LIGHT COMPANY**

**Sweatt-Whidden TLSA Project, TA22-19**

*SCALE: NTS*
*DRAWN BY: ANG*
*ENGINEER: MKL*
*COUNTY: OKEECHOBEE*
*SHEET 1 OF 5*

*DATE: **1/19/2024***
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*FILE NAME:*
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BEST MANAGEMENT PRACTICES
EROSION CONTROL

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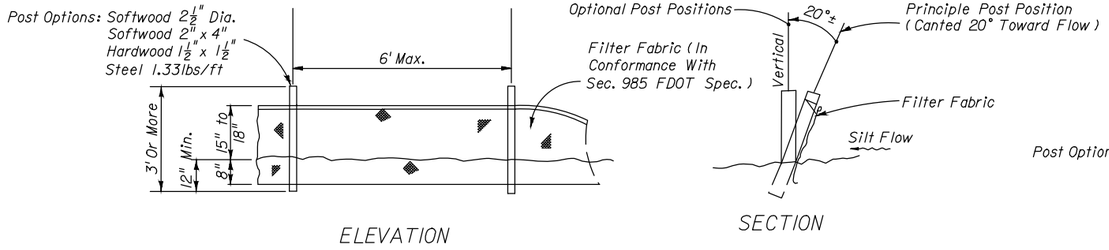
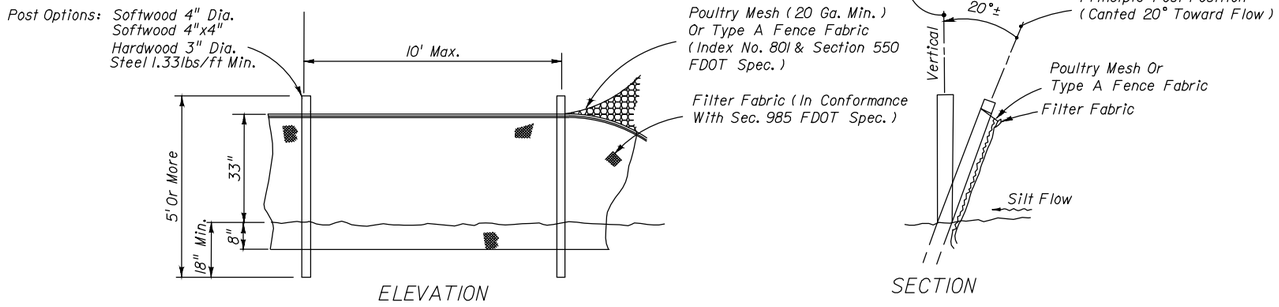
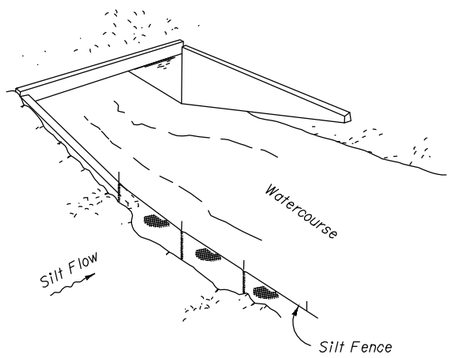
# C.1

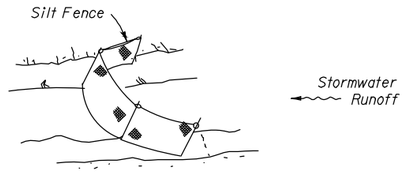



## TYPE III SILT FENCE

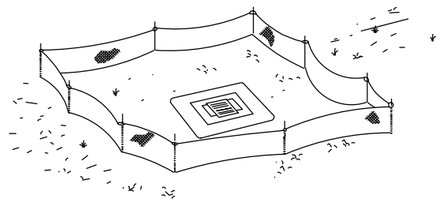



## TYPE IV SILT FENCE



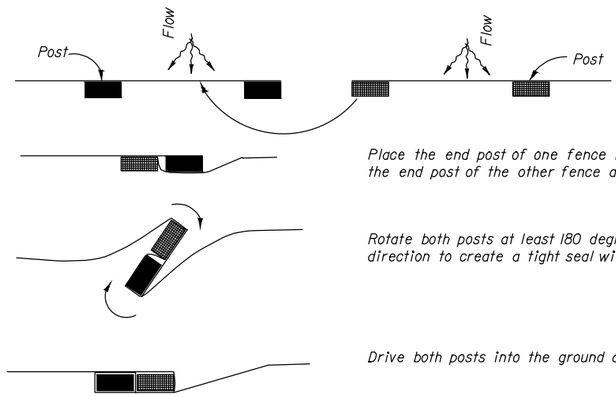




Silt Fence Protection
in Ditches with Intermittent Flow



Silt Fence Protection
Around Ditch Bottom Inlets.

## SILT FENCE APPLICATIONS




PLAN VIEW

## JOINING TWO SILT FENCES

## NOTES FOR SILT FENCES

1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt fence shall be in accordance with Chart 1, Sheet 1.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detained water may back into travel lanes or off the right of way.
3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.
5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).

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**FLORIDA POWER & LIGHT COMPANY**

**Sweatt-Whidden TLSA Project, TA22-19**

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ENGINEER: MKL
COUNTY: OKEECHOBEE
SHEET 2 OF 5

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BEST MANAGEMENT PRACTICES
EROSION CONTROL

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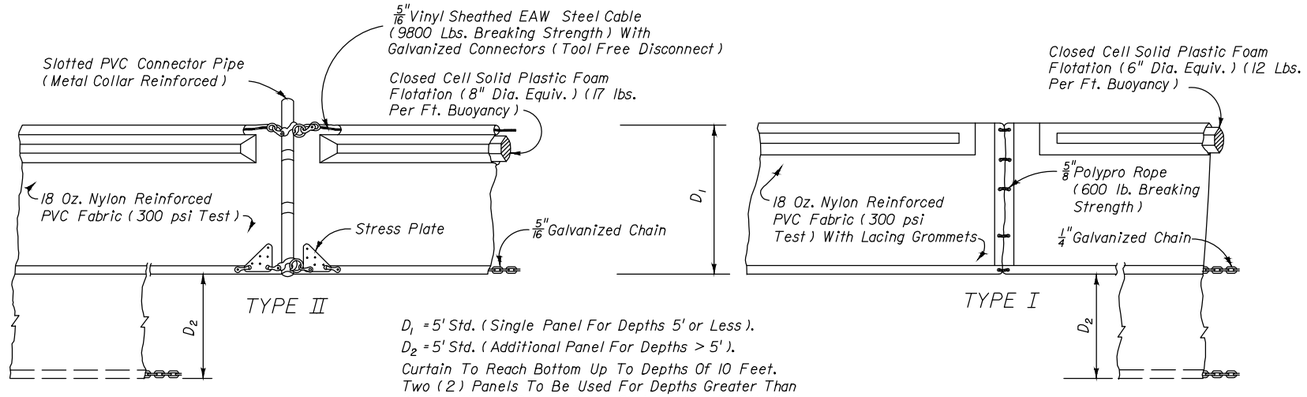
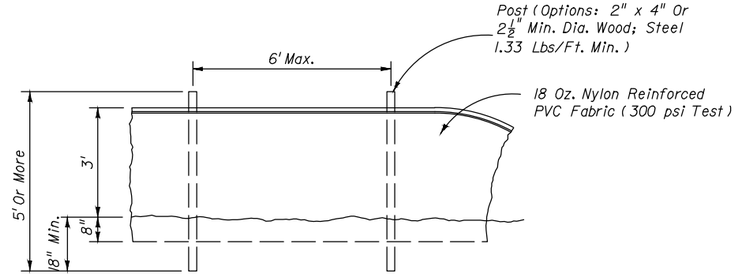


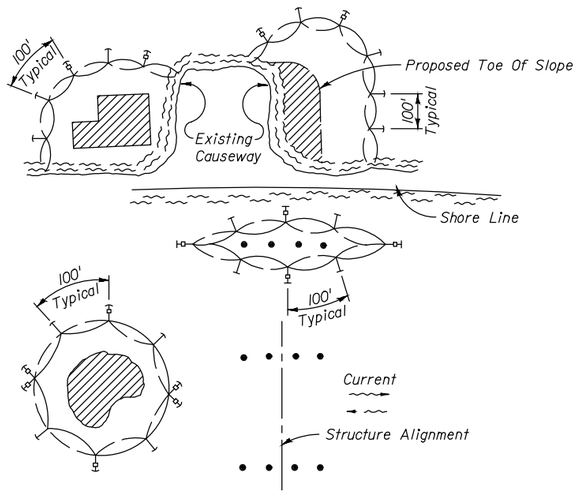

$D_1$ = 5' Std. (Single Panel For Depths 5' or Less).
$D_2$ = 5' Std. (Additional Panel For Depths > 5').
Curtain To Reach Bottom Up To Depths Of 10 Feet. Two (2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Call For In The Plans Or As Determined By The Engineer.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

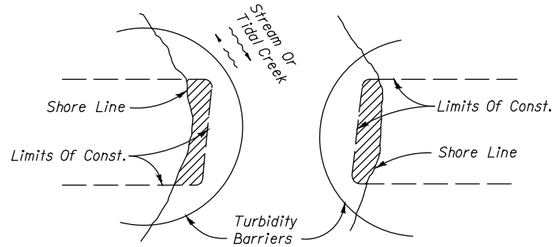



STAKED TURBIDITY BARRIER

## FLOATING TURBIDITY BARRIERS




LEGEND
- Pile Locations
- Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action




NOTES:
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the Standard Specifications.

Note:
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

TURBIDITY BARRIER APPLICATIONS

GENERAL NOTES

1. Floating turbidity barriers are to be paid for under the contract unit price for Floating Turbidity Barrier, LF.
2. Staked turbidity barriers are to be paid for under the contract unit price for Staked Turbidity Barrier, LF.

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BEST MANAGEMENT PRACTICES
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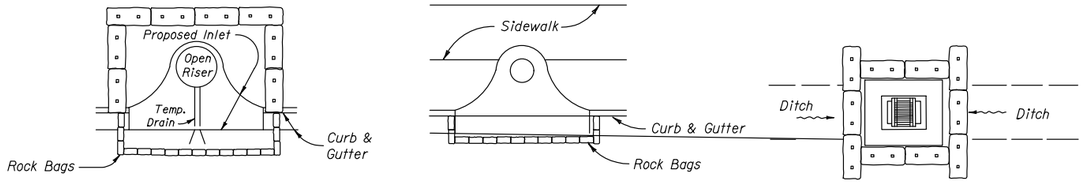
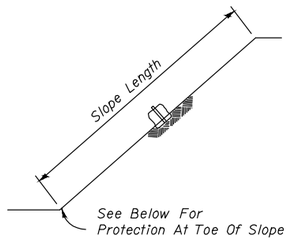


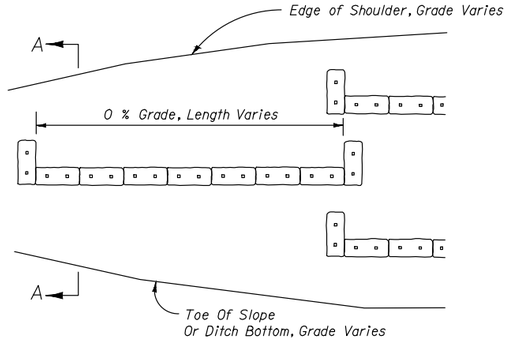

PARTIAL INLET  COMPLETED INLET  DITCH BOTTOM INLET

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



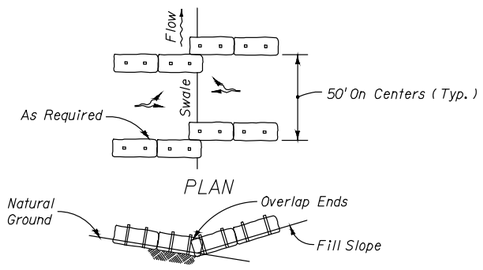

SECTION AA

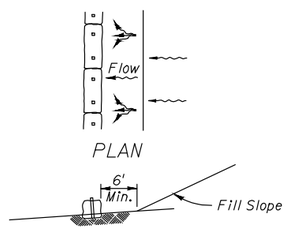
Note:
Where the slope length exceeds 25 feet, construct one row of bale barriers at 0% longitudinal grade midway up the slope. Contruct two rows of bale barriers where the slope length exceeds 50 feet.




ELEVATION

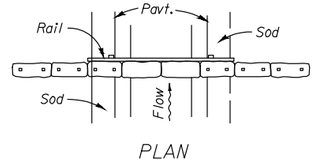
ALONG FILL SLOPE



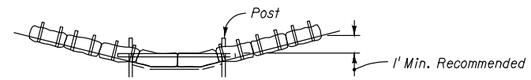




AT TOE OF SLOPE

BARRIERS FOR FILL SLOPES

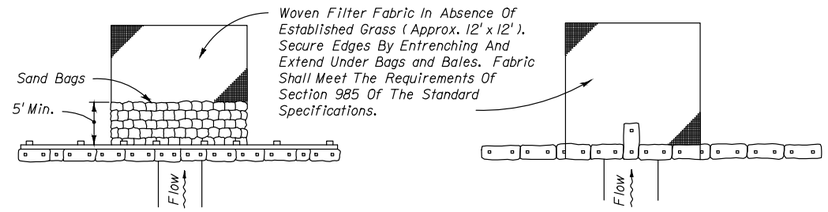



PLAN

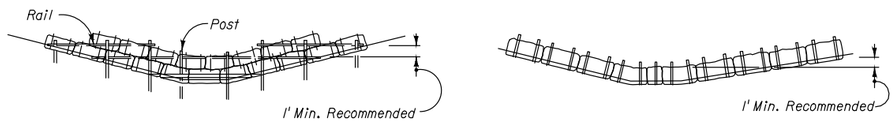



ELEVATION

BARRIER FOR PAVED DITCH




PLAN  PLAN




Anchor Top Bales To Lower Bales With 2 Stakes Per Bale.

ELEVATION  ELEVATION

TYPE II  TYPE I

BARRIERS FOR UNPAVED DITCHES

## NOTES FOR BALED HAY OR STRAW BARRIERS

1. Type I and II Barriers should be spaced in accordance with Chart 1, Sheet 1.
2. Hay bales shall be trenched 3" to 4" and anchored with 2 - 1" x 2" ( or 1" dia. ) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivlalent strength may be used if approved by the Engineer.
4. Adjacent bales shall be butted firmly together. Unavoidable gaps shall be plugged with hay or straw to prevent silt from passing.
5. Where used in conjunction with silt fence, hay bales shall be placed on the upstream side of the fence.
6. Bales to be paid for under the contract unit price for Baled Hay or Straw, EA. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sand bags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.

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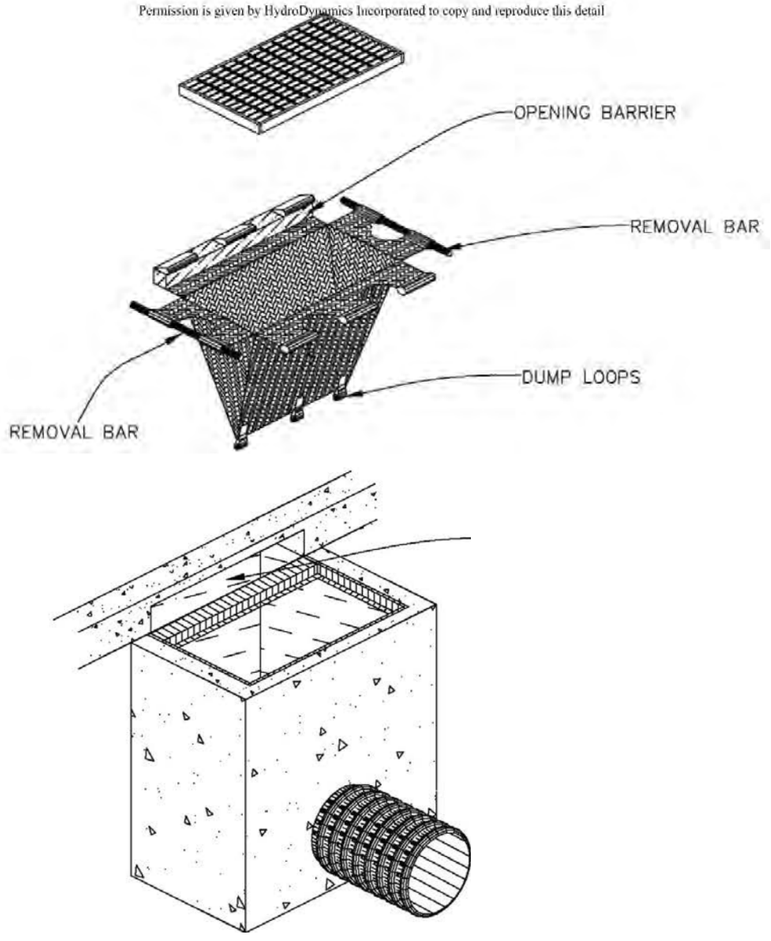
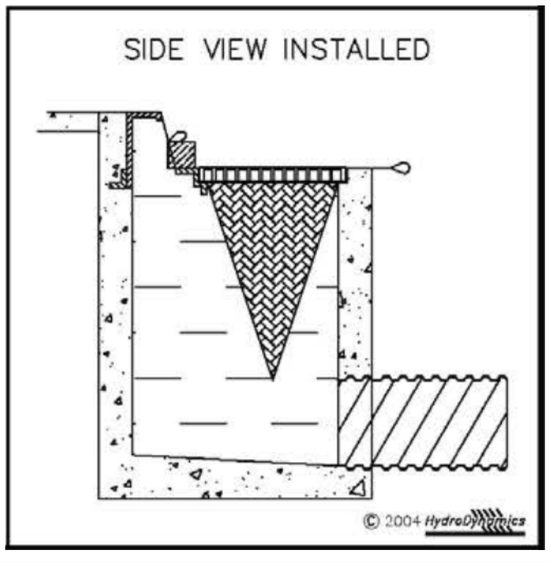
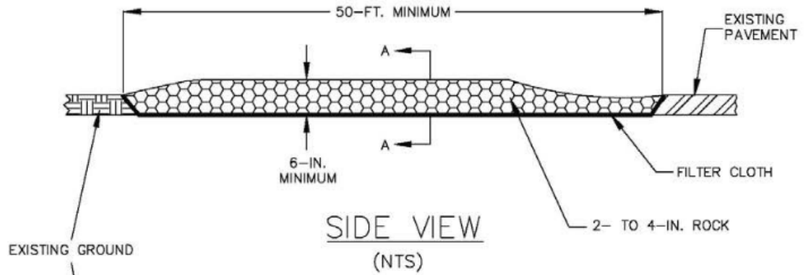


