

MIAMI-DADE COUNTY



Biological Assessment and Mitigation Analysis of the Airport West Site

Folio Nos. 30-2902-000-0010 & 30-2903-000-0010

Department of Regulatory and Economic Resources
Division of Environmental Resources Management

DERM

701 NW 1st Court
4th Floor
Miami, Florida 33136

Introduction

The Department of Regulatory and Economic Resources Division of Environmental Resources Management (DERM) has conducted an assessment of two properties owned by Miami-Dade County identified as Folio Nos. 30-2902-000-0010 and 30-2903-000-0010. These properties are currently being considered as a potential location for a future waste to energy (WTE) resource recovery facility as part of a larger Solid Waste Campus as well as potential use as an Inland Port operation. The properties are located east of Okeechobee Road/U.S. Highway 27 and south of NW 202nd Street in unincorporated Miami-Dade County, Florida. It is noted that the proposed uses of the site are subject to a determination of consistency with the Comprehensive Development Master Plan (CDMP), and if found not consistent, then would require amendment of the CDMP to be allowed uses on the Airport West site. Please find attached an aerial labeled Exhibit 1 “Location Map” of the properties and the associated acreage and folio numbers.

The properties lie within the C-9 Wetland Basin and contain wetlands as defined by Section 24-5 of the Code of Miami-Dade County (Code). Pursuant to Section 24-48.1(1)(d) of the Code, a Class IV permit is required prior to any work in wetlands.

The properties are also located outside the Urban Development Boundary (UDB), within Wetlands of Regional Significance per the Land Use Element of the CDMP and may contain federal or state designated endangered and threatened species. Policy CON-7 of the CDMP’s Conservation, Aquifer Recharge and Drainage Element states that “Miami-Dade County shall protect and preserve the biological and hydrological functions of Wetlands of Regional Significance that may be contained within the areas depicted on Figure 14 in the Land Use Element.” Policy CON-7A states “the degradation or destruction of Wetlands of Regional Significance that may be contained within the areas depicted on Figure 14 in the Land Use Element shall be limited to activities that 1) are necessary to prevent or eliminate a threat to public health, safety or welfare; or 2) are water dependent and no other reasonable alternative exists; or, 3) clearly in the public interest and no other reasonable alternative exists; or 4) are carried out in accordance with an approved basin management plan; or 5) are in areas that have been highly disturbed or degraded and where restoration of a wetland with an equal or greater value in accordance with federal, State and local regulations is feasible. Habitats critical to endangered or threatened species shall not be degraded or destroyed.” Objective CON-7J of the CDMP that states that “in evaluating applications that will result in alterations or adverse impacts to wetlands Miami-Dade County shall consider the applications’ consistency with Comprehensive Everglades Restoration Program (CERP) objectives. Applications that are found to be inconsistent with CERP objectives, projects or features shall be denied.” Per the South Florida Water Management District, the subject properties are located within the CERP North Lake Belt Storage Area. Any future development applications shall demonstrate how the proposed development meets the criteria of the CDMP Policy CON-7 and Section 24-48 of the Code for a favorable consideration with the Wetlands Resources Section.

Biological Assessment

On October 13, December 21, and December 28, 2023, DERM staff conducted onsite inspections to delineate the jurisdictional wetland boundaries at the subject properties and to evaluate the overall biological quality of the documented wetland areas. Staff gathered information from the site including a list of wetland and non-wetland vegetation, direct observations of wildlife and hydrological indicators,

and hydric soil information to compare to the United States Department of Agriculture (U.S.D.A.) Soil Maps for Miami-Dade County.

The properties consist of approximately 350 acres of wet prairie wetlands impacted with exotics, 16 acres of wet prairie, 10 acres of freshwater marsh, 11 acres of borrow pit, and 30 acres of fill exempt from Class IV permitting (see Exhibit 2 “Biological Assessment and Delineation Map”). Exhibit 2 depicts the general wetland habitats on site and is not intended for evaluation of wetland quality assessments. The majority of the site has been impacted by the invasive exotic plant *Melaleuca quinquenervia*.

Much of the site acreage consists of wet prairie wetlands impacted with exotics. The predominant wetland species found at the properties consists of muhly grass (*Muhlenbergia capillaries*) and sawgrass (*Cladium jamaicense*) understory intermixed with other native grasses and sedges including saltmarsh umbrellasedge (*Fuirena breviseta*), narrowleaf yellowtops (*Flaveria linearis*), and bushy bluestem (*Andropogon glomeratus*). Although significant coverage of desirable native wetland vegetation was observed throughout the approximately 366 acres of delineated wet prairie, much of this wetland acreage contains moderate coverage of juvenile to mature-sized *Melaleuca* trees, except areas adjacent to the filled road where coverage of the invasive species was found to be relatively sparse. The site also contains an approximate 10-acre freshwater marsh wetland located in the southern portion of the site and two (2) borrow pits that were excavated prior to 1980. A paved filled road running in an east-west and north-south direction that previously served as an airplane runway is also present on site. Please see Exhibit 3 “62-340, F.A.C. Dataforms” for a list of vegetation found on this site. The plants on the list are categorized as Obligate (OBL), Facultative Wet (FACW), or Facultative (FAC). According to definitions provided by Chapter 62-340, F.A.C., obligate plants are those plant species which under natural conditions are only found or achieve their greatest abundance in an area which is subject to surface water inundation and/or soil saturation. Facultative wet plants can be found in inundated and/or saturated soil conditions as well as in uplands. Facultative plants are not particular to any such environment and are not appropriate for indicating inundation or soil saturation.

With the use of Geographic Information Systems (GIS), a preliminary review of available aerial imagery was conducted to assess whether the site is characterized by hydric soils (see Exhibit 4). The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) data revealed that the majority of the site consists of the soil map unit Dania Muck, depressional and a small area in the northwest portion of the site contains the soil map unit Lauderhill muck, depressional, both of which are classified as hydric soils.

Additional indicators of saturated hydrologic conditions found during the field visit include elevated water marks, as well as the expression of adventitious rooting on *Melaleuca*. Important hydrologic indicators found throughout the site were algal mats and aufwuchs, which are remnant plant materials on inundated surfaces that develop complex assemblages of algae, fungi and microorganisms that include periphyton.

Wildlife typically found in wetlands was documented during the site visits including unidentified birds of prey, great blue heron (*Ardea Herodias*), wild hog (*Sus scrofa*), Halloween pennant dragonfly (*Celithemis eponina*), and evidence of white-tail deer (*Odocoileus virginianus*), and raccoon (*Procyon lotor*). Site inspections on December 21 and 28, 2023 were conducted to document utilization of avian species on site. Miami-Dade County listed species observed included the *Ardea Herodias* (great blue heron) foraging in the marsh area and *Pandion haliaetus* (osprey) foraging over a borrow pit. No federal or state endangered, threatened, rare, and special concern bird species were observed roosting or foraging on site. Please see

Exhibit 5 for the inspection summary and photos. However, it should be noted that optimal roosting season for wading birds is from February – August; therefore, additional inspections are recommended prior to drawing utilization conclusions for listed avian species. Note that DERM staff have previously documented coyote (*Canis latrans*) utilization of the subject properties.

While not observed during the site visits, wetland dependent wildlife species reasonably anticipated to utilize the property include great egret (*Ardea alba*), apple snails as well as numerous shells (*Pomacea paludosa*), mosquito fish (*Gambusia affinis*), bobcat (*Lynx rufus*), cotton mouse (*Peromyscus gossypinus*), raccoon (*Procyon lotor*), cotton rat (*Sigmondon hispidus*), red-winged blackbird (*Agelaius phoeniceus*), long-billed marsh wren (*Cistothorus palustris*), southern cricket frog (*Acris gryllus*), cottonmouth snake (*Agkistrodon piscivorus*), southern black racer (*Coluber constrictor priapus*), ring-necked snake (*Diadophis punctatus*), and green treefrog (*Hyla cinerea*).

Endangered or Threatened Species Considerations

Objective CON-9B of the CDMP's Conservation, Aquifer Recharge and Drainage Element states that "nesting, roosting and feeding habitats used by federal or State designated endangered or threatened species, shall be protected and buffered from surrounding development or activities and further degradation or destruction of such habitat shall not be authorized". A review of GIS data indicated the subject properties are located within the United States Fish and Wildlife Service (USFWS) consultation area for the federally endangered Florida Bonneted Bat (*Eumops floridanus*), Everglades Snail Kite (*Rostrhamus sociabilis plumbeus*), as well as the core foraging area for federally threatened wood stork (*Mycteria americana*) colonies, Eastern indigo snake (*Drymarchon corais couperi*), and may contain habitat for species listed in Appendix B of the Conservation, Aquifer Recharge and Drainage Element.

State or federally listed wildlife that are reasonably anticipated to utilize the subject properties include the little blue heron (*Egretta caerulea*), white ibis (*Eudocimus albus*), and the Miami-Dade County listed bald eagle (*Haliaeetus leucocephalus*).

Below is a more detailed analysis of the species listed above that are likely to be utilizing the site and for which additional wildlife surveys may be necessary. These additional wildlife surveys should consider seasonality, (i.e., wet season, dry season) as well as species specific nesting times of the year.

Florida Bonneted Bat (*Eumops floridanus*)

The subject properties are located within the consultation area for the federally endangered Florida Bonneted Bat (FBB). Roosting habitat includes forest and other areas with large or mature trees and other natural areas with suitable structures. Stands are generally characterized by large or mature live, dead, or dying trees, and trees with cavities, hollows, crevices, or loose bark, including but not limited to trees greater than 33 feet in height, with a diameter at breast height greater than eight inches, and with cavities greater than 16 feet high. Tree hollows can be a result of woodpecker activity, created by mechanical damage, resulting from disease, or occur as part of the decay process in dead trees or large limbs. The FBB is the largest species of bat in Florida and requires relatively large cavities at heights of at least 16 feet as well as open space in the immediate vicinity of cavities to use and exit roosts. Additionally, the foliage of palm trees (e.g. crown shafts) can serve as roosting sites. FBBs have been found under rocks, in fissures, in limestone outcrops, near excavations and bat houses constructed specifically to attract roosting. During the site

inspection, DERM assessed the properties for potential FBB roosting habitat. The existing tree canopy is dominated by mature-sized *Melaleuca quinquenervia*, a species that tends to develop dead snags and cavities that could be appropriate for FBB roosting. However, to better determine the potential presence of FBB roosting and foraging within the properties, DERM recommends that acoustic surveys for the FBB be conducted to determine if the site has nesting, roosting, or feeding habitat for the species. DERM FBB surveys of the area are pending and the results of said surveys will be provided upon completion.

A review of the land use within the vicinity of the subject properties revealed agricultural lands to the south and large open water lakes immediately adjacent to the subject properties which could provide foraging habitat. In addition, several conservation areas within the vicinity of the subject properties could also provide foraging habitat. Acoustic surveys on nearby properties have identified foraging activities by the endangered species. Should roosting or foraging be documented best management practices (including possible on site preservation of habitat) will be required.

Wood Stork (*Mycteria americana*)

Analysis of potential impacts on wood stork foraging habitat were conducted in accordance with the Wood Stork Foraging Habitat Assessment Methodology, a functional assessment developed by the USFWS for estimation of available biomass of wood stork forage per unit quantity of wetland habitat. The USFWS has determined that vegetation density, wetland hydroperiod, prey size suitability and competition with other wading birds are the four parameters considered for estimation of wood stork prey biomass. The USFWS suggests that wood storks prefer to forage in open areas with little to no canopy; therefore, preliminary review of aerial imagery indicated that some of the subject properties may contain wet prairie wetland habitat that is suitable for wood stork foraging.

The USFWS Habitat Management Guidelines says that nesting wood storks do most of their feeding in wetlands between 5 and 40 miles from the colony. A review of GIS data revealed an active wood stork colony (Kinich) approximately 7.5 miles from the subject properties. Although the majority of the subject properties contain dense *Melaleuca* coverage, the subject properties do contain longer hydroperiod marsh wetlands that could provide foraging habitat. The longer hydroperiod marsh that was observed within the southern portion of the site contained areas of *Melaleuca* canopy; however, it is worth noting the area appears to contain open areas that could support wood stork foraging.

