South Binion Road
Orange County, Florida

Wetland Reevaluation Memorandum

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FLLLP

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DRMP No. 21-0298.000 June 2021

1252 South Binion Road

Orange County, Florida

Wetland Reevaluation Memorandum

I. INTRODUCTION

On May 28, 2021, DRMP, Inc. conducted an update/reevaluation of the wetlands associated with the South Binion Road parcels. The original wetland evaluation was conducted in 2016 and consisted of an approximately 43.04 acre project area which was comprised of all or part of the following parcels:

- 18-21-28-0000-00-010, 18-21-28-0000-00-012, 18-21-28-0000-00-047, 18-21-28-0000-00-100, and 18-21-28-0000-00-101.

The project area for the South Binion Road reevaluation consists of four parcels, approximately 42.78 acres that are located on the west side of Binion Road and south of State Road 429:

- 18-21-28-0000-00-010, 18-21-28-0000-00-012, 18-21-28-0000-00-100, and 18-21-28-0000-00-101.

The project area is located within Section 18, Township 21 South, Range 28 East, in Orange County, Florida (Figure 1).

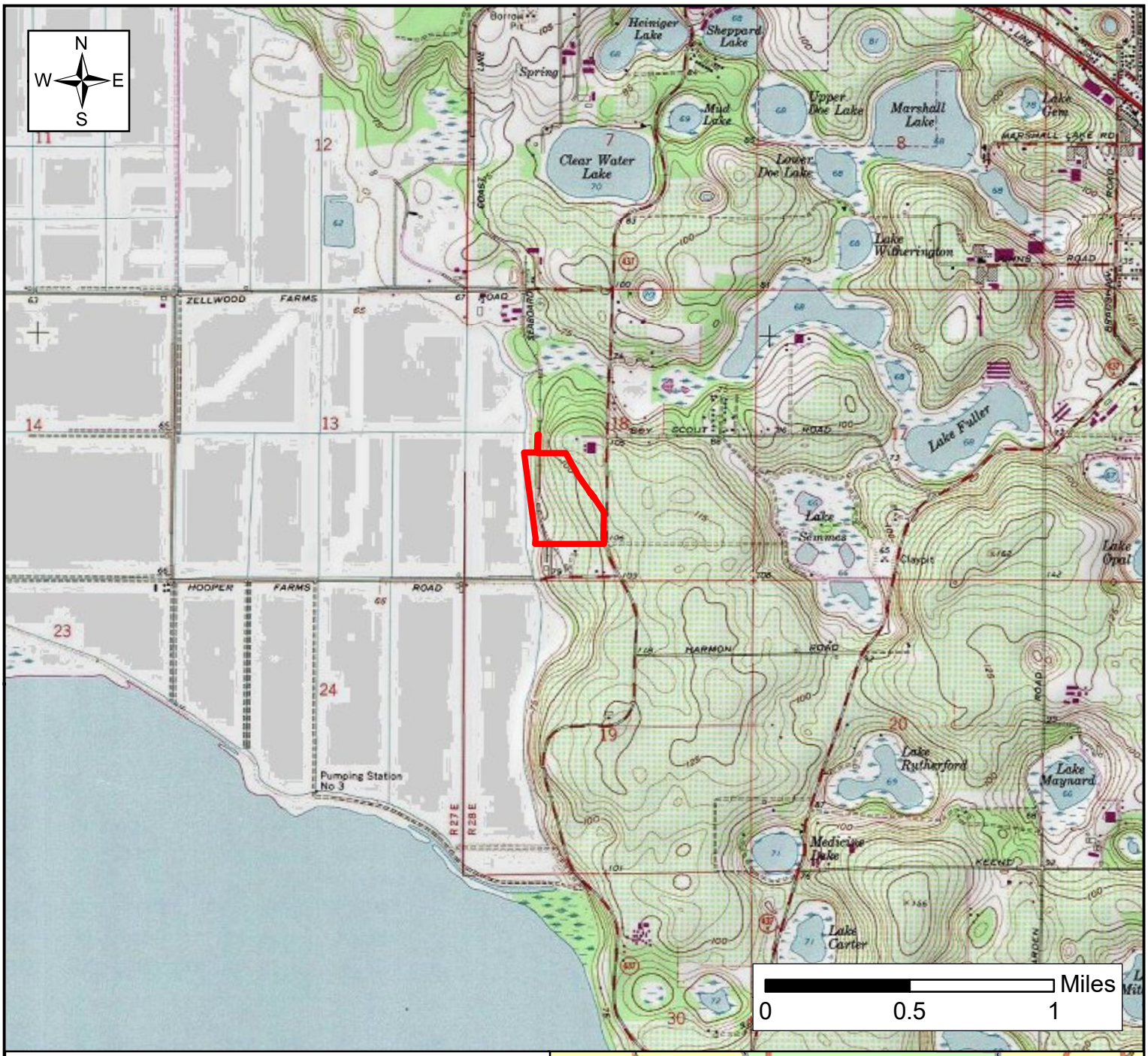
The intent of this Wetland Reevaluation Memorandum is to identify the extent and configuration of any wetlands and surface waters expected to fall within the regulatory jurisdictions of the St. Johns River Water Management District (SJRWMD), the U.S. Army Corps of Engineers (USACE) or Florida Department of Environmental Protection (FDEP). No impacts to listed species were evaluated as part of this memorandum. The following sections detail the existing site conditions, vegetative descriptions of any wetlands, anticipated regulatory costs and a summary of wetland mitigation options.