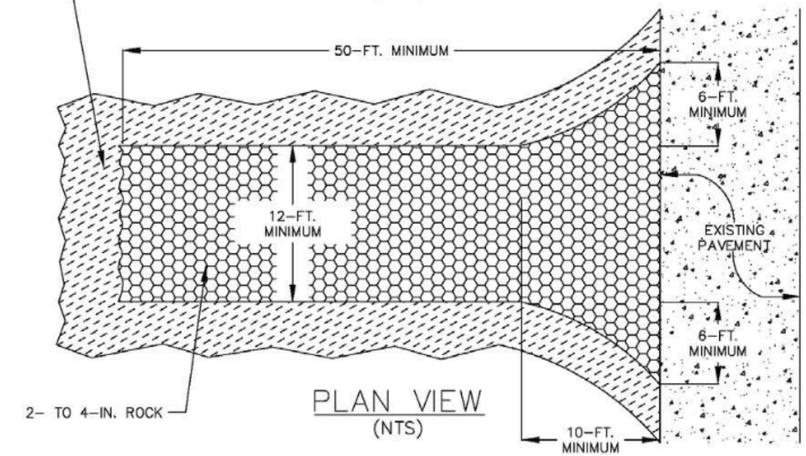


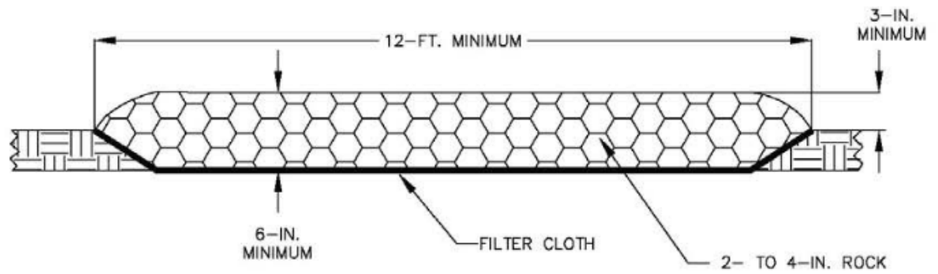

INLET INSERT SEDIMENT CONTAINMENT SYSTEM




SIDE VIEW
(NTS)




PLAN VIEW
(NTS)




SECTION A–A
(NTS)

SOIL TRACKING PREVENTION DEVICE

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BEST MANAGEMENT PRACTICES
EROSION CONTROL

C.1

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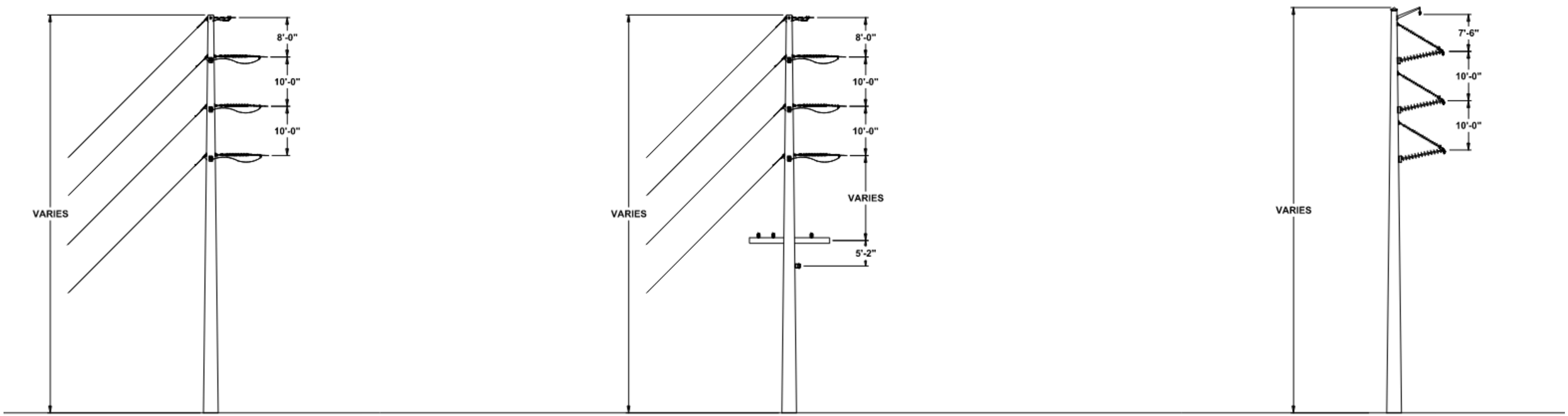
# C.2




230kV SINGLE CIRCUIT DEADEND

230kV SINGLE CIRCUIT DEADEND
W/ HORIZONTAL DISTRIBUTION UNDERBUILD

230kV SINGLE CIRCUIT VERTICAL TANGENT

## TYPICAL STRUCTURES

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TYPICAL STRUCTURES

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# C.2

230kV SINGLE CIRCUIT VERTICAL TANGENT
W/ 69kV SINGLE CIRCUIT TRIANGULAR TANGENT AND
HORIZONTAL DISTRIBUTION UNDERBUILD

230kV SINGLE CIRCUIT VERTICAL TANGENT
W/ HORIZONTAL DISTRIBUTION UNDERBUILD

## TYPICAL STRUCTURES

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FPL

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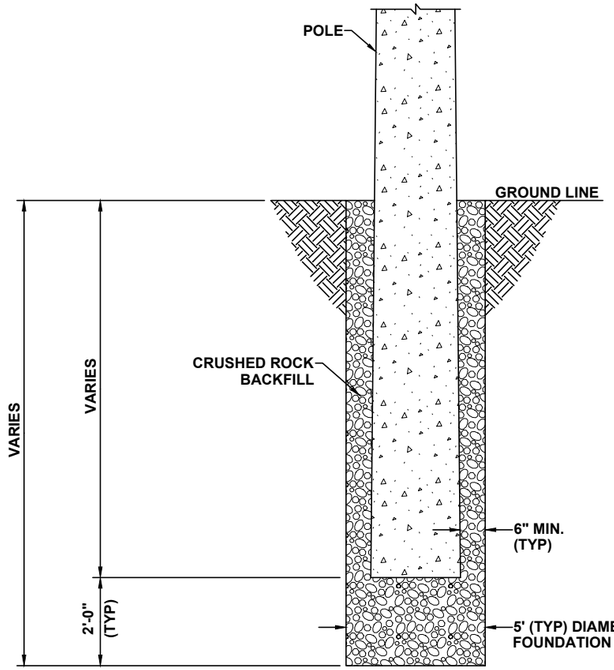


FOUNDATION DETAIL
DIRECT EMBEDDED POLE WITH ROCK BACKFILL
**AREA = VARIES**
**VOLUME = VARIES**

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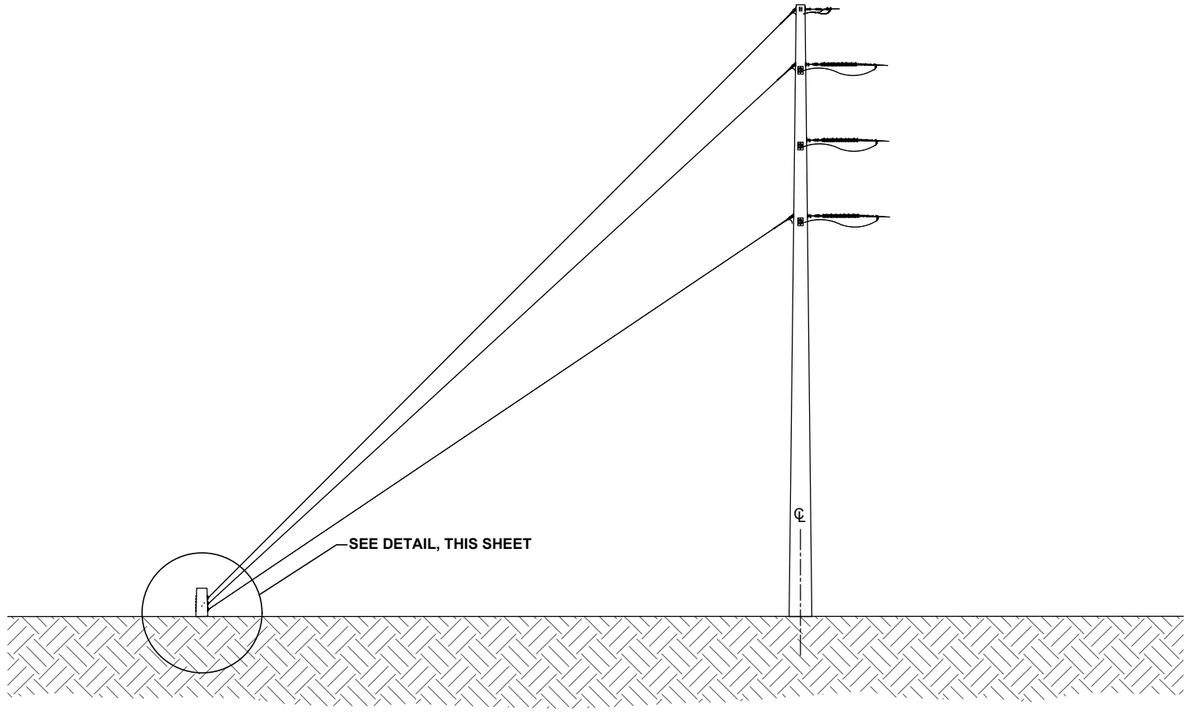
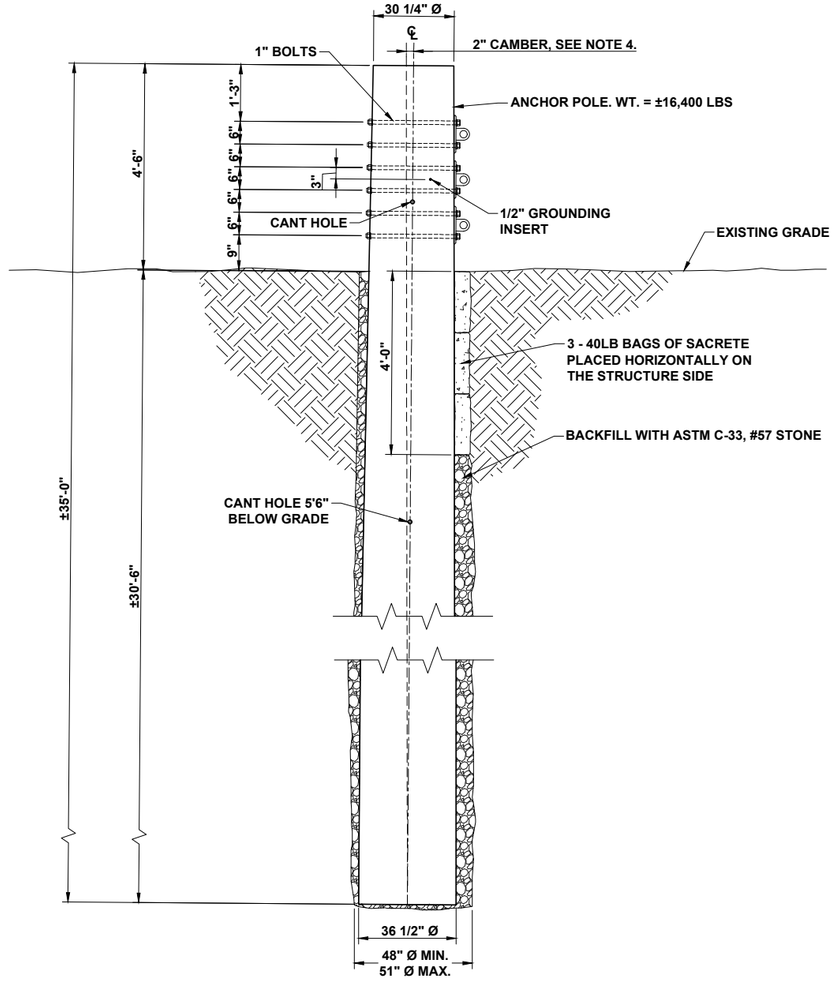



TYPICAL GUYED POLE PROFILE WITH ANCHOR PILE




TYPICAL SPUN CONCRETE ANCHOR PILE DETAIL

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TYPICAL ANCHOR PILE DETAIL

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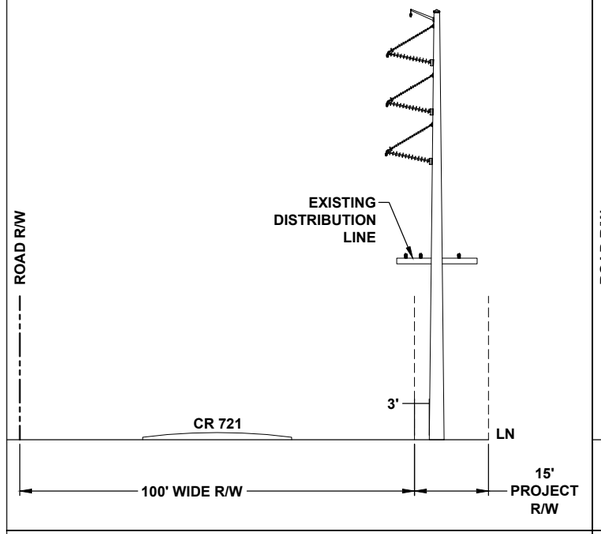
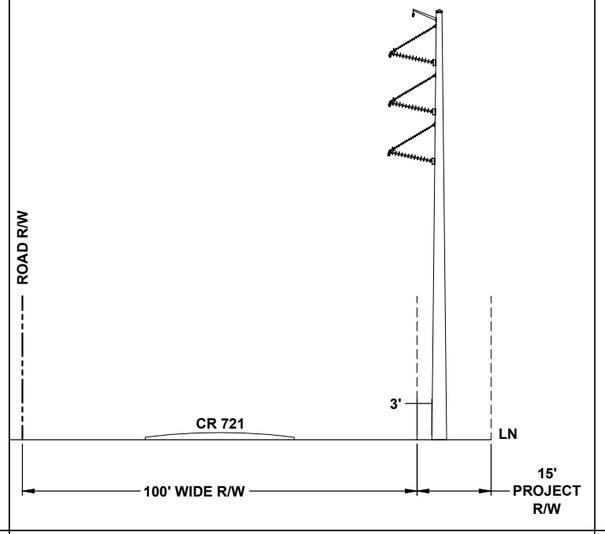
C.5

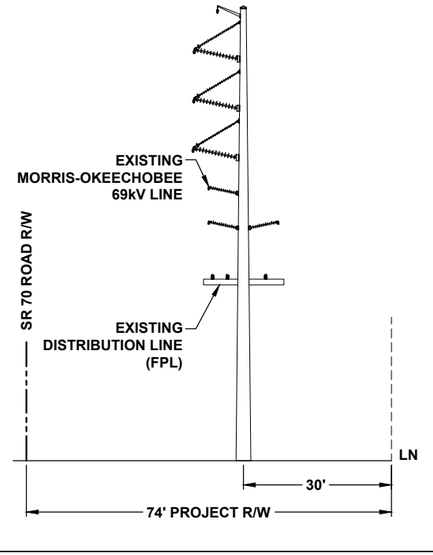
PROPOSED BASINGER-WATERWAY
230kV LINE
STR 405W3 THROUGH 409W6 (GLADES UB)
STR 401W1 THROUGH 404W2 (FPL UB)



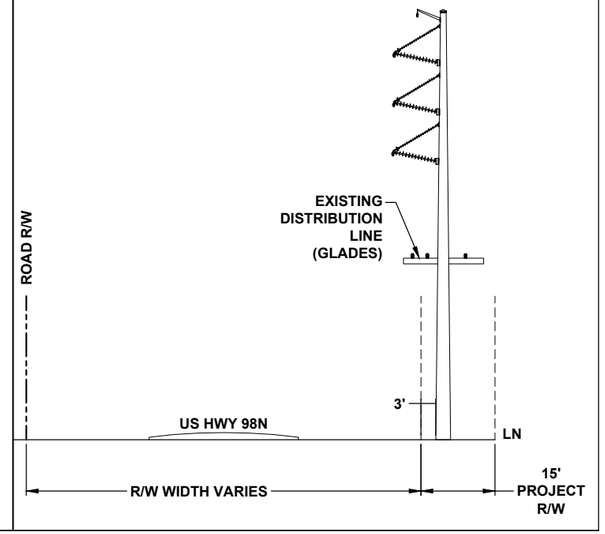

PROPOSED
BASINGER-WATERWAY
230kV LINE
STR 404W3 THROUGH 405W2



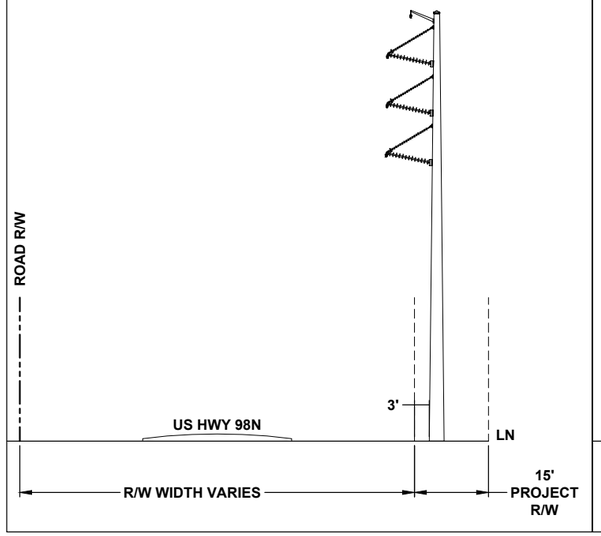

PROPOSED
BASINGER-WATERWAY
230kV LINE
STR 16L11 THROUGH 15L16



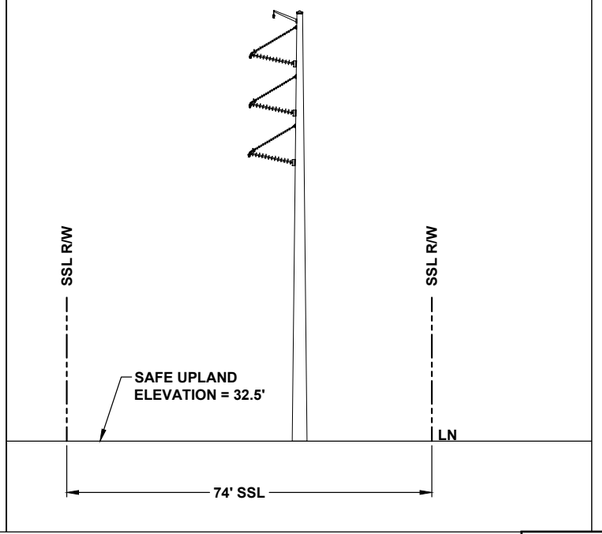

PROPOSED
BASINGER-WATERWAY
230kV LINE
STR 411W2 THROUGH 412W1




PROPOSED
BASINGER-WATERWAY
230kV LINE
STR 409W7 - 409W8, 410W1 - 411W1




PROPOSED
BASINGER-WATERWAY
230kV LINE
STR 409W9 THROUGH 409W10




| REV | DATE | DESCRIPTION | BY | CKD | APP |
|---|---|---|---|---|---|
| 0 | 1/19/2024 | ISSUED FOR PERMIT SUBMITTAL | ANG | BJW | BJW |