DERM recommends a formal wood stork assessment be required during the process of acquiring environmental approvals from regulatory agencies, which will be subject to USFWS review and approval during the endangered species consultation. The assessment would include the delineation of wetland areas by hydroperiod class and calculation of their respective acreages to quantify the total biomass available for wood stork forage within the subject properties. The biomass quantification will ultimately be considered as part of the wetland mitigation calculation and thus factored into the required mitigation obligation.

Everglades Snail Kite (*Rostrhamus sociabilis plumbeus*)

The subject properties are located within the consultation area for the Everglades Snail Kite. According to the USFWS *Snail Kite Survey Protocol*, the adequacy of snail kite habitat can be determined by the presence of appropriate foraging habitat (as evidenced by coverage of *Eleocharis* spp., *Panicum* spp., *Rhynchospora* spp.), nesting or perching substrate (*Salix caroliniana*, *Melaleuca quiquenervia*, *Cladium jamaicense*), appropriate water depth (0.2-1.3m) under nesting substrate and an adequate distance (>150m) between nesting substrate and upland areas. The subject site contained a mix of habitat types appropriate for foraging and perching habitats within the wet prairie and marsh areas. In addition, snail kite nesting activity has been documented in the nearby lands of Everglades National Park (ENP) and Water Conservation Area 3B to the west of the subject properties. These areas also contain nesting and foraging habitat for the snail kite. DERM recommends a formal assessment during the process of acquiring environmental approvals from regulatory agencies, which will be subject to USFWS review and approval during the endangered species consultation.

Eastern Indigo Snake (*Drymarchon couperi*)

Eastern indigo snakes are widely distributed throughout central and south Florida but primarily occur in sandhill habitats in northern Florida and southern Georgia. Preferred habitat includes pine and scrubby flatwoods, pine rocklands, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats. Based on an evaluation of the properties' characteristics, including soil composition, the sites do not provide habitat suitable for the EIS. Notably, the sites' soils are not conducive for burrow development and no commensal species, such as gopher tortoises, were documented onsite. As the EIS is a shy and reclusive animal, the vegetative cover of the properties offer some shelter from predators, such as hawks (red-tail, broad winged, red shouldered, osprey), large herons, vultures, as well as mammals such as raccoons and feral cats. Although the site provides unsuitable substrate habitat for the species, the EIS may be affected by the development of the site. Therefore, DERM recommends the USFWS Standard Protection Measures for the Eastern Indigo Snake be implemented prior to and during any development of the site.

Mitigation Assessment and Proposed Costs

Section 24-48.4 of the Code requires that potential and cumulative adverse environmental impacts for a proposed project be avoided and/or minimized. Section 24-48.4 of the Code further states that mitigation should not be used to make an otherwise non-permittable project permittable and must maximize preservation of existing natural resources including avoiding the impact altogether by not taking certain action or parts of an action, as well as minimizing impacts by limiting the degree or magnitude of the action or its implementation. Once avoidance and minimization for wetland impacts has occurred, Section 24-48 of the Code allows permittable unavoidable impacts to be compensated by replacing or providing substitute resources or environments through Permittee responsible mitigation or mitigation bank credit purchase.

The following mitigation assessments are provided to assist in selecting a preferred alternative and to illustrate how avoidance and minimization of wetland impacts would reduce the overall mitigation cost for the preferred alternative. DERM, along with the State of Florida and the U.S. Army Corps of Engineers will require the applicant to avoid and minimize wetland impacts to the best of their ability.

Uniform Mitigation Assessment Method (UMAM)

To offset the proposed impacts to the 376-acres of wetlands at the subject properties, DERM conducted a preliminary evaluation of the wetland impacts for the purchase of UMAM credits at the Hole-In-The-Donut (HID) Mitigation Bank at Everglades National Park. A UMAM evaluation is the technique used for HID to assess the amount of mitigation credits needed to offset wetland impacts pursuant to F.S. 373 and F.A.C. 62-345. To apply the UMAM assessment method DERM had to first assess the biological communities on-site to determine how many exist. This evaluation determined that three distinct biological wetland communities exist: 1) wet prairie with exotics, 2) wet prairie, and 3) freshwater marsh, resulting in three polygons with each scored separately. Please refer to Exhibit 2 for the locations of these three polygons. Should the entirety of the sites be developed and in order to offset the impacts to 376 acres of wet prairie, wet prairie with *Melaleuca*, and freshwater marsh, the purchase of 190 Freshwater Herbaceous Credits would be required depending on the exact location of the impacts. Based on a preliminary review of the proposal to impact all wetlands at the subject properties and the current cost per UMAM credit at HID of approximately \$80,000, the estimated mitigation bank purchase would be approximately \$15.2 million. Currently, there are insufficient mitigation bank credits available at HID to offset the proposed impacts. The final mitigation bank credit amount and cost will be determined during the Class IV permitting process.

Permittee Responsible Mitigation

A UMAM analysis of the proposed impacts was conducted to determine the acreage required to be restored and/or enhanced through an offsite mitigation project to sufficiently mitigate the impacts to wetlands at the proposed development sites. Should the entirety of the sites be developed and in order to offset impacts to 376 acres of wetlands, the restoration and enhancement of 900 acres of similar wetland habitat (wet prairie and freshwater marsh) would be required depending on the exact location of the impacts (see Exhibit 2). The County may need to explore alternative mitigation options, which could include the acquisition of private lands and the creation, restoration, and enhancement of wetlands to compensate for the proposed wetland impacts associated with the development. DERM recommends the proposed mitigation projects be located within the same or adjacent wetland basin.

Additional Considerations

Below are additional environmental considerations that need to be evaluated during the design and siting process should this site be selected for development.

Contamination

Consistent with the standard due diligence required as a part of the County's property acquisition procedures, a Phase 1 and Phase 2 Environmental Site Assessment prepared in accordance with the ASTM standards is required prior to site development and prior to the submittal of any site development plans.

Drainage and Flood Protection:

Federal Flood Zone: Zone A (Undefined)

County Flood Criteria (CFC): Approximately 7.0 feet N.A.V.D.

The properties are adjacent to the C-9 Canal to the north property line. The site is encumbered by a 130 feet canal reservation on the west-north half of Section 2-52-29, and there is the Opa-Locka West Airport Ditch within folio # 30-2902-000-0010.

The property is in the Western C-9 Basin and any development will need to comply with the Western C-9 Fill Encroachment Criteria, per Rule 40E-41.063, Florida Administrative Code.

For compliance with Miami-Dade County stormwater disposal requirements, all stormwater shall be retained on-site utilizing a properly designed seepage or infiltration drainage system. Note that any grading and drainage improvements within the parcels would require review and approval by DERM. The road drainage systems shall provide service that complies with the minimum requirements outlined in the Miami-Dade County Public Works Manual. Furthermore, any site grading and development plans associated with the development of the site shall comply with the requirements of Chapter 11C of the Code, as well as with all state and federal criteria, and shall not cause flooding of adjacent properties. Additionally, any proposed development shall comply with county and federal flood criteria requirements.

Future development may require Miami-Dade County permits related to drainage and dewatering activities:

1. Pursuant to Section 24-48.1(1)(b) of the Code, a Class II permit is required for the construction, installation, and/or alteration of any outfall or overflow system discharging into any water body of Miami-Dade County.
2. Pursuant to Section 24-48.1(1)(c) of the Code, Class III permits are required for work in, on, upon, or contiguous to nontidal lakes, canals, rivers, and other water areas and waterfronts under the direct control of Miami-Dade County by virtue of ownership, dedication by plat, right-of-way easement, reservation, or right-of-way and access agreement or instrument. Therefore, any work within Airport West Ditch and 130-foot canal reservation on the north-western half of Section 2-52-29 will require a Class III permit.
3. Pursuant to Section 24-48.1(1)(e) of the Code, any construction activities that require dewatering will require a Class V permit. Class V permits are required for any dewatering of groundwater, surface water, or water that has entered an underground facility, excavation, or trench.
4. Pursuant to Section 24-48.1(1)(f) of the Code, Class VI permits are required for the installation of a drainage system for any project that has known soil or groundwater contamination, or that uses, generates, handles, disposes of, discharges, or stores hazardous materials.

Comprehensive Everglades Restoration Plan (CERP)

The CERP planning process under the Biscayne Bay Southeastern Everglades Ecosystem Restoration (BBSEER) project is ongoing and it is not likely that a draft of the Tentatively Selected Plan will be available before 2025. “Airport West” site remains within the BBSEER study area, based on DERM staff participation in the Project Delivery Team meetings, the removal of a portion of the wetlands on the site for the approximate 40 acre footprint of the WTE facility from within the CERP footprint appears to have a lesser impact on the overall CERP project than the other

alternative sites that were considered. However, the same cannot be said for the removal of all the wetlands at the Airport West for multiple uses including an expanded solid waste campus and inland Port purposes. Therefore, consistency with the objective and policies of the County's CDMP related to CERP cannot be determined until the CERP study is completed and the final alternative project has been selected.

Conclusions

As noted above, the properties lie within the C-9 Wetland Basin and contain wetlands as defined by Section 24-5 of the Code. The subject properties contain high quality wetlands within the Freshwater Marsh area (see Exhibit 2) and site inspections have documented the utilization of native wildlife in these areas. Section 24-48.3(1)(i)(i) of the Code states that when reviewing a permit application, that the maximum protection of a wetlands' hydrological and biological functions should be considered with the "placement of the minimum fill necessary on a site to provide for the land use alternative which results in the least adverse environmental impact and the least cumulative adverse environmental impact." In addition, Section 24-48.4 of the Code states that mitigation plans must maximize the preservation of existing natural resources.

Furthermore, as per the Mayor's Report Related to the Establishment of a Mitigation Bank by Miami-Dade County, Directive No. 212315 dated January 28, 2022, "all County-controlled projects that cause impacts to wetlands resources to maximize opportunities for the preservation of on-site wetlands to the greatest extent possible. When impacts to wetlands for County projects cannot be avoided, the County will consider conducting wetlands mitigation projects in the vicinity of the wetlands being impacted. This approach would help preserve the important ecosystem functions that are lost by conversion of those wetlands, and it can help better address some of the water quality concerns with the health of Biscayne Bay."

While several locations are proposed for the siting of the WTE facility, one of the proposed locations (Alt 3) situates the facility within the southern portion of the site (see Exhibit 6) which contains the high-quality Freshwater Marsh. DERM recommends that the proposed WTE be developed within an area that avoids direct and secondary impacts to the high-quality Freshwater Marsh and that any development at the subject properties be designed in a manner as to incorporate the enhancement and preservation of the high-quality marsh habitat onsite. Furthermore, it is recommended that any additional mitigation be satisfied through the acquisition of private lands and subsequent creation, restoration, and/or enhancement of wetlands on the acquired lands.

Additionally, support for everglades restoration is a key policy objective in the Land Use Element of the CDMP, with additional information on these wetland systems presented in the Conservation, Aquifer Recharge and Drainage Element, and the Coastal Management Element, and the Evaluation and Appraisal Reports addressing those elements. Pursuant to the CON 7J "evaluating applications that will result in alterations or adverse impacts to wetlands Miami-Dade County shall consider the applications' consistency with CERP objectives. Applications that are found to be inconsistent with CERP objectives, projects or features shall be denied". As stated above, the Airport West site is located within the CERP BBSEER study area. Although development of a smaller portion of this site may not be inconsistent with CERP, consistency with CERP for the development of the approximately 390 acres of the Airport West

site cannot be determined at this time, until the CERP alternative plan has been selected and the potential impacts to habitat that is critical to the species are determined as outlined below.

