

# Lake Restoration Engineering and Ecological Field Reports for Lake 11 (Spring Lake) and Lake 31 (East Lake)

Prepared for:

## City of Naples

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Naples, Florida 34102

Prepared by:

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*only include signatures if final*

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**Wood Project No.: 6788203223**

**March 06, 2020**



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- Appendix A – Ecological Photo Log
- Appendix B – Engineering Photo Log

## List of acronyms

City of Naples	City of Naples Streets and Stormwater Department
FDEP	Florida Department of Environmental Protection
FLEPPC	Florida Exotic Pest Plant Council
FLUCCS	Florida Land Use Cover and Classification System
FWC	Florida Fish and Wildlife Conservation Commission
FNAI	Florida Natural Areas Inventory
Spring Lake	Lake 11
East Lake	Lake 31
NWI	National Wetlands Inventory
SFWMD	South Florida Water Management District
USDA	United States Department of Agriculture
USFWS	US Fish and Wildlife Services
Wood	Wood Environment & Infrastructure Solutions, Inc.



## 1.0 Introduction

The City implemented a Stormwater Lakes Management Plan in 2012 with the assistance of data and analysis from Wood and presented the following strategies to reduce pollution loading and increase efficiencies within the lakes:

1. Lead by example and restore and maintain the five public stormwater lakes;
2. Conduct public outreach and enter into partnerships with owners of private lakes that receive public drainage to establish practices and policies to improve stormwater lake water quality (e.g. agreeing to switch from chemical algal treatment such as copper sulphate to aeration and littoral shelves);
3. Increased regulation and enforcement, including establishment of ordinances for lake maintenance and discharge water quality, could also improve water quality regardless of ownership; and, lastly,
4. Establishment of taxing or special assessment districts.

In order to determine which strategies would be appropriate for the lakes within the City, the 2012 Lakes Plan identified 28 stormwater lakes on the City's inventory and categorized the lakes as follows:

- Tier 1 (public lakes: City- lakes in fee simple ownership or Plat dedication and historical use)
- Tier II (high priority pollutant loading lakes)
- Tier III (the remaining inventoried lakes)
- Tier IV for non-inventoried private lakes/systems

In June 2019, the City executed a task order with Wood to update the City of Naples Lakes Management Plan. The Plan was updated to complement the 2018 Stormwater Management Plan Update and incorporate data acquired since 2012. Prioritization of lakes for action (rankings) were updated using all available data. During the ranking reevaluation it was determined that out of the 28 Lakes identified in the 2012 plan, only 20 of those Lakes are either public owned and/or receive public drainage. Wood ranked these 20 lakes using a new ranking methodology that emphasizes water quality impacts to the lakes' receiving waterbodies (Gordon River, Moorings Bay, Naples Bay, and the Gulf of Mexico) based on each lake's own internal water quality. Using this information from the Lake Management plan update, the City has selected the Lakes #11, #31 and #19 for this current restoration implementation. Wood was selected through a competitive request for proposal process by the City of Naples to develop lake restoration plans and specifications for Lakes #11, #31, and #19.

This report reflects the work completed for Lakes #11 and #31, more commonly known as Spring Lake and East Lake, respectively. Wood's ecological and engineering staff visited Spring Lake and East Lake on January 16, 2020 to determine site conditions. Ecological site survey included wetland determination, invasive species mapping and threatened and endangered species identification and habitat assessment. Engineering site survey included existing stormwater infrastructure conditions, utilities, and construction staging areas within the project boundary.

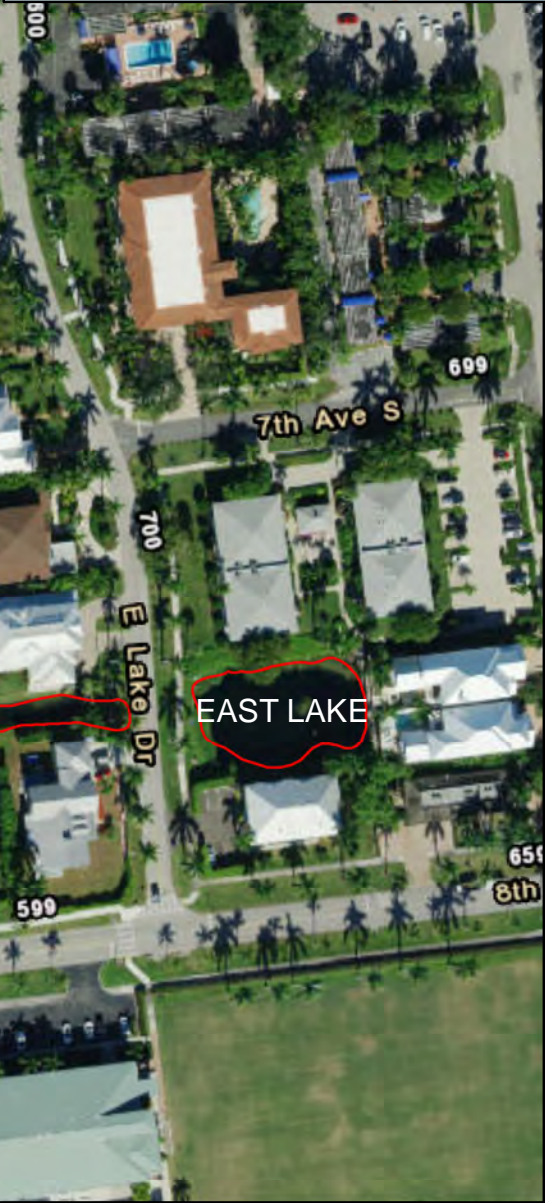
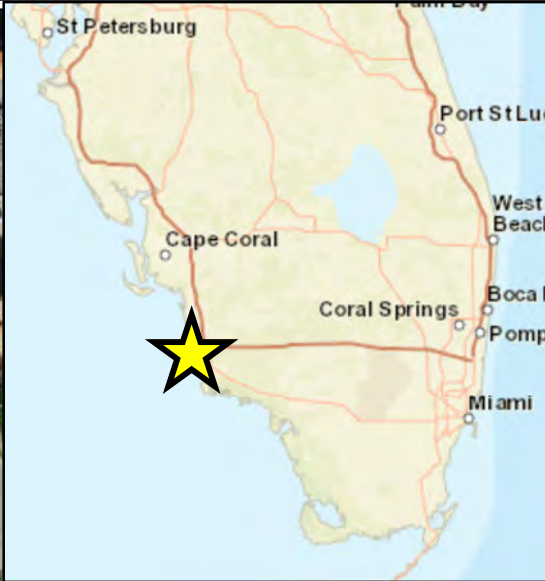
Lake #11 is an oval shaped stormwater retention pond (approximately 4.87 acres) located in the City of Naples. Lake #11 is surrounded by 5<sup>th</sup> Avenue South, West Lake Drive, East Lake Drive, and 8<sup>th</sup> Avenue South. A small canal extends from the southeast corner of Lake #11 to an outfall that discharges directly into Lake #31 (**Figure 1**).

Lake #31 is a square stormwater retention pond (approximately 0.2 acres) with an outfall at the southeast corner. Lake #31 is separated from Spring Lake by East lake Drive. The lake is bordered by multiple dwelling units on the north, south and east side and by East Lake Drive on the west side (**Figure 1**).



**Figure 1. Lake #11 and Lake #31 Location Map**

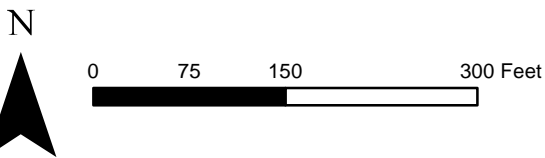




**Legend**

 Lake Boundary

Source: Aerial Image; ESRI 2019; Wood 2020



**City of Naples - Lake Restoration**

**Spring Lake and East Lake Location**

Drawn	Date	Miami Florida Project No. 60788203223
RJM	3/6/2020	
Checked	Date	
GC	3/6/2020	



**Figure 1**

## 2.0 Methodology

### 2.1 Ecological Survey

A records review was conducted by Wood prior to the site visit, and included a review of aerial photography (ESRI, 2019), a National Wetland Inventory (NWI) map [US Fish and Wildlife Service (USFWS), 2019], soil survey data [US Department of Agriculture (USDA), 2012], and land use [South Florida Water Management District (SFWMD), 2016] to preliminarily identify potential wetlands. Wood wetland scientist Joseph Mansuetti visited the Project Sites on January 16, 2020 to evaluate the sites, conduct the wetlands determination, survey the area for threatened and endangered species and habitat, and identify areas with invasive exotic plant species. See Appendix A for the Photo Log.



## 3.0 Results

### 3.1 Existing Site Description

The following results are from the records review of aerial photographs, NWI, Soil Survey, and SFWMD land use of Spring Lake, East Lake, and surrounding landscape (**Figure 1**).

- **Parcels:** City of Naples owns the entire Project Site including Spring Lake, East Lake, land north of Spring Lake, and the east shoreline of East Lake. **Figure 2** illustrates the adjacent properties owners.
- **Existing Soils:** Based on USDA NRCS coverages, soils on the Project Site are classified as Water and Urban Land, 0 to 2 percent slopes (**Figure 3**).
- **USFWS NWI:** USFWS NWI data (USFWS, 2019) classifies Spring Lake as a permanently flooded, palustrine system with an unconsolidated bottom that has been excavated (code PUBHx) . East Lake was not identified in the USFWS NWI data (**Figure 4**).
- **Existing Land Use:** South Florida Water Management District uses the FDOT Florida Land Use, Cover and Forms Classification System (FLUCCS) (2016) to categorize land use. FLUCCS identifies land use at the Spring Lake as reservoirs (FLUCCS No. 5300) which is surrounded by Commercial and Services (FLUCCS No. 1400) to the north and fixed single units (two to five dwelling units per acre) (FLUCCS No. 1210) surrounding the remainder of the lake (**Figure 5**). East Lake is immediately surrounded by Commercial and Services (FLUCCS No. 1400). Beyond the immediate, land use includes fixed single units (two to five dwelling units per acre) (FLUCCS No. 1210), Multiple Dwelling Units, Low Rise (FLUCCS No. 1330), and Educational Facilities (FLUCCS No. 1710) (**Figure 5**).

### 3.2 Wetland Survey Results

The land surrounding Spring Lake primarily consists of mowed and landscaped residential lawns with planted palm trees throughout. The mowed grass was mixed with pennywort (*Hydrocotyle sp.*) and wedelia (*Sphagneticola trilobata*) at the lake's edge. Along the north shore of the lake there is an observation deck and vegetation including Brazilian pepper (*Schinus terebinthifolius*), Mexican primrose-willow (*Ludwigia octovalvis*), and giant leather fern (*Acrostichum danaeifolium*). Landward of the northern shoreline vegetation included landscaped vegetation including planted palm trees and cypress trees (*Taxodium distichum*), mango tree (*Mangifera indica*), and woman's tongue tree (*Albizia lebeck*). The lake bottom was visible along the shoreline and was covered in filamentous algae with some sandy patches. A complete list of identified plant species can be found in **Table 1**. No wetlands were identified within or around the Project Site.