TYPICAL STRUCTURE CROSS SECTIONS

**FLORIDA POWER & LIGHT COMPANY**

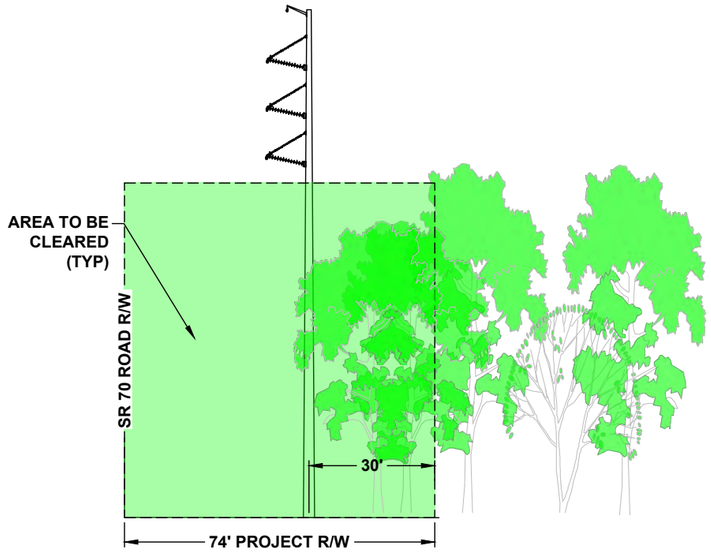
**Sweatt-Whidden TLSA Project, TA22-19**

*SCALE: NTS*
*DRAWN BY: ANG*
*ENGINEER: MKL*
*COUNTY: OKEECHOBEE*
*SHEET 1 OF 1*

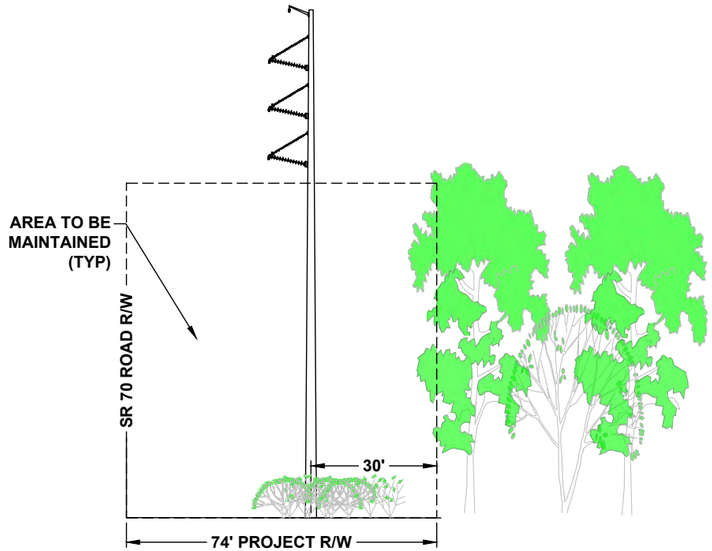
*DATE: **1/19/2024***
*CHECKED BY: BJW*
*SECTION: AS SHOWN*
*FILE NAME:*
*FPL_SR70SW_DualFrameCivilMap*

TYPICAL RIGHT-OF-WAY SECTIONS

This product is for informational purposes only and may not have been prepared for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of displayed information. Issued for permitting purposes only.




TYPICAL CLEARING 74' PROJECT R/W




TYPICAL MAINTENANCE 74' PROJECT R/W

| REV | DATE | DESCRIPTION | BY | CKD | APP |
|---|---|---|---|---|---|
| 0 | 1/19/2024 | ISSUED FOR PERMIT SUBMITTAL | ANG | BJW | BJW |

**FLORIDA POWER & LIGHT COMPANY** — **Sweatt-Whidden TLSA Project, TA22-19**

*SCALE: NTS*
*DRAWN BY: ANG*
*ENGINEER: MKL*
*COUNTY: OKEECHOBEE*
*SHEET 1 OF 1*

*DATE: **1/19/2024***
*CHECKED BY: BJW*
*SECTION: AS SHOWN*
*FILE NAME:*
*FPL_SR70SW_DualFrameCivilMap*

TYPICAL RIGHT-OF-WAY MAINTENANCE

This product is for informational purposes only and may not have been prepared for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of displayed information. Issued for permitting purposes only.

# Attachment 6A – Project Description and Construction Methods

# Attachment 6A – Project Description

Florida Power & Light Company (FPL) is proposing to construct a new 230-kilovolt (kV) transmission line, Sweatt-Whidden (Project), which is scheduled to be in service by December 2026. The Project will extend approximately 80.5 miles traversing through multiple counties in a combination of existing and new rights-of-way. The Project originates at FPL's existing Sweatt substation located in Okeechobee County and terminates at FPL's existing Whidden substation located in DeSoto County. Substations are not part of the certified project and improvements to the substations are not included in this submittal.

The project will increase the capacity and reliability of the existing transmission network in the central Florida area in a manner consistent with North American Electric Reliability Corporation and other applicable transmission system standards. The Project will consist of a single-circuit, 230-kV transmission line extending from FPL's existing Whidden substation in DeSoto County, Florida, to the existing FPL Sweatt substation in Okeechobee County, Florida (Figure 1-3). Several sections may involve rebuilding of existing utility (transmission and/or distribution) lines within existing utility corridors to accommodate the new circuit where practicable. Additional agreements, easements, or special use and/or right-of-way use may be required in these areas. Other areas will require new easements for the placement of transmission facilities.

The scope of this submittal includes construction of Segment 2 of the new transmission line extending from the existing Glades Electric Cooperative Basinger substation in Okeechobee County to the existing Glades Electric Cooperative Childs substation in Highlands County, Florida. The Childs substation is to be renamed Waterway substation with FPL takes over operation. This is the second segment of the larger project that will traverse through four Florida counties: Okeechobee, Highlands, and DeSoto. See Attachment 1 for an overview map depicting the four project segments.

Impacts to wetlands will be minimized by selective pole placement and the minimization of access roads. No new permanent roads are anticipated for this project.

**PROJECT PURPOSE AND NEED**

The need for the Project is based on the following considerations:

- Improvement of reliability for FPL customers served from the existing 69-kV circuit between Okeechobee and Whidden substations;
- Establishment of an additional transmission path to increase east-to-west power transfer capabilities; and
- Mitigation of potential overloads and low voltage conditions under contingency events.

The Project will efficiently and effectively meet this need by improving reliability for FPL customers currently served from the existing 69-kV circuit between Okeechobee and Whidden substations; increasing east-to-west power transfer capabilities of the transmission network by providing a resilient, hardened 230-kV circuit between the east and west areas of FPL's territory

north of Lake Okeechobee; relieving potential overloads and low voltage conditions under contingency events; and reducing line loading on existing transmission circuits.

FPL evaluated multiple transmission alternatives for meeting this identified need, which resulted in the selection of the Project. The Project presents the best alternative, taking into account the demand for electricity, enhancing electric system reliability and integrity, and addressing the need for abundant, low-cost electrical energy to assure the economic well-being of the citizens of this state. Furthermore, the Project meets area load requirements by serving potential future industrial, commercial, and residential load, while maximizing system reliability and minimizing cost to customers.

## PROJECT LOCATION

The entire project is approximately 80.5 miles in length and traverses portions of three Florida counties: Okeechobee, Highlands, and DeSoto. Segment 2 is a specific twelve-mile section of the project, in Okeechobee and Highlands counties, between the Basinger and Childs/Waterway substations. Attachments 1, 2 and 16 provide the project location map, Section, Township, Range map, and Route of Line maps, respectively.

## PROJECT FACILITIES

The Project will be constructed using monopole, self-supported structures. Where engineering considerations require, the poles may require guy wires. Structures will either be spun concrete or steel. The aerial overhead transmission line will have three phases and an overhead ground wire. Construction of Segment 2 will involve the rebuilding/ replacement of existing distribution structures, and in some sections, distribution underbuilt facilities will be attached to the new structures.

For the purpose of both construction and maintenance, both temporary and permanent easements may be required although much of the project will involve replacing structures within existing FPL easement. Transmission poles to construct this Project will vary in height from 75 to 110 feet above ground height, typically. Poles will be approximately 3 to 4 feet in diameter, and foundations will be either direct embedded or augered, cast-in-place concrete varying in width from 4 to 8 feet for steel structures. Pole spacing will typically vary from 300 to 750 feet, depending on physical features and site conditions along the right-of-way. See Attachment 6 for typical drawings.

The Project will be built using standard construction techniques. Existing paved and unpaved access roads will be utilized for construction and maintenance of the Project to the extent practicable. Based on their condition, some improvements to these existing access roads may be required.

Both temporary and permanent easements may be acquired for both construction and maintenance access purposes. It is anticipated for Segment 2, most construction access will be from existing easement and road rights-of-way where matting will be used temporarily. See Attachments 6 and 16 for typical drawings and route of line/civil drawings, respectively.

Permanent patrol roads will not be constructed. However, both temporary and permanent easements along the road rights-of-way are being acquired for both construction and maintenance purposes. The width and length of off-road right-of-way access points will vary as needed, depending on site-specific locations and landowner negotiations. Substation expansions will be permitted outside of this process and are not included in this submittal.

## DESIGN CODES AND STANDARDS

The primary code used in design of transmission lines is the National Electrical Safety Code (NESC), 2017 Edition. The NESC is an American National Standards Institute standard that covers electrical clearances and loading and strength requirements, including extreme wind. Codes and standards of other agencies and standard organizations that provide rules, guidelines, and conditions for particulars not specified by NESC but used to design and construct proposed transmission lines include the following:

- Occupational Safety and Health Administration rules, which provide requirements for safe minimum approach distances during construction;
- American Society of Civil Engineers Manual of Practice No. 74, Guidelines for Electrical Transmission Line Structural Loading, 2009, and Standard No. 048 11, Design of Steel Transmission Pole Structures, if using steel structures;
- Federal Aviation Administration guidelines (Title 14, Part 77, Code of Federal Regulation), which cover requirements in the vicinity of airports, if applicable;
- Florida Department of Environmental Protection regulations for electric and magnetic fields from electrical transmission lines under the provisions of Sections 403.061(30) and 403.523(14), Florida Statutes (The pertinent rule is 62-814, Florida Administrative Code. No permit is issued; however, utility companies can demonstrate compliance with the regulations with monitoring.); and
- Florida Department of Transportation 2017 Utility Accommodation Manual.

These codes, guidelines, and standards provide design parameters with the goal of protecting public safety.

## CONSTRUCTION OF THE FACILITIES

### General Construction Description

The Project will not construct new permanent roads but will instead utilize roadless construction techniques to minimize impacts to wetland features. Permanent impacts will be limited to the footprint of the transmission line structures, and selection of those pole placement locations has been planned to avoid or minimize impacts to wetlands and water bodies to the extent practicable. Temporary impacts to wetlands will be restricted to areas where access or construction workspace is needed. Matting will be used to protect wetlands where impacts cannot be avoided. The route of line/civil drawings (Attachment 16) depict where those temporary impacts are expected to occur. Following construction, natural contours will be restored to preconstruction levels. In areas where

clearing is required, some forested wetlands will be converted to herbaceous. Those impacts may be found in Attachment 10, Impacts Table and Functional Loss Calculations, and are depicted in Attachment 17, Wetland Impacts Map.

The Project will use a combination of skilled construction personnel. Prior to clearing, survey crews will enter the transmission right-of-way to establish clearing limits followed by clearing crews, which will generally consist of laborers and equipment operators. After clearing is complete, matting will be placed as needed by matting crews. Foundation installation and excavation will be completed by site civil personnel, which, similar to clearing and matting, will consist of laborers and equipment operators. Concrete workers will also be utilized for those structures supported by auger cast foundations. Structure setting, framing, and conductor installation will be performed by experienced transmission line workers, crane operators, and other heavy equipment operators. Clearing crews will be utilized to maintain stormwater pollution prevention plan measures and right-of-way restoration. Continuous oversight of construction operations will be provided by FPL Construction Management, with daily direct supervision of construction (including adherence to safety and environmental requirements) performed by the general contractor's supervisory personnel.

Construction sequencing along several spreads will keep the duration of construction to a minimum and limit the disturbance of the temporary matting. Attachment 6 provides an exhibit on typical matting detail. Once construction is completed, the area will be returned to its original contours.

Best management practices (BMPs) will be implemented during construction to prevent or minimize release of fluids from construction-related equipment. If night-time work occurs, appropriate lighting will be installed and monitoring of activities will occur both for safety purposes and to ensure water quality standards are maintained.

## Construction Clearing Methods

The work area will be cleared according to area type (i.e., wetland, upland) using the following methods. In general, vegetation removal will occur in the work area to the widths specified on the plans:

- Clearing Within Wetlands—Removal of trees by hand or utilizing low ground pressure equipment to reduce soil compaction and damage to ground cover and mowing of remaining vegetation with a low ground pressure flail or grinder type mower. Removable construction matting in conjunction with BMPs may be used in wetlands to support equipment. Final cut height of tree stumps will be either the top of water or ground surface, whichever is higher. Cut vegetation and woody debris will be removed and resulting ruts will be repaired.

- Mowing Within Wetlands—Shrub vegetation will be mowed to ground surface or top of water, whichever is higher, utilizing a low ground pressure flail or grinder type mower. Woody debris will be removed and resulting ruts will be repaired.

- Clearing Within Uplands—At minimum, all at-grade roads, pads, structure, and guy areas will be grubbed. Remaining tree removal can be grubbed or stumps ground to below ground surface. Remaining shrubs and ground cover can be grubbed or mowed. Disturbed areas will be filled, leveled, and stabilized with seed and mulch. Disturbed slopes will be sodded and staked.

## Construction Schedule

The transmission line pre-construction activities in Segment 2 are anticipated to begin in the spring of 2026 and be completed approximately twelve months later.

**TLSA Segment 2: Basinger-Waterway Schedule**

| | 2026 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Activity | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
| Vegetation Clearing | 1/1 | | | | | | | 8/1 | | | | |
| Installation and removal of erosion & turbidity control and stabilization | 1/1 | | | | | | | | | | | 12/1 |
| Dredging and Filling (Pole Installation) | 1/1 | | | | | | | | | | | 12/1 |

## Access to Right-of-Way

FPL is currently negotiating agreements with landowners for temporary and permanent easements for both construction and maintenance access where needed. No new roads are proposed. For Segment 2: Basinger - Waterway, it is anticipated that access will be along existing easement or from road rights-of-way. Improvements for access are expected to be limited to light grading, filling in of potholes, and light tree trimming. Matting will be used as needed to address site-specific conditions to be assessed at the time of construction. Attachment 6 provides a typical drawing for site-specific matting.

## Operations and Maintenance

Once constructed, the transmission line would be in service continuously for approximately 50 years. Routine inspection/maintenance will be conducted for poles, conductors, vegetation management, and the right-of-way once a year from the ground. Additional inspections may also be conducted by helicopter, or drone, on an as-needed basis.

FPL's vegetation management practices are to use an integrated vegetation management approach to achieve program objectives through:

- Identification of compatible and incompatible vegetation through inspections that occur two times a year.
- Implementation of appropriate control methods to discourage incompatible vegetation.
- Promotion of compatible vegetation.

Control methods are based on environmental impact and anticipated effectiveness, along with site characteristics, security, economics, current land use, and other factors. These methods include, but are not limited to pruning, removal, herbicide application, and mowing. Typical mowing cycles are on a regular maintenance cycle, whereas other work activities are performed as needed.

# Attachment 10 – Impacts Table and Functional Loss Calculations

**Attachment 10 - All Wetland and Surface Waters Impacts (in Project Footprint)**

| Wetland ID | FLUCFCS | Impact Type | Impact Acreage | Total Wetland Acreage |
|---|---|---|---|---|
| D-1A | 512 | Temp Impact | 0.38 | 0.40 |
| D-26 | 512 | Temp Impact | 0.01 | 0.01 |
| D-27 | 512 | Temp Impact | 0.01 | 0.01 |
| D-28 | 512 | Temp Impact | 0.08 | 0.08 |
| D-29 | 512 | Temp Impact | 3.27 | 3.30 |
| D-29 | 512 | Perm Fill | 0.001154 | |
| D-29 | 512 | Perm Fill | 0.001154 | |
| D-30 | 512 | Temp Impact | 1.40 | 1.40 |
| D-32 | 512 | Temp Impact | 0.94 | 1.94 |
| D-34 | 512 | Temp Impact | 0.04 | 3.76 |
| D-3B | 512 | Temp Impact | 0.59 | 0.59 |
| D-40 | 512 | Temp Impact | 0.17 | 0.17 |
| D-40 | 512 | Perm Fill | 0.001154 | |
| D-41 | 512 | Temp Impact | 2.18 | 2.21 |
| D-42 | 512 | Temp Impact | 0.08 | 0.08 |
| D-43 | 512 | Temp Impact | 0.07 | 0.07 |
| D-44 | 512 | Temp Impact | 1.48 | 1.48 |
| D-45 | 512 | Temp Impact | 1.32 | 1.32 |
| D-46 | 512 | Temp Impact | 0.27 | 0.32 |
| D-46B | 512 | Temp Impact | 0.01 | 0.43 |
| D-46C | 512 | Temp Impact | 0.00 | 4.18 |
| D-47 | 512 | Temp Impact | 0.24 | 1.11 |
| D-48 | 512 | Temp Impact | 0.03 | 0.09 |
| D-49 | 512 | Temp Impact | 0.43 | 0.43 |
| D-50 | 512 | Temp Impact | 1.14 | 1.14 |
| D-51 | 512 | Temp Impact | 0.96 | 0.96 |
| D-54A | 512 | Temp Impact | 0.40 | 0.40 |
| D-54A | 512 | Perm Fill | 0.001154 | |
| D-55A | 512 | Temp Impact | 0.08 | 0.08 |
| D-56 | 512 | Temp Impact | 0.85 | 0.85 |
| D-56 | 512 | Perm Fill | 0.001154 | |
| D-57A | 512 | Temp Impact | 0.93 | 0.93 |
| D-58A | 512 | Temp Impact | 1.22 | 1.22 |
| D-59A | 512 | Temp Impact | 0.47 | 0.47 |
| D-59B | 512 | Temp Impact | 0.29 | 0.91 |
| D-60A | 512 | Temp Impact | 0.51 | 0.51 |
| D-68 | 512 | Temp Impact | 0.00 | 0.28 |
| D-69 | 512 | Temp Impact | 0.09 | 1.49 |
| D-70 | 512 | Temp Impact | 0.03 | 0.11 |
| D-73 | 512 | Temp Impact | 0.01 | 0.05 |
| D-74 | 512 | Temp Impact | 0.01 | 0.03 |