Please note that a full evaluation of the proposal, including but not limited to the project's consistency with the Miami-Dade County CDMP and subsequently with Section 24-48 of the Code would be performed prior to or during the DERM Class IV permitting process when the final footprint of the proposed project is identified. In addition, an Environmental Resource Permit from the State of Florida and potentially a separate permit from the U.S. Army Corps of Engineers would be required for impacts to wetlands as well as for stormwater management at this site. The State and federal processes consider similar evaluation criteria as the County Code requirements and would place emphasis on impacts to threatened and endangered species that may be utilizing the site. Any potential impacts to State or federal listed species should be considered by the County's consultant and accounted for by utilizing the respective best management practices and avoiding and minimizing impacts to habitat that is critical to those species.

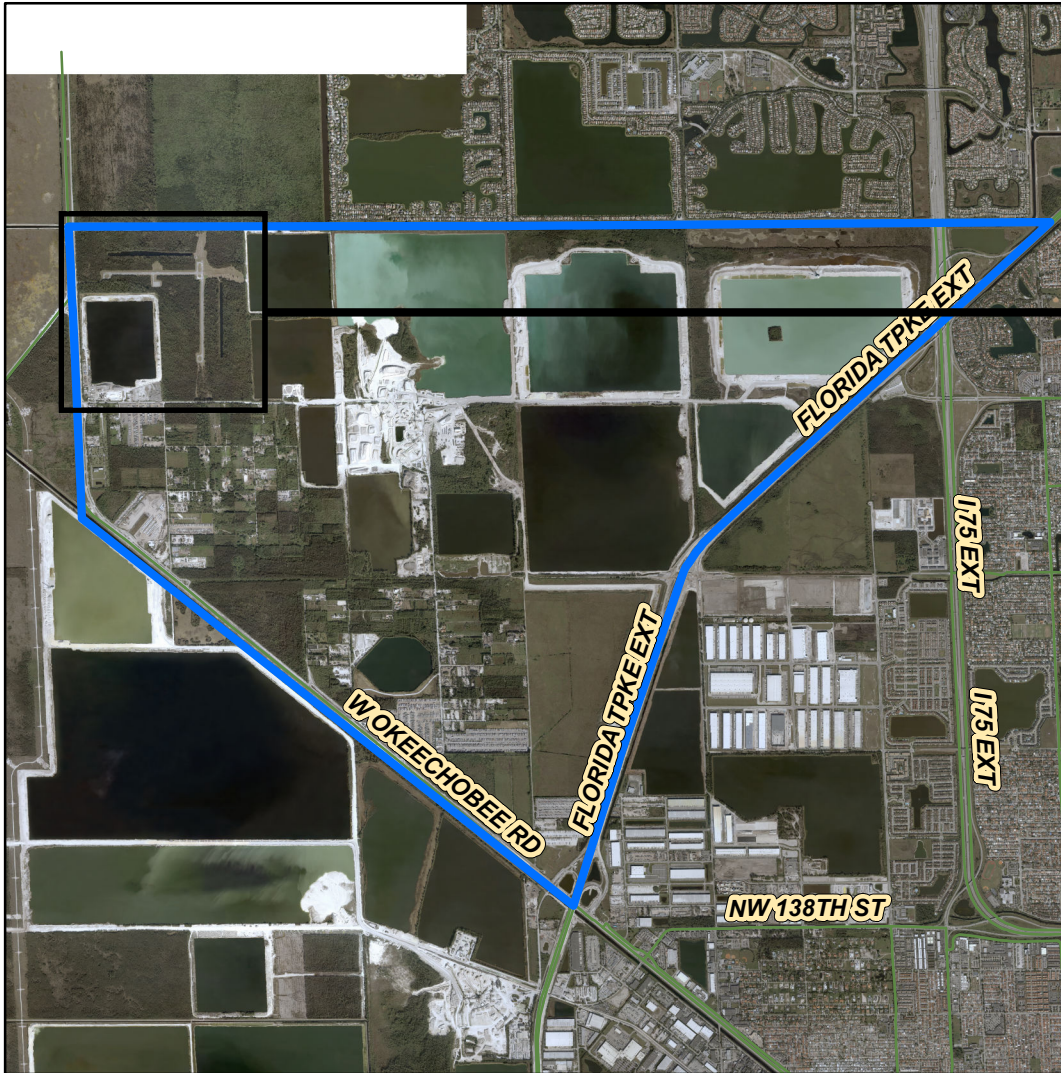
Opa Locka West

Location Map

Folio nos.
30-2902-000-0010 and
30-2903-000-0010

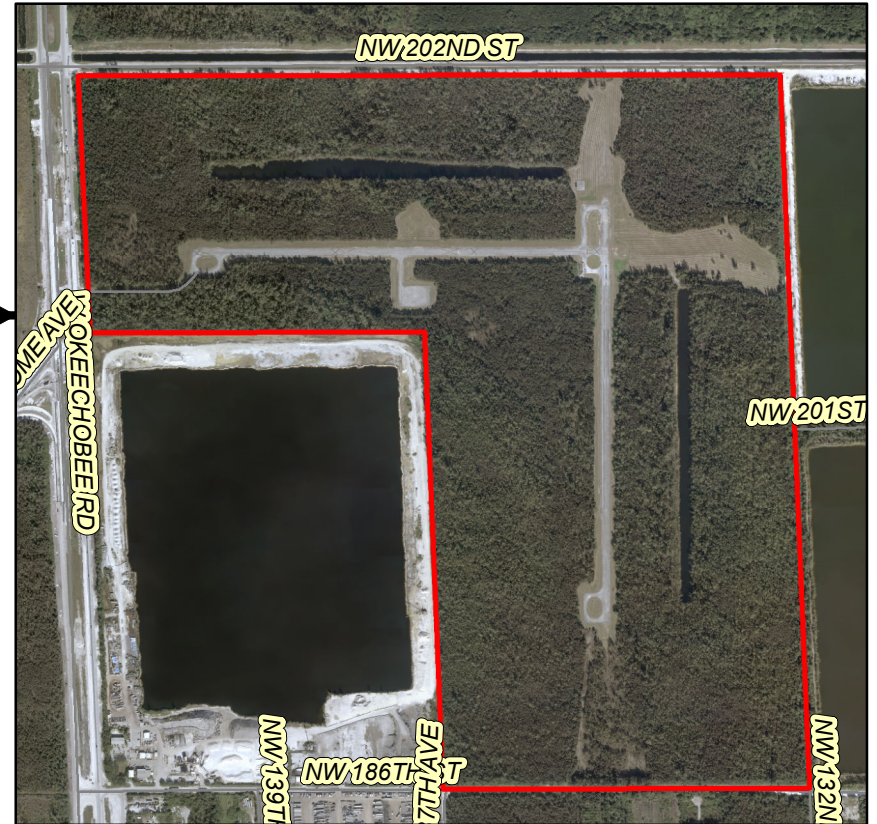
Exhibit 1

W Okeechobee Road and NW 202 Street, Miami-Dade County




Legend

 C-9 Wetland Basin



Legend

 Subject Property



0 0.1 0.2 0.4 0.6 0.8 Miles

2023 Aerial

Opa Locka West







Folio nos.
30-2902-000-0010 and
30-2903-000-0010

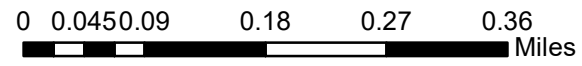
Exhibit 2

Biological Assessment and Mitigation Analysis



Legend

-  Subject Property (416.51 acres)
-  Freshwater Marsh (10.29 acres)
-  Wet Prairie (15.61 acres)
-  Wet Prairie Impacted with Melaleuca (350.01 acres)
-  Uplands (29.70 acres)
-  Borrow Pit (10.9 acres)



2023 Aerial

Map depicts the general wetland habitats on site and is not intended for evaluation of wetland quality assessments.



Chapter 62-340, F.A.C. Data Form

1. Date: Oct 13, 2023 2. Staff Present: M. Lastre, F. Kenyon, K. Nelson 3. Form recorder(s): KN
 4. County: Miami-Dade (13) 5. Site Name: Opa Locka West Tracking #: CLIV-20060117
 6. Point ID: 1 GPS Coordinates: 25.954074, -80.419497
 7. Distances and bearings from fixed objects (if no GPS): _____
 8. Current condition of described point: Authorized or legal condition Unauthorized or illegal condition
 9. Work type: Identification Delineation
 Point status: Wetland Non-Wetland Surface Water Upland

10. **Vegetative Stratum §62-340.400:** Using §62-340.400, F.A.C. with reasonable scientific judgment, select the appropriate vegetative stratum. (Do not include FAC species when determining 10% minimum areal extent.)
 Canopy (Min. 10% areal extent) Subcanopy (Min. 10% areal extent) Groundcover (No min. areal extent)
 Vegetation Absent (*skip to #14*) Evaluation Impossible (*skip to #14*) **Why?** _____

11. **Plant List §62-340.200(2),(6),(16), §62-340.400, §62-340.450, F.A.C.:** Areal extent estimator: KN
As is under current conditions, without considering RSJ¹ or the legality of any alterations:

Select and identify plants in an area just large enough to represent and classify the plant community at the described point. Do not extend into different communities or hydrologic conditions.

- | | | |
|---|--|--|
| 1. Record the scientific name (binomial) and status of <u>each</u> plant species necessary to identify/delineate and classify the plant community in the selected area. | 2. Record the percent areal extent in the canopy, subcanopy, and groundcover columns for each species. | 3. For each species present in the stratum selected in #10 , transfer the numbers from <u>only that stratum's column</u> into the appropriate status columns. |
|---|--|--|

#	Binomial of Observed Species	Status	Canopy	Subcanopy	Groundcover	Upland	Facultative	Fac. Wet	Obligate
1.	Fuirena breviseta	O			60				60
2.	Ipomoea indica	F			10		10		
3.	Flaveria linearis	FW			15			15	
4.	Muhlenbergia capillaris	O			15				15
5.	Phyla nodiflora	F			2		2		
6.	Spermacoce verticillata	U			10	10			
7.	Bidens alba	F			2		2		
8.	Andropogon glomeratus	FW			10			10	
9.									
10.									
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									

Percent areal extent totals for the stratum selected in question 10 10 14 25 75

12. In the stratum selected in #10: What is the % areal extent of Obligate plants? 75
 What is the % areal extent of Upland plants? 10
 Is the areal extent of Obligate plants greater than that of Upland plants? Yes No

13. In the stratum selected in #10: What is the total % areal extent of Obligate & Facultative Wet plants combined? 100
 What is the total % areal extent of Obligate, Facultative Wet, & Upland plants combined? 110
 What is the percentage of OBL + FACW in relation to all plants, excluding FAC? ($\frac{OBL+FACW}{OBL+FACW+UPL}$) 90.9%

14. LRR/MLRA U **Textures:** Peat, Mucky Peat, Muck, Mucky Mineral (S or F), Sand, Fine, Marl

15. Is a soil profile evaluation possible? Yes No If no, why? (If No, skip to #18)

16. Soil Description: **As is under current conditions, without considering RSJ¹ or the legality of any alterations**
 Soil surface, or 0 inch depth for purposes of Chapter 62-340, F.A.C. is the muck or mineral surface (whether natural or fill)

Horizon	beginning to ending Depth (inches)	Matrix Texture	moist condition Matrix Hue Value/ Chroma	for sandy matrix horizons w/ value ≤ 3: % Organic Coating	- Describe soil features: DA (areas darker than matrix), LA (areas lighter than matrix), RC (redox concentrations): Record in moist condition hue value/chroma ; % volume in horizon ; boundaries (sharp/clear/diffuse); shape (rounded/linear/angular). - OB (organic bodies): Record texture (muck or mucky mineral), % volume in horizon . - H₂S (hydrogen sulfide odor): Indicate shallowest depth where detected - Note if horizon is Physically Mixed (PM) , Nonsoil (any material not listed in "Textures" above), or Fill and describe.
1	0-3.5		10YR 3/1		A8
2	3.5-6				orange coloring, sandy
3	6-10				organic bodies
4					
5					
6					

17. Hydric Soil Field Indicators: If present, check all Hydric Soil Field Indicators satisfied and specify their beginning and ending depths