**Table 1. Vegetation Identified at Spring Lake During the January 2020 Site Assessment**

Scientific Name	Common Name	Vegetation Index Category (a)	FLEPPC Category (b)
<i>Acrostichum danaeifolium</i>	giant leather fern	OBL	
<i>Albizia julibrissin</i>	Mimosa	N/A	I
<i>Albizia lebbbeck</i>	woman's tongue	N/A	I
<i>Cyperus involucreatus</i>	umbrella flat sedge	N/A	II
<i>Ficus aurea</i>	Florida strangler fig	FAC	
<i>Hydrocotyle sp.</i>	Pennywort	FACW	
<i>Ludwigia octovalvis</i>	Mexican primrose-willow	OBL	
<i>Mangifera indica</i>	mango	N/A	
<i>Quercus virginiana</i>	live oak	N/A	
<i>Salix caroliniana</i>	Carolina willow	OBL	
<i>Schinus terebinthifolius</i>	Brazilian pepper-tree	FAC	I
<i>Sphagneticola trilobata</i>	wedelia	N/A	II
<i>Taxodium distichum</i>	Cypress	OBL	

Sources: Wood (2020), FDEP (1994), FLEPPC (2019)

Created by: RJM

Checked by: SEM

Notes:

(a) Vegetative Index Category is based on the FDEP Vegetative Index Plant List (62-340.450)

OBL = Obligate Wetland Plant (occur almost always in wetlands)

FACW = Facultative Wetland Plant (usually occur in wetlands)

FAC = Facultative Plant (similar likelihood to occur in wetlands and non-wetlands)

Not Listed = Plants not specifically listed on the FDEP vegetative index plant list are considered an upland plant except for vines, aquatic plants, and non-native plant species introduced to Florida.

(b) Florida Exotic Pest Plant Council (FLEPPC, 2019) Ranking:

CATEGORY I = Invasive exotics that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives.

CATEGORY II = Invasive exotics that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species.

The immediate shoreline of East Lake is bordered by managed wedelia cover on the north side, mowed grass mixed with pennywort and wedelia on the west and south sides, and rip-rap on the east side. The outfall structure is located at the extended southeast corner. Alligator weed (*Alternanthera philoxeroides*) was observed within the southwest corner of the lake at the outfall. Vegetation observed on land around the outfall included giant leather fern, Mexican primrose-willow, mimosa tree (*Albizia julibrissin*), sea-grape (*Coccoloba uvifera*), and wedelia. Cattail (*Typha* spp.) was observed in the northeast corner of the lake. A complete list of identified plant species can be found in **Table 2**. No wetlands were within or around the Project Site.



**Table 2. Vegetation Identified at East Lake During the January 2020 Site Assessment**

Scientific Name	Common Name	Vegetation Index Category (a)	FLEPPC Category (b)
<i>Acrostichum danaeifolium</i>	giant leather fern	OBL	
<i>Albizia julibrissin</i>	mimosa	N/A	I
<i>Alternanthera philoxeroides</i>	alligator weed	OBL	II
<i>Blechnum serrulatum</i>	swamp fern	FACW	
<i>Coccoloba uvifera</i>	sea grape	N/A	
<i>Hydrocotyle sp.</i>	pennywort	FACW	
<i>Ludwigia octovalvis</i>	Mexican primrose-willow	OBL	
<i>Sphagneticola trilobata</i>	wedelia	N/A	II
<i>Typha sp.</i>	cattail	OBL	

Sources: Wood (2020), FDEP (1994), FLEPPC (2019)

Created by: RJM

Checked by: SM

Notes:

(a) Vegetative Index Category is based on the FDEP Vegetative Index Plant List (62-340.450)

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(b) Florida Exotic Pest Plant Council (FLEPPC, 2019) Ranking:

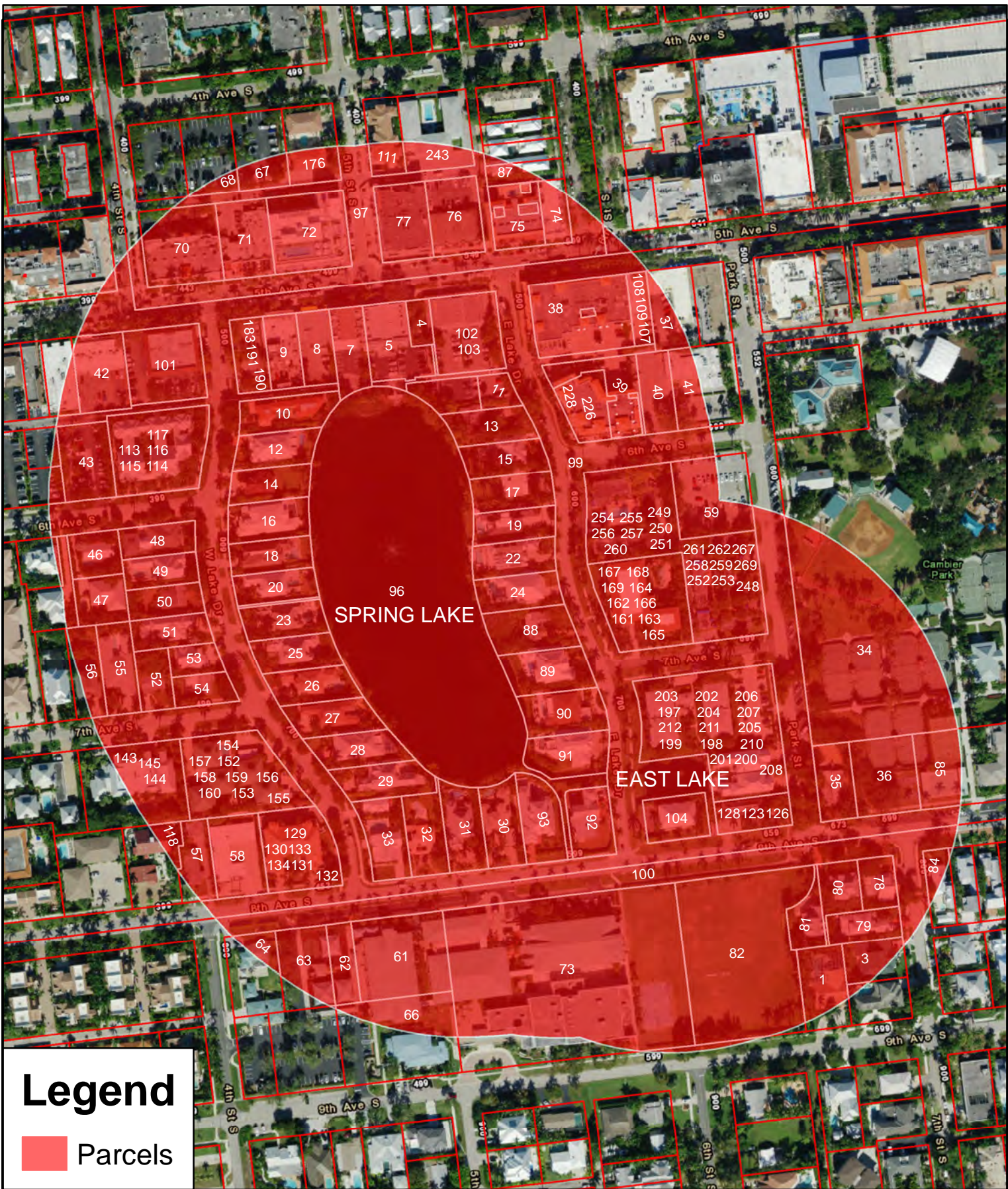
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CATEGORY II = Invasive exotics that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species.



**Figure 2. Adjacent Properties Owners**





Source: Aerial; ESRI 2019; Wood 2020;

# Legend

Parcels

N



0 125 250 500 Feet



## City of Naples - Lake Restoration

### Spring Lake and East Lake - Parcels

Drawn	Date	Miami Florida Project No. 60788203223
RJM	3/6/2020	
Checked	Date	
GC	3/6/2020	