**Attachment 10 - All Wetland and Surface Waters Impacts (in Project Footprint)**

| Wetland ID | FLUCFCS | Impact Type | Impact Acreage | Total Wetland Acreage |
|---|---|---|---|---|
| D-83 | 512 | Temp Impact | 0.01 | 0.28 |
| D-87 | 512 | Temp Impact | 0.08 | 0.14 |
| D-88 | 512 | Temp Impact | 0.03 | 0.03 |
| SW-35 | 510 | Temp Impact | 1.06 | 22.88 |
| WB-75 | 524 | Temp Impact | 0.56 | 0.82 |
| WB-75 | 524 | Perm Fill | 0.001154 | |
| WB-86 | 524 | Temp Impact | 0.48 | 0.59 |
| DW-1A | 641 | Perm Maintained | 0.12954 | 0.91 |
| DW-1A | 641 | Temp Impact | 0.04 | |
| W-37A | 641/643 | Perm Maintained | 3.81673 | 5.52 |
| W-37B | 630 | Temp Impact | 0.03 | 0.41 |
| W-37B | 630 | Perm Conversion | 0.22 | |
| W-38A | 630 | Temp Impact | 0.10 | 1.80 |
| W-38A | 630 | Perm Conversion | 0.04 | |
| W-39 | 641 | Perm Maintained | 0.03396 | 0.40 |
| W-39 | 641 | Temp Impact | 0.00 | |
| W-40A | 641 | Temp Impact | 0.06 | 0.44 |
| W-40A | 641 | Perm Maintained | 0.04575 | |
| W-41A | 641 | Perm Maintained | 0.09226 | 0.39 |
| W-51 | 641 | Perm Maintained | 0.05804 | 0.26 |
| W-51 | 641 | Temp Impact | 0.02 | |
| W-52 | 641 | Perm Maintained | 0.00206 | 0.37 |
| W-53A | 641 | Perm Maintained | 0.25833 | |
| W-53A | 641 | Perm Fill | 0.001154 | |
| W-56 | 641 | Perm Maintained | 0.46846 | 2.76 |
| W-56 | 641 | Perm Fill | 0.001154 | |
| W-56 | 641 | Perm Fill | 0.001154 | |
| W-62 | 641 | Temp Impact | 0.04 | 0.18 |
| W-62 | 641 | Perm Maintained | 0.03219 | |
| W-64 | 641 | Perm Maintained | 0.12086 | 1.79 |
| W-65 | 641 | Perm Maintained | 0.02666 | 0.29 |
| W-65 | 641 | Perm Fill | 0.001154 | |
| W-66 | 641 | Perm Maintained | 0.24155 | 0.78 |
| W-66 | 641 | Perm Fill | 0.001154 | |
| W-67 | 641 | Perm Maintained | 0.05709 | 0.45 |
| W-68 | 641 | Perm Maintained | 0.08462 | 1.02 |
| W-69 | 641 | Perm Maintained | 0.00618 | 0.01 |
| W-70 | 641 | Perm Maintained | 0.01476 | 0.11 |
| W-70 | 641 | Temp Impact | 0.00 | |
| W-71 | 641 | Perm Maintained | 0.00222 | 0.40 |
| W-71 | 641 | Temp Impact | 0.00 | |

**Attachment 10 - All Wetland and Surface Waters Impacts (in Project Footprint)**

| Wetland ID | FLUCFCS | Impact Type | Impact Acreage | Total Wetland Acreage |
|---|---|---|---|---|
| W-72 | 641 | Perm Maintained | 0.04515 | 0.06 |
| W-72 | 641 | Temp Impact | 0.00 | |
| W-73 | 641 | Perm Maintained | 0.02108 | 0.15 |
| W-73 | 641 | Temp Impact | 0.00 | |
| W-75 | 641 | Perm Maintained | 0.86163 | 5.33 |
| W-75 | 641 | Perm Fill | 0.001154 | |
| W-76 | 641 | Perm Maintained | 0.06 | 0.72 |
| **Total** | | | 29.26 | 82.09 |

Red Text Indicates NWI Desktopped Data

Project Footprint includes both Temporary Workspace plus Narrowed Corridor (eventual ROW)

**Attachment 10 - Non-Forested Wetland Impacts**

**(Temporary Impacts and Permanently Maintained)**

| Name | FLUCCS | Impact Type | UMAM | Impact Acres |
|---|---|---|---|---|
| W-39 | 641 | Temp Impact | 0.46 | 0.00 |
| W-40A | 641 | Temp Impact | 0.46 | 0.06 |
| W-51 | 641 | Temp Impact | 0.46 | 0.02 |
| W-62 | 641 | Temp Impact | 0.46 | 0.04 |
| W-70 | 641 | Temp Impact | 0.43 | 0.00 |
| W-71 | 641 | Temp Impact | 0.43 | 0.00 |
| W-72 | 641 | Temp Impact | 0.43 | 0.00 |
| W-73 | 641 | Temp Impact | 0.43 | 0.00 |
| DW-1A | 641 | Temp Impact | 0.43 | 0.04 |
| W-37A | 641/643 | Perm Maintained | 0.46 | 3.82 |
| W-39 | 641 | Perm Maintained | 0.46 | 0.03 |
| W-40A | 641 | Perm Maintained | 0.46 | 0.05 |
| W-41A | 641 | Perm Maintained | 0.46 | 0.09 |
| W-51 | 641 | Perm Maintained | 0.46 | 0.06 |
| W-52 | 641 | Perm Maintained | 0.46 | 0.00 |
| W-53A | 641 | Perm Maintained | 0.46 | 0.26 |
| W-56 | 641 | Perm Maintained | 0.46 | 0.47 |
| W-62 | 641 | Perm Maintained | 0.46 | 0.03 |
| W-64 | 641 | Perm Maintained | 0.43 | 0.12 |
| W-65 | 641 | Perm Maintained | 0.43 | 0.03 |
| W-66 | 641 | Perm Maintained | 0.43 | 0.24 |
| W-67 | 641 | Perm Maintained | 0.43 | 0.06 |
| W-68 | 641 | Perm Maintained | 0.43 | 0.08 |
| W-69 | 641 | Perm Maintained | 0.43 | 0.01 |
| W-70 | 641 | Perm Maintained | 0.43 | 0.01 |
| W-71 | 641 | Perm Maintained | 0.43 | 0.00 |
| W-72 | 641 | Perm Maintained | 0.43 | 0.05 |
| W-73 | 641 | Perm Maintained | 0.43 | 0.02 |
| W-75 | 641 | Perm Maintained | 0.43 | 0.86 |
| W-76 | 641 | Perm Maintained | 0.43 | 0.06 |
| NWI: DW-1A | 641 | Perm Maintained | 0.43 | 0.13 |
| **Total** | | | | 6.62 |

Red Text Indicates NWI Desktopped Data

**Attachment 10 - Forested and Non-forested Wetlands (Permanent Fill Impacts)**

| | | | Existing Conditions (Pre-Project) | | | With Project | | |
|---|---|---|---|---|---|---|---|---|
| **Structure Number** | **Impact** | **Wetland/ Waterbody ID** | **FLUCFCS** | **UMAM** | | **Permanent Fill within Permanently Maintained Footprint (acres)** | **Permanent Fill (Rounded)** | **Functional Loss** |
| 411W2 | Perm Fill | D-29 | 512 | NA | | 0.001154 | 0.00 | 0.00 |
| 411W3 | Perm Fill | D-29 | 512 | NA | | 0.001154 | 0.00 | 0.00 |
| 402W7 | Perm Fill | D-40 | 512 | NA | | 0.001154 | 0.00 | 0.00 |
| 411W4 | Perm Fill | D-54A | 512 | NA | | 0.001154 | 0.00 | 0.00 |
| 408W3 | Perm Fill | D-56 | 512 | NA | | 0.001154 | 0.00 | 0.00 |
| 411W1 | Perm Fill | W-53A | 641 | 0.46 | | 0.001154 | 0.00 | 0.00 |
| 404W3 | Perm Fill | W-56 | 641 | 0.46 | | 0.001154 | 0.00 | 0.00 |
| 404W4 | Perm Fill | W-56 | 641 | 0.46 | | 0.001154 | 0.00 | 0.00 |
| 408W5 | Perm Fill | W-65 | 641 | 0.43 | | 0.001154 | 0.00 | 0.00 |
| 408W4 | Perm Fill | W-66 | 641 | 0.43 | | 0.001154 | 0.00 | 0.00 |
| 15L14 | Perm Fill | W-75 | 641 | 0.43 | | 0.001154 | 0.00 | 0.00 |
| 16L8 | Perm Fill | WB-75 | 524 | NA | | 0.001154 | 0.00 | 0.00 |
| **Total** | | | | | | 0.013848 | 0.01 | 0.01 |

Transmission line structures = 0.001154 acre impact

**Attachment 10 - Surface Water Impacts (Temporary Impacts)**

| Name | Impact Type | FLUCCS | Impact Acres |
|---|---|---|---|
| D-1A | Temp Impact | 512 | 0.38 |
| D-26 | Temp Impact | 512 | 0.01 |
| D-27 | Temp Impact | 512 | 0.01 |
| D-28 | Temp Impact | 512 | 0.08 |
| D-29 | Temp Impact | 512 | 3.27 |
| D-30 | Temp Impact | 512 | 1.40 |
| D-32 | Temp Impact | 512 | 0.94 |
| D-34 | Temp Impact | 512 | 0.04 |
| D-3B | Temp Impact | 512 | 0.59 |
| D-40 | Temp Impact | 512 | 0.17 |
| D-41 | Temp Impact | 512 | 2.18 |
| D-42 | Temp Impact | 512 | 0.08 |
| D-43 | Temp Impact | 512 | 0.07 |
| D-44 | Temp Impact | 512 | 1.48 |
| D-45 | Temp Impact | 512 | 1.32 |
| D-46 | Temp Impact | 512 | 0.27 |
| D-46B | Temp Impact | 512 | 0.01 |
| D-46C | Temp Impact | 512 | 0.00 |
| D-47 | Temp Impact | 512 | 0.24 |
| D-48 | Temp Impact | 512 | 0.03 |
| D-49 | Temp Impact | 512 | 0.43 |
| D-50 | Temp Impact | 512 | 1.14 |
| D-51 | Temp Impact | 512 | 0.96 |
| D-54A | Temp Impact | 512 | 0.40 |
| D-55A | Temp Impact | 512 | 0.08 |
| D-56 | Temp Impact | 512 | 0.85 |
| D-57A | Temp Impact | 512 | 0.93 |
| D-58A | Temp Impact | 512 | 1.22 |
| D-59A | Temp Impact | 512 | 0.47 |
| D-59B | Temp Impact | 512 | 0.29 |
| D-60A | Temp Impact | 512 | 0.51 |
| D-68 | Temp Impact | 512 | 0.00 |
| D-69 | Temp Impact | 512 | 0.09 |
| D-70 | Temp Impact | 512 | 0.03 |
| D-73 | Temp Impact | 512 | 0.01 |
| D-74 | Temp Impact | 512 | 0.01 |
| D-83 | Temp Impact | 512 | 0.01 |
| D-87 | Temp Impact | 512 | 0.08 |
| D-88 | Temp Impact | 512 | 0.03 |
| SW-35 | Temp Impact | 510 | 1.06 |
| WB-75 | Temp Impact | 524 | 0.56 |
| WB-86 | Temp Impact | 524 | 0.48 |
| **Total** | | | 22.21 |

**Attachment 10 - Forested Wetlands - Temporary Construction Impacts**

| | Existing Conditions (Pre-Project) | | | | | | With Project | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Wetland ID** | **FLUCFCS** | **Location Landscape Support** | **Water Environment** | **Community Structure** | **Current UMAM** | **Acreage Impacted outside Permanently Maintained Footprint** | **Location Landscape Support *** | **Water Environment** | **Community Structure** | **UMAM Post Construction** | **Delta** | **Time Lag **** | **Functional Loss** |
| W-37B | 630 | 3 | 6 | 6 | 0.50 | 0.03 | 2 | 6 | 3 | 0.37 | 0.13 | 1.46 | 0.00584 |
| W-38A | 630 | 3 | 6 | 6 | 0.50 | 0.10 | 2 | 6 | 3 | 0.37 | 0.13 | 1.46 | 0.01868 |
| **Total** | | | | | | 0.13 | | | | | | | **0.025** |

* With Project Location and Landscape scores were reduced by 1 in areas where project is collocated along existing fences and impervious surfaces that currently pose barriers to wildlife.
** Assumes Time Lag of 1.46 for 15 years estimated for reestablishment of reduced forested wetland function.
Assumes Risk Factor of 1 (*de minimis* )

**Attachment 10 - Forested Wetland Impacts (Permanently Maintained/Permanent Conversion)**

| | Existing Conditions (Pre-Project) | | | | | | | With Project | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Wetland ID** | **FLUCFCS** | **Location Landscape Support** | **Water Environment** | **Community Structure** | **Current UMAM** | **Conversion Acreage within Permanently Maintained Footprint** | | **Location Landscape Support **** | **Water Environment** | **Community Structure** | **UMAM** | **Delta** | **Functional Loss** | **Time Lag** |
| W-37B | 630 | 3 | 6 | 6 | 0.5 | 0.22 | | 2 | 6 | 3 | 0.36667 | 0.13333 | 0.02878 | 1.0 |
| W-38A | 630 | 3 | 6 | 6 | 0.5 | 0.04 | | 2 | 6 | 3 | 0.36667 | 0.13333 | 0.00531 | 1.0 |
| **Total** | | | | | | 0.256 | | | | | | | 0.034 | |

** With Project Location and Landscape scores were reduced by 1 in areas where project is collocated along existing fences and impervious surfaces that currently pose barriers to wildlife.

# Attachment 11 – Reduction of Impacts Narrative

# Attachment 11 — Impacts Assessment/Statement of Avoidance and Minimization

## PROPOSED IMPACTS

The Florida Power & Light Company Segment 2: –Basinger - Waterway transmission project will impact a total of 38.39 acres of wetlands and surface waters. Due to the overhead nature of the project, most of these impacts will be temporary in nature and will result from typical transmission line construction activities, such as vegetation clearing, light raking, temporary construction matting, and ground disturbance from construction vehicles during installation.

For purposes of this application, most impacts are considered temporary unless there will be a permanent change in wetland type, (i.e., permanent conversion of forested wetland to non-forested wetland within the permanent maintenance area or permanent fill resulting from installation of a transmission structure). Impacts to non-forested wetland systems and water bodies are also considered temporary, as they will be restored to preconstruction condition once the transmission line has been installed. Construction and restoration activities in wetlands and water bodies will employ best management practices to minimize impacts to wetlands, such as those found in the exhibits included in Attachments 6, 6A, and 16.

The Table in Attachment 10 summarizes the wetland and water body impacts by type and provide the impact type for each wetland and water body within the proposed project impact area.

Attachment 17 depicts the location of the proposed wetland and water body impacts along the proposed transmission alignment.

## WETLAND IMPACTS

### Temporary Construction Impacts

The project will temporarily impact 6.65 acres of wetlands. The temporary impacts to non-forested wetlands within the permanently maintained project footprint (approximately 6.48 acres or approximately 21 percent of total wetland/waterbody impact) are freshwater marshes (641) associated with roadside swales, agricultural fields, or cattle pastures. Approximately 0.17 acre of non-forested wetlands outside the permanent project footprint will be temporarily impacted by construction activities. These wetlands are primarily vegetated non-forested wetlands (641) associated with roadside drainages or agricultural pastures.

Approximately 0.13 acre of forested wetland will be temporarily impacted during construction. These are all associated with mixed forested wetlands (630). The temporary construction right-of-way will be restored to its preconstruction contours to avoid long-term impacts to wetland hydrology. Wetland vegetation will re-establish through natural succession once construction and restoration activities are complete. In emergent wetlands, herbaceous vegetation is expected to regenerate quickly (typically within one growing season).

### Permanent Fill and Conversion Impacts

The project will result in a permanent fill of 0.007-acre of wetlands (non-forested) where transmission poles will be placed. These impacts were minimized by careful consideration of pole placement to avoid wetlands where practicable. Conversion of approximately 0.25-acre of forested wetland to non-forested wetlands will occur in forested wetlands that are within the footprint of the permanently maintained right-of-way, which will not be allowed to re-establish as forest after construction, to minimize potential outages caused by trees and limbs interfering with transmission lines. Restricting the clearing footprint where possible within these permanently maintained areas will further reduce the impact acreage. The forested wetland clearing will occur over 12 miles of the proposed Basinger - Waterway transmission line, thus the general permit criteria of <0.5-acre of forested wetlands per ten miles of line will be met.

Following construction, these areas will be maintained as emergent or scrub/shrub wetlands, so there will be no net loss of wetlands, but rather a change of wetland type in these areas.

## WATER BODY IMPACTS

Most water body impacts are proposed to be temporary in nature and limited to the construction time frame, which is expected to be approximately twelve months. Each water body crossing will be restored to its preconstruction contour and stabilized to minimize erosion. There will be temporary impacts to several natural streams (aerial crossing) and man-made ditches combined total impact area of approximately 22.21 acres. These crossings will be traversed using matting or temporary bridges (Attachment 6, Typical Drawings). The construction methods will include matting laid in such a way that allows for transverse water flow so as to minimize interruption to the natural water flow paths. Otherwise, the crossings will be overhead with no resulting impacts to water bodies. There are also 0.007-acre of permanent impacts associated with structure placement in surface waters.

## ELIMINATION OR REDUCTION OF IMPACTS

Impacts to wetlands and water bodies were eliminated or reduced to the extent practicable by using the following standards:

- Designing a route that will meet project objectives while avoiding and minimizing environmental impacts;
- Locating permanent structures and other project features in uplands;
- Limiting the corridor and construction right-of-way to previously disturbed areas (e.g., electric transmission line corridors, other pipeline corridors, and road and railroad rights-of-way);
- Minimizing impacts to sensitive environmental features by using specialized construction techniques, such as matting and temporary bridges, where appropriate;
- Locating temporary workspaces and access areas within existing utility/transportation corridors or in other upland areas such as existing roads;

- Implementing best management practices and effective soil erosion control measures (e.g., silt fence, straw bales), including routine inspections during construction and until soil stabilization has occurred; and

- Minimizing the construction duration to limit the disturbance to natural resources.

# Attachment 12 – Fish, Wildlife, Listed Species and Their Habitats

# Attachment 12 - Fish, Wildlife, Listed Species, and Their Habitats

## VEGETATION

Because much of the proposed transmission right-of-way contains lands that have already been cleared and maintained, construction associated with the 230-kilovolt transmission line should not pose any significant additional adverse changes to vegetation in these areas. Limited permanent alterations will be associated with right-of-way clearing and structure installation. The proposed right-of-way crosses no large expanses of forested uplands or wetlands. Attachment 6, Typical Drawings, depicts types of impacts associated with construction that are expected to occur to the existing vegetation communities crossed by the proposed right-of-way.