<input checked="" type="checkbox"/> All Texture	<input checked="" type="checkbox"/> Sandy Texture	<input checked="" type="checkbox"/> Fine Texture	Indicator Present	Begin Depth	End Depth
<input type="checkbox"/> (A1) Histosol*	<input type="checkbox"/> (S4) Sandy Gleyed Matrix*	<input type="checkbox"/> (F2) Loamy Gleyed Matrix*	1. A8	0	3.5
<input type="checkbox"/> (A2) Histic Epipedon*	<input type="checkbox"/> (S5) Sandy Redox	<input type="checkbox"/> (F3) Depleted Matrix	2. _____	_____	_____
<input type="checkbox"/> (A3) Black Histic*	<input type="checkbox"/> (S6) Stripped Matrix	<input type="checkbox"/> (F6) Redox Dark Surface	3. _____	_____	_____
<input type="checkbox"/> (A4) Hydrogen Sulfide*	<input type="checkbox"/> (S7) Dark Surface	<input type="checkbox"/> (F7) Depleted Dark Surface	4. _____	_____	_____
<input type="checkbox"/> (A5) Stratified Layers*	<input type="checkbox"/> (S8) Polyvalue Below Surface	<input type="checkbox"/> (F8) Redox Depression	5. _____	_____	_____
<input type="checkbox"/> (A6) Organic Bodies	<input type="checkbox"/> (S9) Thin Dark Surface	<input type="checkbox"/> (F10) Marl	6. _____	_____	_____
<input type="checkbox"/> (A7) 5cm Mucky Mineral*	<input type="checkbox"/> (S12) Barrier Islands 1cm Muck	<input type="checkbox"/> (F12) Iron-Manganese Masses			
<input checked="" type="checkbox"/> (A8) Muck Presence*		<input type="checkbox"/> (F13) Umbric Surface			
<input type="checkbox"/> (A9) 1cm Muck*		<input type="checkbox"/> (F22) Very Shallow Dark Surface			

(A11) Depleted Below Dark Surface (A12) Thick Dark Surface * = Stand-alone D Test - both hydric soil and hydrologic indicator

To combine layers/indicators to meet thickness requirements, see NRCS Hydric Soils Technical Note 4.

18. Excluding organic horizons, is any nonsoil horizon present at or within the uppermost 12 inches of the ground surface? Yes (e.g. bedrock, rock outcrop, limestone fill, gravel, etc) No Soil profile or site inaccessible

19. Is one or more hydric soil field indicators present? Yes No Inconclusive (e.g., evaluation to 12+ inches impeded by disturbance, water, nonsoil, no site access, etc.)
 If no or inconclusive, is the soil hydric as determined by other NRCS methods? Yes ← Which method(s)? _____ No Inconclusive ← Why? _____

(e.g., hydric soil definition, HSTS², indicator present at drier elevation, indicator would be present but for disturbance)

20. Is the depth of the soil profile 20 inches or greater from the soil surface? Yes No
 If no, depth of soil profile is: 10 inches Why? bedrock

(e.g., root refusal, nonsoil, water table, loose sand, heavy texture, compaction, weather conditions, inspection interrupted)

21. Observed height or depth of standing water from soil surface: _____ inches Above Below Not Observed

22. Hydrologic Indicators: As is under current conditions, without considering RSJ¹ or the legality of any alterations

Hydrologic Indicators per §62-340.500, F.A.C. (and as applied to §62-340.600, F.A.C.)	Present at or near point	Predicted during normal high water or wet season♦	Within 100 ft waterward of point (not for upland points)	1. Describe the type of all checked indicators. 2. Approximate the distance and compass direction of indicators within 100 ft of the point. 3. For water level indicators (potential indicators denoted by *) note the height from ground surface at the point as well as waterward (with distance from point). ♦ Only for indicators not present due to dry season/drought
(1) Algal mats*	✓			0.25 inches above ground surface
(2) Aquatic mosses or liverworts*				
(3) Aquatic plants*				
(4) Aufwuchs				
(5) Drift lines and rafted debris*				
(6) Elevated lichen lines*				
(7) Evidence of aquatic fauna				
(8) Hydrologic data*	✓			Muck
(9) Morphological plant adaptations*				
(10) Secondary flow channels				
(11) Sediment deposition*				
(12) Tussocks or hummocks*				
(13) Water marks*				

Highest water level indicator height at point: 0.25 inches Above Ground Surface No Water Level Indicators
 Above Soil Surface N/A (described point is Upland)

23. Is one or more hydrologic indicator(s) listed in §62-340.500, F.A.C. present or predicted with normal high water or wet season conditions at the described point? Yes No Evaluation Impossible ← Why? _____

24. Delineation by Wetland Definition §62-340.300(1), F.A.C.

As is under current conditions, without considering RSJ¹ or the legality of any alterations:

- a) Has a wetland boundary been delineated at the described point? Yes No (If No, skip to #25)
 b) If yes to 24a, can the boundary be easily delineated using the definition of wetlands? Yes No

25. A & B Test Wetland Criteria §62-340.300(2)(a),(b), F.A.C.

As is under current conditions, without considering RSJ¹ or the legality of any alterations:

- a) Is the areal extent of Obligate plants in the stratum selected in #10 greater than the areal extent of all Upland plants in that stratum? (See #12) Yes No Vegetation Absent (skip to #25f) Evaluation Impossible (skip to #26a)
 b) Is the areal extent of Obligate and/or Facultative Wet plants in the stratum selected in #10 equal to or greater than 80% of all the plants in that stratum, excluding Facultative plants? (See #13) Yes No
 c) Is the soil hydric as identified using standard NRCS definitions and practices? (see #19)
 Yes No Indeterminable with current conditions ← Why? _____
 d) Is the substrate composed of riverwash, nonsoil (see #18), rock outcrop-soil complex, or is the substrate located within an artificially created wetland area? Yes No If yes, which condition is present? _____
 e) Is one or more of the hydrologic indicators in §62-340.500, F.A.C. present at the described point? (See #23) Yes No
 f) Are the A Test criteria met per §62-340.300(2)(a), F.A.C. at the described point? Yes No
 (Note: If yes to 25a and yes to either 25c, 25d, or 25e, A Test criteria are met)
 g) Are the B Test criteria met per §62-340.300(2)(b), F.A.C. at the described point? Yes No
 (Note: If yes to 25b and yes to either 25c, 25d, or 25e, B Test criteria are met)
 h) Are there any alterations or conditions affecting reliable application of the A or B Test such that the Altered Sites Test is more appropriate? Yes No

26. C Test Wetland Criteria §62-340.300(2)(c), F.A.C.

As is under current conditions, without considering RSJ¹ or the legality of any alterations:

- a) Per §62-340.300(2)(c), F.A.C. is the described point Pine Flatwoods or Improved Pasture, or does it have drained soils? ... Pine Flatwoods must have flat terrain, a monotypic or mixed canopy of long leaf pine or slash pine, and a ground cover dominated by saw palmetto with other species that are NOT obligate or facultative wet. Improved Pasture means areas where the dominant native plant community has been replaced with planted or natural recruitment of herbaceous species which are NOT obligate or facultative wet species and which have been actively maintained for livestock through mechanical means or grazing. Drained Soils are those in which permanent alterations, excluding mechanical pumping, preclude the formation of hydric soils.
b) Are the soils at the described point saline sands (salt flats-tidal flats), or have they been field verified by NRCS's Keys to Soil Taxonomy (4th ed. 1990) as Umbraqualfs, Sulfaquents, Hydraquents, Humaquepts, Histosols (except Folists), Argiaquolls, or Umbraquults?
c) Do the soils at the described point have a NRCS hydric soil field indicator (see #17), and is the point located within a map unit named or designated by the NRCS as frequently flooded, depressional, or water?
d) Are the C Test criteria met per §62-340.300(2)(c), F.A.C. at the described point?
e) Are there any alterations or conditions affecting reliable application of the C Test such that the Altered Sites Test is more appropriate?

27. D Test Wetland Criteria §62-340.300(2)(d), F.A.C.

As is under current conditions, without considering RSJ¹ or the legality of any alterations:

- a) Is the soil hydric as verified by a NRCS hydric soil field indicator? (See #17)
b) Does any NRCS hydric soil field indicator begin at the soil surface or are any of the following indicators present: A1, A2, A3, A4, A5, A7, A8, A9, S4, F2?
c) Is one or more of the hydrologic indicators in §62-340.500, F.A.C. present at the described point? (See #23)
d) Are the D Test criteria met per §62-340.300(2)(d), F.A.C. at the described point?
e) Are there any alterations or conditions affecting reliable application of the D Test such that the Altered Sites Test is more appropriate?

28. Altered Sites Tests §62-340.300(3), F.A.C. (Legal/Authorized or Illegal/Unauthorized)

For purposes of Chapter 62-340, F.A.C. altered refers to any natural or man-induced condition(s) which masks or eliminates reliable expression of wetland indicators (i.e. hydrophytic vegetation, hydric soils, and hydrologic indicators). Unaltered or normal does not require a natural condition, only an expression of wetland indicators that is sufficient to reliably identify or delineate the wetland using the criteria in §62-340.300, F.A.C.
Are alterations affecting normal wetland condition? Yes No (skip to #32) Evaluation Impossible (skip to #32)

29. Authorized or Legally Altered Vegetation and Soils Test Criteria §62-340.300(3)(a), F.A.C.

- a) Are there authorized or legal alterations affecting reliable expression of vegetation at the described point?
b) Are there authorized or legal alterations affecting reliable soil evaluation at the described point?
c) If yes to 29a or 29b, which criteria tests are affected by the legal alterations?
d) Using the most reliable available information and reasonable scientific judgment, would the types of evidence and characteristics contemplated in §62-340.300, F.A.C. identify or delineate the described point as a wetland with cessation of the legal altering activities?
e) If yes to 29d, what §62-340.300, F.A.C. evidence is present now and/or will be present in the future with cessation of legal altering activities?
f) If yes to 29d, which tests would be passed with cessation of legal altering activities?
Why?

Point ID/Location: 25.954074, -80.419497

30. Authorized or Legally Altered Hydrology Test Criteria §62-340.300(3)(b), F.A.C.

- a) Has wetland hydrology of the area been **legally** drained or lowered? Yes No (If no, skip to #31)
If yes, how? _____
- b) Has wetland hydrology been **legally** eliminated at the described point? Yes No (If no, skip to #31)
- c) If yes to 30b, using reasonable scientific judgment or §62-340.550, F.A.C., have dredging or filling activities authorized by **Part IV** of Chapter 373, F.S. **permanently eliminated** wetland hydrology at the described point such that the wetland definition cannot be met? Yes (point is upland) No (If yes, skip to #31)
Chapter 373, F.S. Part II activities (e.g., water use permits) or other temporary hydrologic alterations (e.g., surface water pumps, drought) do not apply to this or any other Ch. 62-340, F.A.C. determinations.
- d) If no to 30c, what §62-340.300, F.A.C. evidence is present now and/or will be present in the future with cessation of temporary hydrologic drainage? Plants Soils Hydrologic indicators
- e) If no to 30c, Which tests would be passed with cessation of temporary hydrologic alterations?
 Wetland Definition A Test B Test C Test D Test
Why? _____

31. Unauthorized or Illegally Altered Sites Test Criteria §62-340.300(3)(c), F.A.C.

If the altering activity is a violation of regulatory requirements, then application of §62-340.300(3)(c), F.A.C. and all provisions of Chapter 62-340, F.A.C. are utilized to identify or delineate the wetland in a forensic manner.

This identification or delineation reflects the condition immediately prior to the unauthorized alteration.