Figure 2

Number	PARCEL ID	Name	Address	City	State	Zip
1	6115000025	TRACY FAMILY-NAPLES LLC	C/O JOE TRACY PO BOX 192	MT STERLING	IL	62353
2	6115000041	ANDERSSON, JEREMIAS	FALKVAGEN 55	TABY	SWEDEN	
3	6115000067	CONROY, TIMOTHY J & JANET P	860 7TH ST S	NAPLES	FL	34102
4	11430120002	CITY OF NAPLES	735 8TH ST S	NAPLES	FL	34102
5	11430280007	FARRINGTON, STEPHEN H	661 PORT SIDE DR	NAPLES	FL	34103
6	11430290000	CITY OF NAPLES	735 8TH ST S	NAPLES	FL	34102
7	11430360008	REINCO INC	340 FIFTH AVENUE S STE 200	NAPLES	FL	34102
8	11430400007	AG NAPLES LLC	850 OCEAN DRIVE STE 203	MIAMI BEACH	FL	33139
9	11430480001	460-5TH SOUTH PROPERTY, LLC	31 BROOKSIDE DR	GREENWICH	CT	6830
10	11430600001	PFEIL, RICHARD B & MARY J	571 W LAKE DR	NAPLES	FL	34102
11	11430640003	560 9TH ST SOUTH LLC	2614 TAMiami TRL N STE 615	NAPLES	FL	34103
12	11430680005	ROSE LAND ENTERPRISES LLC	PO BOX 1049	MEDINA	OH	44258
13	11430720004	EMILIE W OPPENHEIM TRUST	580 E LAKE DR	NAPLES	FL	34102
14	11430760006	SHAHAR TR, YUVAL	IDAN YUVAL (FBO) 3406 MOUNT ARMOUR CT	SAN DIEGO	CA	92111
15	11430800005	ACE DREAM CORP	% REUTER INVESTMENTS 1031 BAUHINIA ROAD	DELRAY BEACH	FL	33483
16	11430840007	JGS HOLDINGS LP	6050 LYTERS LN	HARRISBURG	PA	17111
17	11430880009	TODD, GUDRUN R	600 E LAKE DR	NAPLES	FL	34102
18	11430920008	MCGARRY, JOHN F & A PATRICIA	641 W LAKE DR	NAPLES	FL	34102
19	11430960000	HALL, WILLIAM M & FLORENCE	620 E LAKE DR	NAPLES	FL	34102
20	11431000008	DENISE A HARTUNG LIVING TRUST	RITA K ROBERTSON LIVING TRUST 651 WEST LAKE DR	NAPLES	FL	34102
21	11431040000	CITY OF NAPLES	735 8TH ST S	NAPLES	FL	34102
22	11431080002	PRATT, FREDRIC & KAREN	7623 ANDOVER WAY	HUDSON	OH	44236
23	11431120001	BRODNIK, TIMOTHY JAMES	JOAN DORIS BRODNIK 661 W LAKE DR	NAPLES	FL	34102
24	11431200002	WALKER, SCOTT	2832 CORAL WAY	PUNTA GORDA	FL	33950
25	11431240004	GEORGE J KELLY QPR TRUST	BARBARA A KELLY QPR TRUST 227 LEES HILL RD	BASKING RIDGE	NJ	7920
26	11431320005	S R FLEISCHER IRREV TRUST	695 W LAKE DR	NAPLES	FL	34102
27	11431360007	ANDREW P VAZ 2010 FMLY TRUST	MYLENE J VAZ 2010 FMLY TRUST 701 W LAKE DR	NAPLES	FL	34102
28	11431400006	FRIENDLY SNOWMAN LLC	725 W LAKE DR	NAPLES	FL	34102
29	11431440008	ROBINSON, BRUCE & ANNE	226 GOLFVIEW RD	ARDMORE	PA	19003
30	11431480000	OAKLAND, STEVEN & ELIZABETH	531 8TH AVE S	NAPLES	FL	34102
31	11431520009	SMALL, MARK & MONICA L	505 8TH AVE S	NAPLES	FL	34102
32	11431560001	SLAGER, JOHN T & JOANNE A	493 8TH AVE S	NAPLES	FL	34102
33	11431600000	ROUSSEAU, MICHAEL B & LISA	9695 DAVIS ROAD	LOVELAND	OH	45140
34	11431880008	CITY OF NAPLES	735 8TH ST S	NAPLES	FL	34102
35	11431920007	CONDON, LINDA	675 8TH AVE S	NAPLES	FL	34102
36	11431960009	CITY OF NAPLES	735 8TH ST S	NAPLES	FL	34102
37	11432040009	MIRALIA TR, BENEDICT P	CARMELA M MIRALIA TR MUSCA PROPERTIES LLC	INDEPENDENCE	OH	44131
38	11432160002	CRF BUILDING 600 LTD PRTRNSHP	C/O CONTINENTAL REALTY CORP 1427 CLARKVIEW RD STE 500	BALTIMORE	MD	21209
39	11432240003	CRF BUILDING 600 LTD PRTRNSHP	% CONTINENTAL REALTY CORP 1427 CLARKVIEW RD STE 500	BALTIMORE	MD	21209
40	11432280005	NAPLES WOMANS CLUB INC	570 PARK ST	NAPLES	FL	34102
41	11432320004	NAPLES WOMANS CLUB INC	570 PARK ST	NAPLES	FL	34102
42	11432440007	ROUBIN ASSOCIATES LLC	8550 LEE HWY STE 700	FAIRFAX	VA	22031
43	11432520008	REINCO INC	340 5TH AVE S STE 200	NAPLES	FL	34102
44	11432685008	M-P REALTY LLC	340 5TH AVE S	NAPLES	FL	34102
45	11432700006	M-P REALTY LLC	340 5TH AVE S	NAPLES	FL	34102
46	11432880007	DENNIS & PAMELA KLUMB TRUST	W1951 BEULAH HEIGHTS RD	EAST TROY	WI	53120
47	11432920006	RONAY, SEPP P	BONITA K KNAPP 370 6TH AVE S	NAPLES	FL	34102
48	11432960008	LEE F DECOLA REV TRUST	610 WEST LAKE DR	NAPLES	FL	34102
49	11433000006	RYAN, EDWARD F & LAURA S	626 WEST LAKE DR	NAPLES	FL	34102
50	11433040008	BRANDON, SHEREEN	56 HILLCREST WEYBRIDGE,	SURREY	UNITED KINGDOM	
51	11433080000	HAYS, MICHAEL B & FRANCES ANN	11601 CHEROKEE CT	LEAWOOD	KS	66211
52	11433120009	WILLIAM C SCHERER TRUST	% EXCEL REAL ESTATE 2375 N TAMiami TRL #206	NAPLES	FL	34103
53	11433160001	LEWIS FAMILY REVOCABLE TRUST	678 W LAKE DR	NAPLES	FL	34102
54	11433200000	DOWNNEY, BURTON & JANICE B	692 W LAKE DR	NAPLES	FL	34102
55	11433240002	P L MORMANN 1998 REV TRUST	381 7TH AVE S	NAPLES	FL	34102
56	11433260008	MILLSAP, DEBRA GOODRICH	355 7TH AVE S	NAPLES	FL	34102
57	11433720001	MARVEL JR, THOMAS W	ELISABETH C POULSEN 2734 12TH ST N	NAPLES	FL	34103
58	11433800002	GONDOLIER MOTEL LLC	PO BOX 2544	NAPLES	FL	34106
59	11433880006	CITY OF NAPLES	735 8TH ST S	NAPLES	FL	34102
60	14020920004	375 FIFTH AVENUE S HOLDINGS	% EDGEWOOD REAL EST INV II LLC 8000 MARYLAND AVE # 925	ST LOUIS	MO	63105
61	14026480001	DEWANE, BISHOP FRANK J	DIOCESE OF VENICE 1000 PINEBROOK RD	VENICE	FL	34285
62	14026520000	DEWANE, BISHOP FRANK J	DIOCESE OF VENICE 1000 PINEBROOK RD	VENICE	FL	34285
63	14026560002	DEWANE, BISHOP FRANK J	DIOCESE OF VENICE 1000 PINEBROOK RD	VENICE	FL	34285
64	14026600001	DEWANE, BISHOP FRANK J	DIOCESE OF VENICE 1000 PINEBROOK RD	VENICE	FL	34285
65	14026680005	DEWANE, BISHOP FRANK J	DIOCESE OF VENICE 1000 PINEBROOK RD	VENICE	FL	34285
66	14026720004	DEWANE, BISHOP FRANK J	DIOCESE OF VENICE 1000 PINEBROOK RD	VENICE	FL	34285
67	14026840007	410 FOURTH AVENUE S HOLDINGS	% EDGEWOOD REAL EST INV II LLC 8000 MARYLAND AVE # 925	ST LOUIS	MO	63105
68	14026880009	410 FOURTH AVENUE S HOLDINGS	% EDGEWOOD REAL EST INV II LLC 8000 MARYLAND AVE # 925	ST LOUIS	MO	63105

Source: Aerial; ESRI 2019; Wood 2020;

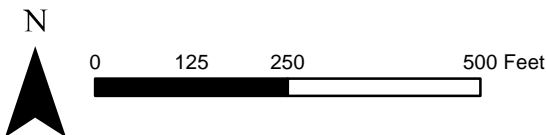
City of Naples - Lake Restoration

Spring Lake and East Lake - Parcels List

Drawn	Date	Miami Florida Project No. 60788203223
RJM	3/6/2020	
Checked	Date	
GC	3/6/2020	



Figure  
2a



Number	PARCEL ID	Name	Address	City	State	Zip
69	14026920008	410 FOURTH AVENUE S HOLDINGS	% EDGEWOOD REAL EST INV II LLC 8000 MARYLAND AVE # 925	ST LOUIS	MO	63105
70	14026960000	405 FIFTH AVENUE S HOLDINGS	% EDGEWOOD REAL EST INV II LLC 8000 MARYLAND AVE # 925	ST LOUIS	MO	63105
71	14027000008	COLSON INVESTMENTS LTD	181 CARICA RD	NAPLES	FL	34108
72	14027040000	465 BUILDING LLC	699 5TH AVE S	NAPLES	FL	34102
73	14032320003	DEWANE, BISHOP FRANK J	DIOCESE OF VENICE 1000 PINEBROOK RD	VENICE	FL	34285
74	14032600008	SCOTIA PROPERTIES LLC	352 6TH ST S	NAPLES	FL	34102
75	14032640000	WARWICK FLORIDA PROPERTIES LLC	C/O WILLIAM POTEET JR PO BOX 10667	NAPLES	FL	34101
76	14032680002	531 BUILDING LLC	699 5TH AVE S	NAPLES	FL	34102
77	14032720001	NAPLES FIFTH KC LLC	11225 COLLEGE BLVD STE 120	OVERLAND PARK	KS	66210
78	14038080004	KING, STEPHEN & ROBYNNE	680 8TH AVE S	NAPLES	FL	34102
79	14038085009	GALASSO, FLAVIO A	ELAINE ALMAND 850 7TH ST S	NAPLES	FL	34102
80	14038090007	THOMAS, DOUGLAS M	670 8TH AVE S	NAPLES	FL	34102
81	14038091006	FINE, JAMES F	MICHAEL G DOMINIANNI 62 MOUNTAIN AVE	WARREN	NJ	7059
82	14038120003	DEWANE, BISHOP FRANK J	DIOCESE OF VENICE 1000 PINEBROOK RD	VENICE	FL	34285
83	14041160005	ODONNELL, JOHN B & PATRICIA L	718 8TH AVE S	NAPLES	FL	34102
84	14041200004	LAYTON, THOMAS A	706 8TH AVE S	NAPLES	FL	34102
85	14041360009	CITY OF NAPLES	735 8TH ST S	NAPLES	FL	34102
86	16648000045	6TH STREET LLC	PO BOX 2544	NAPLES	FL	34102
87	16648000061	MARK J GERENCSEK TRUST	8287 ALVORD STREET	MC LEAN	VA	22102
88	19860040000	WALKER, SCOTT	2832 CORAL WAY	PUNTA GORDA	FL	33950
89	19860080002	K3 PROPERTIES LLC	ATTN: ROGER D KING 5335 PRINCETON RD	LIBERTY TOWNSHIP	OH	45011
90	19860120001	ROGAN, THOMAS I	CHRISTINE L HART 714 EAST LAKE DR	NAPLES	FL	34102
91	19860160003	NEITERMAN, LARRY J & ELIN W	8 RED OAK DR	SUDBURY	MA	1776
92	19860200002	JEFFREYS, TIMOTHY & JO ANNE	780 E LAKE DR	NAPLES	FL	34102
93	19860240004	BROWN COTTAGE NAPLES LLC	121 3RD ST NW	CARMEL	IN	46032
94	20400000127	LADEGAST JR, LAWRENCE C	BEVERLY L LADEGAST 340 6TH AVE S	NAPLES	FL	34102
95	20400000143	O'SULLIVAN TR, CHRISTINE E	ROGER MEHTA TR O'SULLIVAN RES TRUST	TORONTO	CANADA	
96						
97						
98						
99						
100						
101						
102	17560040001	560 9TH STREET SOUTH LLC	2614 TAMiami TRAIL NORTH STE 615	NAPLES	FL	34103
103	17560080003	560 9TH STREET SOUTH LLC	2614 TAMiami TRAIL NORTH STE 615	NAPLES	FL	34103
104	11205000027	VACCARIELLO, REBECCA M	605 8TH AVE S	NAPLES	FL	34102
105	11205000043	JUNE A ROSE REVOCABLE TRUST	615 8TH AVENUE SOUTH	NAPLES	FL	34102
106	11205000069	RAINFORD, KATHLEEN S	625 8TH AVENUE S #625	NAPLES	FL	34102
107	19467000029	VINCENT PRESTIGE PROP LLC	3033 EXCELSIOR BLVD STE 525	MINNEAPOLIS	MN	55416
108	19467000045	602 FIFTH AVENUE REALTY LLC	775 PLEASANT STREET UNIT 1	WEYMOUTH	MA	2189
109	19467000061	CONSTAN, GEORGE & VICTORIA	602 5TH AVENUE SOUTH #301	NAPLES	FL	34102
110	20621000029	HOWARD, MARK G	425 5TH ST S	NAPLES	FL	34102
111	20621000045	PISA, JOHN	130 SOUTH 18TH STREET UNIT 2703	PHILADELPHIA	PA	19103
112	20621000061	RATCLIFF, THEODORE R	JEANNE S RATCLIFF 433 5TH ST S	NAPLES	FL	34102
113	7791000024	DEPASQUALE, VINCENT J	DEBORAH L DEPASQUALE 381 6TH AVENUE SOUTH	NAPLES	FL	34102
114	7791000040	M SUSAN CAMPBELL REV TRUST	417 S HI LUSI AVE	MOUNT PROSPECT	IL	60056
115	7791000066	PANTANO JR, PAUL J	CHERYL L KEAMY 2008 ANNIE'S WAY	VIENNA	VA	22182
116	7791000082	FAULKNER TR, JULIET	GAIL C FAULKNER REV FLA TRUST 2215 COUNTRY CLUB DR	HUNTINGDON VALLE	PA	19906
117	7791000105	JOHNSON, HENRY P	570 W LAKE DR # 5	NAPLES	FL	34102
118	8180040005	JEANNE M EBER REVOCABLE TRUST	41 WILLOWCREST DR	OAK BROOK	IL	60523
119	8180080007	GUERNSEY III, HOMER W	NATALIE F GUERNSEY 2548 SALT POINT TPKE	CLINTON CORNERS	NY	12514
120	8180120006	CASTLE, SUSAN FORREST	375 8TH AVE S APT C	NAPLES	FL	34102
121	8180160008	GEFFERT, PAUL F & SHARON L	375 8TH AVE S APT D	NAPLES	FL	34102
122	8180200007	LINDENBERG, RONALD G	375 8TH AVE SOUTH #E	NAPLES	FL	34102
123	12100000024	GARY & SANDRA HOPKINS TRUST	4452 LACLEDE AVE	SAINT LOUIS	MO	63108
124	12100000040	CYGAN, THOMAS M & FLORENCE M	499 TRAFTON RD	SPRINGFIELD	MA	1108
125	12100000066	CYGAN, THOMAS & FLORENCE	499 TRAFTON RD	SPRINGFIELD	MA	1108
126	12100000082	WYLIE, JULIE HARPER	219 STARR WOOD	HUDSON	WI	54016
127	12100000105	SUISEN HOLDINGS LLC	560 GREEN BAY ROAD SUITE 100	WINNETKA	FL	60093
128	12100000121	NORMA L TRUBIANO TRUST	C/O TRUBIANO 520 PRINCETON GREENS CT	SUN CITY CENTER	FL	33573
129	20935000029	STREICHER, JAMES F & SANDRA J	431 8TH AVE S	NAPLES	FL	34102
130	20935000045	GOLDMAN, ELIZABETH W	3011 REGATTE RD	NAPLES	FL	34103
131	20935000061	VANHILLEMONT, ROBERT W	439 8TH AVENUE SOUTH	NAPLES	FL	34102
132	20935000087	MURRAY, MOIRA J	741 ST ANDREWS LN	LOUISVILLE	CO	80027
133	20935000100	CLAIRE M HALLORAN REV TRUST	449 8TH AVE S #105	NAPLES	FL	34102
134	20935000126	ALLIANCE CAPITAL INC	PO BOX 767	NAPLES	FL	34106
135	7780188025	SOSNOVSKIKH, OLGA	555 5TH AVE S STE 201	NAPLES	FL	34102
136	7780188041	GAMMONS, TIMOTHY	2975 LONE RIDGE CT	WEST BLOOMFIELD	MI	48323
137	7780188067	WIECHMANN, JAMES L	SUE JEANNE WIECHMANN 1010 N CASS ST	MILWAUKEE	WI	53202

Source: Aerial; ESRI 2019; Wood 2020;

City of Naples - Lake Restoration

Spring Lake and East Lake - Parcels List

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Figure  
2b

N

0 125 250 500 Feet



Number	PARCEL ID	Name	Address	City	State	Zip
138	7780188083	VERDUIN, DOUGLAS & PATRICIA	4108 PROMENADE BLVD	FAIR LAWN	NJ	7410
139	7780188106	MCARTHY, JOHN P & JEANETTE A	13 WEST FAIRVIEW LANE	SPRINGFIELD	IL	62711
140	7780188122	TIMOTHY W MATHEWS AMD TRUST	2811 NAVARRE AVE	OREGON	OH	43616
141	7780188148	MAUCH, JAMES C	SHARON A SMITH 555 5TH AVE S	NAPLES	FL	34102
142	7780188164	SCARPELLI, GARY T & RHONI	555 5TH AVE S #304	NAPLES	FL	34102
143	9450000020	WILLEY, JANE E	PO BOX 487	RYE BEACH	NH	3871
144	9450000046	KUNDAHL, GEORGE G & JOY C	340 7TH AVENUE SOUTH #2	NAPLES	FL	34102
145	9450000062	KAPLAN TR, STUART L	JUDITH W KAPLAN TR 380 7TH AVE S	NAPLES	FL	34102
146	9450000088	ELIZABETH P CRANE REV TRUST	78 JERICHO ROAD	WESTON	MA	2493
147	9450000101	SCHIEMICHEN, WOLFGANG	352 7TH AVE S	NAPLES	FL	34102
148	9450000127	HANSTEDT-SANTAGATA, ELKE	344 7TH AVE S	NAPLES	FL	34102
149	9450000143	HENNESSY, JOHN J & ELAINE	364 7TH AVE S	NAPLES	FL	34102
150	9450000169	PAGLIARO, JAMES & SUSAN	1120 TIMBERGATE DR	RYDAL	PA	19046
151	9450000185	MULLEN TR, SUSAN H	7TH AVE SOUTH LAND TRUST UTD 3/29/07	NEWTON	MA	2458
152	14900040004	GILVARG, MARTIN HOWARD	VANESSA LANE GILVARG 400 7TH AVE S	NAPLES	FL	34102
153	14900080006	THOMAS, JOHN CHARLES	GERALDINE DENTERLIEN 524 HURON AVENUE	CAMBRIDGE	MA	2138
154	14900120005	JULIANO, CATHERINE M	41 HIGHLAND ST	DEDHAM	MA	2026
155	14900160007	HERRING, CHARLES E	392 7TH AVE S	NAPLES	FL	34102
156	14900200006	WESTFALL HAMMAR REV TRUST	396 7TH AVE S	NAPLES	FL	34102
157	14900240008	RACHEL M KELLER LIV TRUST	700 WEST LAKE DRIVE #6	NAPLES	FL	34102
158	14900280000	D' ANGIO, CARL & ELINOR R	27 BREWER LN	READING	MA	1867
159	14900320009	BARDENHEIER TR, PATRICE	PATRICE BARDENHEIER REV LIV % JOE BARDENHEIER	NEWPORT	RI	2840
160	14900360001	MCADAMS, GLENN E	MARY ANN GORDON 706 WEST LAKE DRIVE	NAPLES	FL	34102
161	15850170023	MENDIUS, TOM & MARIA	25 W 665 HOBSON ROAD	NAPERVILLE	IL	60540
162	15850170049	HARTLEY, JOHN C	ROBERTA L HUTCHISON 601 7TH AVE S #201	NAPLES	FL	34102
163	15850170065	GRAZIOSO, HENRY J & KRISTINE A	66 EMERY ROAD	MARSHFIELD	MA	2050
164	15850170081	MICHAEL BETTENCOURT & SUSAN D	BETTENCOURT FAMILY TRUST 601 7TH AVE S #203	NAPLES	FL	34102
165	15850170104	REMPE, RICHARD J	MARTHA A HUNTENBURG 601 7TH AVE S APT 204	NAPLES	FL	34102
166	15850170120	BRIGGS, STEPHEN A	GERALDINE P BRIGGS PO BOX 6965	SNOWMASS VILLAGE	CO	81615
167	15850170146	GODFREY, ADAM P	PATRICIA JEAN DELANEY GODFREY 1045 PARK AVE # 5B	NEW YORK	NY	10028
168	15850170162	FORDE, TIMOTHY E & JOANNE M	88 WHARF STREET #514	MILTON	MA	2186
169	15850170188	CARROLL, DAVID B & CYNTHIA B	SUNDIALS SOUTH ROAD, ST GEORGE'S HILL	SURREY	ENGLAND	
170	10770000029	REIDER III, GEORGE M	401 WEDGE DRIVE	NAPLES	FL	34103
171	10770000045	BOCCHESI, JO ANN	71 MATLACK DRIVE	VOORHEES	NJ	8084
172	10770000061	CHAN & WILLIAM MARTIN	REVOCABLE LIVING TRUST 302 LENDON LANE	LAWRENCEVILLE	GA	30043
173	10770000087	RITSH LLC	1466 COUNTRY WOOD DR	DAYTON	OH	45440
174	10770000100	VAN NOSTRAND FAMILY TRUST	11812 SAN VICENTE BLVD 4TH FLOOR	LOS ANGELES	CA	90049
175	10770000126	FOX, MARK	5040 GOAL POST LN	CINCINNATI	OH	45244
176	10770000142	BIELENBERG, BARBARA K	8010 FAIRWAY LANE	WEST PALM BEACH	FL	33412
177	10770000168	JAMAIN, DENIS JEAN-MARIE	23 SENTIER DES PRES SAINT PRYVE	SAINT MESMIN	FRANCE	
178	10770000184	MEYER, JOHN	56 WESTWOOD DR	MONTPELIER	VT	5602
179	10770000207	MONDI GROUP	43 GLEN COVE RD #B227	GREENVALE	NY	11548
180	10770000223	BOSTON LEASING GROUP CO	105 WILDERNESS DR #208	NAPLES	FL	34105
181	10770000249	GRAHAM, DAVID J & ETHEL L	15501 SHELL POINT BLVD	FORT MYERS	FL	33908
182	7880040005	FOGLIO(USA) INC	C/O DIBENEDETTO 4099 TAMiami TRL N STE 300	NAPLES	FL	34103
183	7880080007	FOGLIO(USA) INC	C/O DIBENEDETTO 4099 TAMiami TRL N STE 300	NAPLES	FL	34103
184	7880120006	FOGLIO(USA) INC	C/O DIBENEDETTO 4099 TAMiami TRL N STE 300	NAPLES	FL	34103
185	7880160008	CANNON FIFTH AVE INVTMNTS LLC	4031 GULF SHORE BLVD N #23	NAPLES	FL	34103
186	7880200007	STAR SHINE NAPLES LLC	400 5TH AVE SOUTH	NAPLES	FL	34102
187	7880240009	FOGLIO (USA) INC	% DIBENEDETTO 4099 TAMiami TRL N STE 300	NAPLES	FL	34103
188	7880280001	FOGLIO (USA) INC	% DIBENEDETTO 4099 TAMiami TRL N STE 300	NAPLES	FL	34103
189	7880320000	FOGLIO (USA) INC	% DIBENEDETTO 4099 TAMiami TRL N STE 300	NAPLES	FL	34103
190	7880360002	FOGLIO (USA) INC	C/O DIBENEDETTO 4099 TAMiami TRL N STE 300	NAPLES	FL	34103
191	7880400001	GULF BREEZE HOME V LLC	1225 N BROAD ST #2	WEST DEPTFORD	NJ	8096
192	7880440003	FOGLIO (USA) INC	C/O DIBENEDETTO 4099 TAMiami TRL N STE 300	NAPLES	FL	34103
193	7880480005	FOGLIO (USA) INC	C/O DIBENEDETTO 4099 TAMiami TRL N STE 300	NAPLES	FL	34103
194	7880520004	FOGLIO (USA) INC	4099 TAMiami TRIAL NORTH STE 300	NAPLES	FL	34103
195	7880560006	DORA INVESTMENTS LLC	400 5TH AVE S STE 304	NAPLES	FL	34102
196	7880600005	ROYAL PROPERTIES OF NAPLES LLC	PO BOX 9684	NAPLES	FL	34101
197	4430040005	KELLY, JOHN R	650 N MORGAN #504	CHICAGO	IL	60642
198	4430080007	SELFON, BRUCE I & LOIS J	608 7TH AVE S	NAPLES	FL	34102
199	4430160008	BOYLE, MICHAEL & JUDITH	5 STAFFORD LN	STONY BROOK	NY	11790
200	4430200007	WHITLAM, JOHN & BARBARA	7117 PELICAN BAY BLVD APT 705	NAPLES	FL	34108
201	4430240009	M1 REVOCABLE TRUST	620 7TH AVE S	NAPLES	FL	34102
202	4430280001	KELLY, JOHN R	650 N MORGAN #504	CHICAGO	IL	60642
203	4430320000	CHURCHILL, MICHAEL M	628 7TH AVENUE SOUTH #A 628	NAPLES	FL	34102
204	4430360002	CLUM, FREDERIC B & MARY LOUISE	630 7TH AVE S	NAPLES	FL	34102
205	4430400001	TERESA M COLETTA DEC OF TRUST	164 MIDDLEBRIDGE ROAD	WAKEFIELD	RI	2879

Source: Aerial; ESRI 2019; Wood 2020;

City of Naples - Lake Restoration

Spring Lake and East Lake - Parcels List

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Figure  
2c

N

0 125 250 500 Feet

Number	PARCEL ID	Name	Address	City	State	Zip
206	4430440003	J E HOPFENSBERGER I/T TRUST	412 SOUTH FRONT STREET	CHESANING	MI	48616
207	4430520004	KROUNGOLD, STEPHEN L & SUSAN G	104 WOODSIDE ROAD #B-107	HAVERFORD	PA	19041
208	4430560006	MARION, BILLY JAY	CARLENE B MARION 3710 N LAKESHORE DR	CLEMMONS	NC	27012
209	4430600005	DALTON, THOMAS R	BARBARA A HUBER 53 VALLEY AVE	SMITHTOWN	NY	11787
210	4430640007	BOTTALLA, JAMIE A	658 7TH AVE SOUTH #B 658	NAPLES	FL	34102
211	4430005008					
212	4430006007					
213	5880730029	DELANEY-EVANS, JANE B	600 5TH AVE S APT 211	NAPLES	FL	34102
214	5880730045	ALAFOGINIS, ARTHUR & JOANNE	9445 TOBIN CIR	POTOMAC	MD	20854
215	5880730061	ROBERT A BERNARDI LIV TRUST	600 5TH AVE S APT 301	NAPLES	FL	34102
216	5880730087	SHTAYYEH IMAD & ROLA	1466 COUNTRY WOOD DR	DAYTON	OH	45440
217	5880730100	TAYLOR, ALICE THOMPSON	JAMES RICHARD TAYLOR 600 5TH AVE S #303	NAPLES	FL	34102
218	5880730126	MANDEL, RICHARD E & DEANNA L	180 W BENTON AVE UNIT 401	NAPERVILLE	IL	60540
219	5880730142	MANDEL, RICHARD E & DEANNA L	180 W BENTON AVE #401	NAPERVILLE	IL	60540
220	5880730168	KENT, MAURICE D & DOROTHY M	4160 CUTLASS LN	NAPLES	FL	34102
221	5880730184	LAMBRECHTS, JOHN S & SANDRA K	617 6TH AVE S UNIT B-202	NAPLES	FL	34102
222	5880730207	SIX NINETEEN SIXTH AVE SOUTH	B-203 NOMINEE REALTY TRUST 619 6TH AVE S #B-203	NAPLES	FL	34102
223	5880730223	REINBOLT, WILLIAM J & JAMIE	3185 KLONDIKE RD	DELAWARE	OH	43015
224	5880730249	ROUX, GILBERT M	MARIANNE MASSHARDT ROUX CHEMIN DU MACHERET 27	LA CONVERSION	SWITZERLAND	
225	5880730265	CALDERONE, SANTO	625 6TH AVE S	NAPLES	FL	34102
226	5880730281	WHIDDON, THOMAS E	155 BAYVIEW DR	BELLEAIR	FL	33756
227	5880730304	REUTHER, JOHN S	629 6TH AVE S	NAPLES	FL	34102
228	5880730320	MES RESIDENTIAL HOLDINGS LLC	PO BOX 3958	INCLINE VILLAGE	NV	89450
229	5880730346	DAVID F OKEEFFE DEC OF TRUST	633 6TH AVE S	NAPLES	FL	34102
230	7330040005	DB INVSTMNTS RETIREMENT TRUST	5042 BATESON BEACH DRIVE NE	THORNVILLE	OH	43076
231	7330080007	MIHAJLOVIC, NEDELKO & MILANKA	444 ALLAN STREET	OAKVILLE	CANADA	
232	7330120006	GOLDMAN, GLENDA R	PO BOX 212	CONCORD	GA	30206
233	7330160008	MARCUS, BRAD & SHELLEY	1471 MUREX DRIVE	NAPLES	FL	34102
234	7330200007	DB INVSTMNTS RETIREMENT TRUST	5042 BATESON BEACH DRIVE NE	THORNVILLE	OH	43076
235	7330240009	KAREN E HARRIS REV TRUST	8776 HIDEAWAY HARBOR CT	NAPLES	FL	34120
236	7330280001	FRANCO, JOSE A	CAROLA EGUSQUIZA-FRANCO JOHN J TIVENAN	NAPLES	FL	34110
237	7330320000	CONTI JR, PETER T & HUI S	1239 WISTERIA CIR	JAMISON	PA	18929
238	7330360002	GREANEY, TARA	1 GRACIE TER	NEW YORK	NY	10028
239	7330400001	ARRIGO, MARIE V	530A 4TH AVE S APT 10	NAPLES	FL	34102
240	7330440003	TRACZYK, EDWARD J & NANCY J	6238 TOWNCENTER CIR	NAPLES	FL	34119
241	7330480005	C A CHRISTENSON REV TRUST	% JESSICA HOVDESVEN 2420 SAN MARCO ST #7	W SACRAMENTO	CA	95691
242	7330520004	BUOL, CHRISTINE	2170 GULF SHORE BLVD N	NAPLES	FL	34102
243	7330560006	SOLLERS, CHARLES & NANCY	607 RANDOLPH RD	MOGADORE	OH	44260
244	7330600005	MARIE A MALEBRANCHE REV TRUST	367 DOVER PL APT 1013	NAPLES	FL	34104
245	7330640007	CAROLYN S PLSEK REV LIV TRUST	6465 SHERINGHAM RD	BLOOMFIELD HILLS	MI	48301
246	7330680009	CLINGERMAN, JOANNE L & BRIAN K	4116 PIERCE ST	HOLLYWOOD	FL	33021
247	7330720008	ANTON & ANTONIE ROSSMANN TRUST	1112 JARDIN DR	NAPLES	FL	34104
248	18960000022	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
249	18960000048	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
250	18960000064	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
251	18960000080	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
252	18960000103	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
253	18960000129	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC. 613 E LAKE DR	NAPLES	FL	34102
254	18960000145	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC. 613 E LAKE DR	NAPLES	FL	34102
255	18960000161	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC. 613 E LAKE DR	NAPLES	FL	34102
256	18960000187	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC. 613 E LAKE DR	NAPLES	FL	34102
257	18960000200	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
258	18960000226	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 EAST LAKE DR	NAPLES	FL	34102
259	18960000242	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
260	18960000268	AMERICAN GUARANTEE BANK	C/O SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
261	18960000284	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
262	18960000307	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
263	18960000323	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
264	18960000349	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
265	18960000365	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
266	18960000381	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 EAST LAKE DR	NAPLES	FL	34102
267	18960000404	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
268	18960000420	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 E LAKE DR	NAPLES	FL	34102
269	18960000446	AMERICAN GUARANTEE BANK	% SANDRIFT CONDOMINIUM ASSOC 613 EAST LAKE DR	NAPLES	FL	34102

Source: Aerial; ESRI 2019; Wood 2020;

City of Naples - Lake Restoration

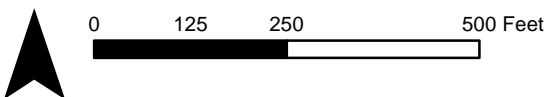
Spring Lake and East Lake - Parcels List

Drawn	Date	Miami Florida Project No. 60788203223
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Figure  
2d

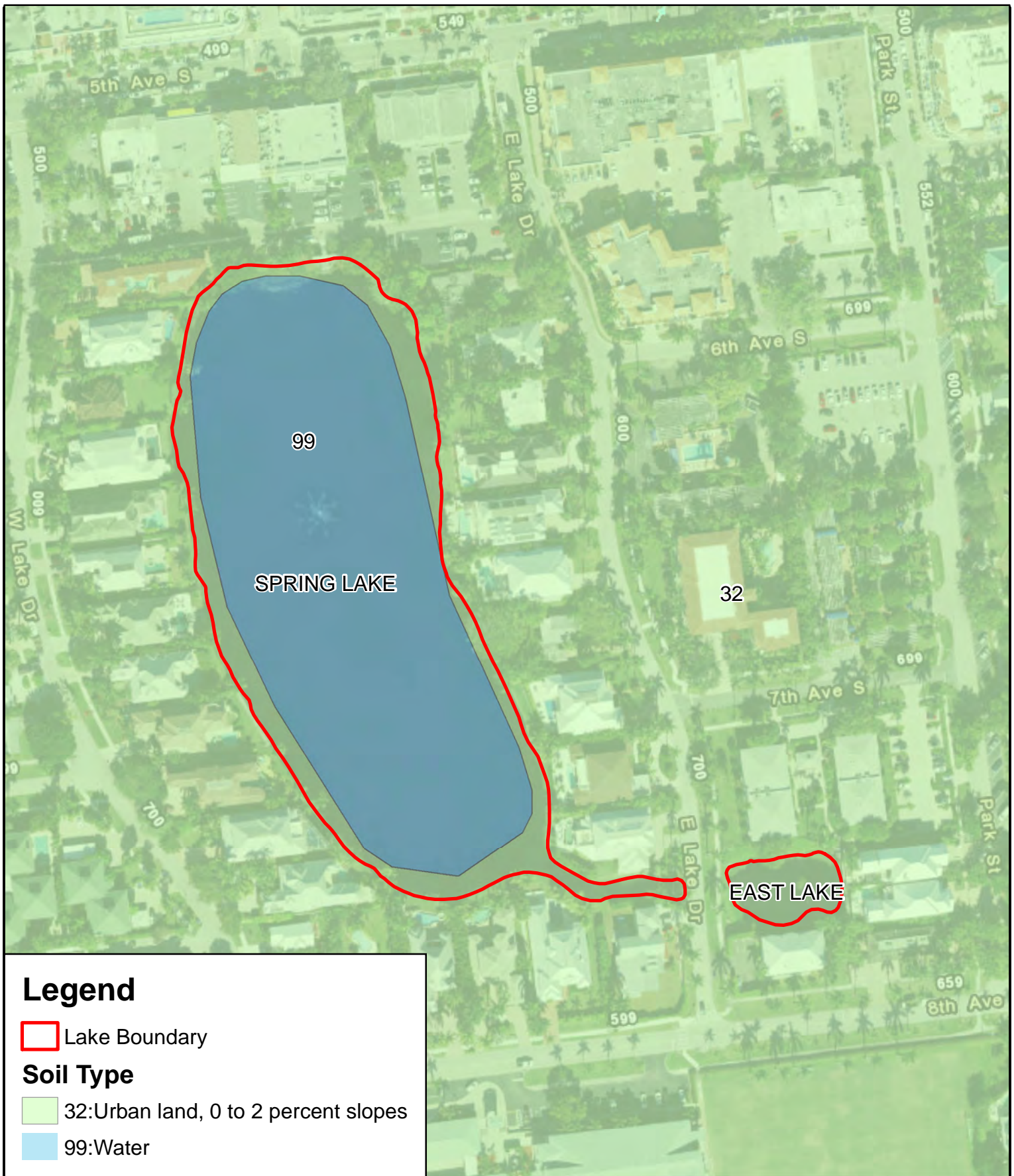
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**Figure 3. Project Site Existing Soils**







Source: Aerial Image; ESRI 2019; NRCS 2012; Wood 2020

### Legend

 Lake Boundary

### Soil Type

 32: Urban land, 0 to 2 percent slopes

 99: Water

N



0 75 150 300 Feet

### City of Naples - Lake Restoration

### Spring Lake and East Lake - Soils

Drawn	Date
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GC	3/6/2020

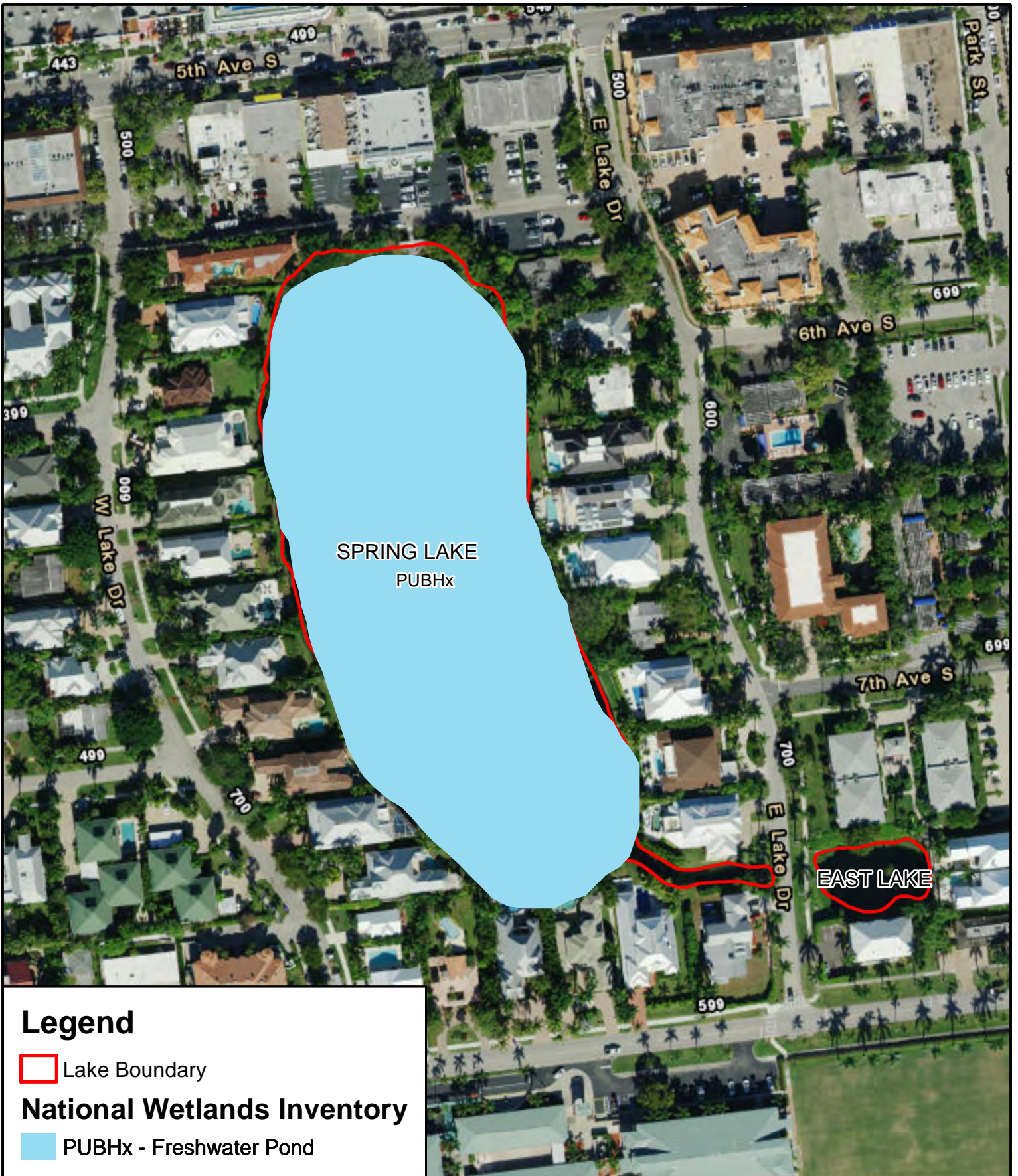
Miami  
Florida  
Project No.  
60788203223



Figure  
3

**Figure 4. Project Site USFWS NWI**





### Legend

 Lake Boundary

### National Wetlands Inventory

 PUBHx - Freshwater Pond

Source: Aerial Imagery; ESRI 2019; USFWS 2019; Wood 2020

N



0 75 150 300 Feet



City of Naples - Lake Restoration

Spring Lake and East Lake - NWI

Drawn	Date
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Checked	Date
GC	3/6/2020

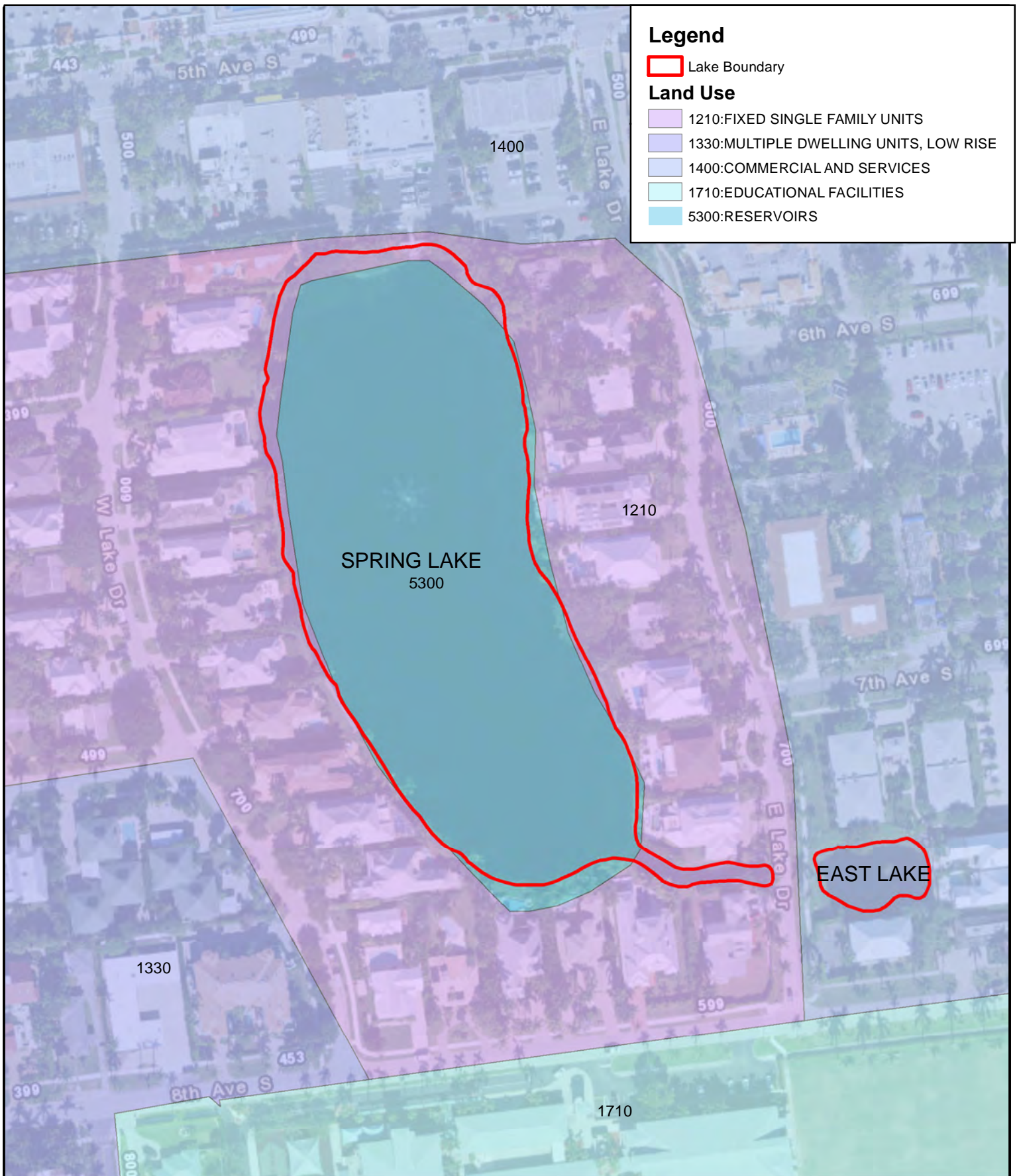
Miami  
Florida  
Project No.  
60788203223



Figure  
4

**Figure 5. Project Site Existing Land Use**





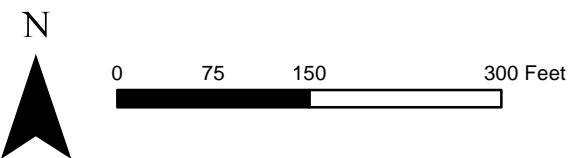
**Legend**

Lake Boundary

**Land Use**

- 1210:FIXED SINGLE FAMILY UNITS
- 1330:MULTIPLE DWELLING UNITS, LOW RISE
- 1400:COMMERCIAL AND SERVICES
- 1710:EDUCATIONAL FACILITIES
- 5300:RESERVOIRS

Source: Aerial Imagery; ESRI 2019; SFWMD 2016; Wood 2020



**City of Naples - Lake Restoration**

**Spring Lake and East Lake - Land Use**

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**Figure  
5**

### 3.3 Threatened and Endangered Species Survey Results

The FNAI Biodiversity Matrix website was consulted to determine if any protected species are likely to occur in the vicinity of Spring Lake and East lake. The FNAI database reported that no threatened or endangered species are “documented” within the area of the lakes (FNAI, 2020). No threatened or endangered species were observed during the January 2020 visit. Wildlife observed during the site visit included anhinga (*Anhinga anhinga*), brown pelican (*Pelecanus occidentalis*), double-crested cormorant (*Phalacrocorax auratus*), and white ibis (*Eudocimus albus*) at Spring lake. The brown pelican and white ibis were previously listed as a Florida species of special concern. As of January 11, 2017, both species were delisted, but continue to be part of the Imperiled Species Management Plan (FWC 2018). Muscovy ducks (*Cairina moschata*) were observed on the shoreline and in the water at Spring lake and East Lake during the site visit. Muscovy ducks are considered a domestic feral species and pose a potential threat to native waterfowl (FWC, 2020).

### 3.4 Invasive Exotic Plant Species Survey Results

Invasive exotic plants species were observed throughout the Project Sites. **Tables 1** and **2** include Florida Exotic Pest Plant Council (FLEPPC) plant categories for invasive species observed at both Project Sites. FLEPPC categorizes invasive plants as Category I or Category II. Category I invasive exotic species are those species that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. Category II invasive species are those that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. Invasive exotic species observed at Spring Lake included Brazilian pepper, umbrella flat sedge (*Cyperus involucratus*), wedelia, and women’s tongue tree. The Brazilian pepper and women’s tongue tree were observed at the north end of the lake. The umbrella flat sedge was in a clump located at the south end of the lake. Wedelia was found throughout the mowed lawn surrounding the lake. Mowing of the residential lawns appears to control wedelia and no large patches of were observed around the lake. Invasive exotic species observed at East Lake included alligator weed, mimosa tree, and wedelia. Alligator weed and the mimosa tree was found in the southeast corner of the lake. Wedelia was found in a dense ground cover along the north shore and along the southeast shoreline (**Figure 6**).

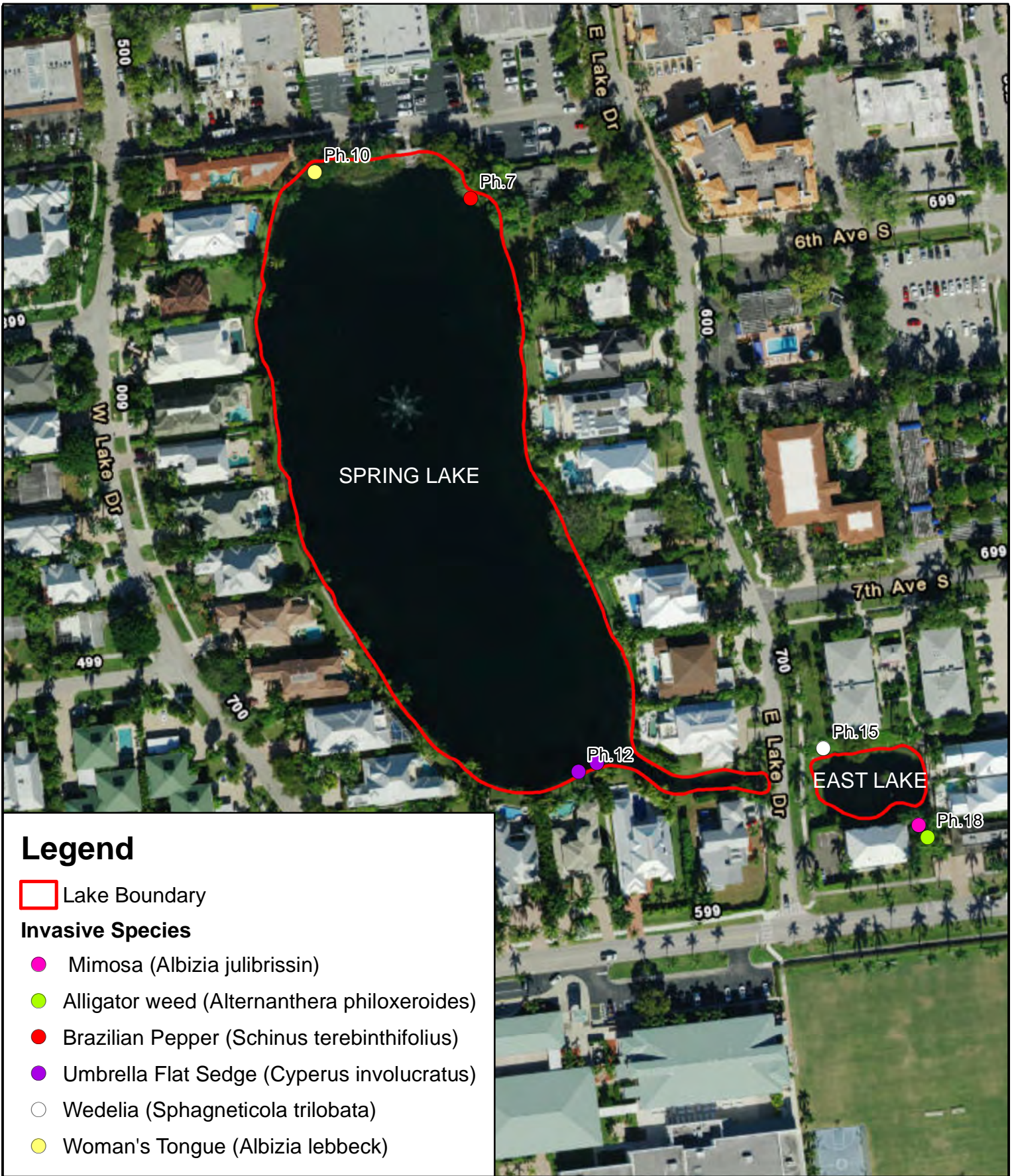
**Figure 6. Invasive Species Map**

### 3.5 Engineering Survey

Wood also performed a field survey in January 2020 of the proposed construction staging area to identify overhead electric lines and power poles, existing structures, and to evaluate the available area for material storage as well as loading/unloading concerns. The sub basin and existing stormwater infrastructure were verified in the field and are identified in (**Figure 7**). The field points, locations of the proposed staging area, treatment wetland and utilities are identified in (**Figure 8**). The field survey was conducted using a truck, camera and handheld GPS unit. The survey notes are summarized in **Table 3**. See Appendix B for the photo log.

**Table 3. Summarized Survey Notes**

GPS Point	Location	Description
1	Intersection of W Lake Dr and 8 <sup>th</sup> Ave S	Stormwater inlets and grassed dry retention swales for private condos



### Legend

Lake Boundary

#### Invasive Species

- Mimosa (*Albizia julibrissin*)
- Alligator weed (*Alternanthera philoxeroides*)
- Brazilian Pepper (*Schinus terebinthifolius*)
- Umbrella Flat Sedge (*Cyperus involucratus*)
- Wedelia (*Sphagneticola trilobata*)
- Woman's Tongue (*Albizia lebeck*)

Source: Aerial Image; ESRI 2019; Wood 2020; Wood January 16, 2020 Site Visit

N



0 75 150 300 Feet



City of Naples - Lake Restoration

### Spring Lake and East Lake - Invasive Species

Drawn	Date	Miami Florida Project No. 60788203223
RJM	3/6/2020	
Checked	Date	
GC	3/6/2020	



Figure  
6



GPS Point	Location	Description
2	Along W Lake Dr at discharge point into Lake 11	Stormwater inlet along W Lake Dr with 24" PVC pipe running between two residents along Lake 11 with concrete headwall
3	Alley behind 5 <sup>th</sup> Ave S that runs between E and W Lake Dr	Overlook and stormwater inlet with main discharge into Lake 11. Overhead electric poles and lines, transformer, fire hydrant, and water valve and backflow assembly
4	Alley behind 5 <sup>th</sup> Ave S that runs between E and W Lake Dr	Diffuser and fountain compressor and pumps
5	Alley behind 5 <sup>th</sup> Ave S that runs between E and W Lake Dr	Proposed staging area with asphalt parking spaces for business's along 5 <sup>th</sup> Ave and overhead electric pole and line
6	Along E Lake Dr	Basin boundary for Lakes 11 and 31 with stormwater inlets along E Lake Dr.
7	The Colonnade on 5 <sup>th</sup> Ave	Stormwater inlets discharging from development back to Lake 11
8	The Colonnade on 5 <sup>th</sup> Ave	Stormwater inlets discharging from development back to Lake 11
9	Along 6 <sup>th</sup> Ave S	Basin Boundary for Lake 31 no stormwater structures along the road
10	Along 7 <sup>th</sup> Ave S	Basin Boundary for Lake 31 stormwater inlet covered with grassed and sediment
11	Along 7 <sup>th</sup> Ave S	Basin Boundary for Lake 31 stormwater inlets along E Lake Dr discharging to Lake 31
12	Along E Lake Dr	Proposed staging area along E Lake Dr with overhead electric poles and lines, diffuser compressor and solar panel, and culverts directly discharging into Lake 31 from Lake 11
13	Main discharge point for Lakes 11 and 31	Lake 31 and main discharge structure from Lakes 11 and 31.
14	Along 8 <sup>th</sup> Ave S	Stormwater inlet along 8 <sup>th</sup> Ave S that captures runoff from road and conveys the discharge from Lakes 11 and 31 to cove pump station.

After analyzing the field observations there are several site conditions that will need to be considered during project completion:

- The overhead electric lines will need to be evaluated to ensure proper offsets are implemented to avoid impacts during construction.
- The proposed staging area will require a detailed maintenance of traffic and hauling plan to ensure safe accessibility for the traffic using E Lake Dr and 8<sup>th</sup> Ave S.
- The fountain and bubblers within the Lakes will need to be removed prior to commencement and replaced after the completion of construction.
- The proposed treatment wetland in Lake 31 will need to be verified with the water quantity model to ensure no flooding impacts to surrounding watershed



**Figure 7. Existing subbasin and stormwater infrastructure**

**Figure 8. Engineering field points, proposed infrastructure, and utility impacts**





Source: Aerial Image; ESRI 2019; Wood 2020, City of Naples 2020

**City of Naples - Lake Restoration**

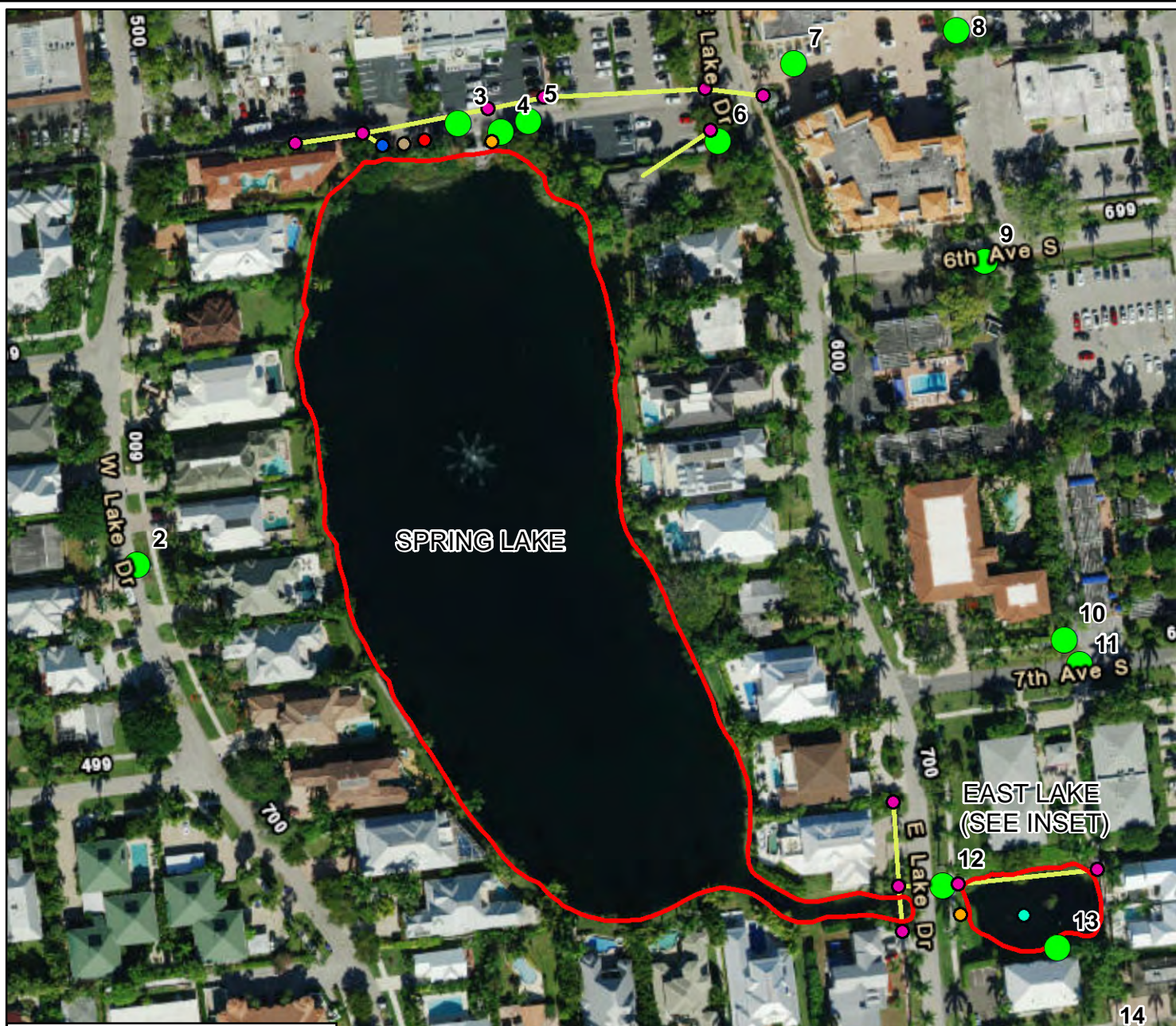
**Spring Lake and East Lake - Subbasin & Stormwater Infrastructure**

Drawn	Date
DLA	3/6/2020
Checked	Date
GWC	3/6/2020

Miami  
Florida  
Project No.  
60788203223



**Figure**  
7



**Legend**

Lake Boundary

**Utilities**

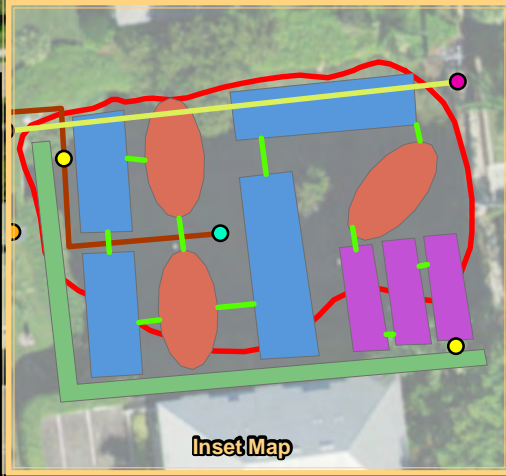
- Overhead Electric Lines
- Fire Hydrant
- Power Pole
- Solar Panel & Compressor
- Transformer
- Water Meter

**Engineering Design**

- Photo Points
- Interpretive Signage

**Legend**

- Open Water Bypass Canal
- Polishing Cells
- Shallow Island
- Treatment Cells
- Overhead Electric Lines
- Pedestrian Trail
- Structures/Overflow Weirs
- Culvert
- Interpretive Signage
- Power Pole
- Solar Panel & Compressor



Source: Aerial Image; ESRI 2019; Wood 2020

**City of Naples - Lake Restoration**

**Spring Lake and East Lake - Conceptual Restoration Map**



Drawn	Date	Miami Florida Project No. 60788203223
DLA	3/6/2020	
Checked	Date	
GWC	3/6/2020	



**Figure 8**

## 4.0 References

- Florida Department of Environmental Protection (FDEP), 1994. Rule: 62-340.450 Delineation of the Landward Extent of Wetlands and Surface Waters – Vegetative Index. Website Accessed January 2020:  
<https://www.flrules.org/gateway/RuleNo.asp?title=DELINEATION%20OF%20THE%20LANDWARD%20EXTENT%20OF%20WETLANDS%20AND%20SURFACE%20WATERS&ID=62-340.450>
- Florida Exotic Pest Plant Council (FLEPPC). 2019. List of Invasive Plant Species. Florida Exotic Pest Plant Council. Website accessed January 2020:  
[http://bugwoodcloud.org/CDN/fleppc/plantlists/2019/2019\\_Plant\\_List\\_ABSOLUTE\\_FINAL.pdf](http://bugwoodcloud.org/CDN/fleppc/plantlists/2019/2019_Plant_List_ABSOLUTE_FINAL.pdf)
- Florida Fish and Wildlife Conservation Commission (FWC), 2018. Florida's Imperiled Species: Management Plan. Website accessed January 2020: <https://myfwc.com/media/2030/imperiled-species-management-plan.pdf>
- Florida Fish and Wildlife Conservation Commission (FWC), 2014. Nonnative Species: Muscovy Duck. Website accessed January 2020:  
<https://myfwc.com/wildlifehabitats/nonnatives/birds/waterfowl/muscovy-duck/>
- Florida Natural Areas Inventory (FNAI), 2020. Biodiversity matrix report generated for City of Naples project area. Website accessed January 2020: <https://www.fnai.org/BiodiversityMatrix/index.html>
- South Florida Water Management District (SFWMD). 2016. Land cover and land use within the South Florida Water Management district. ESRI ArcGIS 10.4, January 2020.
- United States Department of Agriculture (USDA). 2012. Soil Survey Data. ESRI ArcGIS 10.4, January 2020.
- US Fish and Wildlife Services (USFWS). 2019. National Wetlands Inventory (NWI) Map from the National Map Viewer. Website accessed January 2020: <https://www.fws.gov/wetlands/data/Mapper.html>

## Appendix A – Ecological Photo Log



1. Lake 11: View of outfall area from culvert, view to the West



2. Lake 11: View of algae mat and grass, view to north northeast



3. Lake 11: Outfall, view to east



4. Lake 11: Southeast shoreline, view to east



5. Lake 11: Northeast shoreline, view to North



6. Lake 11: Brown pelicans on shoreline



7. Lake 11: Patch of Brazilian pepper at northeast corner of lake



8. Lake 11: View of observation deck with headwall and culvert below



9. Lake 11: Large patch of Mexican primrose-willow at north end of lake, mostly west of observation deck



10. Lake 11: Women's tongue tree at northeast corner of lake



11. Lake 11: Culvert on west side of lake partially blocked by wedilia



12. Lake 11: Clump of umbrella flat sedge on south shore of lake





13. Lake 31: South side of lake, view to southeast, Muscovy ducks in view



14. Lake 31: East side of lake, view to east



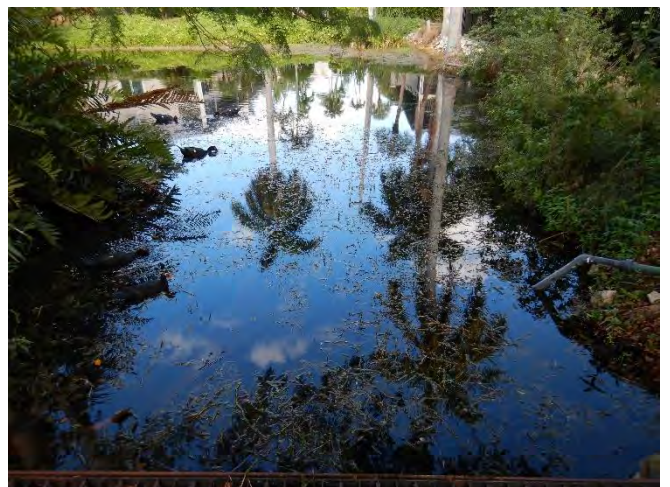
15. Lake 31: North side of lake, view to northeast



16. Lake 31: West side of lake, view to north northwest



17. Lake 31: Giant leather fern, sea grape, and wedilia on southeast corner of lake



18. Lake 31: Alligatorweed at outfall

## Appendix B – Engineering Photo Log



1. Lake 11: Stormwater inlets and grassed dry retention swales for private condos



2. Lake 11: Stormwater inlets and grassed dry retention swales for private condos



Lake 11: Stormwater inlet along W Lake Dr with 24" PVC pipe running between two residents along Lake 11 with concrete headwall



Lake 11: Stormwater inlet along W Lake Dr with 24" PVC pipe running between two residents along Lake 11 with concrete headwall



3. Lake 11: Overlook and stormwater inlet with main discharge into Lake 11.



4. Lake 11: Overhead electric poles and lines, transformer, fire hydrant, and water valve and backflow assembly



5. Lake 11: Proposed littoral shelf location along north side of Lake 11



6. Lake 11: Diffuser and fountain compressor and pumps



7. Lake 11: Proposed staging area with asphalt parking spaces for business's along 5<sup>th</sup> Ave and overhead electric pole and line



8. Lake 11: Proposed staging area with asphalt parking spaces for business's along 5<sup>th</sup> Ave and overhead electric pole and line



9. Lake 11: Proposed staging area with asphalt parking spaces for business's along 5<sup>th</sup> Ave and overhead electric pole and line



10. Lake 11: Basin boundary for Lakes 11 and 31 with stormwater inlets along E Lake Dr.



11. Lake 11: Stormwater inlets discharging from development back to Lake 11

12. Lake 11: Stormwater inlets discharging from development back to Lake 11



13. Lake 11: Basin Boundary for Lake 31 no stormwater structures along the road

14. Lake 11: Basin Boundary for Lake 31 stormwater inlet covered with grassed and sediment



15. Lake 11: Basin Boundary for Lake 31 stormwater inlet covered with grassed and sediment

16. Lake 11: overhead electric poles and lines, diffuser compressor and solar panel, and culverts directly discharging into Lake 31 from Lake 11



17. Lake 31: overhead electric poles and lines, diffuser compressor and solar panel, and culverts directly discharging into Lake 31 from Lake 11



18. Lake 31: overhead electric poles and lines, diffuser compressor and solar panel, and culverts directly discharging into Lake 31 from Lake 11



19. Lake 31: Proposed staging area along E Lake Dr



20. Lake 31: Proposed treatment wetland for Lake 31



21. Lake 31: Lake 31 and main discharge structure from Lakes 11 and 31.



22. Lake 31: Stormwater inlet along 8<sup>th</sup> Ave S that captures runoff from road and conveys the discharge from Lakes 11 and 31 to cove pump station.