In areas of the corridor where co-location opportunities occur along existing roads or other infrastructure, forested wetlands may have already been impacted. Limited additional clearing of trees directly adjacent to the existing rights-of-way may be required. In these areas, the right-of-way will subsequently be maintained in a low-growing, early successional state. Adjoining tracts of woodlands will remain intact and provide habitat for forest species. In addition, adjacent vegetation communities should not be affected by structure installation and temporary access improvements because erosion control measures will be used.

Construction practices in wetlands will retain the vegetative root mat in the right-of-way in areas not filled as part of structure installation, thereby minimizing impacts to the wetlands. Impacts to wetlands will also vary depending on the wetland system through which the transmission line is routed. The shift in wetland composition will vary with the type of original canopy and soil alterations resulting from construction activities.

## WILDLIFE

Specific impacts to terrestrial and aquatic animals due to transmission line construction vary by species and depend primarily on the extent of habitat alteration and continued availability of such habitat after construction. The proposed project crosses no federally designated critical habitat. In addition, no aquatic habitats critical to the continued regional presence of important species will be affected. The co-location with existing road and transmission line rights-of-way will minimize habitat losses and avoid the creation of barriers to animals' movements.

Individual small burrowing mammals (e.g., rodents), reptiles, or amphibians may be lost during right-of-way clearing. Such individual losses, however, will not affect local or regional populations. Losses of medium-sized or large mammals, birds, or other mobile species from direct impacts or habitat alterations are not expected because of the mobility of these animals. Therefore, no adverse impacts are expected to local or regional populations of game species, species of special concern or commercial importance, or threatened or endangered species occurring or potentially occurring within the right-of-way area.

No significant impacts to resident birds or migratory species are expected since the proposed right-of-way does not include major staging, breeding, or wintering areas for social, migratory species

(e.g., waterfowl, shorebirds, passerines). Local disturbance or displacement of wildlife because of construction noise will be minor and short-term, as construction activities in any one location will be intermittent and are not expected to last more than a few weeks. Also, the location of the proposed right-of-way along major highways and existing transmission line rights-of-way will further limit the potential for wildlife disturbance because individuals in these areas will already be habituated to traffic noise where present.

## AQUATIC LIFE

Impacts on aquatic systems and species are expected to be minor. Appropriate erosion control measures such as staked hay bales and silt curtains will minimize or eliminate siltation resulting from stormwater runoff. Transmission line and temporary access road improvements (if necessary) in wetland areas will use methods such as erosion control as necessary to minimize significant disruption to the aquatic ecosystem or resultant changes in species composition.

The potential construction impacts on listed species documented for the proposed right-of-way are discussed in the following paragraphs.

## LISTED SPECIES

Under the Endangered Species Act of 1973 (ESA), species may be listed as either endangered or threatened. “Endangered” means a species is in danger of extinction throughout all or a significant portion of its range. “Threatened” means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments.

Table 12-1 identifies listed or managed species with the potential to occur in the Sweatt – Whidden Certified Corridor Area. Protocol surveys or noted observances that took place during wetland delineations and field reviews occurring between January 5, 2023, and May 18, 2023, are noted in the narrative for each species with likelihood to occur in the Segment 2: Basinger - Waterway project area.

Ecologists evaluated the potential presence of listed species in DeSoto County. This assessment began by performing a records review of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) report powered by the Environmental Conservation Online System, Florida Natural Areas Inventory (FNAI) Biodiversity Matrix, and Florida Fish and Wildlife Conservation Commission (FWC) geographic information system (GIS) records, including the wading bird and bald eagle nest databases. This information was supplemented by informal wildlife observations during the field review and wetland delineation surveys (Table 12-1).

**Table 12-1. Threatened and Endangered Species with Potential to Occur in Sweatt–Whidden Certified Corridor**

| Scientific Name | Common Name | Federal Listing | State Listing |
|---|---|---|---|
| Mammals | | | |
| *Eumops floridanus* | Florida bonneted bat | E | E |
| *Puma (=Felis) concolor coryi* | Florida panther | E | E |
| *Trichechus manatus* | West Indian manatee | T | T |
| *Ursus americanus floridanus* | Florida black bear | N | N |
| Birds | | | |
| *Ammodramus savannarum floridanus* | Florida grasshopper sparrow | E | E |
| *Aphelocoma coerulescens* | Florida scrub-jay | T | T |
| *Athene cunicularia floridana* | Florida burrowing owl | N | T |
| *Egretta caerulea* | Little blue heron | N | T |
| *Egretta tricolor* | Tricolored heron | N | T |
| *Falco sparverius paulus* | Southeastern American kestrel | N | T |
| *Grus* canadensis pratensis | Florida sandhill crane | N | T |
| *Haliaeetus leucocephalus* | Bald eagle | N | N (*) |
| *Mycteria americana* | Wood stork | T | T |
| *Picoides borealis* | Red-cockaded woodpecker | E | E |
| *Polyborus plancus audubonii* | Audubon's crested caracara | T | T |
| *Rostrhamus sociabilis plumbeus* | Everglade snail kite | E | E |
| Reptiles | | | |
| *Alligator mississippiensis* | American alligator | FT | SAT |
| *Drymarchon couperi* | Eastern indigo snake | T | T |
| *Eumeces egregious lividus* | Bluetail mole skink | T | T |
| *Gopherus polyphemus* | Gopher tortoise | C | T |
| *Neoseps reynoldsi* | Sand skink | T | T |
| *Pituophis melanoleucus mugitus* | Florida pine snake | N | T |
| Insects | | | |
| *Danaus plexippus* | Monarch butterfly | C | |
| Plants | | | |
| *Andropogon arctatus* | Pine-woods bluestem | N | T |
| *Bonamia grandiflora* | Florida bonamia | T | N |
| *Calopogon multiforus* | Many-flowered grass-pink | N | T |
| *Calmintha ashei* | Ashe's savory | N | T |
| *Carex chapmanii* | Chapman's sedge | N | T |
| *Centrosema Arenicola* | Sand butterfly pea | N | E |
| *Chionanthus pygmaeus* | Pygmy fringe-tree | E | E |
| *Chrysopsis floridana* | Florida goldenaster | E | E |
| *Clitoria fragrans* | Pigeon wings | T | E |
| *Coelorachis tuberculosa* | Piedmont jointgrass | N | T |
| *Conradina brevifolia* | Short-leaved rosemary | E | E |
| *Conradina grandifloria* | Large-flowered rosemary | N | T |
| *Crotalaria avonensis* | Avon park harebells | E | E |
| *Dicerandra christmanii* | Garrett's mint | E | E |
| *Dicerandra frutescens* | Scrub mint | E | E |
| *Eriogonom longifolium var. gnaphalifolium* | Scrub buckwheat | T | E |
| *Eryngium cuneifolium* | Snakeroot/wedge-leaved button-snakeroot | E | E |
| *Euphorbia rosescens* | Scrub spurge | N | E |
| *Glandularia maritima* | Coastal vervain | N | E |
| *Hartwrightia floridana* | Hartwrightia | N | T |

**Table 12-1. Threatened and Endangered Species with Potential to Occur in Sweatt–Whidden Certified Corridor**

| Scientific Name | Common Name | Federal Listing | State Listing |
|---|---|---|---|
| *Hypericum cumulicola* | Highlands scrub hypericum | E | E |
| *Hypericum edisonianum* | Edison's ascyrum | N | E |
| *Lechea cernua* | Nodding pinweed | N | T |
| *Lechea divaricate* | Pine pinweed | N | E |
| *Linum carteri var. smallii* | Small's flax | N | E |
| *Liatris ohlingerae* | Scrub blazing star | E | E |
| *Lupinus aridorum* | Scrub lupine | E | E |
| *Litsea aestivalis* | Pondspice | N | E |
| *Matelea floridana* | Florida spiny-pod | N | E |
| *Nemastylis floridana* | Celestial lily | N | E |
| *Nolina atopocarpa* | Florida beargrass | N | T |
| *Nolina brittoniana* | Britton's beargrass | E | E |
| *Panicum abscissum* | Cutthroat grass | N | E |
| *Paronychia chartacea* | Papery Whitlow-wort/paper nailwort | T | E |
| *Platanthera integra* | Yellow fringeless orchid | N | E |
| *Polygala lewtonii* | Lewton's polygala | E | E |
| *Polygonella basiramia* | Wireweed/Florida jointweed | E | E |
| *Polygonella myriophylla* | Sandlace/Small's jointweed | E | E |
| *Prunus geniculata* | Scrub plum | E | E |
| *Pteroglossaspis ecristata* | Giant orchid | N | T |
| *Salix floridana* | Florida willow | N | E |
| *Schizachyrium niveum* | Scrub bluestem | N | E |
| *Stylisma abdita* | Scrub stylisma | N | E |
| *Warea amplexifolia* | Wide-leaf warea | E | E |
| *Warea carterii* | Carter's mustard | E | E |
| *Zephyranthes simpsonii* | Redmargin zephyrlily | N | T |
| *Ziziphus celata* | Florida ziziphus | E | E |

Note: C = candidate.
E = endangered.
N = not currently listed.
SAT = threatened due to similarity of appearance to American crocodile.
T = threatened.

*Bald eagles are afforded federal protection under the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act.

Source: ECT, 2022, 2023, 2024.

Segment 2: Basinger – Waterway does not intersect known critical habitat for any federally listed species in Okeechobee or Highlands County. Multiple listed species are known or have the potential to occur in the study area. See Table 12-1 and Attachment 12A.

Based on the results of the desktop and field investigations, the following protected or managed species have been identified as being known to occur or having the moderate potential to occur within the Segment 2: Basinger - Waterway project footprint, in the Okeechobee/Highlands County study area.

Table 12-1 summarizes the listed species with potential to occur within Okeechobee, Highlands, Glades and DeSoto counties in proximity to the Sweatt – Whidden Certified Corridor. This assessment began by performing a records review of the USFWS IPaC report powered by the Environmental Conservation Online System, FNAI Biodiversity Matrix, and FWC GIS records, including the wading bird and bald eagle (*Haliaeetus leucocephalus*) nest databases.

**Federal Species**

Consultation discussions are currently occurring with USFWS for each species below within this segment. Florida Power & Light Company (FPL) initiated informal consultation with USFWS on January 9, 2023.

American Alligator—The alligator is listed as threatened by USFWS and FWC due to similarity of appearance to the American crocodile (*Crocodylus acutus*). Alligators are not uncommon in this part of the state, and this reptile is assumed present in most surface waters.

Audubon's Crested Caracara—This raptor is listed as a threatened species by USFWS. It is present in Central and South Florida, including the four counties crossed by the Preferred Corridor. Caracaras commonly occur in dry or wet prairie areas with scattered cabbage palms *(Sabal palmetto)* or in lightly wooded areas of scattered saw palmetto *(Serenoa repens),* scrub oaks *(Quercus inopina),* and cypress (*Cupressus* spp.). In consultation with USFWS, Crested Caracara surveys are currently planned for January 2024 for Segment 2. The results of surveys will be provided to USFWS ecological services. No nests have been identified within the project right-of-way to date, most of which is in existing transmission easement. Caracaras are highly opportunistic in their feeding habits, eating carrion and capturing live prey and have been identified along the Segment 2: Basinger - Waterway project area during wetland delineations surveys and other assessments along State Road (SR) 70.

Eastern Indigo Snake—This species (*Drymarchon couperi*) is federally and state-listed as threatened. This distinctive large, black snake can occur in suitable habitats throughout Florida. It has a wide range of habitat preferences and prey species and requires large tracts of land for survival. Often considered a gopher tortoise commensal, it can be found in xeric habitats but also uses more mesic or wetland habitats for foraging. Suitable habitat is present for this species within the project area. FPL has requested technical assistance from USFWS to obtain guidance to appropriately address potential impacts to federally listed species and their habitat. Conservation measures will be determined in consultation with USFWS. This is expected to include conforming with USFWS Standard Protection Measures for the Eastern Indigo Snake (2013).

Everglade Snail Kite—This federally endangered bird prefers habitats consisting of slow-moving water with emergent vegetation such as maidencane *(Panicum hemitomon)* or sawgrass (*Cladium jamaicense).* This species is typically found in the Lake Okeechobee area southward through the Everglades. A portion of the Segment 2: Basinger - Waterway Project Area is within the normal range of this species.

Florida Bonneted Bat—Endemic to Florida and nonmigratory, the Florida bonneted bat (*Eumops floridanus*) is the largest bat in Florida. Limited knowledge about habitat needs and preferences

suggests that this bat uses forests, wetlands, and other natural habitats, as well as residential and urban areas. Endangered wherever found, the final rule for listing of the Florida bonneted bat was adopted in October 2013. Population size is unknown. The Segment 2: Basinger – Waterway project area does not intersect the proposed critical habitat for the bonneted bat. Due to the species' small range, the greatest threats to Florida bonneted bats are loss of habitat, including destruction of natural roost sites, and natural disasters such as hurricanes, which have the potential to impact its entire range. Limited roost surveys will be performed as agreed upon by USFWS.

Florida Panther—The Florida panther (*Puma (=Felis) concolor coryi*) is listed as endangered by USFWS. Florida panthers are secretive and require extensive blocks of mostly forested land for survival. Large wetlands, inaccessible to humans, provide important refuge. The remaining number of this species is low. Their breeding population is restricted to southwest Florida, but dispersing individuals may range well north into the peninsula in search for new territories. Much of Segment 2: Basinger - Waterway is within area designated as Panther Focus Area (Dispersal Pathway).

Wood Stork—The wood stork is federally listed as endangered. This large bird uses freshwater and estuarine habitats for nesting, roosting, and foraging. Wood storks typically construct their nests in medium to tall trees located in swamps or on islands surrounded by relatively broad expanses of open water. They are found across much of Florida. Wood storks tend to use the same colony sites over many years, as long as the sites remain undisturbed and sufficient feeding habitat remains in the surrounding wetlands. There are no recorded nesting colonies within 1,500 feet of the Project; however, individuals may opportunistically forage in the water bodies or ditches that are present. In South Florida, the wood stork CFA is an 18.6-mile radius around active nesting colonies where appropriate habitat exists. According to current USFWS data, Segment 2: Basinger - Waterway project area does not intersect wood stork CFA. Attachment 12A shows Segment 2: Basinger - Waterway project area in relation to recorded colonies and their respective CFA. No net impacts to wood stork foraging habitat are anticipated from the construction or operation of this project.

Bald eagle—The bald eagle is a federally managed species under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Florida has one of the largest eagle populations in the lower 48 states. These birds typically nest and roost in forested habitats and utilize shallow fresh or saltwater for foraging. Nesting is initiated in the fall, and nests may be used for many years. According to the FWC Eagle Nest Locator database, there is one known eagle nest within 1,500 feet of Segment 2: Basinger - Waterway. Attachment 12A depicts the location of recorded Eagle nests relative to the Project.

FPL has requested technical assistance from USFWS to obtain guidance to appropriately address potential impacts and to federally listed species and their habitat.

**Federally Listed Plant Species**

It is not expected that federally listed plant species would be found in the Segment 2: Basinger - Waterway project area due to the proximity to SR 70 and because the Project is largely located along previously disturbed linear features.

## State Listed Species

Gopher Tortoise (*Gopherus polyphemus*)—This species is state-listed as threatened. The gopher tortoise inhabits upland well-drained habitats throughout the state, including disturbed and urban properties. Gopher tortoise burrows have been identified along Segment 2: Basinger - Waterway during wetland delineation surveys and other field assessments along SR 70. According to FWC regulations, relocation is not necessary if construction activities can avoid impacts within a 25-foot radius of the burrow entrance. However, if impacts to any burrow cannot be avoided, a gopher tortoise relocation permit will be required from FWC. A 100 percent survey will be required prior to construction to locate all potentially occupied burrows and determine relocation and conservation measures.

Southeastern American Kestrel—Listed as threatened by FWC, this small falcon (*Falco sparverius paulus*) is the resident subspecies that breeds in Florida. The more common northern migrant is seen commonly in the winter months perching on snags and power lines along roadsides in Central Florida. The open habitats found along the Segment 2: Basinger - Waterway project area provide good foraging habitat for this bird, so there is some likelihood it could be found.

Little Blue Heron and Tricolored Heron—These species (*Egretta caerulea* and *Egretta tricolor*, respectively) are state-listed as threatened but not uncommon to be found foraging in wetlands in Florida. These wading bird species can be found in suitable wetland habitats throughout Florida. Foraging occurs in shallow freshwater, brackish, and saltwater habitats. Both species breed in colonial nesting sites with other wading and shorebird species. There are freshwater marshes, water bodies, and man-made ditches along Segment 2: Basinger - Waterway that could potentially be used for foraging by these species. Accordingly, these birds could potentially forage in habitats within the corridor but are unlikely to nest there. No specific surveys for these birds are proposed; however, a preconstruction nest survey is recommended.

Florida Sandhill Crane—This species is listed as threatened by FWC. The sandhill crane (*Grus canadensis*) prefers freshwater marshes for nesting and pastures, wet prairies, or farm fields for foraging. Suitable nesting and foraging habitats are present in areas along Segment 2: Basinger - Waterway. FWC's current permitting guidelines indicate activity should be avoided within 400 feet of nest sites during the breeding season. Insofar as sandhill cranes may nest within the project limits, the applicant will monitor the site for the presence of new nests should construction activities occur within the sandhill crane breeding season (January through March). Should any active nests be initiated within 400 feet of planned construction activities, the applicant must either postpone construction in that area to coincide with the nonbreeding season or coordinate with FWC for issuance of an incidental take permit.