- a) Have any **unauthorized** alterations affected the normal wetland condition at the described point? Yes No
If yes, how? _____ (If no, skip to #32)
- b) If yes to 31a, which criteria tests are affected by the unauthorized alterations?
 A Test B Test C Test D Test
- c) With reasonable scientific judgment is the described point a wetland, or would it have been a wetland immediately prior to the unauthorized alteration? Yes No If no, why? _____ (If no, skip to #32)
- d) If yes to 31c, what §62-340.300, F.A.C. evidence is present now and/or was present immediately prior to the unauthorized alteration? Plants Soils Hydrologic indicators
- e) If yes to 31c, which tests would be passed immediately prior to the unauthorized alteration?
 Wetland Definition A Test B Test C Test D Test
Why? _____

32. Wetland and Other Surface Water Summary §62-340.600(2)(a-e), F.A.C.:

Given **normal** expression, **cessation** of **authorized** alterations, or **immediately prior** to any **unauthorized** alterations:

- a) With **reasonable scientific judgment** is the described point a wetland as defined in §62-340.200(19), F.A.C. and located by Ch. 62-340, F.A.C.? Yes No If yes, which criteria identified or delineated the wetland?
 Wetland Definition A Test B Test C Test D Test
If summary answers differ from answers in 25f, 25g, 26d, or 27d, why? _____
- b) Is the described point located at or within the Mean High Water Line of a tidal water body?
 Yes No MHWL Unknown
- c) Is the described point located at or within the Ordinary High Water Line of a non-tidal natural water body or natural watercourse? Yes No
- d) Is the described point located at or within the top of the bank of an artificial lake, borrow pit, canal, ditch, or other type of artificial water body or watercourse with side slopes of 1 foot vertical to 4 feet horizontal or steeper, excluding spoil banks when the canals and ditches have resulted from excavation into the ground? Yes No
- e) Is the described point located at or within the Seasonal High Water Line of an artificial lake, borrow pit, canal, ditch, or other type of artificial water body or watercourse with side slopes flatter than 1 foot vertical to 4 feet horizontal or an artificial water body created by diking or impoundment above the ground? Yes No

33. Connection or Isolation of Wetland per Applicant's Handbook Vol.1 Section 2.0

If the described point is a wetland, does it have a connection via wetlands or other surface waters, or is it wholly surrounded by uplands and therefore isolated? Connected Isolated N/A (Point is not wetland)

Point ID/Location: 25.954074, -80.419497

34. Photographs and/or videos: Soil profile with Data Form, Soil profile close-up, Cross section(s) at 6" depth for sandy textures and/or critical depths for fine textures, Hydric soil indicators, Water table or inundation depth, Four cardinal directions of plant strata present, Hydrologic indicators (with scale as necessary), Critical plant ID (optional)

#	Memory Card # / Metadata	Description, compass direction (if applicable)	Taken By
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			

Notes:

Helpful Definitions for Applying Ch 62-340, F.A.C.

¹**RSJ** stands for Reasonable Scientific Judgment where used throughout this Data Form (See *The Florida Wetlands Delineation Manual* pg. 2 & 12)

²**HSTS** stands for Hydric Soils Technical Standard (See NRCS Hydric Soils Technical Note 11)

Definition from §62.340.200(19) Florida Administrative Code

"Wetlands," as defined in subsection 373.019(17), F.S., means those areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions. The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. These species, due to morphological, physiological, or reproductive adaptations, have the ability to grow, reproduce or persist in aquatic environments or anaerobic soil conditions. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps and other similar areas. Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto.

Definition from §373.019(19) Florida Statutes

"Surface water" means water upon the surface of the earth, whether contained in bounds created naturally or artificially or diffused. Water from natural springs shall be classified as surface water when it exits from the spring onto the earth's surface.

Definition from §373.019(14) Florida Statutes

"Other watercourse" means any canal, ditch, or other artificial watercourse in which water usually flows in a defined bed or channel. It is not essential that the flowing be uniform or uninterrupted.

Definition from §62.340.200(15) Florida Administrative Code

"Seasonal High Water" means the elevation to which the ground and surface water can be expected to rise due to a normal wet season.

From The Florida Wetlands Delineation Manual pg. 37

Ordinary high water is that point on the slope or bank where the surface water from the water body ceases to exert a dominant influence on the character of the surrounding vegetation and soils. The OHWL frequently encompasses areas dominated by non-listed vegetation and non-hydric soils. When the OHWL is not at a wetland edge, the general view of the area may present an "upland" appearance.

Definition from §403.803(14) Florida Statutes

"Swale" means a manmade trench which:

- (a) Has a top width-to-depth ratio of the cross-section equal to or greater than 6:1, or side slopes equal to or greater than 3 feet horizontal to 1 foot vertical;
- (b) Contains contiguous areas of standing or flowing water only following a rainfall event;
- (c) Is planted with or has stabilized vegetation suitable for soil stabilization, stormwater treatment, and nutrient uptake; and
- (d) Is designed to take into account the soil erodibility, soil percolation, slope, slope length, and drainage area so as to prevent erosion and reduce pollutant concentration of any discharge.



§ denotes the Rule, subsection, paragraph, or subparagraph referenced from Ch. 62-340, F.A.C.

Chapter 62-340, F.A.C. Data Form

1. Date: Oct 13, 2023 2. Staff Present: M. Lastre, F. Kenyon, K. Nelson 3. Form recorder(s): KN
 4. County: Miami-Dade (13) 5. Site Name: Opa Locka West Tracking #: CLIV-20060117
 6. Point ID: 2 GPS Coordinates: 25.954040, -80.419489
 7. Distances and bearings from fixed objects (if no GPS): _____
 8. Current condition of described point: Authorized or legal condition Unauthorized or illegal condition
 9. Work type: Identification Delineation
 Point status: Wetland Non-Wetland Surface Water Upland

10. Vegetative Stratum §62-340.400: Using §62-340.400, F.A.C. with reasonable scientific judgment, select the appropriate vegetative stratum. (Do not include FAC species when determining 10% minimum areal extent.)
 Canopy (Min. 10% areal extent) Subcanopy (Min. 10% areal extent) Groundcover (No min. areal extent)
 Vegetation Absent (*skip to #14*) Evaluation Impossible (*skip to #14*) **Why?** _____

11. Plant List §62-340.200(2),(6),(16), §62-340.400, §62-340.450, F.A.C.: Areal extent estimator: KN
As is under current conditions, without considering RSJ¹ or the legality of any alterations:

Select and identify plants in an area just large enough to represent and classify the plant community at the described point. Do not extend into different communities or hydrologic conditions.

1. Record the scientific name (binomial) and status of each plant species necessary to identify/delineate and classify the plant community in the selected area.
2. Record the percent areal extent in the canopy, subcanopy, and groundcover columns for each species.
3. For each species present in the **stratum selected in #10**, transfer the numbers from only that stratum's column into the appropriate status columns.

#	Binomial of Observed Species	Status	Canopy	Subcanopy	Groundcover	Upland	Facultative	Fac. Wet	Obligate
1.	Spermacoce verticillata	U			30	30			
2.	Bidens alba	F			30		30		
3.	Andropogon glomeratus	FW			20			20	
4.	Lippia stoechadifolia	F			2		2		
5.	Juncus megacephalus	O			5				5
6.	Mikania scandens	U			10	10			
7.	Eustachys petraea	F			5		5		
8.	Ipomoea indica	F			20		20		
9.									
10.									
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									

Percent areal extent totals for the stratum selected in question 10 40 57 20 5

12. In the stratum selected in #10: What is the % areal extent of Obligate plants? 5
 What is the % areal extent of Upland plants? 40
 Is the areal extent of Obligate plants greater than that of Upland plants? Yes No

13. In the stratum selected in #10: What is the total % areal extent of Obligate & Facultative Wet plants combined? 25
 What is the total % areal extent of Obligate, Facultative Wet, & Upland plants combined? 65
 What is the percentage of OBL + FACW in relation to all plants, excluding FAC? ($\frac{OBL+FACW}{OBL+FACW+UPL}$) 38.5%

14. LRR/MLRA U Textures: Peat, Mucky Peat, Muck, Mucky Mineral (S or F), Sand, Fine, Marl

15. Is a soil profile evaluation possible? Yes No If no, why? (If No, skip to #18)

16. Soil Description: As is under current conditions, without considering RSJ¹ or the legality of any alterations
Soil surface, or 0 inch depth for purposes of Chapter 62-340, F.A.C. is the muck or mineral surface (whether natural or fill)

Horizon	beginning to ending Depth (inches)	Matrix Texture	moist condition Matrix Hue Value/ Chroma	for sandy matrix horizons w/ value ≤ 3: % Organic Coating	- Describe soil features: DA (areas darker than matrix), LA (areas lighter than matrix), RC (redox concentrations): Record in moist condition hue value/chroma ; % volume in horizon ; boundaries (sharp/clear/diffuse); shape (rounded/linear/angular). - OB (organic bodies): Record texture (muck or mucky mineral), % volume in horizon . - H₂S (hydrogen sulfide odor): Indicate shallowest depth where detected - Note if horizon is Physically Mixed (PM) , Nonsoil (any material not listed in "Textures" above), or Fill and describe.
1	0-3		10YR 4/1		mineral sandy texture
2					
3					
4					
5					
6					

17. Hydric Soil Field Indicators: If present, check all Hydric Soil Field Indicators satisfied and specify their beginning and ending depths

<input checked="" type="checkbox"/> All Texture	<input checked="" type="checkbox"/> Sandy Texture	<input checked="" type="checkbox"/> Fine Texture	Indicator Present	Begin Depth	End Depth
<input type="checkbox"/> (A1) Histosol*	<input type="checkbox"/> (S4) Sandy Gleyed Matrix*	<input type="checkbox"/> (F2) Loamy Gleyed Matrix*	1. _____	_____	_____
<input type="checkbox"/> (A2) Histic Epipedon*	<input type="checkbox"/> (S5) Sandy Redox	<input type="checkbox"/> (F3) Depleted Matrix	2. _____	_____	_____
<input type="checkbox"/> (A3) Black Histic*	<input type="checkbox"/> (S6) Stripped Matrix	<input type="checkbox"/> (F6) Redox Dark Surface	3. _____	_____	_____
<input type="checkbox"/> (A4) Hydrogen Sulfide*	<input type="checkbox"/> (S7) Dark Surface	<input type="checkbox"/> (F7) Depleted Dark Surface	4. _____	_____	_____
<input type="checkbox"/> (A5) Stratified Layers*	<input type="checkbox"/> (S8) Polyvalue Below Surface	<input type="checkbox"/> (F8) Redox Depression	5. _____	_____	_____
<input type="checkbox"/> (A6) Organic Bodies	<input type="checkbox"/> (S9) Thin Dark Surface	<input type="checkbox"/> (F10) Marl	6. _____	_____	_____
<input type="checkbox"/> (A7) 5cm Mucky Mineral*	<input type="checkbox"/> (S12) Barrier Islands 1cm Muck	<input type="checkbox"/> (F12) Iron-Manganese Masses			
<input type="checkbox"/> (A8) Muck Presence*		<input type="checkbox"/> (F13) Umbric Surface			
<input type="checkbox"/> (A9) 1cm Muck*		<input type="checkbox"/> (F22) Very Shallow Dark Surface			
<input type="checkbox"/> (A11) Depleted Below Dark Surface	* = Stand-alone D Test - both hydric soil and hydrologic indicator		To combine layers/indicators to meet thickness requirements, see NRCS Hydric Soils Technical Note 4.		
<input type="checkbox"/> (A12) Thick Dark Surface					

18. Excluding organic horizons, is any nonsoil horizon present at or within the uppermost 12 inches of the ground surface?
 Yes (e.g. bedrock, rock outcrop, limestone fill, gravel, etc) No Soil profile or site inaccessible

19. Is one or more hydric soil field indicators present? Yes No Inconclusive (e.g., evaluation to 12+ inches impeded by disturbance, water, nonsoil, no site access, etc.)
If no or inconclusive, is the soil hydric as determined by other NRCS methods?
 Yes ← Which method(s)? _____ No Inconclusive ← Why? _____
(e.g., hydric soil definition, HSTS², indicator present at drier elevation, indicator would be present but for disturbance)

20. Is the depth of the soil profile 20 inches or greater from the soil surface? Yes No
If no, depth of soil profile is: 3 inches Why? bedrock
(e.g., root refusal, nonsoil, water table, loose sand, heavy texture, compaction, weather conditions, inspection interrupted)