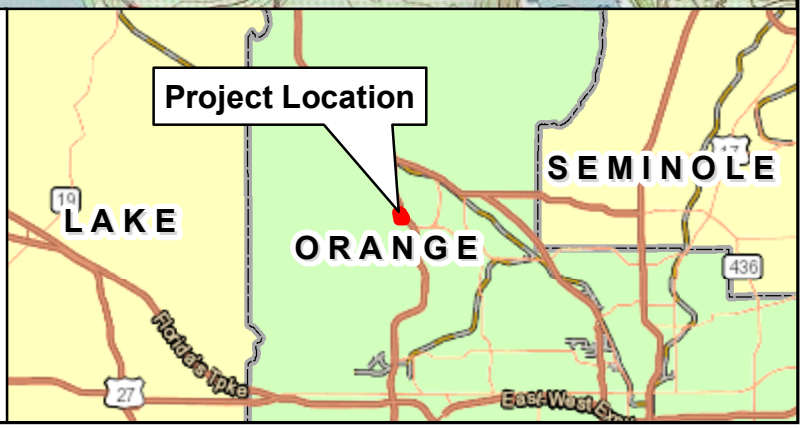
II. METHODOLOGY

A. Literature Search

Prior to conducting the site assessment, a literature search was performed to assess the likelihood of wetlands or surface waters occurring within the project area. The following Geographic Information System (GIS) data and information was reviewed to gain insight to the characteristics of the existing wetlands.

- Environmental Science Research Institute's (ESRI) Online World Imagery;
- United States Geological Survey Quadrangle Maps;
- USACE Regional Wetland Plant List for the Atlantic and Gulf Coastal Plain;
- St. Johns River Water Management District (SJRWMD) land use data (2014);
- United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) map;
- Florida Administrative Code (FAC) 68A-27.003, FAC 5B-40, and Code of Federal Regulation (CFR) 50CFR 17.11, 50CFR 17.12.





USGS Quad Map 3813 (Apopka)

Project Location:

Sections: 018
Township: 21 S
Range: 28 E

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DRMP	DRMP, Inc. 941 Lake Baldwin Ln. Orlando, FL 32814 www.drmp.com Phone: 407-896-0594 Fax: 407-896-4836	**1252 South Binion Road** Wetland Evaluation Memorandum Orange County, FL	**Project Location Map**	**Figure 1**
DATE: June 2021	DRAWN BY: BH	PROJECT NUMBER: 21-0298.000	DATA SOURCE: Imagery: ESRI 2020	

B. Wetland Evaluation

Prior to the site assessment, potential wetland areas were identified based on the review of the aforementioned literature and GIS data. A site assessment of the project area was conducted by a DRMP biologist to determine the approximate limits of wetland habitats within the project area. The wetland boundaries were delineated in accordance with Chapter 62-340, Florida Administrative Code (FAC), and the United States Army Corps of Engineers' (USACE) Regional Supplement to the USACE Wetland Delineation Manual: Atlantic & Gulf Coastal Plain Region (2010).

III. EXISTING ENVIRONMENTAL CONDITIONS

Existing conditions of the project area, such as habitat types and approximate wetland limits, were evaluated during the site assessment. Detail regarding the observed existing conditions are provided below.