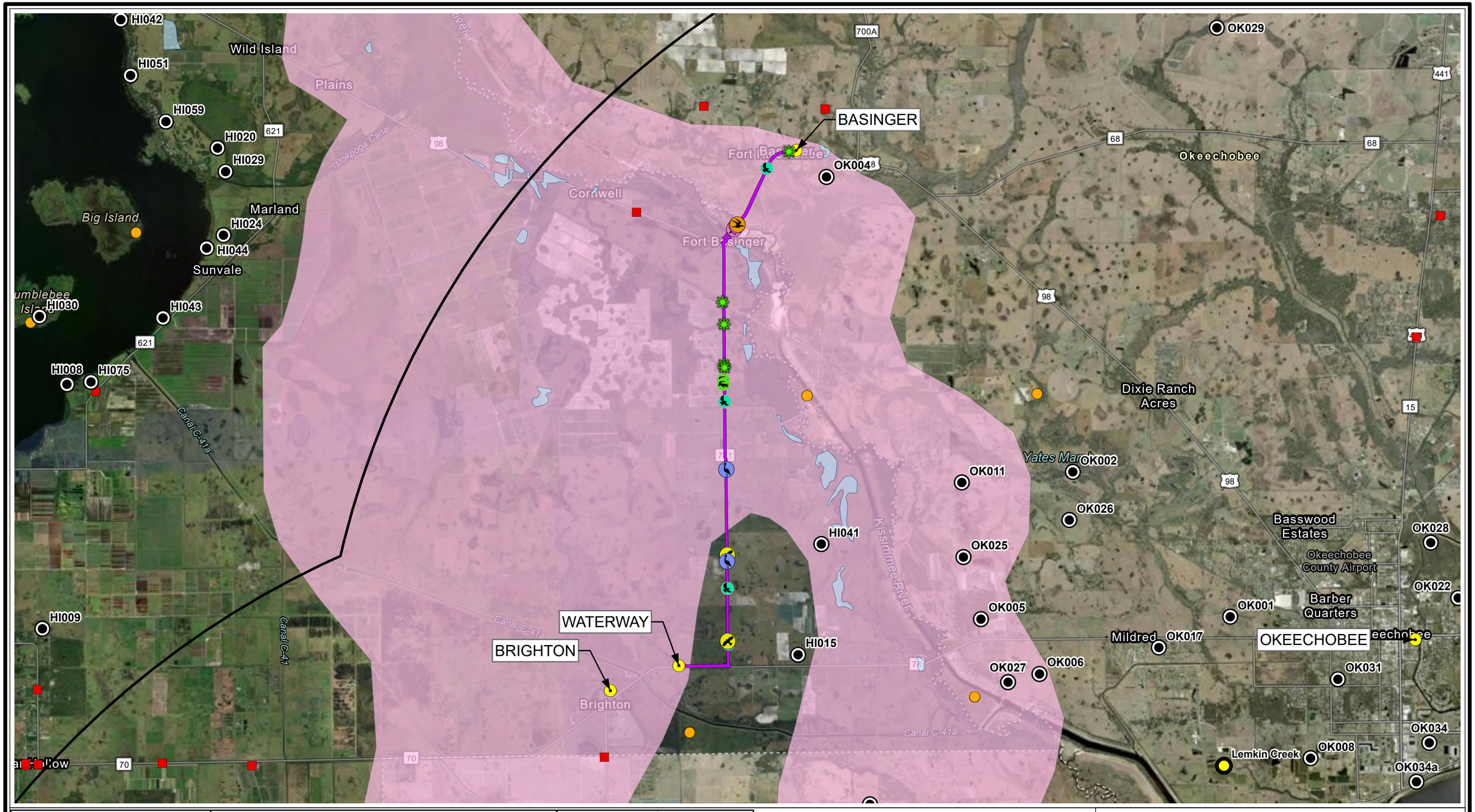
Wading Birds—Based on current FNAI records, there are no wading bird colonies within a critical distance (1,500 ft) of the project area. It is expected that wading birds, including Least tern, Limpkin, Roseate spoonbill and White ibis will opportunistically forage in wetlands or roadside ditches along the Project. Attachment 12A depicts the location of any recorded wading bird rookeries relative to Segment 2: Basinger - Waterway. Prior to construction, a survey for nesting and wading birds will occur to identify nests in the project footprint.

## MIGRATORY BIRDS

USFWS's IPaC report identified additional migratory bird species that are not included within the listed species' tables of previous sections. Migratory birds are protected under the Migratory Bird Treaty Act of 1918 (MBTA), which makes it unlawful to kill or "take" a migratory bird, nest, or egg. An amendment to the MBTA in 1972 resulted in inclusion of bald eagles and other birds of prey in the definition of migratory birds. These species include the American kestrel (*Sparverius paulus*), Bachman's sparrow (*Aimophila aestivalis*), cerulean warbler (*Dendroica cerulean*), common ground-dove (*Columbina passerina exigua*), lesser yellowlegs (*Tringa favipes*), prairie warbler (*Dendroica discolor*), prothonotary warbler (*Protonotaria citrea*), red-headed woodpecker (*Melanerpes erythrocephalus*), swallow-tailed kite (*Elanoides forficatus*), and wood thrush (*Hylocichla mustelina*). The project area is located within the Atlantic Migratory Flyway, broadly defined as the aggregate of species-specific avian migration routes that follow the Atlantic Coast in the United States and Canada (National Audubon Society, 2018). In late 2017, the Solicitor's office of the Department of the Interior issued Memorandum Opinion M-37050, which replaced M-37041. The general industry interpretation of M-037050 is that unintended impacts to bird species during normal construction activities does not constitute the definition of "take." Therefore, the need for preconstruction surveys for MBTA species nests may not be required. Coordination with USFWS will occur regarding the potential need for preconstruction surveys.

If nests or cavities with eggs or flightless young are observed during construction, construction crews will immediately stop work and contact the operations/construction lead, who will immediately notify FPL's Power Delivery Environmental Department. Additionally, if an osprey nest or eagle nest is observed during construction, construction crews will contact the operations/construction lead who will immediately contact FPL's Power Delivery Environmental Department.

# Attachment 12A – Locations of Wildlife, Listed Species, and Their Habitats




**Project**
- Substation
- Basinger-Waterway Project Footprint

**Desktop Data**
- Eastern Indigo Snake Sighting
- Wading Bird Rookery
- Bald Eagle Nest
- Florida Woodstork Nesting Colonies
- Wood Stork Core Foraging Area
- Scrub Jay Habitat (FWC)

**Florida Panther Focus Area**
- Dispersal Pathway

**Field Sightings**
- Gopher Tortoise
- American Alligator
- Crested Caracara
- Kestrel
- Sandhill Crane
- Spoonbill
- Wood Stork

Site Lies Within:
USFWS Wood Stork Core Foraging Area
(Lemkin Creek & Gator Farm)
USFWS Consultation Area:
Everglades Snail Kite
Florida Scrub Jay
Florida Bonneted Bat
Florida Grasshopper Sparrow
Crested Caracara

N

0 1 2
Miles

Sources: FWC, 2022/2023; USFWS, 2022/2023; Esri World Imagery, 2020; ECT, 2023.

# Attachment 12A
## Segment 2: Basinger - Waterway
## Threatened and Endangered Species

Okeechobee & Highland Counties, Florida

ECT

# Attachment 13 – Public Interest Test

# Attachment 13 - Public Interest Test

Impacts on terrestrial and aquatic systems and species associated with transmission line right-of-way preparation and construction depend primarily on the location and existing conditions of the selected right-of-way and, to a lesser degree, on clearing and construction techniques.

Through a systematic, environmentally responsive corridor selection process, the crossing of major terrestrial, wetland, and aquatic systems was minimized or avoided to restrict potential impacts to sensitive habitats and/or endangered and threatened species associated with transmission line construction. Approximately 79 miles (approximately 98 percent) of the larger Sweatt – Whidden Project include the opportunity to locate within or adjacent to existing road rights-of-way. Where possible in these areas, the proposed transmission line will share existing rights-of-way. In these previously altered areas, it is not anticipated that transmission line construction will have significant impact on vegetation, wildlife, or aquatic life.

Because much of the project footprint contains lands that have already been cleared and maintained, construction associated with the 230-kilovolt transmission line should not pose any significant additional adverse changes to vegetation in these areas. Limited permanent alterations will be associated with right-of-way clearing, temporary matting and structure installation. The proposed project crosses no large expanses of forested uplands or wetlands.

Attachments 6 and 6A, Typical Drawings and Project Description and Construction Methods, address types of impacts associated with construction that are expected to occur to the existing vegetation communities crossed by the project footprint.

In areas of the corridor where co-location opportunities occur along existing roads or other existing infrastructure, forested wetlands may have already been impacted. Limited additional clearing of trees directly adjacent to the existing rights-of-way may be required. In these areas, the right-of-way will subsequently be maintained in a low-growing, early successional state. Adjoining tracts of woodlands will remain intact and provide habitat for forest species. In addition, adjacent vegetation communities should not be affected by structure installation and temporary access because erosion control measures and proper culverting will be used.

Construction practices in wetlands will retain the vegetative root mat in the right-of-way in areas not filled for road or structure pad construction, thereby minimizing impacts to the wetlands. Impacts to wetlands will also vary depending on the wetland system through which the transmission line is routed. The shift in wetland composition will vary with the type of original canopy and soil alterations resulting from construction activities. Outside of areas where filling may be necessary for temporary access or structure pads, small freshwater marsh/wet prairie systems crossed by the transmission line will not be affected by construction activities because no clearing will be required, and proper culverting will maintain the existing hydroperiod. See Attachments 6 and 6A.

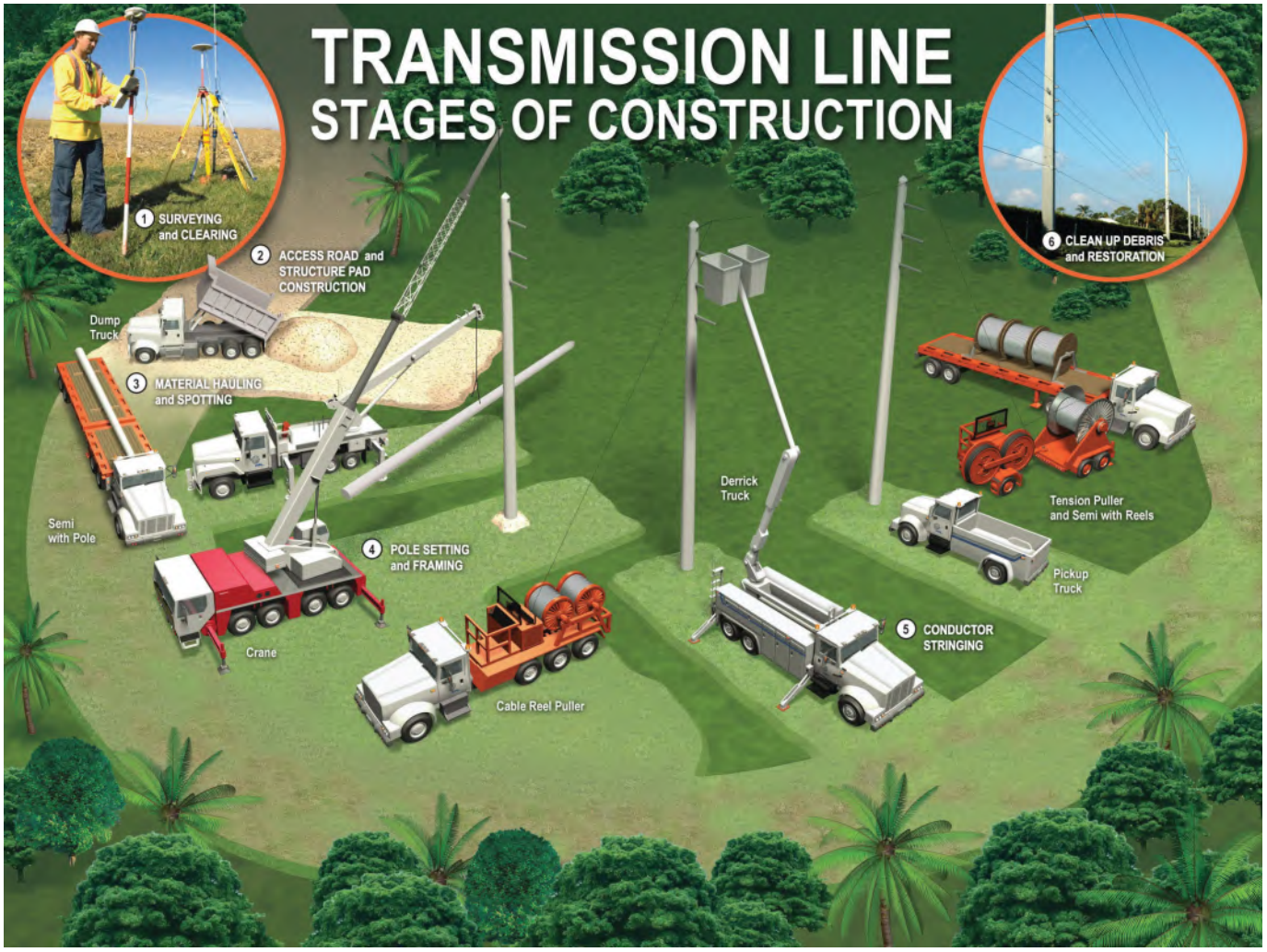
Specific impacts to terrestrial and aquatic animals due to transmission line construction vary by species and depend primarily on the extent of habitat alteration and continued availability of such habitat after construction. The proposed project crosses no federally designated critical habitat. In addition, no aquatic habitats critical to the continued regional presence of important species will be affected. The co-location with existing road and transmission line rights-of-way will minimize habitat losses and avoid the creation of barriers to animals' movements.

The project is not expected to significantly impact wildlife or wildlife habitat. Some temporary displacement of wildlife may occur during construction activities, however once complete, wildlife is anticipated to return. The project is not in an area designated as Outstanding Florida Waterway. No in-water work is proposed therefore no adverse effects to navigation or flow is anticipated. Similarly, no adverse effects to fishing or recreation is anticipated with the operation of the transmission, as crossings will be aerial. Adequate buffers at creeks and appropriate erosion control measures during construction will prevent sedimentation at creeks.

A cultural resource assessment survey has been completed along the right-of-way in compliance with the requirements of Chapter 267, Florida Statutes and Chapter 1A-46 (Archaeological and Historical Report Standards and Guidelines) in the Florida Administrative Code. The results of this survey have been documented in a report and submitted to the Department of Historical Resources (DHR). No significant resources were identified.

If cultural resource finds are discovered during construction, construction activities will be immediately halted in the vicinity, and DHR will be notified. A determination of the significance of the find will be conducted, as appropriate, and the Florida Power & Light Company will coordinate with DHR to evaluate mitigative measures necessary to protect the area from adverse effects.

# Attachment 14 – Stages of Construction Graphic




**Attachment 14**
**Stages of Construction**
Sweatt-Whidden 230-kV
Transmission Line Project
Okeechobee, Glades, Highlands and
DeSoto Counties, Florida

Sources: FPL, 2022.

# Attachment 15 – Uniform Mitigation Assessment Method Forms

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-51** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Marsh** | **Direct mpact** | **0.26** Acres |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-36, W-51, W-52 and W-53A (located in 11 South Kissimmee, HUC 03090101) receive stormwater runoff from US Highway 98 North and the adjacent agricultural fields. Water runs through a series of ditches and wetlands to The Kissimmee River. Wetlands W-37A, W-39, W-40A, W-53B, W-56, W-62 and W-63 (Located in 11 South Kissimmee, HUC 03090101) recieve stormwater runoff from County Road 721 and the adjacent vacant lands and agricultural fields. Water runs through a seriaes of ditches to the adjacent agricultural fields and vacant lands.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, dense shrubs and emergent marsh wetlands are present. The shrubs within the right-of-way are dominated by brazillian pepper (Schinus terebinthifolia), saltbush (Baccharis halimifolia), and cabbage palm (Sabal palmetto). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **the Kissimmee River and adjacent wetlands** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-51** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Temporary Construction Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

| **Impact Acres =** | 0.02 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres x Time Lag (1.46) = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.0 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-51** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

| **Impact Acres =** | 0.06 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres x Time Lag (1.0) = | 0.0 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.0 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-52** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Marsh** | **Impact** | **0.37** Acres |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-36, W-51, W-52 and W-53A (located in 11 South Kissimmee, HUC 03090101) receive stormwater runoff from US Highway 98 North and the adjacent agricultural fields. Water runs through a series of ditches and wetlands to The Kissimmee River. Wetlands W-37A, W-39, W-40A, W-53B, W-56, W-62 and W-63 (Located in 11 South Kissimmee, HUC 03090101) recieve stormwater runoff from County Road 721 and the adjacent vacant lands and agricultural fields. Water runs through a seriaes of ditches to the adjacent agricultural fields and vacant lands.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, dense shrubs and emergent marsh wetlands are present. The shrubs within the right-of-way are dominated by brazillian pepper (Schinus terebinthifolia), saltbush (Baccharis halimifolia), and cabbage palm (Sabal palmetto). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **the Kissimmee River and adjacent wetlands** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-52** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
___ Benthic
___ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

| **Impact Acres =** | 0.00 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres x Time Lag (1.0) = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-37A** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Marsh** | **Impact** | **5.52** Acres |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-36, W-51, W-52 and W-53A (located in 11 South Kissimmee, HUC 03090101) receive stormwater runoff from US Highway 98 North and the adjacent agricultural fields. Water runs through a series of ditches and wetlands to The Kissimmee River. Wetlands W-37A, W-39, W-40A, W-53B, W-56, W-62 and W-63 (Located in 11 South Kissimmee, HUC 03090101) recieve stormwater runoff from County Road 721 and the adjacent vacant lands and agricultural fields. Water runs through a seriaes of ditches to the adjacent agricultural fields and vacant lands.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, dense shrubs and emergent marsh wetlands are present. The shrubs within the right-of-way are dominated by brazillian pepper (Schinus terebinthifolia), saltbush (Baccharis halimifolia), and cabbage palm (Sabal palmetto). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **the Kissimmee River and adjacent wetlands** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-37A** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
____ Benthic
____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

| **Raw Score** = Sum of above scores/30 (if uplands, divide by 20) | |
|---|---|
| **Current** | **With Impact** |
| 0.4666667 | 0.46667 |

| **Impact Acres =** | 3.82 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

Temporary impacted wetlands in permanently maintained footprint are expected to reestablish hydrologic function in one growing season.

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-37B** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **630** | **Wetland Forested Mixed** | **Direct Impact** | 0.41 Acre |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee/HUC 03090103** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-37B, W-38A and W-53B ditces along US Highway 98 North and ultimately connect to the Kissimmee River.**

Assessment area description

**The assessment areas are in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, the height of trees within the right-of-way is maintained to avoid interference with the aerial lines. The trees within the right-of-way include cabbage palm (Sabal palmetto), willow (Salix nigra), red maple (Acer rubrum), water oaks (Quercus nigra) sweetgum (Liquidambar styricaflua) and laurel oaks (Quercus laurifolia).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **The Kissimmee River** | **Typical** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Large reptiles, small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Stephen R. Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-37B** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Temporary Construction Impact** | **ECT Inc., Stephen R. Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. Minor fencing along roadway. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 2 |

Additional Notes: While these wetlands are undeveloped and have not previously been converted, they are in close proximity to a heavily traveled road and low density residential development. The wetland provides wildlife habitat and access.

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes: The water levels fluctuate in response to hurricanes, rainfall, drought etc. The wetlands are only saturated/inundated during the rainy season. The wetland was likely more inundated, but NW 176th Ave prevents significant backflow from Gore Branch upstream to this system.

**.500(6)(c) Community Structure**

X Vegetation

____ Benthic

____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 3 |

Additional Notes: The community structure is appropriate for the areas immediately outside the aerial crossing.