21. Observed height or depth of standing water from soil surface: _____ inches Above Below Not Observed

22. Hydrologic Indicators: As is under current conditions, without considering RSJ¹ or the legality of any alterations

Hydrologic Indicators per §62-340.500, F.A.C. (and as applied to §62-340.600, F.A.C.)	Present at or near point	Predicted during normal high water or wet season♦	Within 100 ft waterward of point (not for upland points)	1. Describe the type of all checked indicators. 2. Approximate the distance and compass direction of indicators within 100 ft of the point. 3. For water level indicators (potential indicators denoted by *) note the height from ground surface at the point as well as waterward (with distance from point). ♦ Only for indicators not present due to dry season/drought
(1) Algal mats*				
(2) Aquatic mosses or liverworts*				
(3) Aquatic plants*				
(4) Aufwuchs				
(5) Drift lines and rafted debris*				
(6) Elevated lichen lines*				
(7) Evidence of aquatic fauna				
(8) Hydrologic data*				
(9) Morphological plant adaptations*				
(10) Secondary flow channels				
(11) Sediment deposition*				
(12) Tussocks or hummocks*				
(13) Water marks*				

Highest water level indicator height at point: _____ inches Above Ground Surface No Water Level Indicators
 Above Soil Surface N/A (described point is Upland)

23. Is one or more hydrologic indicator(s) listed in §62-340.500, F.A.C. present or predicted with normal high water or wet season conditions at the described point? Yes No Evaluation Impossible ← Why? _____

24. Delineation by Wetland Definition §62-340.300(1), F.A.C.

As is under current conditions, without considering RSJ¹ or the legality of any alterations:

- a) Has a wetland boundary been delineated at the described point? Yes No (If No, skip to #25)
 b) If yes to 24a, can the boundary be easily delineated using the definition of wetlands? Yes No

25. A & B Test Wetland Criteria §62-340.300(2)(a),(b), F.A.C.

As is under current conditions, without considering RSJ¹ or the legality of any alterations:

- a) Is the areal extent of Obligate plants in the stratum selected in #10 greater than the areal extent of all Upland plants in that stratum? (See #12) Yes No Vegetation Absent (skip to #25f) Evaluation Impossible (skip to #26a)
 b) Is the areal extent of Obligate and/or Facultative Wet plants in the stratum selected in #10 equal to or greater than 80% of all the plants in that stratum, excluding Facultative plants? (See #13) Yes No
 c) Is the soil hydric as identified using standard NRCS definitions and practices? (see #19)
 Yes No Indeterminable with current conditions ← Why? _____
 d) Is the substrate composed of riverwash, nonsoil (see #18), rock outcrop-soil complex, or is the substrate located within an artificially created wetland area? Yes No If yes, which condition is present? _____
 e) Is one or more of the hydrologic indicators in §62-340.500, F.A.C. present at the described point? (See #23) Yes No
 f) Are the A Test criteria met per §62-340.300(2)(a), F.A.C. at the described point? Yes No
 (Note: If yes to 25a and yes to either 25c, 25d, or 25e, A Test criteria are met)
 g) Are the B Test criteria met per §62-340.300(2)(b), F.A.C. at the described point? Yes No
 (Note: If yes to 25b and yes to either 25c, 25d, or 25e, B Test criteria are met)
 h) Are there any alterations or conditions affecting reliable application of the A or B Test such that the Altered Sites Test is more appropriate? Yes No

26. C Test Wetland Criteria §62-340.300(2)(c), F.A.C.

As is under current conditions, without considering RSJ¹ or the legality of any alterations:

a) Per §62-340.300(2)(c), F.A.C. is the described point Pine Flatwoods or Improved Pasture, or does it have drained soils? Yes No If yes, select which of the following are met, then skip to #26d

Pine Flatwoods Improved Pasture Drained Soils

Pine Flatwoods must have flat terrain, a monotypic or mixed canopy of long leaf pine or slash pine, and a ground cover dominated by saw palmetto with other species that are NOT obligate or facultative wet. Improved Pasture means areas where the dominant native plant community has been replaced with planted or natural recruitment of herbaceous species which are NOT obligate or facultative wet species and which have been actively maintained for livestock through mechanical means or grazing.

Drained Soils are those in which permanent alterations, excluding mechanical pumping, preclude the formation of hydric soils.

b) Are the soils at the described point saline sands (salt flats-tidal flats), or have they been field verified by NRCS's Keys to Soil Taxonomy (4th ed. 1990) as Umbraqualfs, Sulfaquents, Hydraquents, Humaquepts, Histosols (except Folists), Argiaquolls, or Umbraquults? Yes No

c) Do the soils at the described point have a NRCS hydric soil field indicator (see #17), and is the point located within a map unit named or designated by the NRCS as frequently flooded, depressional, or water?

Map Unit: _____ Yes No Inconclusive ← Why? _____ (skip to #27a)

d) Are the C Test criteria met per §62-340.300(2)(c), F.A.C. at the described point? Yes No (Note: If no to 26a and yes to either 26b or 26c, C Test criteria are met)

e) Are there any alterations or conditions affecting reliable application of the C Test such that the Altered Sites Test is more appropriate? Yes No

27. D Test Wetland Criteria §62-340.300(2)(d), F.A.C.

As is under current conditions, without considering RSJ¹ or the legality of any alterations:

a) Is the soil hydric as verified by a NRCS hydric soil field indicator? (See #17)

Yes No (skip to #27d) Inconclusive ← Why? _____ (skip to #28)

b) Does any NRCS hydric soil field indicator begin at the soil surface or are any of the following indicators present: A1, A2, A3, A4, A5, A7, A8, A9, S4, F2? Yes No (If yes, then hydrologic indicator §62-340.500(8) or (11) is met)

c) Is one or more of the hydrologic indicators in §62-340.500, F.A.C. present at the described point? (See #23) Yes No

d) Are the D Test criteria met per §62-340.300(2)(d), F.A.C. at the described point? Yes No (Note: If yes to 27a and yes to either 27b or 27c, D Test criteria may be met)

e) Are there any alterations or conditions affecting reliable application of the D Test such that the Altered Sites Test is more appropriate? Yes No

28. Altered Sites Tests §62-340.300(3), F.A.C. (Legal/Authorized or Illegal/Unauthorized)

For purposes of Chapter 62-340, F.A.C. altered refers to any natural or man-induced condition(s) which masks or eliminates reliable expression of wetland indicators (i.e. hydrophytic vegetation, hydric soils, and hydrologic indicators). Unaltered or normal does not require a natural condition, only an expression of wetland indicators that is sufficient to reliably identify or delineate the wetland using the criteria in §62-340.300, F.A.C.

Are alterations affecting normal wetland condition? Yes No (skip to #32) Evaluation Impossible (skip to #32)

29. Authorized or Legally Altered Vegetation and Soils Test Criteria §62-340.300(3)(a), F.A.C.

a) Are there authorized or legal alterations affecting reliable expression of vegetation at the described point? Yes No If yes, how? _____

b) Are there authorized or legal alterations affecting reliable soil evaluation at the described point? Yes No If yes, how? _____ (If no to both 29a and 29b, skip to #30)

c) If yes to 29a or 29b, which criteria tests are affected by the legal alterations?

A Test B Test C Test D Test

d) Using the most reliable available information and reasonable scientific judgment, would the types of evidence and characteristics contemplated in §62-340.300, F.A.C. identify or delineate the described point as a wetland with cessation of the legal altering activities? Yes No If no, why? _____ (If no, skip to #30)

e) If yes to 29d, what §62-340.300, F.A.C. evidence is present now and/or will be present in the future with cessation of legal altering activities? Plants Soils Hydrologic indicators

f) If yes to 29d, which tests would be passed with cessation of legal altering activities?

Wetland Definition A Test B Test C Test D Test

Why? _____

Point ID/Location: 25.954040, -80.419489

30. Authorized or Legally Altered Hydrology Test Criteria §62-340.300(3)(b), F.A.C.

- a) Has wetland hydrology of the area been **legally** drained or lowered? Yes No (If no, skip to #31)
If yes, how? _____
- b) Has wetland hydrology been **legally** eliminated at the described point? Yes No (If no, skip to #31)
- c) If yes to 30b, using reasonable scientific judgment or §62-340.550, F.A.C., have dredging or filling activities authorized by **Part IV** of Chapter 373, F.S. **permanently eliminated** wetland hydrology at the described point such that the wetland definition cannot be met? Yes (point is upland) No (If yes, skip to #31)
Chapter 373, F.S. Part II activities (e.g., water use permits) or other temporary hydrologic alterations (e.g., surface water pumps, drought) do not apply to this or any other Ch. 62-340, F.A.C. determinations.
- d) If no to 30c, what §62-340.300, F.A.C. evidence is present now and/or will be present in the future with cessation of temporary hydrologic drainage? Plants Soils Hydrologic indicators
- e) If no to 30c, Which tests would be passed with cessation of temporary hydrologic alterations?
 Wetland Definition A Test B Test C Test D Test
Why? _____

31. Unauthorized or Illegally Altered Sites Test Criteria §62-340.300(3)(c), F.A.C.

If the altering activity is a violation of regulatory requirements, then application of §62-340.300(3)(c), F.A.C. and all provisions of Chapter 62-340, F.A.C. are utilized to identify or delineate the wetland in a forensic manner.

This identification or delineation reflects the condition immediately prior to the unauthorized alteration.

- a) Have any **unauthorized** alterations affected the normal wetland condition at the described point? Yes No
If yes, how? _____ (If no, skip to #32)
- b) If yes to 31a, which criteria tests are affected by the unauthorized alterations?
 A Test B Test C Test D Test
- c) With reasonable scientific judgment is the described point a wetland, or would it have been a wetland immediately prior to the unauthorized alteration? Yes No If no, why? _____ (If no, skip to #32)
- d) If yes to 31c, what §62-340.300, F.A.C. evidence is present now and/or was present immediately prior to the unauthorized alteration? Plants Soils Hydrologic indicators
- e) If yes to 31c, which tests would be passed immediately prior to the unauthorized alteration?
 Wetland Definition A Test B Test C Test D Test
Why? _____

32. Wetland and Other Surface Water Summary §62-340.600(2)(a-e), F.A.C.:

Given **normal** expression, **cessation** of **authorized** alterations, or **immediately prior** to any **unauthorized** alterations:

- a) With **reasonable scientific judgment** is the described point a wetland as defined in §62-340.200(19), F.A.C. and located by Ch. 62-340, F.A.C.? Yes No If yes, which criteria identified or delineated the wetland?
 Wetland Definition A Test B Test C Test D Test
If summary answers differ from answers in 25f, 25g, 26d, or 27d, why? _____
- b) Is the described point located at or within the Mean High Water Line of a tidal water body?
 Yes No MHWL Unknown
- c) Is the described point located at or within the Ordinary High Water Line of a non-tidal natural water body or natural watercourse? Yes No
- d) Is the described point located at or within the top of the bank of an artificial lake, borrow pit, canal, ditch, or other type of artificial water body or watercourse with side slopes of 1 foot vertical to 4 feet horizontal or steeper, excluding spoil banks when the canals and ditches have resulted from excavation into the ground? Yes No
- e) Is the described point located at or within the Seasonal High Water Line of an artificial lake, borrow pit, canal, ditch, or other type of artificial water body or watercourse with side slopes flatter than 1 foot vertical to 4 feet horizontal or an artificial water body created by diking or impoundment above the ground? Yes No

33. Connection or Isolation of Wetland per Applicant's Handbook Vol.1 Section 2.0

If the described point is a wetland, does it have a connection via wetlands or other surface waters, or is it wholly surrounded by uplands and therefore isolated? Connected Isolated N/A (Point is not wetland)

Point ID/Location: 25.954040, -80.419489

34. Photographs and/or videos: Soil profile with Data Form, Soil profile close-up, Cross section(s) at 6" depth for sandy textures and/or critical depths for fine textures, Hydric soil indicators, Water table or inundation depth, Four cardinal directions of plant strata present, Hydrologic indicators (with scale as necessary), Critical plant ID (optional)

#	Memory Card # / Metadata	Description, compass direction (if applicable)	Taken By
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			

Notes:

Helpful Definitions for Applying Ch 62-340, F.A.C.

¹**RSJ** stands for Reasonable Scientific Judgment where used throughout this Data Form (See *The Florida Wetlands Delineation Manual* pg. 2 & 12)

²**HSTS** stands for Hydric Soils Technical Standard (See NRCS Hydric Soils Technical Note 11)

Definition from §62.340.200(19) Florida Administrative Code

"Wetlands," as defined in subsection 373.019(17), F.S., means those areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions. The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. These species, due to morphological, physiological, or reproductive adaptations, have the ability to grow, reproduce or persist in aquatic environments or anaerobic soil conditions. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps and other similar areas. Florida wetlands generally do not include longleaf or slash pine flatwoods with an understory dominated by saw palmetto.

Definition from §373.019(19) Florida Statutes

"Surface water" means water upon the surface of the earth, whether contained in bounds created naturally or artificially or diffused. Water from natural springs shall be classified as surface water when it exits from the spring onto the earth's surface.

Definition from §373.019(14) Florida Statutes

"Other watercourse" means any canal, ditch, or other artificial watercourse in which water usually flows in a defined bed or channel. It is not essential that the flowing be uniform or uninterrupted.

Definition from §62.340.200(15) Florida Administrative Code

"Seasonal High Water" means the elevation to which the ground and surface water can be expected to rise due to a normal wet season.

From The Florida Wetlands Delineation Manual pg. 37

Ordinary high water is that point on the slope or bank where the surface water from the water body ceases to exert a dominant influence on the character of the surrounding vegetation and soils. The OHWL frequently encompasses areas dominated by non-listed vegetation and non-hydric soils. When the OHWL is not at a wetland edge, the general view of the area may present an "upland" appearance.

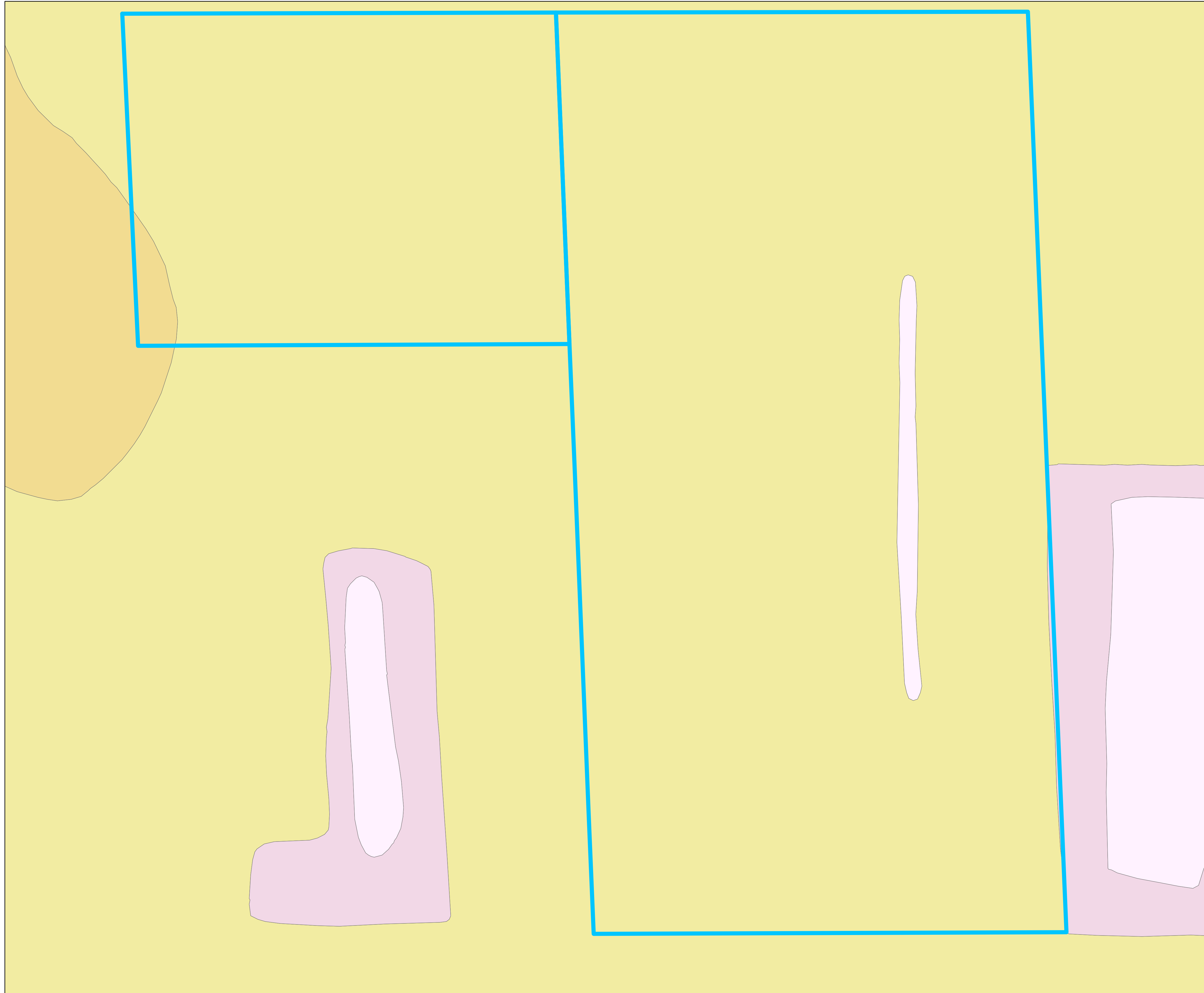
Definition from §403.803(14) Florida Statutes

"Swale" means a manmade trench which:


- (a) Has a top width-to-depth ratio of the cross-section equal to or greater than 6:1, or side slopes equal to or greater than 3 feet horizontal to 1 foot vertical;
- (b) Contains contiguous areas of standing or flowing water only following a rainfall event;
- (c) Is planted with or has stabilized vegetation suitable for soil stabilization, stormwater treatment, and nutrient uptake; and
- (d) Is designed to take into account the soil erodibility, soil percolation, slope, slope length, and drainage area so as to prevent erosion and reduce pollutant concentration of any discharge.

Exhibit 4

Opa-Locka West Soil Map



Legend


 Subject Property (30-2903-000-0010)

Soils

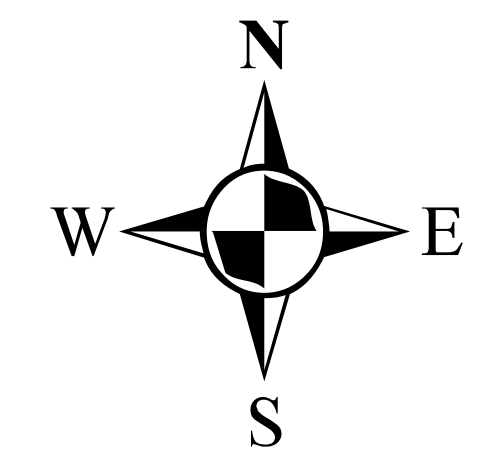
SOILDESC

 DANIA MUCK, DEPRESSIONAL

 LAUDERHILL MUCK, DEPRESSIONAL

 UDORTHENTS-WATER COMPLEX

 WATER



SCALE: 1 inch = 275 feet

Exhibit 5

Avian Inspections

Bird Surveys were conducted on 12/21/2023 and 12/28/2023. On 12/21/2023 at approximately 7:00 AM, a bird survey was conducted close to sunrise, staff observed 4 areas adjacent to open water. During the inspection, *Pandion haliaetus* (osprey) was observed. On 12/23/2023 at approximately 7:00 AM, a bird survey was conducted close to sunrise. Staff observed the same 4 areas adjacent to open water. During the inspection, the following species were observed: *Cyanocitta cristata* (blue jay), *Dumetella carolinensis* (grey cat bird), *Ardea Herodias* (great blue heron), and *Charadrius vociferus* (killdeer).

The osprey and great blue heron are Miami-Dade County listed species. No federal or state endangered, threatened, rare, and special concern bird species were observed. Please see the attached photocards and aerial below for reference.

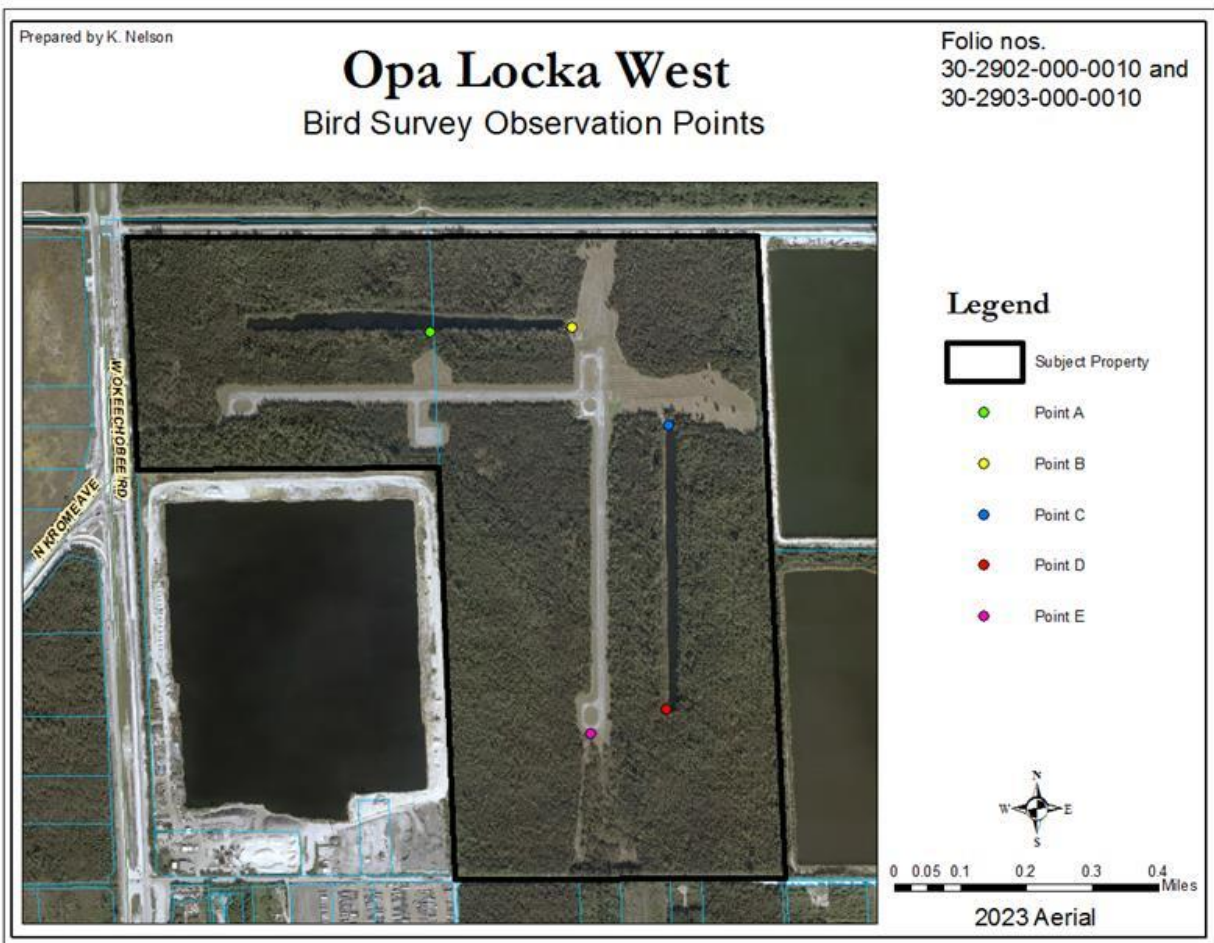


Photo Documentation

Photo 1



Description 1: View of open water area. No wading birds were seen in this area. Photo taken at Point B facing west.

Photo 2



Description 2: View of *Pandion haliaetus* (osprey) (indicated by red circle) flying over open water area. Photo taken at Point C facing south.

Photo Documentation

Photo 3



Photo 4



Description 3: View of the freshwater marsh area. No wading birds were seen in this area. Photo taken at Point E facing south.

Description 4: View of *Odocoileus virginianus* (white-tailed deer) tracks. Photo taken near Point E.

Photo Documentation

Photo 1



Photo 2



Description 1: View of Point A (Refer to photo 10 for the location). No wading birds were seen in this area. Photo taken facing North.

Description 2: View of Point A (Refer to photo 10 for the location). No wading birds were seen in this area. Photo taken facing North.

Photo Documentation

Photo 3



Description 3: View of entrance to Point B (Refer to photo 10 for the location). No wading birds were seen in this area. Photo taken facing North.

Photo 4



Description 4: View of Point B (Refer to photo 10 for the location). No wading birds were seen in this area. Photo taken facing West.

Photo Documentation

Photo 5



Photo 6



Description 5: View of the littoral area at Point C (Refer to photo 10 for the location).
No wading birds were seen in this area. Photo taken facing North.

Description 6: View of Point C (Refer to photo 10 for the location). No wading birds
were seen in this area. Photo taken facing North.

Photo Documentation

Photo 7



Photo 8



Description 7: View of point E (Refer to photo 10 for the location). An *Ardea Herodias* (great blue heron), and a *Charadrius vociferus* (killdeer) were found in this location. Photo taken facing south west.

Description 8: View of point E (Refer to photo 10 for the location). An *Ardea Herodias* (great blue heron), and a *Charadrius vociferus* (killdeer) were found in this location. Photo taken facing south east.

(Replace with actual description)

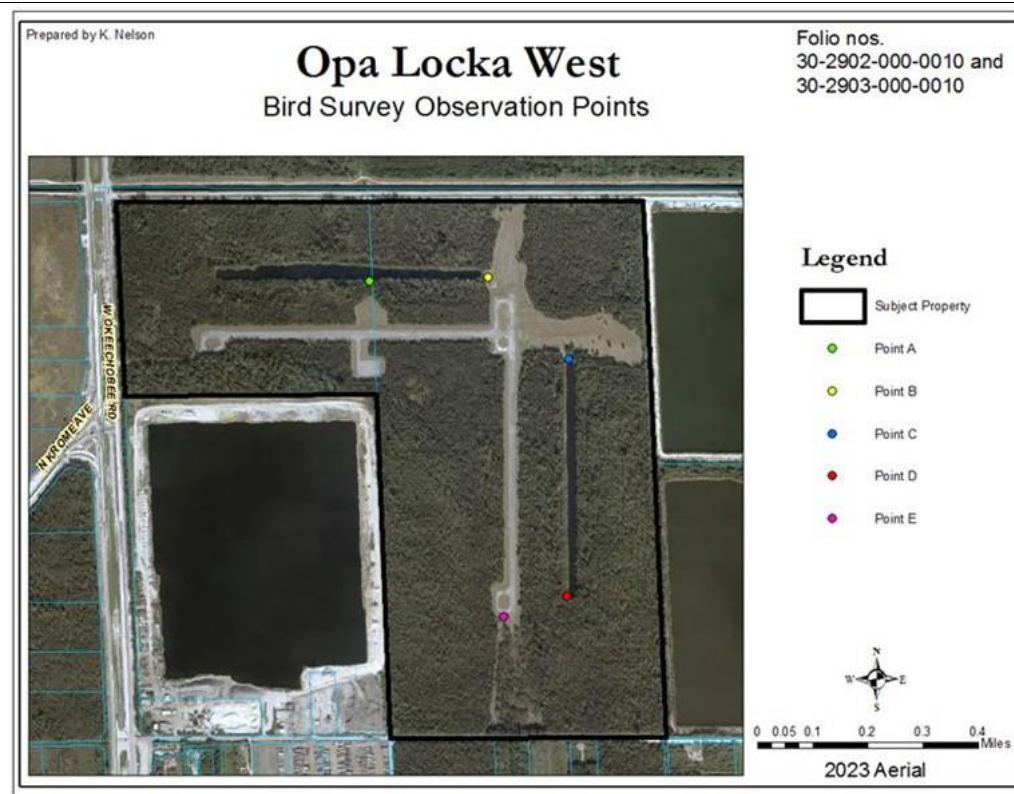
Photo Documentation

Photo 9



Description 9: View of prints made by *Procyon lotor* (North American Raccoon) found in point E (Refer to photo 10 for the location).

Photo 10

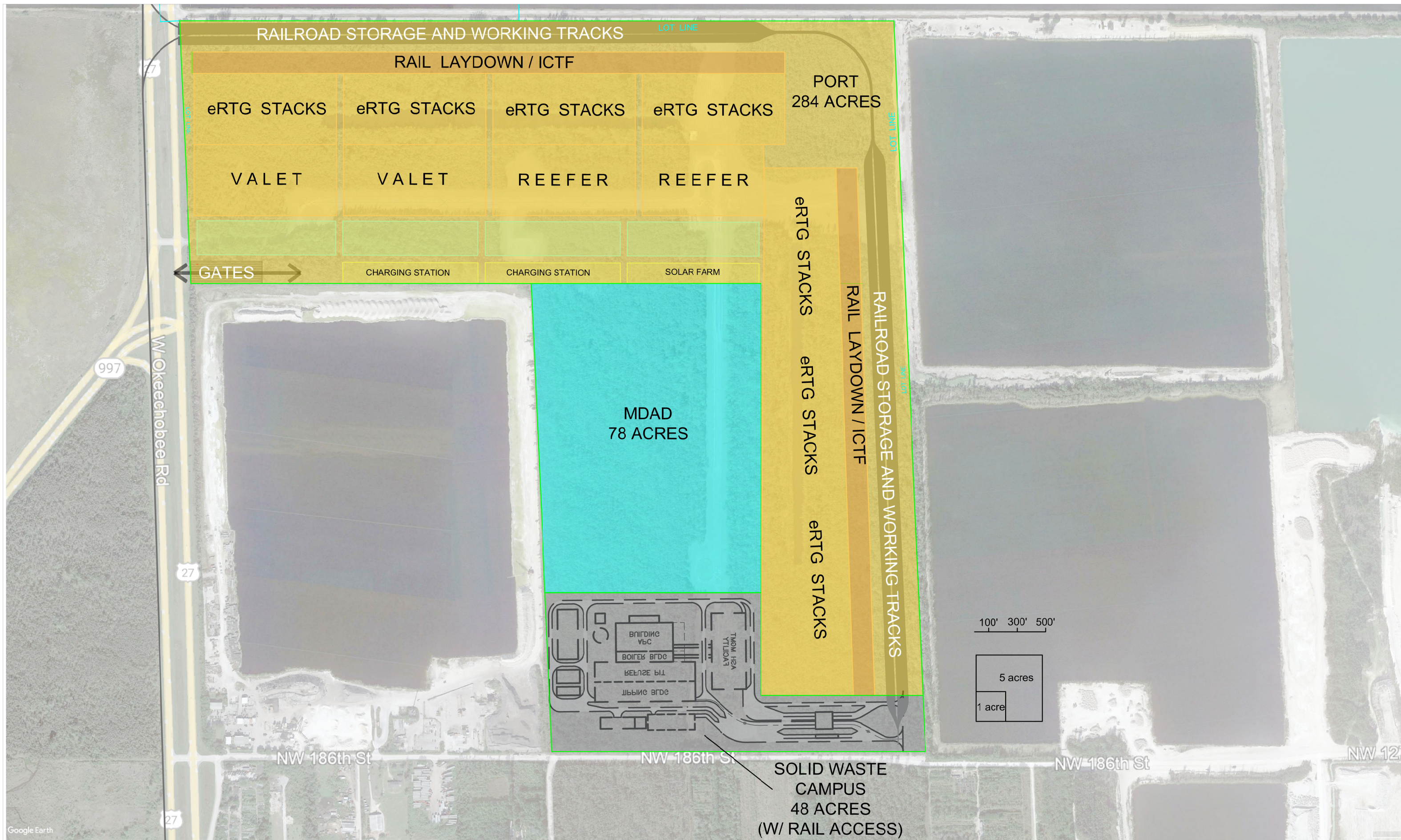


Description 10: Map of the subject property provided via 2023 GIS aerial and its corresponding monitoring points

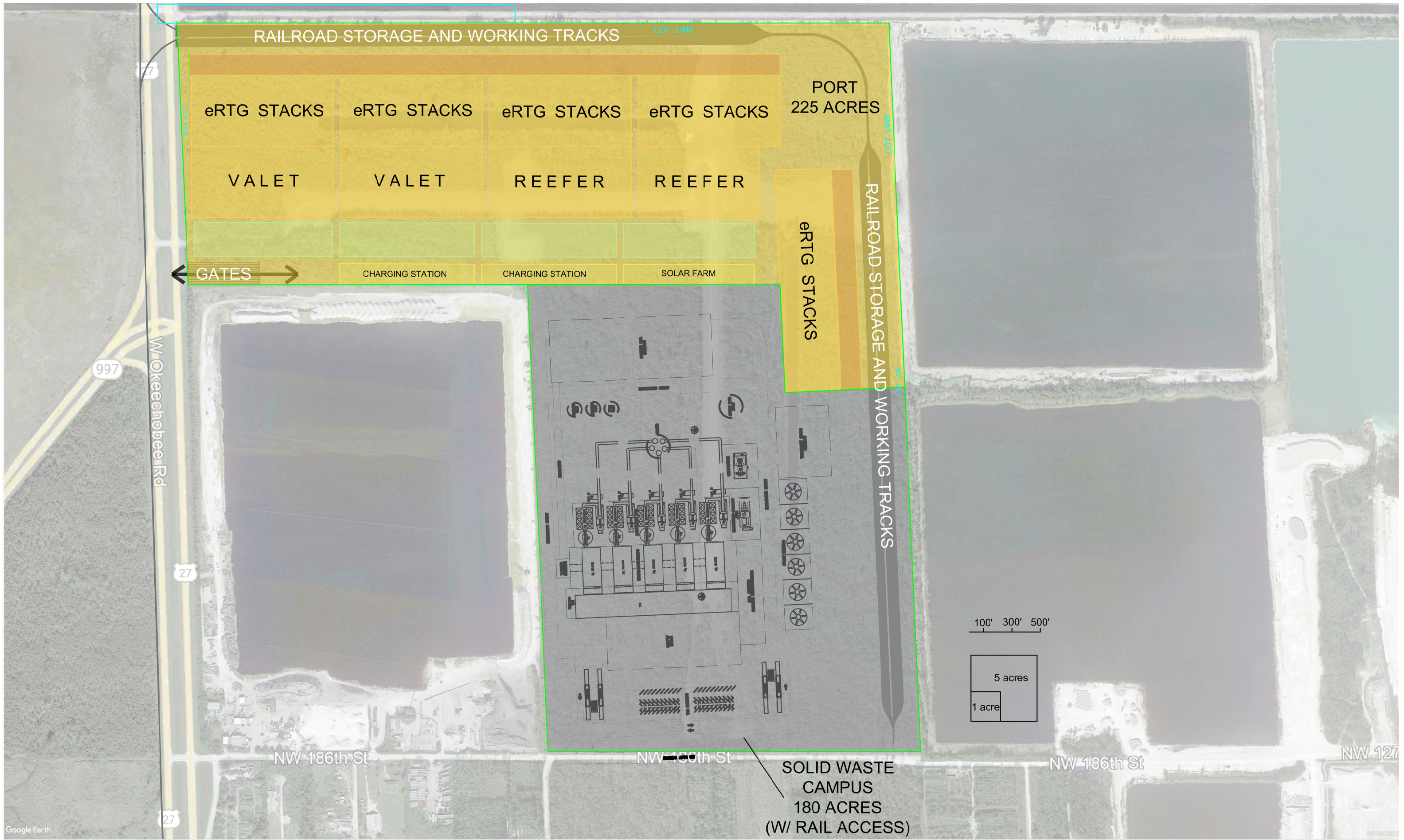
Exhibit 6



PortMiami Off-Dock Logistics Yard and WTEP Alt. 2



PortMiami Off-Dock Logistics Yard and WTEP Alt. 1



PortMiami Off-Dock Logistics Yard and WTEP Alt. 3



PortMiami Off-Dock Logistics Yard and WTEP Alt. 4