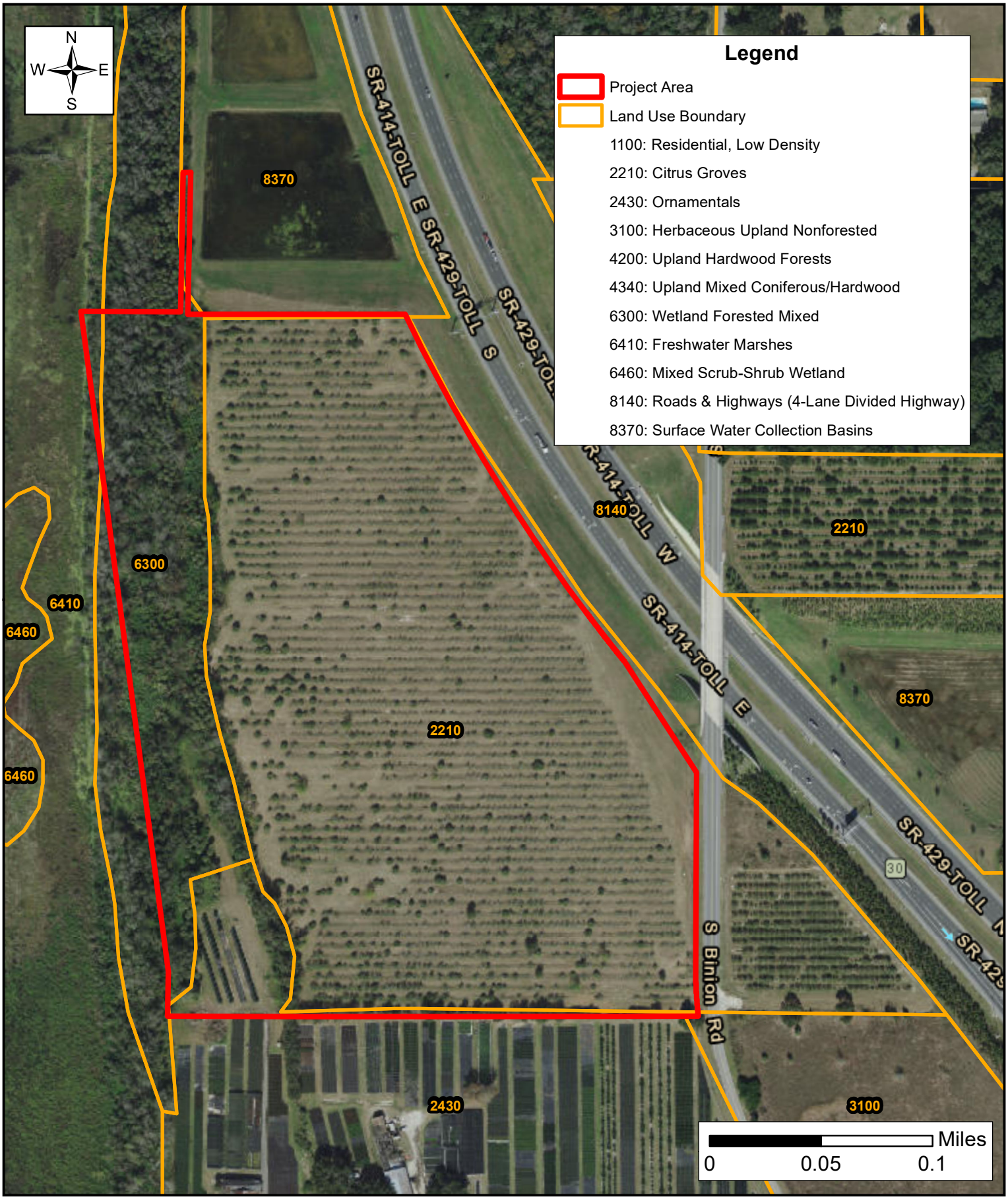
A. Habitat Types

The land use/land cover mapped within the project area is based upon SJRWMD Land Use/Land Cover data and the Florida Department of Transportation Florida Land Use, Cover and Forms Classification System (FLUCFCS). Six vegetative communities were observed within the project area. A map depicting the land use/land cover types for the project area has been included as Figure 2. A description of the vegetative communities within the project area are described in more detail below.