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.5 | 0.37 |

| **Impact Acres =** | 0.03 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres x Time Lag (1.46)= | 0.0058 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.13 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-37B** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanent Conversion Impact** | **ECT Inc., Stephen R. Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. Minor fencing along roadway. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 2 |

Additional Notes: While these wetlands are undeveloped and have not previously been converted, they are in close proximity to a heavily traveled road and low density residential development. The wetland provides wildlife habitat and access.

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes: The water levels fluctuate in response to hurricanes, rainfall, drought etc. The wetlands are only saturated/inundated during the rainy season. The wetland was likely more inundated, but NW 176th Ave prevents significant backflow from Gore Branch upstream to this system.

**.500(6)(c) Community Structure**

X Vegetation

____ Benthic

____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 3 |

Additional Notes: The community structure is appropriate for the areas immediately outside the aerial crossing.

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.5 | 0.37 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.13 |

| **Impact Acres =** | 0.22 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres x Time Lag (1.0)= | 0.029 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-38A** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **630** | **Wetland Forested Mixed** | **Direct Impact** | 1.80 Acres |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee/HUC 03090103** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-37B, W-38A and W-53B ditces along US Highway 98 North and ultimately connect to the Kissimmee River.**

Assessment area description

**The assessment areas are in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, the height of trees within the right-of-way is maintained to avoid interference with the aerial lines. The trees within the right-of-way include cabbage palm (Sabal palmetto), willow (Salix nigra), red maple (Acer rubrum), water oaks (Quercus nigra) sweetgum (Liquidambar styricaflua) and laurel oaks (Quercus laurifolia).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **The Kissimmee River** | **Typical** |

| Functions | Mitigation for previous permit/other historic use |
|---|---|
| **Flood attenuation, water quality, groundwater recharge** | **None** |

| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
|---|---|
| **Large reptiles, small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Stephen R. Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-38A** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Temporary Construction Impact** | **ECT Inc., Stephen R. Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. Minor fencing along roadway. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 2 |

Additional Notes: While these wetlands are undeveloped and have not previously been converted, they are in close proximity to a heavily traveled road and low density residential development. The wetland provides wildlife habitat and access.

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes: The water levels fluctuate in response to hurricanes, rainfall, drought etc. The wetlands are only saturated/inundated during the rainy season. The wetland was likely more inundated, but NW 176th Ave prevents significant backflow from Gore Branch upstream to this system.

**.500(6)(c) Community Structure**

X Vegetation

____ Benthic

____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 3 |

Additional Notes: The community structure is appropriate for the areas immediately outside the aerial crossing.

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.5 | .13 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.5 |

| **Impact Acres =** | 0.10 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres x Time Lag (1.46) = | 0.00187 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-38A** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanent Conversion Impact** | **ECT Inc., Stephen R. Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. Minor fencing along roadway. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 2 |

Additional Notes: While these wetlands are undeveloped and have not previously been converted, they are in close proximity to a heavily traveled road and low density residential development. The wetland provides wildlife habitat and access.

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes: The water levels fluctuate in response to hurricanes, rainfall, drought etc. The wetlands are only saturated/inundated during the rainy season. The wetland was likely more inundated, but NW 176th Ave prevents significant backflow from Gore Branch upstream to this system.

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 3 |

Additional Notes: The community structure is appropriate for the areas immediately outside the aerial crossing.

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.5 | .13 |

| **Impact Acres =** | 0.04 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres x Time Lag (1.00)= | 0.0053 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.5 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-39** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Marsh** | **Direct Impact** | **0.40** Acres |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-36, W-51, W-52 and W-53A (located in 11 South Kissimmee, HUC 03090101) receive stormwater runoff from US Highway 98 North and the adjacent agricultural fields. Water runs through a series of ditches and wetlands to The Kissimmee River. Wetlands W-37A, W-39, W-40A, W-53B, W-56, W-62 and W-63 (Located in 11 South Kissimmee, HUC 03090101) recieve stormwater runoff from County Road 721 and the adjacent vacant lands and agricultural fields. Water runs through a seriaes of ditches to the adjacent agricultural fields and vacant lands.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, dense shrubs and emergent marsh wetlands are present. The shrubs within the right-of-way are dominated by brazillian pepper (Schinus terebinthifolia), saltbush (Baccharis halimifolia), and cabbage palm (Sabal palmetto). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **the Kissimmee River and adjacent wetlands** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-39** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Temporary Construction Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

**Impact Delta (ID)**

| | |
|---|---|
| Current - w/Impact | 0.0 |

| | |
|---|---|
| **Impact Acres =** | 0.000 |

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres x Time Lag = | 0.000 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

Temporary construction impacts to herbaceous impacts outside of the permanently maintained project footprint are expected to recover within a growing season.

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-39** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanent Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.0 |

| **Impact Acres =** | 0.03 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres x Time Lag = | 0.000 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

Temporary construction impacts to herbaceous impacts inside of the permanently maintained project footprint are expected to recover within a growing season.

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-40A** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Marsh** | **Direct Impact** | **0.44** Acres |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-36, W-51, W-52 and W-53A (located in 11 South Kissimmee, HUC 03090101) receive stormwater runoff from US Highway 98 North and the adjacent agricultural fields. Water runs through a series of ditches and wetlands to The Kissimmee River. Wetlands W-37A, W-39, W-40A, W-53B, W-56, W-62 and W-63 (Located in 11 South Kissimmee, HUC 03090101) recieve stormwater runoff from County Road 721 and the adjacent vacant lands and agricultural fields. Water runs through a seriaes of ditches to the adjacent agricultural fields and vacant lands.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, dense shrubs and emergent marsh wetlands are present. The shrubs within the right-of-way are dominated by brazillian pepper (Schinus terebinthifolia), saltbush (Baccharis halimifolia), and cabbage palm (Sabal palmetto). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **the Kissimmee River and adjacent wetlands** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-40A** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Temporary Construction Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
____ Benthic
____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

| **Impact Acres =** | 0.06 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-40A** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanent Maintenance Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
____ Benthic
____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

| **Impact Acres =** | 0.05 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-41A** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Marsh** | **Direct Impact** | **0.39** Acres |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-36, W-51, W-52 and W-53A (located in 11 South Kissimmee, HUC 03090101) receive stormwater runoff from US Highway 98 North and the adjacent agricultural fields. Water runs through a series of ditches and wetlands to The Kissimmee River. Wetlands W-37A, W-39, W-40A, W-53B, W-56, W-62 and W-63 (Located in 11 South Kissimmee, HUC 03090101) recieve stormwater runoff from County Road 721 and the adjacent vacant lands and agricultural fields. Water runs through a seriaes of ditches to the adjacent agricultural fields and vacant lands.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, dense shrubs and emergent marsh wetlands are present. The shrubs within the right-of-way are dominated by brazillian pepper (Schinus terebinthifolia), saltbush (Baccharis halimifolia), and cabbage palm (Sabal palmetto). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **the Kissimmee River and adjacent wetlands** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-41A** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA**.** | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.46667 |

| **Impact Acres =** | 0.09 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.00 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

Impacts to herbaceous wetlands in permanently maintained right-of -way are expected to reestablish hydrologic function in one growing season.

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-53A** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Marsh** | **Direct Impact** | **2.76** Acres |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-36, W-51, W-52 and W-53A (located in 11 South Kissimmee, HUC 03090101) receive stormwater runoff from US Highway 98 North and the adjacent agricultural fields. Water runs through a series of ditches and wetlands to The Kissimmee River. Wetlands W-37A, W-39, W-40A, W-53B, W-56, W-62 and W-63 (Located in 11 South Kissimmee, HUC 03090101) recieve stormwater runoff from County Road 721 and the adjacent vacant lands and agricultural fields. Water runs through a seriaes of ditches to the adjacent agricultural fields and vacant lands.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, dense shrubs and emergent marsh wetlands are present. The shrubs within the right-of-way are dominated by brazillian pepper (Schinus terebinthifolia), saltbush (Baccharis halimifolia), and cabbage palm (Sabal palmetto). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **the Kissimmee River and adjacent wetlands** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-53A** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanent Fill/Structure Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 0 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 0 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
___ Benthic
___ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 0 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0 |

| **Impact Acres =** | 0.001 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.001 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.466666667 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

Permanent fill asssociated with the installation of one transmission structure in wetland.

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-53A** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanent Maintainence Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
____ Benthic
____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

| **Impact Acres =** | 0.26 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-56** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Marsh** | **Temporary Impact** | **2.76** Acres |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-36, W-51, W-52 and W-53A (located in 11 South Kissimmee, HUC 03090101) receive stormwater runoff from US Highway 98 North and the adjacent agricultural fields. Water runs through a series of ditches and wetlands to The Kissimmee River. Wetlands W-37A, W-39, W-40A, W-53B, W-56, W-62 and W-63 (Located in 11 South Kissimmee, HUC 03090101) recieve stormwater runoff from County Road 721 and the adjacent vacant lands and agricultural fields. Water runs through a seriaes of ditches to the adjacent agricultural fields and vacant lands.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, dense shrubs and emergent marsh wetlands are present. The shrubs within the right-of-way are dominated by brazillian pepper (Schinus terebinthifolia), saltbush (Baccharis halimifolia), and cabbage palm (Sabal palmetto). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **the Kissimmee River and adjacent wetlands** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-56** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
___ Benthic
___ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

| **Impact Acres =** | 0.47 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-56** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Fill/ Structure Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 0 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 0 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 0 |

Additional Notes:

| **Raw Score** = Sum of above scores/30 (if uplands, divide by 20) | |
|---|---|
| **Current** | **With Impact** |
| 0.4666667 | 0.00 |

| **Impact Acres =** | 0.002308 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = Impact Acres = | 0.002308 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.4666667 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

Structure fill impacts associated with the installation of two transmission line structures in wetlands.

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-62** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Marsh** | **Direct mpact** | **0.18** Acre |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland W-36, W-51, W-52 and W-53A (located in 11 South Kissimmee, HUC 03090101) receive stormwater runoff from US Highway 98 North and the adjacent agricultural fields. Water runs through a series of ditches and wetlands to The Kissimmee River. Wetlands W-37A, W-39, W-40A, W-53B, W-56, W-62 and W-63 (Located in 11 South Kissimmee, HUC 03090101) recieve stormwater runoff from County Road 721 and the adjacent vacant lands and agricultural fields. Water runs through a seriaes of ditches to the adjacent agricultural fields and vacant lands.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way, and while trees are removed and prevented from growing immediately beneath the aerial utility lines, dense shrubs and emergent marsh wetlands are present. The shrubs within the right-of-way are dominated by brazillian pepper (Schinus terebinthifolia), saltbush (Baccharis halimifolia), and cabbage palm (Sabal palmetto). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **the Kissimmee River and adjacent wetlands** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**N/A**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-62** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Temporary Construction Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | brazillian pepper present in high density. old world climbing fern |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

| **Impact Acres =** | 0.04 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-62** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

| .500(6)(a) Location and Landscape Support | | |
|---|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands | |
| b. **Invasive plant species** in proximity to AA**.** | brazillian pepper present in high density. old world climbing fern | |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. | |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment | |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution | |
| f. **Hydrologic impediments and flow restrictions.** | None identified | |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place | |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A | |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

| .500(6)(b) Water Environment (n/a for uplands) | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 5 | 5 |

Additional Notes:

| .500(6)(c) Community Structure | | |
|---|---|---|
| X Vegetation | I. Appropriate/desirable species | Appropriate |
| Benthic | II. Invasive/exotic plant species | high density of brazillian pepper. old world climbing fern as well |
| Both | III. Regeneration/recruitment | Prevented due to maintenance activities |
| | IV. Age, size distribution. | Appropriate for maintained ROW |
| | V. Snags, dens, cavity, etc. | None observed |
| | VI. Plants' condition. | Appropriate for maintained ROW |
| | VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| | VIII. Topographic features (refugia, channels, hummocks). | None observed |
| | IX. Submerged vegetation (only score if present). | None observed |
| | X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4666667 | 0.4666667 |

| **Impact Acres =** | 0.03 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-64** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater marsh** | **Direct Impact** | **1.79 Acres** |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland DW-1A, W-64, W-65, W-66, W-67, W-68, W-69, W-70, W-71, W-72 and W-73 (located in 11 South Kissimmee, HUC 03090103) receive stormwater from County Road 721. Water is conveyed to the wetlands through roadside ditches and the adjacent agricultural fields.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way. The vegetation is dominated by soft rush (Juncus effusus), bushy bluestem (Andropogon glomeratus), peruvian primrose willow (Ludwigia peruviana), and/or pickerelweed (Pontederia cordata). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical for region** |

| Functions | Mitigation for previous permit/other historic use |
|---|---|
| **Flood attenuation, water quality, groundwater recharge** | **None** |

| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
|---|---|
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-64** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA**.** | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 4 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation

____ Benthic

____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.4333333 |

| **Impact Acres =** | 0.12 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-65** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater marsh** | **Direct Impact** | **0.29 Acre** |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland DW-1A, W-64, W-65, W-66, W-67, W-68, W-69, W-70, W-71, W-72 and W-73 (located in 11 South Kissimmee, HUC 03090103) receive stormwater from County Road 721. Water is conveyed to the wetlands through roadside ditches and the adjacent agricultural fields.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way. The vegetation is dominated by soft rush (Juncus effusus), bushy bluestem (Andropogon glomeratus), peruvian primrose willow (Ludwigia peruviana), and/or pickerelweed (Pontederia cordata). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical for region** |

| Functions | Mitigation for previous permit/other historic use |
|---|---|
| **Flood attenuation, water quality, groundwater recharge** | **None** |

| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
|---|---|
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-65** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanent Fill/ Structure mpact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA**.** | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 0 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 0 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 0 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0 |

| **Impact Acres =** | 0.001154 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** =Impact Acres = | 0.001154 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.433333333 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-65** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 4 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
___ Benthic
___ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.433333333 |

| **Impact Acres =** | 0.03 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-66** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater marsh** | **Direct Impact** | **0.78 Acre** |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland DW-1A, W-64, W-65, W-66, W-67, W-68, W-69, W-70, W-71, W-72 and W-73 (located in 11 South Kissimmee, HUC 03090103) receive stormwater from County Road 721. Water is conveyed to the wetlands through roadside ditches and the adjacent agricultural fields.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way. The vegetation is dominated by soft rush (Juncus effusus), bushy bluestem (Andropogon glomeratus), peruvian primrose willow (Ludwigia peruviana), and/or pickerelweed (Pontederia cordata). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-66** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanent Fill/Structure Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA**.** | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 0 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 0 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 0 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0 |

| **Impact Acres =** | 0.001154 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.001154 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.433333333 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-66** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA**.** | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 4 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.433333333 |

| **Impact Acres =** | 0.24 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-67** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater marsh** | **Direct Impact** | **0.45 Acre** |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland DW-1A, W-64, W-65, W-66, W-67, W-68, W-69, W-70, W-71, W-72 and W-73 (located in 11 South Kissimmee, HUC 03090103) receive stormwater from County Road 721. Water is conveyed to the wetlands through roadside ditches and the adjacent agricultural fields.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way. The vegetation is dominated by soft rush (Juncus effusus), bushy bluestem (Andropogon glomeratus), peruvian primrose willow (Ludwigia peruviana), and/or pickerelweed (Pontederia cordata). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-67** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA**.** | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.43333 |

| **Impact Acres =** | 0.06 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-68** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater marsh** | **Direct Impact** | **1.02 Acres** |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland DW-1A, W-64, W-65, W-66, W-67, W-68, W-69, W-70, W-71, W-72 and W-73 (located in 11 South Kissimmee, HUC 03090103) receive stormwater from County Road 721. Water is conveyed to the wetlands through roadside ditches and the adjacent agricultural fields.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way. The vegetation is dominated by soft rush (Juncus effusus), bushy bluestem (Andropogon glomeratus), peruvian primrose willow (Ludwigia peruviana), and/or pickerelweed (Pontederia cordata). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical for region** |

| Functions | Mitigation for previous permit/other historic use |
|---|---|
| **Flood attenuation, water quality, groundwater recharge** | **None** |

| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
|---|---|
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W68** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA**.** | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 4 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.433333333 |

| **Impact Acres =** | 0.08 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-69** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater marsh** | **Direct Impact** | **0.01 Acre** |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland DW-1A, W-64, W-65, W-66, W-67, W-68, W-69, W-70, W-71, W-72 and W-73 (located in 11 South Kissimmee, HUC 03090103) receive stormwater from County Road 721. Water is conveyed to the wetlands through roadside ditches and the adjacent agricultural fields.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way. The vegetation is dominated by soft rush (Juncus effusus), bushy bluestem (Andropogon glomeratus), peruvian primrose willow (Ludwigia peruviana), and/or pickerelweed (Pontederia cordata). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical for region** |

| Functions | Mitigation for previous permit/other historic use |
|---|---|
| **Flood attenuation, water quality, groundwater recharge** | **None** |

| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
|---|---|
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-69** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA**.** | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 4 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.433333333 |

| **Impact Acres =** | 0.01 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-70** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater marsh** | **Direct Impact** | 0.11 Acre |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland DW-1A, W-64, W-65, W-66, W-67, W-68, W-69, W-70, W-71, W-72 and W-73 (located in 11 South Kissimmee, HUC 03090103) receive stormwater from County Road 721. Water is conveyed to the wetlands through roadside ditches and the adjacent agricultural fields.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way. The vegetation is dominated by soft rush (Juncus effusus), bushy bluestem (Andropogon glomeratus), peruvian primrose willow (Ludwigia peruviana), and/or pickerelweed (Pontederia cordata). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical for region** |

| Functions | Mitigation for previous permit/other historic use |
|---|---|
| **Flood attenuation, water quality, groundwater recharge** | **None** |

| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
|---|---|
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-70** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 4 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
___ Benthic
___ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.433333333 |

| **Impact Acres =** | 0.01 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-71** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater marsh** | **Direct Impact / Temporary** | 0.40 Acre |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland DW-1A, W-64, W-65, W-66, W-67, W-68, W-69, W-70, W-71, W-72 and W-73 (located in 11 South Kissimmee, HUC 03090103) receive stormwater from County Road 721. Water is conveyed to the wetlands through roadside ditches and the adjacent agricultural fields.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way. The vegetation is dominated by soft rush (Juncus effusus), bushy bluestem (Andropogon glomeratus), peruvian primrose willow (Ludwigia peruviana), and/or pickerelweed (Pontederia cordata). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical for region** |

| Functions | Mitigation for previous permit/other historic use |
|---|---|
| **Flood attenuation, water quality, groundwater recharge** | **None** |

| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
|---|---|
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-71** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 4 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.433333333 |

| **Impact Acres =** | 0.00 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-72** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater marsh** | **Direct Impact** | 0.06 Acre |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland DW-1A, W-64, W-65, W-66, W-67, W-68, W-69, W-70, W-71, W-72 and W-73 (located in 11 South Kissimmee, HUC 03090103) receive stormwater from County Road 721. Water is conveyed to the wetlands through roadside ditches and the adjacent agricultural fields.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way. The vegetation is dominated by soft rush (Juncus effusus), bushy bluestem (Andropogon glomeratus), peruvian primrose willow (Ludwigia peruviana), and/or pickerelweed (Pontederia cordata). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical for region** |

| Functions | Mitigation for previous permit/other historic use |
|---|---|
| **Flood attenuation, water quality, groundwater recharge** | **None** |

| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
|---|---|
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-72** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA**.** | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 4 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.433333333 |

| **Impact Acres =** | 0.05 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-73** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater marsh** | **Direct Impact** | **0.15 Acres** |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **11 South Kissimmee, HUC 03090101** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetland DW-1A, W-64, W-65, W-66, W-67, W-68, W-69, W-70, W-71, W-72 and W-73 (located in 11 South Kissimmee, HUC 03090103) receive stormwater from County Road 721. Water is conveyed to the wetlands through roadside ditches and the adjacent agricultural fields.**