Citrus Grove (FLUCFCS 2210)
This is the primary land use/land cover type within the project area. This area lacks a canopy and is dominated by a sub-canopy consisting of row planted oranges (C*itrus spp.*) and cabbage palm (*Sabal palmetto*). Ground cover consists of Bahiagrass (*Paspalum notatum*) and weedy ground cover such as rag weed (*Ambrosia artemisiifolia*) and beggars tick (*Bidens alba*).

Ornamental Plant Nursery (FLUCFCS 2430) and Herbaceous Upland Nonforested (FLUCFCS 3100)
The southern border of the project area consists of ornamental plant nursery and herbaceous upland nonforested land use types. Both of these areas are associated with Hooper Farms located south of the project area. The nursery consists of Bahiagrass ground cover, with various potted ornamental trees and shrubs.

Wetland Forested Mix (FLUCFCS 6300) and Freshwater Marshes (FLUCFCS 6410)
These land use/land cover types are mapped along the western border of the project area. Although these areas are mapped as wetland habitats, they consist of both upland and wetland vegetative cover. The canopy species consist of laurel oak (*Quercus laurifolia*), live oak (*Quercus virginiana*), cabbage palm, and American elm (*Ulmus americana*). The sub-canopy consists of cabbage palm, dahoon holly (*Ilex casine*), elderberry (*Sambucus nigra*), southern magnolia (*Magnolia grandiflora*), pop ash (*Fraxinus caroliniana*),



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DRMP DRMP, Inc. 941 Lake Baldwin Ln. Orlando, FL 32814 www.drmp.com Phone: 407-896-0594 Fax: 407-896-4836	**1252 South Binion Road** Wetland Evaluation Memorandum Orange County, FL	**Land Use Map**	**Figure 2**
DATE: June 2021	DRAWN BY: BH	PROJECT NUMBER: 21-0298.000	DATA SOURCE: Imagery: ESRI 2020 Land Use: SJRWMD 2014	

sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), winged sumac (*Rhus copallinum*) and American beautyberry (*Callicarpa americana*). Ground cover is limited due a dense canopy and leaf litter, however pockets of cinnamon fern (*Osmundastrum cinnamomeum*), Florida pellitory (*Parietaria floridana*) and Caesar weed (*Urena lobata*) were observed within the project area.

Surface Water Collection Basins (FLUCFCS 8370)
This land use is mapped along the northern finger of the project area. This land use is dominated by Bahiagrass, with a canopy consisting of laurel oak, live oak, cabbage palm, and American elm and a sub-canopy of winged sumac and American beautyberry.

B. Wetlands

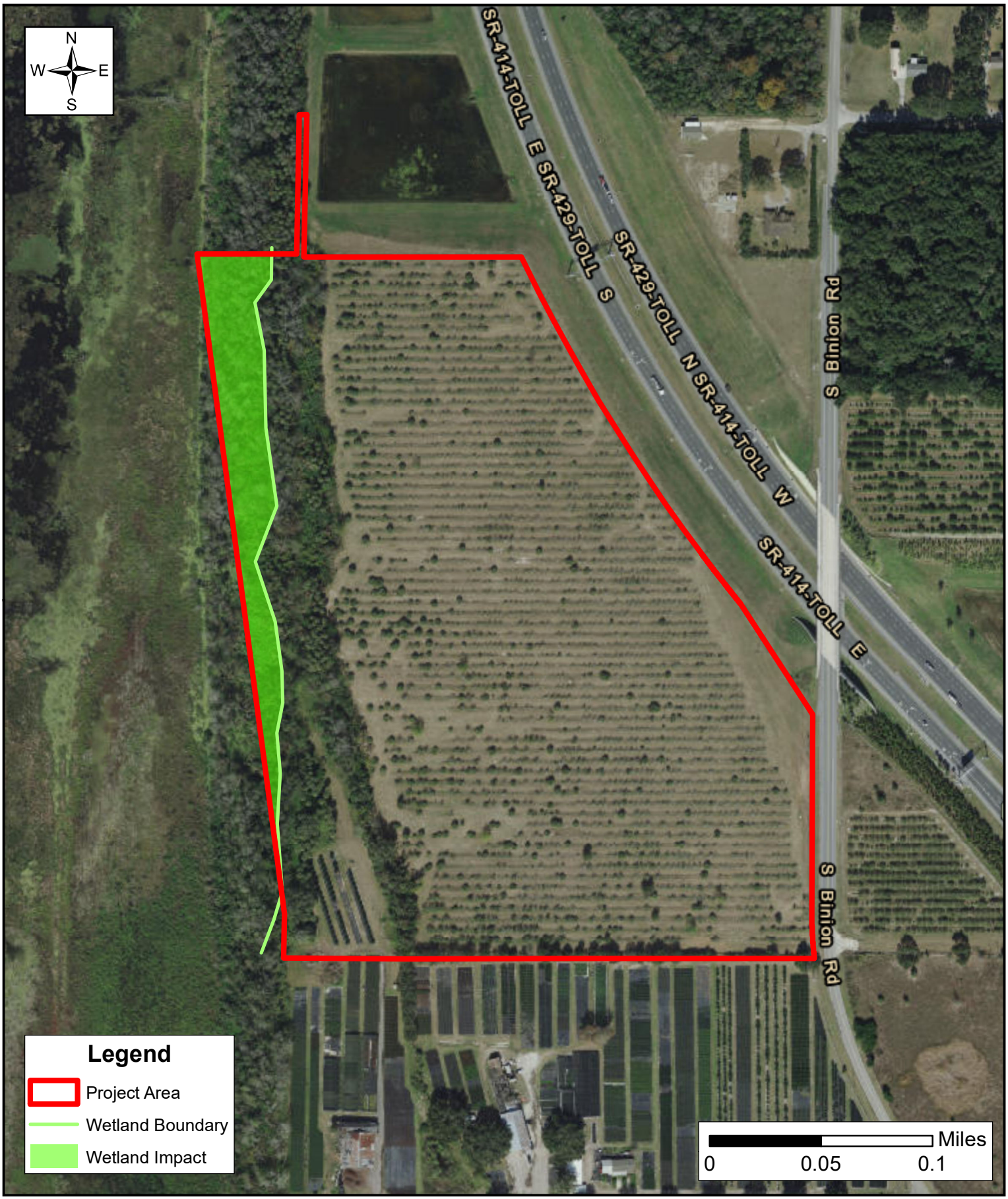
The SJRWMD land use/land cover and NWI data was used to identify potential wetland habitat within the project area. Wetland A is the only wetland system identified within the project area and it is located along the western border project area. The extent of the wetland within the project area was marked using numbered flagging and the flag locations were collected using a sub-meter accurate Trimble Global Positions System. There were no changes from the 2016 evaluation to the extent or configuration of the wetland boundary as a result of the reevaluation. The delineated wetland limits are an approximation, as they have not been approved by regulatory agencies. It is anticipated that Wetland A will be claimed as jurisdictional to both the SJRWMD and FDEP. A map depicting the wetland boundary has been included as Figure 3.

Wetland A is the edge of a larger linear forested wetland system to the west. The portion of the wetland within the project area is 2.66 acres. Wetland A is classified as wetland forested mixed, however the wetland is better represented as a mixed wetland hardwood. The canopy is dominated by laurel oak and cabbage palm. The understory consists of cabbage palm, dahoon holly, pop ash, sweetgum, and red maple. Ground cover was minimal and consisted of scattered cinnamon fern.

The hydrological characteristics of Wetland A have been altered by human activities. The wetland is bordered to the east by large berm that was historically used as a railroad bed. The railroad is no longer in use and has been removed, however, the berm remains creating a significant barrier to the movement of water. Additionally, a drainage ditch was observed to the west of the wetland outside the project area, and it has effectively altered the wetland hydrology.

Although the hydrology of Wetland A has been altered, the soils still indicate hydric conditions. The soils within the wetland consist of sandy loam containing dried organic bodies within the upper 4 inches and stripping between 4 and 12 inches.

The potential functional value of the wetland was assessed using the Uniform Mitigation Assessment Method (UMAM). UMAM establishes a quantification of wetland quality based upon various ecological or anthropologic variables known to influence the functional



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1252 South Binion Road

Wetland Evaluation Memorandum

Orange County, FL

Wetland Boundary Map

DATA SOURCE:
Imagery: ESRI 2020
Wetland Boundary: DRMP 2016

Figure 3

value of a wetland. UMAM scores are based on the total of three categories; location and landscape support, water environment, and community structure. The wetland is scored in relation to the hypothetical "pristine" wetland for that community type. The complete impact of Wetland A would result in the loss of 1.153 functional units. The completed UMAM worksheets have been included as Appendix A.