Assessment area description

**The assessment areas are located in an existing utility right-of-way. The vegetation is dominated by soft rush (Juncus effusus), bushy bluestem (Andropogon glomeratus), peruvian primrose willow (Ludwigia peruviana), and/or pickerelweed (Pontederia cordata). The areas were impacted by agricultural activities historically based on the review of aerial imagery since 1994 (Google Earth).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical for region** |
| Functions | Mitigation for previous permit/other historic use |
| **Flood attenuation, water quality, groundwater recharge** | **None** |
| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
| **Small forest lizards, passerine birds, snakes, and small mammals** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-73** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **02/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| | 4 |

Additional Notes:

**.500(6)(c) Community Structure**

_X_ Vegetation
_____ Benthic
_____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | N/A |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | N/A |

| Current | With Impact |
|---|---|
| | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.43333 |

| **Impact Acres =** | 0.02 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.0 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)**

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-75** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Emergent Marsh** | **Direct Impact** | **5.33 Acres** |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Western Okeechobee Inflow, HUC 03090103** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetlands W-74, W-75 and W-76 (Western Okeechobee Inflow, HUC 03090103) receives water from County Road 721 and State Road 70W and irrigation from adjacent agricultural lands.**

Assessment area description

**The assessment area is an existing utility right-of-way, these wetlands are comprised mainely of softrush (Juncus effusus). other wetland species include sand cordgrass (Spartina bakeri) pickerleweed (Pontederia cordata) and arrohead (Sagitteria lancifolia).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical** |

| Functions | Mitigation for previous permit/other historic use |
|---|---|
| **Flood attenuation, water quality, groundwater recharge** | **None** |

| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
|---|---|
| **Small forest lizards, passerine birds, snakes, small mammals, and deer** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **2/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-75** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanent Fill/Structure Impact** | **ECT Inc., Steve Florey** | **2/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. Minor fencing along roadway. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 0 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 0 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
____ Benthic
____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 0 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0 |

| **Impact Acres =** | 0.001154 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = mpact Acres = | 0.001154 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.433333333 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-75** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **2/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

| .500(6)(a) Location and Landscape Support | | |
|---|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands | |
| b. **Invasive plant species** in proximity to AA**.** | old world climbing fern found throughout project area | |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. Minor fencing along roadway. | |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment | |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution | |
| f. **Hydrologic impediments and flow restrictions.** | None identified | |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place | |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A | |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

| .500(6)(b) Water Environment (n/a for uplands) | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 4 |

Additional Notes:

| .500(6)(c) Community Structure | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

X Vegetation
____ Benthic
____ Both

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.433333333 |

| **Impact Acres =** | 0.86 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

## UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART I - IMPACT
## Form 62-345.900(2), F.A.C. (See Sections 62-345.400 F.A.C.)

| Site/Project Name | Application Number | Assessment Area Name or Number |
|---|---|---|
| **Basinger to Waterway** | | **W-76** |

| FLUCCs code | Further classification (optional) | Impact Type | Assessment Area Size |
|---|---|---|---|
| **641** | **Freshwater Emergent Marsh** | **Direct Impact** | **0.72 Acre** |

| Basin/Watershed Name/Number | Affected Waterbody (Class) | Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) |
|---|---|---|
| **Western Okeechobee Inflow, HUC 03090103** | **N/A** | **N/A** |

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

**Wetlands W-74, W-75 and W-76 (Western Okeechobee Inflow, HUC 03090103) receives water from County Road 721 and State Road 70W and irrigation from adjacent agricultural lands.**

Assessment area description

**The assessment area is an existing utility right-of-way, these wetlands are comprised mainely of softrush (Juncus effusus). other wetland species include sand cordgrass (Spartina bakeri) pickerleweed (Pontederia cordata) and arrohead (Sagitteria lancifolia).**

| Significant Nearby Features | Uniqueness (considering the relative rarity in relation to the regional landscape.) |
|---|---|
| **None** | **Typical** |

| Functions | Mitigation for previous permit/other historic use |
|---|---|
| **Flood attenuation, water quality, groundwater recharge** | **None** |

| Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) | Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) |
|---|---|
| **Small forest lizards, passerine birds, snakes, small mammals, and deer** | **Not anticipated. None documented or observed onsite.** |

Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.):

**None observed**

Additional relevant factors:

**None**

| Assessment conducted by: | Assessment date(s): |
|---|---|
| **ECT Inc., Steve Florey** | **2/13/2023 to 02/24/2023** |

**UNIFORM WETLAND MITIGATION ASSESSMENT WORKSHEET - PART II - IMPACT**
**Form 62-345.900(2), F.A.C. (See Sections 62-345.500 and .600, F.A.C.)**

| Site/Project Name: | Application Number: | Assessment Area Name or Number: |
|---|---|---|
| **Basinger to Waterway** | **-** | **W-76** |
| Impact or Mitigation: | Assessment Conducted by: | Assessment Date: |
| **Permanently Maintained Impact** | **ECT Inc., Steve Florey** | **2/13/2023 to 02/24/2023** |

| Scoring Guidance | Optimal (10) | Moderate(7) | Minimal (4) | Not Present (0) |
|---|---|---|---|---|
| The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed | Condition is optimal and fully supports wetland/surface water functions | Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions | Minimal level of support of wetland/surface water functions | Condition is insufficient to provide wetland/surface water functions |

Enter Notes below (do NOT score each subcategory individually)

**.500(6)(a) Location and Landscape Support**

| | |
|---|---|
| a. Quality and quantity **of habitat support** outside of AA. | Surrounding areas include high intensity roadways and agricultural lands |
| b. **Invasive plant species** in proximity to AA. | old world climbing fern found throughout project area |
| c. **Wildlife access** to and from AA (proximity and barriers). | Wildlife access is not significantly impeded. Minor fencing along roadway. |
| d. **Downstream benefits** provided to fish and wildlife. | Downstream benefits include flood attenuation and treatment |
| e. Adverse impacts to wildlife in AA from **land uses** outside of AA. | Vehicular impacts to wildlife, noise, trash, and light pollution |
| f. **Hydrologic impediments and flow restrictions.** | None identified |
| g. **Dependency** of downstream habitats on quantity or quality of discharges. | No issues if erosion/sediment controls are in place |
| h. Protection of wetland functions provided by uplands (**upland** AAs only). | N/A |

| Current | With Impact |
|---|---|
| 3 | 3 |

Additional Notes:

**.500(6)(b) Water Environment (n/a for uplands)**

| | |
|---|---|
| a. Appropriateness of **water levels and flows**. | Appropriate water levels and flows |
| b. Reliability of **water level indicators**. | Reliable |
| c. Appropriateness of **soil moisture**. | Appropriate based on conveyance |
| d. **Flow rates**/points of discharge. | Appropriate |
| e. **Fire history** (frequency/severity). | No fire due to proximity to road |
| f. **Appropriate vegetative and/or benthic zonation**. | Appropriate |
| g. **Hydrologic stress** on vegetation. | None |
| h. **Use by animal**s with hydrologic requirements. | No use |
| i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ). | Only herbaceous species present |
| j. **Water quality of standing water by observation** (I.e., discoloration, turbidity). | None observed |
| k. **Water quality data** for the type of community. | None collected or available |
| l. **Water depth, wave energy, and currents**. | N/A |

| Current | With Impact |
|---|---|
| 4 | 4 |

Additional Notes:

**.500(6)(c) Community Structure**

X Vegetation
____ Benthic
____ Both

| | |
|---|---|
| I. Appropriate/desirable species | Appropriate |
| II. Invasive/exotic plant species | old world climbing fern found throughout project area |
| III. Regeneration/recruitment | Prevented due to maintenance activities |
| IV. Age, size distribution. | Appropriate for maintained ROW |
| V. Snags, dens, cavity, etc. | None observed |
| VI. Plants' condition. | Appropriate for maintained ROW |
| VII. Land management practices. | Mowing herbicide application and dredging to maintain drain |
| VIII. Topographic features (refugia, channels, hummocks). | None observed |
| IX. Submerged vegetation (only score if present). | None observed |
| X. Upland assessment area | n/a |

| Current | With Impact |
|---|---|
| 6 | 6 |

Additional Notes:

**Raw Score** = Sum of above scores/30 (if uplands, divide by 20)

| Current | With Impact |
|---|---|
| 0.4333333 | 0.433333333 |

| **Impact Acres =** | 0.06 |
|---|---|

| **Functional Loss (FL)** [For Impact Assessment Areas]: | |
|---|---|
| **FL** = ID x Impact Acres = | 0.000 |

| **Impact Delta (ID)** | |
|---|---|
| Current - w/Impact | 0.00 |

NOTE: If impact is proposed to be mitigated at a mitigation bank that was assessed using UMAM, then the credits required for mitigation is equal to Functional Loss (FL). If impact mitigation is proposed at a mitigation bank that was not assessed using UMAM, then UMAM cannot be used to assess impacts; use the assessment method of the mitigaiton bank.

Additional Notes:

# Attachment 18 – Wetland Delineations Methodology and Mitigation Plan

# Attachment 18—Mitigation Plan

## WETLANDS AND WATER BODIES DELINEATIONS METHODOLOGY

Environmental Consulting & Technology, Inc. (ECT) conducted a wetland/water body delineation and wetland function assessment for the Segment 2: Basinger - Waterway portion of the proposed Sweatt- Whidden Project environmental survey area (ESA). The ESA for this segment generally consisted of a 70-foot-wide survey corridor in private property along the length of the approximately 12-mile transmission line segment plus the road right-of-way for use as potential temporary access or additional temporary workspace. Some areas of the ESA were expanded to accommodate site specific constraints. 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.

## 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,
- Aerial photography (Google Earth®, Bing®, ESRI® ArcMap),
- County soil surveys (Attachment 7),
- National Wetland Inventory (NWI) maps,
- Land use/vegetation community maps (Attachment 9),
- 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 Region[1],
- St Johns River Water Management District (SJRWMD) website,
- South Florida Water Management District (SFWMD) website, and
- Florida Natural Areas Inventory (FNAI).

[1] 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..

## WETLAND DELINEATION

After reviewing the NWI; soils; and Florida Land Use, Cover and Forms Classification System (FLUCFCS) maps, ECT conducted wetland delineations for the linear corridor and additional workspaces where survey access was granted. These field surveys were completed between January 15, 2023, and May 18, 2023, by teams of qualified wetland scientists from ECT. Additional wetlands will be delineated once access is obtained.

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 ® R1 GPS units. 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.

### No Survey Access Parcels

A small portion of the 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. It is anticipated that these wetlands will be reassessed once survey access is granted.

### 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. Attachments 8 and 17 identify the location of wetlands and water bodies within the project ESA and project footprint. Attachment 15 contains the UMAM datasheets for these features.

For the purposes of this report, each wetland or water body polygon (based on FLUCFCS type) was given a unique identification number. A total of 23 wetland and 41 water body distinct polygons were delineated within the ESA. The footprint of the project will encompass a subset of these polygons and is defined as being the narrowed corridor plus additional temporary workspace.

**Wetlands**

Overall, wetlands encompass approximately 29.26 acres or approximately 31 percent of the project footprint within Segment 2 and are distributed throughout the project extent. A small variety of wetland types are found present, as summarized in Attachment 10. Most of the wetlands are mixed wetland hardwoods and freshwater marsh, plus numerous roadside ditches.

Prevalent wetland types include shrub wetlands, mixed hardwood forested wetlands and exotic hardwoods. Freshwater marshes are associated with roadside and agricultural swales and conveyances, wet pastures, and transmission line rights-of-way, as well as natural marshes. Forested wetlands may be associated with creek systems or exotics (i.e., Brazilian pepper) in disturbed existing transmission line right-of-way. Attachment 10 provides details on individual wetland along the alignment such as wetland type, size, and quality. Section C Form provides a summary of wetland impacts, and Attachment 10 provides an itemization of wetland impacts. Attachment 10 also presents the calculations for the functional loss based on wetland and impact type.

Wetland quality is fairly consistent within the ESA for Segment 2: –Basinger - Waterway. Those wetlands in existing linear corridors (i.e., roadside, distribution 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 Kissimmee River and others. These systems have somewhat higher UMAM scores generally between 0.5 and 0.6.

**Water Bodies**

The wetland teams delineated 41 water body polygons, predominantly ditches, within the ESA. Water bodies comprise approximately 22.21 acres of the project footprint or approximately 23 percent of the project area.

Attachment 10, lists and describes those potentially affected by the project limits. The types of water bodies identified include man-made ditches and canals as well as several named and unnamed natural creeks.

## IMPACTS AND MITIGATION

Florida Power & Light Company (FPL) will employ two types of mitigation to compensate for unavoidable wetland and water body impacts – onsite restoration and the purchase of mitigation

credits. Attachment 10 presents the functional loss of each wetland based on the UMAM and impact type.

## NON-FORESTED WETLANDS AND SURFACE WATERS

### Temporary Impacts

Approximately 6.65 acres of non-forested wetlands and 22.21 acres of water bodies (ditches and natural streams) will be temporarily impacted from matting and construction related activities both in the temporary construction area and permanent project footprint. These areas will be restored to their preconstruction ground surface elevation and are expected to return to their preconstruction functional condition in one season. No UMAM functional loss has been assigned to these wetlands or water bodies.

### Permanent Impacts (Fill)

Mitigation for the permanent fill of 0.014-acre of non-forested wetlands and surface waters 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-project UMAM score – with project UMAM score) × acreage of permanent impact*

FPL calculates 0.014 UMAM units would be needed to offset the proposed functional loss associated with pole installation (refer to typical drawing in Attachment 6) in non-forested wetlands and in surface waters.

## 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.

### Temporary Impacts

The project includes 0.13 acre of temporary impacts to forested wetlands. Temporary impacts within forested wetlands typically include those areas where access and construction occur outside of the permanent variable-width transmission line corridor. Once preconstruction contours are restored following construction within the temporary impact areas, wetland vegetation will re-establish immediately. Additionally, these areas will be allowed to re-establish to their preconstruction forested system type following construction. These systems are expected to return to their reduced functional forested condition within 15 years. Therefore, a Time Lag factor of 1.46 was applied to the UMAM calculation. Forested wetland mitigation credits will be purchased in order to offset Functional Loss while the forested wetlands re-establish.

Functional Loss (FL) of temporary impacts to forested wetlands is calculated as follows:

*FL= (Pre-project UMAM score – with project UMAM score) × acreage of permanent impact x 1.46 Time Lag Factor*

The "with project UMAM score" is the projected function of the wetland after construction of the project, ground surface has been restored to preconstruction contours, and wetland vegetation has re-established. The Community Structure UMAM score was lowered to 3 for all forested wetlands with temporary impacts to account for the loss of trees and canopy structure. Location and Landscape Support UMAM scores were reduced by one for temporary impacts to forested wetlands, to address additional temporary limitation to wildlife access or connectivity to wildlife habitats resulting from the project. Water Environment UMAM scores were not reduced, as these functions should remain the same upon completion of construction.

As indicated in Attachment 10, FPL estimates a loss of 0.025 units of FL from temporary construction activities in forested wetlands that will be offset by the purchase of mitigation bank credits.

**Permanent Impacts (Fill)**

There are no proposed permanent fill impacts associated with the installation of structures in forested wetlands.

**Permanent Impacts (Conversion)**

The project includes 0.25-acre of permanent conversion of forested wetlands to herbaceous wetlands within the variable-width transmission line corridor. To compensate for the FL resulting from the conversion of these wetlands, FPL will purchase forested wetland mitigation credits from approved wetland mitigation banks.

FL associated with forested wetland conversion impacts is calculated as follows:

*FL= (Pre-project UMAM Score – With project UMAM Score) × acreage of permanent impact*

To account for the loss of trees and canopy structure, the Community Structure UMAM score was lowered to three for all forested wetlands with conversion impacts. Location and Landscape Support UMAM scores were reduced by one in forested wetland areas collocated along existing highways or roads. A reduction by one in the Location and Landscape Support UMAM score is evidenced by the fact that habitat access limitations in areas where existing fences and impervious surfaces currently pose barriers to wildlife. In all other areas, the Location and Landscape Support UMAM scores were reduced by two, as the project may introduce new temporary barriers to wildlife habitat or reduce buffers and hydrologic connectivity in areas where those impediments may not currently exist. Water Environment UMAM scores were not reduced, as these functions should remain the same upon completion of construction.

Clearing forested wetlands will involve cutting trees to ground level with minimal ground disturbance. Following clearing and construction within the permanent conversion areas, wetland

vegetation is expected to reestablish immediately. These systems are expected to return to their reduced functional condition within one year. Therefore, a UMAM Time Lag Factor of 1.0 was applied to the UMAM calculation.

As indicated in Attachment 10, FPL estimates a loss of 0.034 functional UMAM units for the conversion of approximately 0.25-acre of forested wetlands to herbaceous wetlands within the project's permanent maintenance easement.

## MITIGATION

Because not one mitigation bank service area covers the overall project footprint, FPL will consult 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 each segment of this project.

It is anticipated that for Segment 2: Basinger - Waterway, mitigation credits would be sought from an approved mitigation bank such as Twin Oaks Mitigation Bank or Kissimmee Ridge. However, because forested credits are not available from Twin Oaks Mitigation Bank and a lack of service area coverage from banks with forested credits exist for this segment, special permission to use out-of-bank credits or other guidance will be requested to ensure sufficient mitigation for impacts associated with construction of this section of the project.

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

- To offset the **0.014-**acre of permanent fill associated with pole structures in wetlands and waterbodies,
- To offset the **0.025** FL units associated with the temporary construction impacts to forested wetlands outside the permanent project footprint resulting from construction of the project, and
- To offset the **0.034** FL units associated with the permanent conversion of forested wetlands to herbaceous within the permanently maintained project area, FPL would purchase:

  + 0.014
  + 0.025
  + 0.034
  **0.073 credits**

To offset the FL associated with impacts from the construction and operation of this project FPL would purchase 0.1 state-only mitigation credits. Credits will be purchased prior to commencement of construction activities.