IV. REGULATORY PERMITTING AND MITIGATION

Agencies with regulatory authority over wetlands in the project area include the SJRWMD and FDEP. It is recommended to avoid all wetland impacts to reduce and/or eliminate permitting and mitigation costs. Below describes the anticipated permits and their associated cost, as well as wetland mitigation options for unavoidable wetland impacts. All anticipated permits, permit fees, and mitigation options are reflective of permitting thresholds, scheduled fees and mitigation bank options/pricing at the time of this wetland evaluation.

St. Johns River Water Management District

The SJRWMD oversees regulatory authority over proposed developments through the Environmental Resource Permit (ERP) program. Development of the project area will require permitting through SJRWMD's ERP program. It is anticipated that the development of the project area will require an Individual ERP. Below is a breakdown of the permitting thresholds and fees, based on project footprint and amount of unavoidable wetland impacts, associated with an Individual ERP.

- Project area of less than 10 acres and no wetland impacts, has a permit fee of $490.
- Project area of less than 10 acres, with less than 1 acres of wetland impacts, has a permit fee of $1,190.
- Project area of less than 40 acres, with less than 3 acres of wetland impacts, has a permit fee of $2,110.
- Project area of less than 100 acres, with less 10 acres of wetland impacts, has a permit fee of $5,610.

United States Army Corps of Engineers

Section 404 of the Clean Water Act requires a permit before dredged or fill material may be discharged into waters of the United States. At the time of the original wetland evaluation, the USACE was the regulatory authority over all impacts to waters of the United States. On Dec. 22, 2020, the United States Environmental Protection Agency approved of Florida's State 404 Program and the FDEP began administering the State 404 Program for all waters of the United States that are not retained USACE.

Wetland A is not associated with a USACE retained water of the United States; therefore, the USACE has no jurisdiction over the project area.

Florida Department of Environmental Protection

The FDEP's assumption of the State 404 Program grants them regulatory authority over impacts to assumed waters of the United States under Section 404 of the Clean Water Act. Wetland A is considered an assumed water of the United States; therefore, if wetland

impacts occur as a result of the development of the project area, it is anticipated that a Section 404 Dredge and Fill Permit from the FDEP will be required. There is no fee for a Section 404 Dredge and Fill Permit.

Additionally, construction activities disturbing more than one acre of land will require a National Pollution Discharge Prevention and Elimination System (NPDES) Permit, which is issued by FDEP, per Section 403.0885 F.S. This permit includes a pollution prevention plan, which addresses storm water discharges from clearing, grading, stockpiling soil, and/or excavation activities. A NPDES permit for a large construction activity (greater than 5 acres) requires a permit fee of $400.

Mitigation

If development of the project area is unable to avoid impacts to wetlands, then mitigation for those impacts will be required as part of the permitting process. It is recommended that unavoidable wetland impacts are mitigated through the purchase of wetland mitigation credits from a permitted wetland mitigation bank. The project area occurs within the service area of three permitted mitigation banks;

- Hammock Lake Mitigation Bank ($140,000.00/State and Federal Credit)
- Lake Louisa Green Swamp Mitigation Bank ($200,000.00/State and Federal Credit)
- Wekiva River Mitigation Bank ($110,000.00/State and Federal Credit)

Based on current wetland mitigation credit pricing provided by these mitigation banks and the UMAM impact delta, the cost associated with offsetting wetland impacts through the purchase of mitigation credits is estimated to cost between $47,630 and $86,600 per acre depending on which mitigation bank is selected.

APPENDIX A

UMAM Worksheet

Uniform Mitigation Assessment Method Summary

Site/Project Name:	Application Number:	Date:
South Binion Road		February 24, 2016

Impact Summary

	Assessment Area	Impact Type	Location and Landscape Support		Water Environment		Community Structure		Impact Delta	Acres	Functional Loss
			Current	w/Impact	Current	w/Impact	Current	w/Impact			
1	Wetland A	Direct Impact	5	0	3	0	5	0	0.43	2.66	1.153
2	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-
								TOTAL		2.66	1.153

Mitigation Summary

	Assessment Area	Mitigation Type	Location and Landscape Support		Water Environment		Community Structure		Mitigation Delta	Time Lag	Risk	PAF	RFG	Acres	Functional Gain
			w/o Mit	w/Mit	w/o Mit	w/Mit	w/o Mit	w/Mit							
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
													TOTAL	0.00	0.000

TOTALS					
Impacts	Acres	Mitigation - Upland	Acres	Mitigation - Wetland	Acres
				Creation	0.00
		Restoration	0.00	Restoration	0.00
Direct Impacts	2.66	Enhancement	0.00	Enhancement	0.00
Secondary Impacts	0.00	Preservation	0.00	Preservation	0.00
Total Impacts	**2.66**	**Total Upland Mitigation**	**0.00**	**Total Wetland Mitigation**	**0.00**

Total Functional Loss	**1.153**
Total Functional Gain	**0.000**
Mitigation Deficit	**-1.153**

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
South Binion Road		**Wetland A**

FLUCCs code	Further classification (optional)	Impact Type	Assessment Area Size
6300		**Direct Impact**	**2.66** Acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Ocklawaha River Basin		

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

The wetland is a forested wetland, which is hydrologically connected to an off-site drainage ditch to the west. Wetland A is bordered to the east by a upland berm.

Assessment area description

The assessment area is a forested wetland edge of a wetland forested mixed. The dominate vegetative species within the assessment area include laurel oak (Quercus laurifolia), cabbage palm (Sabal palmetto), dahoon holly (Ilex casine), pop ash (Fraxinus caroliniana), sweetgum (Liquidambar styraciflua), red maple (Acer rubrum), and cinnamon fern (Osmundastrum cinnamomeum).

Significant Nearby Features	Uniqueness (considering the relative rarity in relation to the regional landscape.)
State Road 429 to the north and Lake Apopka Restoration Area to the west	**None**
Functions **Wetland system provides on-site drainage and habitat for birds, reptiles and small mammals**	Mitigation for previous permit/other historic use
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) **Anticipated wildlife include birds, reptiles, amphibians and small mammals.**	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) **American alligator (FT S/A)**

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

Green anole, armadillo burrows, small mammal tracks, vultures and a barn owl.

Additional relevant factors:

Assessment conducted by:	Assessment date(s):
Logan Shappell	**02/19/16**

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:
South Binion Road	**-**	**Wetland A**
Impact or Mitigation:	Assessment Conducted by:	Assessment Date:
Impact	**Logan Shappell**	**02/19/16**

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.	Minimal
b. **Invasive plant species** in proximity to AA**.**	Present
c. **Wildlife access** to and from AA (proximity and barriers).	Limited by barriers
d. **Downstream benefits** provided to fish and wildlife.	Reduced benefits
e. Adverse impacts to wildlife in AA from **land uses** outside of AA.	Impacts present from surrounding development
f. **Hydrologic impediments and flow restrictions.**	Berm to east, and drainage ditch to west
g. **Dependency** of downstream habitats on quantity or quality of discharges.	
h. Protection of wetland functions provided by uplands (**upland** AAs only).	

Current	With Impact
5	**0**

Additional Notes:

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

a. Appropriateness of **water levels and flows**.	Deviateion from appropriate due to berriers
b. Reliability of **water level indicators**.	Indicators were no distinct and inconsistent
c. Appropriateness of **soil moisture**.	Atypical
d. **Flow rates**/points of discharge.	Indicitive of alteration
e. **Fire history** (frequency/severity).	Atypical
f. **Appropriate vegetative and/or benthic zonation**.	Some strata inappropriate
g. **Hydrologic stress** on vegetation.	Evidence of abnormal stress
h. **Use by animal**s with hydrologic requirements.	Reduced
i. **Plant community composition** associated with water quality (i.e., plants tolerant of poor WQ).	High tolerance to altered water quantity
j. **Water quality of standing water by observation** (I.e., discoloration, turbidity).	No standing water observed
k. **Water quality data** for the type of community.	Strong deviation from nomal
l. **Water depth, wave energy, and currents**.	Inappropriate

Current	With Impact
3	**0**

Additional Notes:

.500(6)(c) Community Structure

X Vegetation

_____ Benthic

_____ Both

I. Appropriate/desirable species	Mostly appropriate
II. Invasive/exotic plant species	Present
III. Regeneration/recruitment	Minimal
IV. Age, size distribution.	Typical
V. Snags, dens, cavity, etc.	Grater than normal
VI. Plants' condition.	Stressed due to water levels
VII. Land management practices.	None
VIII. Topographic features (refugia, channels, hummocks).	Less than optimal
IX. Submerged vegetation (only score if present).	
X. Upland assessment area	

Current	With Impact
5	**0**

Additional Notes:

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

Current	With Impact
0.4333333	0

Impact Acres =	2.66

Functional Loss (FL) [For Impact Assessment Areas]:	
FL = ID x Impact Acres =	1.153

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: