

MARTIN COUNTY, FLORIDA

PRESERVE AREA MANAGEMENT PLAN

For:

The Preserve at Loblolly North

Gomez Grant, Township 39S, Range 42E

Prepared by:

EW Consultants, Inc.

Approved by/Date: Shawn McCarthy/July 1, 2024

A Preserve Area Management Plan (PAMP) is required of all applicants for development approval on sites which contain wetland or upland preserve areas, pursuant to provisions of Section 4.36.A.1 of the Martin County Land Development Regulations, Martin County Code.

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1.0 GENERAL

The owner of the lands to be preserved and maintained by this Preserve Area Management Plan (PAMP) and the developer of *The Preserve at Loblolly North* successors and assigns, and their environmental consultants and contractors, will implement and comply with all portions of this PAMP.

Compliance with the terms of this PAMP includes submittal of all Annual Monitoring Reports following completion of project construction, pursuant to Section 10.17 of the Martin County Land Development Regulations. The owner of the lands to be preserved/maintained shall have ultimate responsibility for the submittal of all Annual Monitoring Reports, according to the format and schedule requirements of Section 10 of this PAMP.

As noted in Section 9 of this PAMP, the Martin County Environmental Planning Administrator shall be notified in writing within thirty (30) days of transfer of ownership of any lands to be preserved/maintained under the terms of this PAMP. Failure to notify shall be considered as non-compliance with the terms of this PAMP.

This PAMP will not be altered or amended by either Martin County or the owner/developer of *The Preserve at Loblolly North*, except by an alteration or amendment agreed to by both the Martin County Environmental Planning Administrator and the owner/developer of *The Preserve at Loblolly North*. Such alterations and amendments shall be inserted into the PAMP and the final revised document shall be recorded by the Martin County Clerk of Courts. The revised PAMP will be labeled with the appropriate O.R. Book and Page Number. Three copies of the revised document shall be provided to the Martin County Environmental Planning Administrator within thirty (30) days of the Recording date.

2.0 ENVIRONMENTAL ASSESSMENT

The Environmental Assessment (EA) includes maps and text which accurately depict the site's location, soils, uplands, listed species, previous impacts, preserve area locations and boundaries, and any other significant natural resource features. It is attached to this Preserve Area Management Plan.

2.1 Location – A location map is included in the EA.

2.2 Soils – Soil types on the property are classified using a Soils Survey of Martin County Area, Florida. Please refer to the attached Environmental Assessment for a detailed description of soils present on the property.

2.3 Habitats – Vegetative community classifications are mapped and described based on the Florida Land Use Cover and Forms Classifications System (FLUCCS), and the Florida Natural Areas Inventory (FNAI). Field reconnaissance, surveying and aerial photograph interpretation were employed in the mapping effort of the land cover types on the subject property. Please refer to the attached Environmental Assessment for a detailed description of the habitats present on the property.

2.4 Listed Species Evaluation

Please refer to the attached Environmental Assessment for a description of the listed species evaluation for this property.

2.5 Previous Impacts

Please refer to the attached Environmental Assessment and materials contained within for a detailed description of the existing land covers and previous impacts.

2.6 Agency Correspondence

A database search of the Florida Fish and Wildlife Conservation Commission's online resources has been made for the project site. The findings are included in the attached Environmental Assessment.

3.0 IDENTIFICATION OF PRESERVE AREAS

3.1 Site Plan - All Preserve Areas, right-of-ways and easements are shown on *The Preserve at Loblolly North* Site Plan, a copy of which is included in this PAMP. The Site Plan will contain the notation: "PRESERVE AREAS ARE NOT TO BE ALTERED WITHOUT WRITTEN PERMISSION OF THE MARTIN COUNTY BOARD OF COUNTY COMMISSIONERS."

3.2 Legal Recording - The final *The Preserve at Loblolly North* Site Plan will be recorded with the PAMP by the Martin County Clerk of Courts. The Site Plan and the PAMP will be labeled with the appropriate O.R. Book and Page Number and copies of each recorded document will be provided to the Martin County Environmental Planning Administrator within thirty (30) days of the Recording date.

4.0 SURVEYING, MARKING AND BARRICADING REQUIREMENTS

All Preserve Areas shown on the Site Plan for *The Preserve at Loblolly North* will be surveyed and marked in the field with appropriate survey markers and signage. During the clearing and construction phases of the project, Preserve Area boundaries will be marked by physical barriers. No plant material will be removed from the Preserve Areas to facilitate surveying, fencing or soil boring/sampling without prior permission from the Martin County Environmental Planning Administrator.

4.1 Preserve Area Surveying Requirements – Each Preserve Area will be surveyed and marked with permanent monuments at each corner and at other sites necessary for locating the boundary of the Preserve Area. These permanent monuments will be constructed under the supervision of a Registered Land Surveyor and will be shown on the Site Plan. Map coordinates of each Preserve Area will be provided to the Martin County Environmental Planning Administrator, in a form compatible for use in the County's GIS mapping system.

4.2 Preserve Area Boundary Markers and Signs - Preserve Areas will be posted with permanent signs and boundary markers. Boundary Markers will be placed at the corners of residential lots abutting Preserve Areas. Signs will be at least 11 x 14 inches in size and will be posted in conspicuous locations along the Preserve Area boundary, at a frequency of no less than one (1) sign per 500 feet. All boundary markers and signs will be approved by the Martin County Environmental Planning Administrator and they will be in place prior to issuance of a building permit for construction on the site. NOTE: Preserve area signs will be inspected during the summer months on an annual basis in order to ensure that they remain in good

condition. Should any of the required signage be destroyed or damaged, they will be replaced in that same calendar year in which the inspection takes place.

- 4.3 Barricading Requirements - Prior to clearing, the developer will ensure that all Preserve Areas are protected with physical barriers during all clearing and construction activities in accordance with the following guidelines. Barricades will be inspected by County Environmental Division staff prior to work approval. Removal of the barricade materials will be done upon issuance of the final Certificate of Occupancy with authorization from appropriate County staff.**

Barricades (not including turbidity screens) will be high-visibility orange safety fence extending from the ground to a height of at least 4 feet. Barricades will not be attached to vegetation.

All barricades and turbidity screens will be upright and maintained intact for the duration of construction.

Where areas are proposed for clearing (i.e. building envelope, utilities, drainage, road right-of-way, etc.) the bright orange barricades and silt fences will be offset at least 5 feet outside the Preserve Area or placed at the dripline of the canopy trees, whichever is greater.

All native vegetation not slated for removal as part of the development plans will be retained in their undisturbed state and will be barricaded at or outside the dripline of the trees.

Cut or fill will meet existing grade without encroaching into Preserve Areas.

It is the responsibility of the owner and developer of The Preserve at Loblolly North to inform all contractors of these Marking and Barricading Requirements. Failure to comply with these Marking and Barricading Requirements will be considered a violation of the Site Plan approval. Further work on the project may be stopped until compliance with the Marking and Barricading Requirements is achieved, and the owner or developer may be required to appear before the Code Enforcement Board.

5.0 USE OF PRESERVE AREAS

- 5.1 Activities Allowed in Preserve Areas – Activities allowed in preserve areas are those related to natural resource restoration as described in Section 6 of this PAMP. In addition, riparian access shall be allowed through the designated wetland buffer and wetland preserve area in accordance with provisions in the Martin County Comprehensive Growth Management Plan and Land Development Code. Such access shall not require a revised PAMP or PUD Amendment.**

- 5.2 Activities Prohibited In Preserve Areas - Activities prohibited in Preserve Areas or easements within Preserve Areas include, but are not limited to: construction or placing of building materials on or above the ground (other than for golf cart paths); dumping or placing soil or other substances such as garbage, trash, and cuttings; removal or destruction of native trees, shrubs or other native vegetation excavation, dredging or removal of soil, diking or fencing; vehicular traffic including use by non-motorized vehicles, recreational vehicles and off-road vehicles except for work associated with invasive species eradication,**

permanent irrigation; vegetation trimming, pruning, or fertilization; and any other activities detrimental to drainage, flood control, water conservation, erosion control or fish and wildlife conservation and preservation.

No hazardous material other than fuel for refueling on-site heavy equipment will be stored during the construction phases. On-site fuel tanks shall not be located within twenty-five (25) feet of any Preserve Areas and shall be removed upon completion of construction work.

Buildings proposed to be located adjacent to Preserve Areas shall be set back a minimum of ten (10) feet to allow for construction and maintenance without encroaching into the Preserve Area. All other structures (e.g. pools, sheds, decks, fences) shall be set back a minimum of five (5) feet from the Preserve Area boundary.

Development activities such as the construction of building pads for associated structures, swales, or culverts for surface water management shall not alter the hydrology of adjacent Preserve Areas other than that described in Section 6.0 below. Nor shall any activities increase non-point source pollution in Preserve Areas.

6.0 RESTORATION AND MAINTENANCE ACTIVITIES

Except for approved restoration, creation, and maintenance activities, Preserve Areas will be left undisturbed. All maintenance of Preserve Areas will be in accordance with this PAMP for *The Preserve at Loblolly North*. Maintenance and management activities will be performed by or under the supervision of a qualified environmental professional and must be approved by the Martin County Environmental Planning Administrator. The following restoration and maintenance activities may be allowed within Preserve Areas with prior written approval from the Environmental Planning Administrator: invasive plant removal, re-vegetation or planting native vegetation, and removal of dead, diseased, or safety hazard plant material.

- 6.1 Invasive Vegetation Removal/Eradication – Invasive vegetation shall be removed from the Preserve Areas by the least ecologically-damaging method available. Such methods include hand pulling, hand spading, cutting with hand or chain saws and in-situ treatment with appropriate herbicides. No debris, including dead plants, plant clippings or wood scraps, shall be allowed in Preserve Areas. In addition, all dead plant material and invasive plant debris removed from Preserve Areas shall be disposed of in a County-approved recycling facility. Due to the dense coverage of mature invasive plant species adjacent to the wetland areas on-site (within wetland buffers), heavy equipment may be used in these areas for vegetation removal. Such activities will be coordinated with Martin County staff beforehand.**
- 6.2 Re-vegetation - Any re-vegetation which might be necessary as a result of invasive vegetation removal or site construction activities shall consist of native plant species representative of native plant communities which originally existed on-site. This will ensure that the Preserve Areas maintain indigenous plant associations. In particular, wetland buffers as shown on the associated site plan will be planted with native pine flatwood species in accordance with the attached Typical Pine Flatwood Planting Plan. In addition, the current access drive from Gomez Avenue will be replanted with scrub species in accordance with the Typical Scrub Restoration Planting Plan found within this PAMP.**

- 6.3 **Vegetation Removal** - Dead or diseased plant material shall be removed from Preserve Areas upon approval by the Martin County Environmental Planning Administrator. Re-vegetation may be required for any removed plant material. No debris, including dead plants, plant clippings or wood scraps, shall be allowed in Preserve Areas. All dead plant material and debris removed from Preserve Areas shall be disposed of in a County-approved recycling facility.
- 6.4 **Prescribed Burns** - Martin County considers prescribed burns an acceptable habitat management tool. When approved by the Martin County Environmental Planning Administrator, they will be conducted by a certified burn manager who will be responsible for obtaining all appropriate permits from State and local agencies.
- 6.5 **Hydrology** – Previous or potential drainage impacts will be corrected to the extent technically feasible. Wetlands and waterbodies on adjacent properties shall be protected from adverse impacts, as necessary.
- 6.6 **Mitigation Plan/Wetland Creation Area** – No impacts are proposed to naturally-occurring wetlands on-site. Therefore, no mitigation is proposed. The upland buffer which separates W-1 and W-2 consists of a remnant manmade berm dominated by invasive vegetation. The berm in this area of the site will be removed along with the invasive vegetation. All material will be taken off-site and disposed of accordingly. Once the berm is removed, this area will be re-graded to wetland ground elevations matching W-1 and W-2. Once the desired elevation is achieved, wetland plants will be installed in the creation area. Such plants species have been selected based on the current vegetation composition of W-1 and W-2 in this area of the site. See attached wetland creation area planting plan for details. All activities associated with the wetland creation will be overseen by an environmental professional with experience in restoration ecology.

7.0 PROTECTIVE MEASURES FOR LISTED SPECIES

- 7.1 **Gopher tortoises** have been confirmed on-site. In Florida, gopher tortoises are protected as Threatened. Under Florida law, no person may take, possess, transport or sell a Listed Species. No land clearing or construction shall occur until all tortoises which will be impacted are relocated to upland preservation areas or to off-site receiver areas as permitted by the FFWCC. A gopher tortoise agent registered with the Florida Fish and Wildlife Conservation Commission will supervise clearing in the areas of the gopher tortoise burrows. Tortoises inhabiting burrows in areas to be developed will be captured and relocated following guidelines set forth below. Tortoise burrows may be bucket trapped or excavated using methodology approved by the Florida Fish and Wildlife Conservation Commission and conducted by an authorized gopher tortoise agent possessing a valid relocation permit. During clearing and grubbing operations, equipment operators will be notified of the occurrence of gopher tortoises on-site and instructed to observe for roaming and foraging individuals. Should gopher tortoises be seen during the clearing and grubbing, all equipment operations will be stopped and the gopher tortoises will be captured and relocated into a Preserve Area of the project away from the immediate clearing activities. Once the tortoise(s) have been safely relocated to a Preserve Area and restrained by tortoise fencing, equipment operation can resume.
- 7.2 **Endemic Species** – If necessary, all gopher tortoise relocation efforts will include trapping of protected endemic species that may live in the burrow. These endemic species include but

are not limited to the Florida mouse (*Peromyscus floridana*), gopher frog (*Rana aerolata*) and Eastern indigo snake (*Drymarchon corias couperi*).

- 7.3 Relocation of Tortoises - The Martin County Environmental Planning Administrator will be notified and will be provided with a copy of the Gopher Tortoise Relocation Permit from the Florida Fish and Wildlife Conservation Commission. All relocations shall be carried out by a gopher tortoise agent licensed for gopher tortoise relocations. The responsible party shall have access to literature pertaining to gopher tortoise preservation and shall be encouraged to preserve additional areas and to landscape with native vegetation.

8.0 MISCELLANEOUS PROVISIONS AND RESTRICTIONS

The project will comply with the Martin County/State of Florida “Firewise” program. Please refer to the site plan for details.

9.0 TRANSFER OF RESPONSIBILITIES

The property owner(s) and developers of The Preserve at Loblolly North are responsible for implementation of all requirements of this Preserve Area Management Plan until such time as the developer transfers responsibility to the owners or a successor. The Martin County Environmental Planning Administrator will be notified in writing within thirty (30) days of transfer of ownership of any lands to be preserved under this PAMP. Failure to notify will be considered as non-compliance with the terms of this PAMP. At such time as the developer is ready to transfer control of The Preserve at Loblolly North to the property owners or another appropriate entity, whether the developer retains ownership of the lots/parcels in the project or not, an environmental professional shall certify, in writing, to the Martin County Environmental Planning Administrator, that the Preserve Areas are in full compliance with this PAMP.

The developer and/or successor will be responsible for maintaining the Preserve Areas in their existing natural condition with the periodic removal of invasive vegetation. After transfer of responsibilities, funding for all maintenance and management programs will be the responsibility of all successors.

10.0 MONITORING, REPORTING AND INSPECTIONS

10.1 Annual Monitoring Reports -

Monitoring and reporting will be conducted annually by a qualified environmental professional for a period of five years from the date of completion of the project or project phase encompassing the monitored area. Annual monitoring will be conducted at the end of the wet season (usually by November 30) and a report of the monitoring will be submitted to the Martin County Environmental Planning Administrator within 30 days of the completion of the monitoring.

The Annual Monitoring Reports will document changes in vegetation including encroachment and/or overgrowth of noxious or invasive vegetation. Fixed-point photos of all Preserve Areas will be included in each report. The reports will include recommendations for invasive vegetation removal, re-vegetation, and any additional enhancement activities

necessary to maintain the Preserve Area. A timetable for action within 90 days of the report will be prepared and followed.

A copy of the proposed Annual Monitoring Report format is attached to this PAMP as an Appendix. This format may be modified separately from the PAMP, as necessary, upon written approval from the Martin County Environmental Planning Administrator.

Upon request, Martin County Environmental Planning staff may meet with the responsible parties to review the annual monitoring report findings and supply technical assistance and support for stewardship.

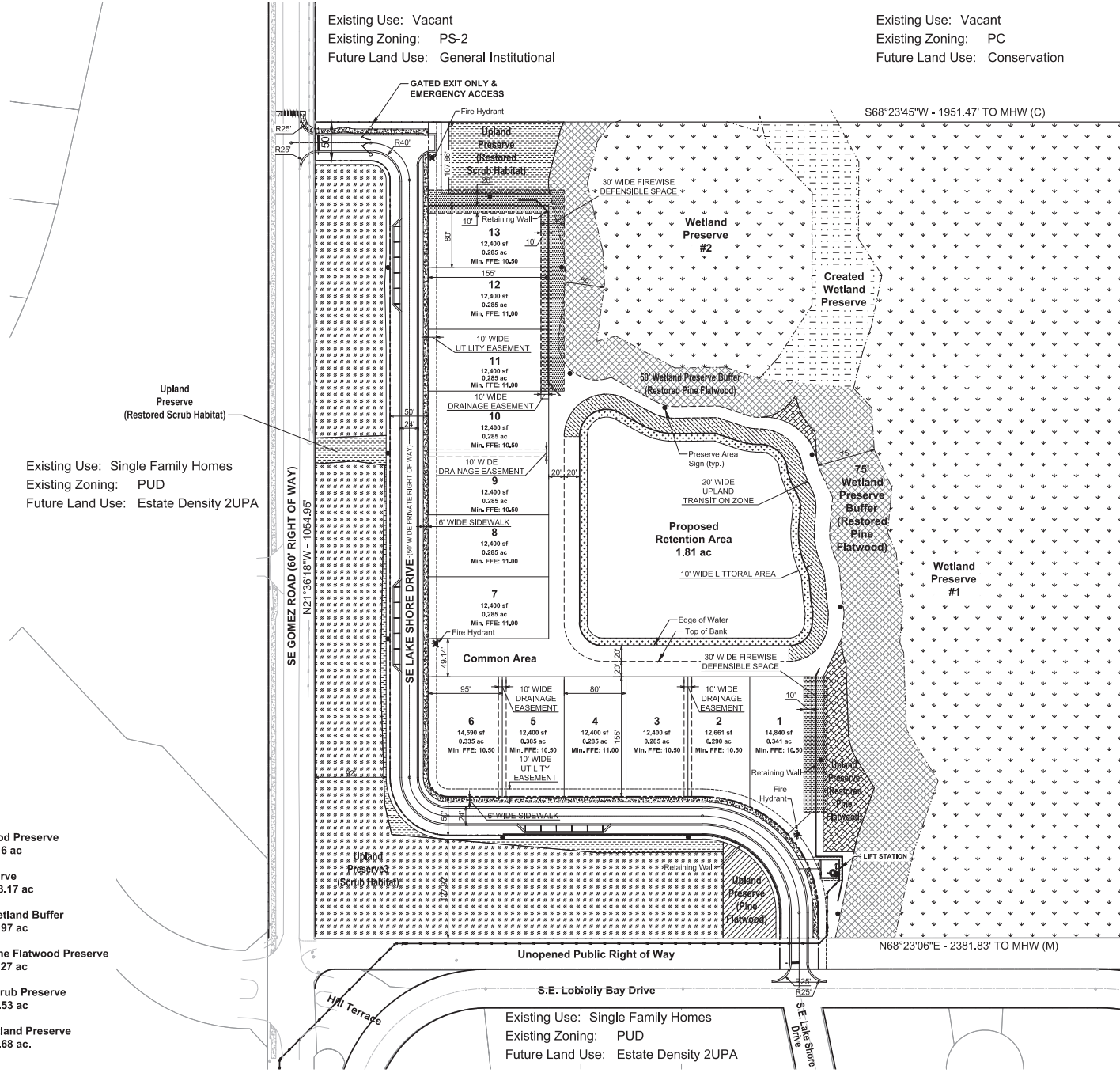
The first Annual Monitoring Report due in compliance with this PAMP will be submitted to the Martin County Environmental Planning Administrator no later than _____. Subsequent Annual Monitoring Reports will be due on the same date for the next four years.

After the initial five-year monitoring period, the Preserve Areas may be subject to periodic review and, if conditions warrant, will be subject to further monitoring and maintenance to ensure environmental integrity, consistent with the provisions of this Plan.

- 10.3 Inspections - Martin County is authorized to inspect any County regulated site or appurtenance. Duly authorized representatives of Martin County may, at any time, upon presenting proper identification, enter upon and shall be given access to any premises for the purpose of such inspection.**

11.0 ENFORCEMENT

Martin County shall have the right to enforce the provisions of this PAMP through any available administrative or civil proceeding, which may result in penalties. Restoration of habitat and other remedies, such as fines and fees covering staff time, may be required of any person, corporation or other entity found in violation of any of the provisions of this PAMP or of Article 10 of the Martin County Land Development Regulations.



Existing Use: Vacant
 Existing Zoning: PS-2
 Future Land Use: General Institutional

Existing Use: Vacant
 Existing Zoning: PC
 Future Land Use: Conservation

Existing Use: Single Family Homes
 Existing Zoning: PUD
 Future Land Use: Estate Density 2UPA

Existing Use: Single Family Homes
 Existing Zoning: PUD
 Future Land Use: Estate Density 2UPA

- Legend**
- Pine Flatwood Preserve
6,821 sf / 0.16 ac
 - Scrub Preserve
138,244 sf / 3.17 ac
 - Restored Wetland Buffer
85,680 sf / 1.97 ac
 - Restored Pine Flatwood Preserve
11,763 sf / 0.27 ac
 - Restored Scrub Preserve
23,228 sf / 0.53 ac
 - Created Wetland Preserve
29,343 sf / 0.68 ac.



Project Team:

Client & Property Owner: Loblolly North LLC
 7487 SE Hill Terrace
 Hobe Sound, Florida 33455

Land Planner / Landscape Architect: Lucido & Associates
 701 East Ocean Boulevard
 Stuart, Florida 34994

Engineer: Halyk Ward, Inc.
 10975 SE Federal Hwy.
 Hobe Sound, Florida 33455

Traffic Engineer: Halyk Ward, Inc.
 10975 SE Federal Hwy.
 Hobe Sound, Florida 33455

Environmental Consultant: EW Consultants
 1000 SE Monroey Commons Blvd.
 Stuart, Florida 34990

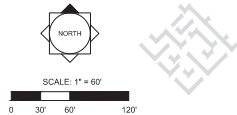
Surveyor: NorthStar Geomatics
 800 SE Central Ave
 Stuart, Florida 34994

The Preserve at Loblolly North PUD

Hobe Sound, Florida

Master / Final Site Plan

Date	By	Description
7-10-2023	S.L.S.	Initial Submittal
2-3-2024	MM	1st Re-submittal

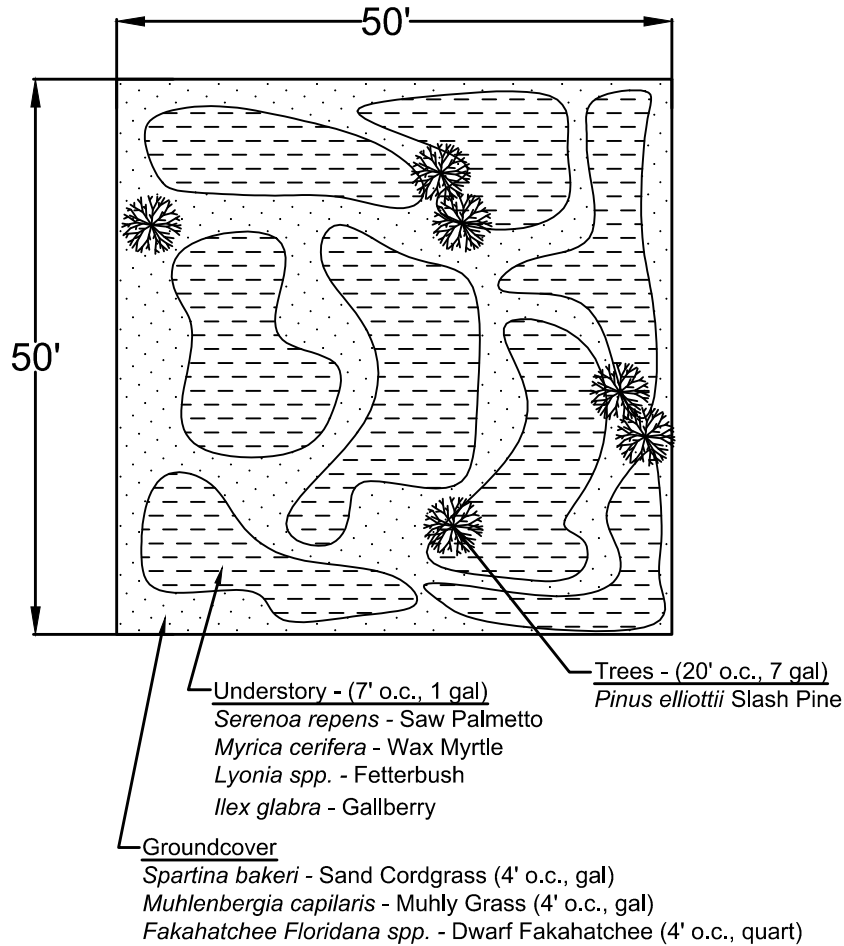


Designer: S.L.S. Sheet
 Manager: M.C.
 Project Number: 22-435
 Municipal Number: —
 Computer File: The Preserve at Loblolly North - Final Site Plan.dwg

2 of 2

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PINE FLATWOOD RESTORATION DETAIL



QUANTITY OF PLANTS WILL BE DETERMINED BY SIZE OF RESTORATION AREA AND SPACING (O.C.) OF SELECTED PLANTS.

REFERENCED SPECIES MAY BE SUBSTITUTED WITH OTHER APPROPRIATE NATIVE SPECIES BASED ON AVAILABILITY.

NOTE: PLANTS TO BE INSTALLED AS TO MIMIC NATURAL OCCURRENCE.

THE PRESERVE AT LOBLOLLY NORTH PINE FLATWOOD RESTORATION PLAN

The Preserve at Loblolly North planting plans.dwg PINE FLATWOOD

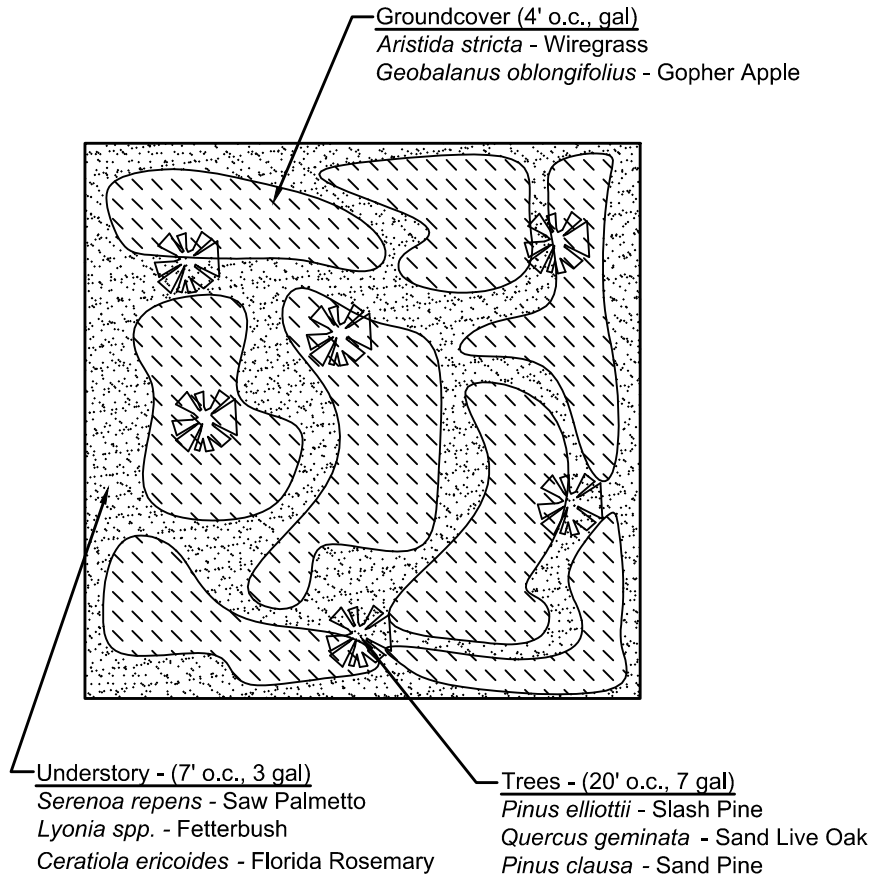


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FIGURE

SCRUB RESTORATION DETAIL



QUANTITY OF PLANTS WILL BE DETERMINED BY SIZE OF RESTORATION AREA AND SPACING (O.C.) OF SELECTED PLANTS.

REFERENCED SPECIES MAY BE SUBSTITUTED WITH OTHER APPROPRIATE NATIVE SPECIES BASED ON AVAILABILITY.

NOTE: PLANTS TO BE INSTALLED AS TO MIMIC NATURAL OCCURRENCE.

THE PRESERVE AT LOBLOLLY NORTH SCRUB RESTORATION PLAN

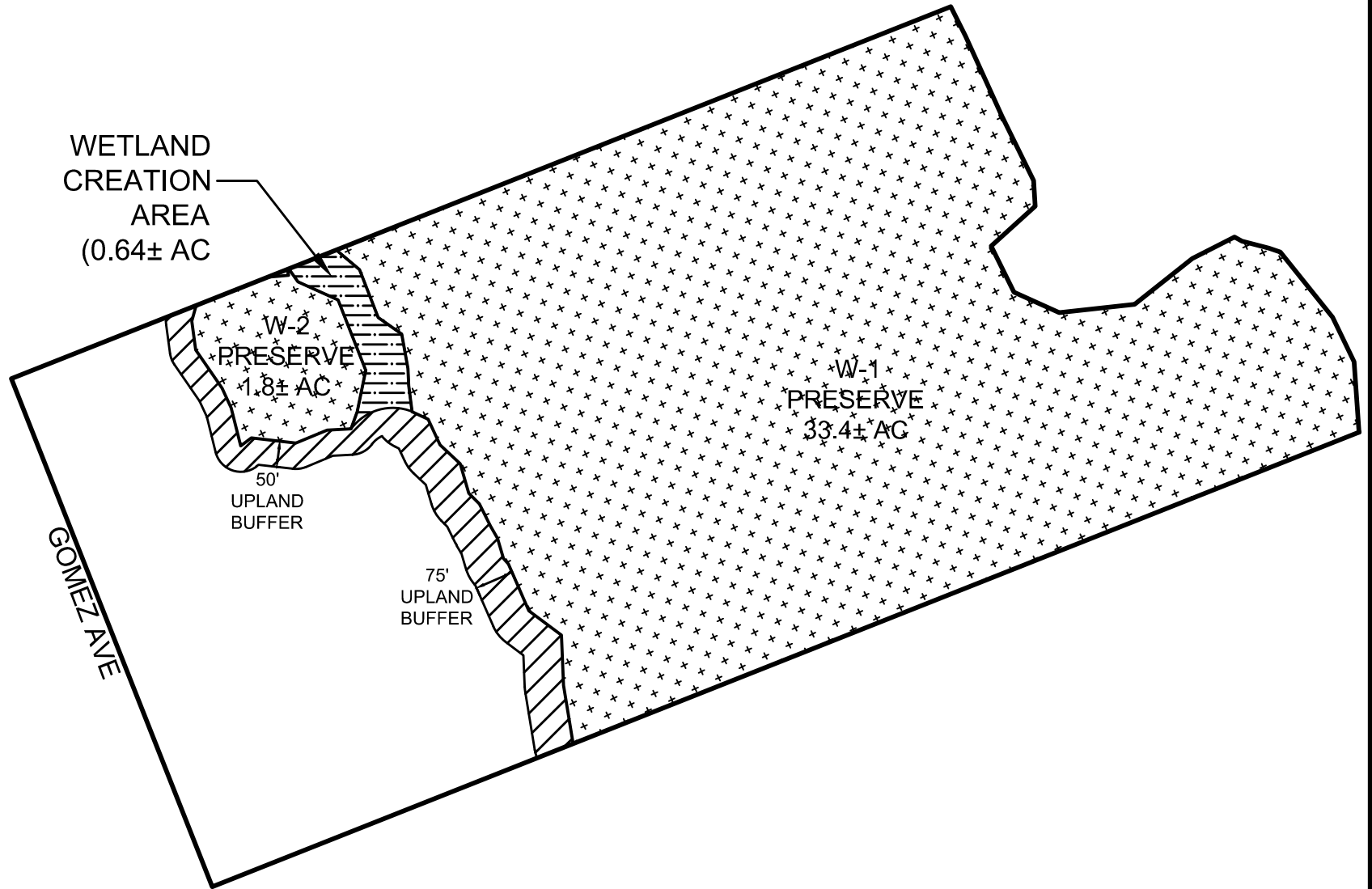
The Preserve at Loblolly North planting plans.dwg SCRUB




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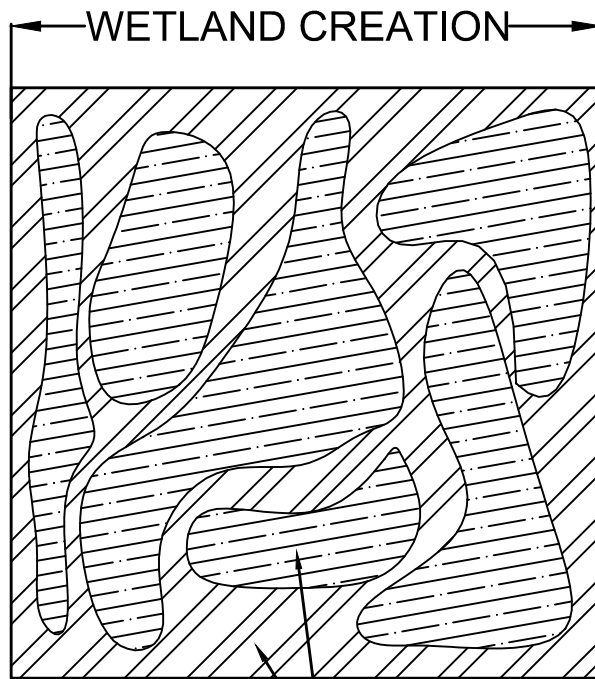
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FIGURE



THE PRESERVE AT LOBLOLLY NORTH WETLAND CREATION AREA	
 EW CONSULTANTS, INC.	EW CONSULTANTS, INC. 1000 SE MONTEREY COMMONS BLVD., SUITE 208 STUART, FL 34996 772-287-8771 FAX 772-287-2988 WWW.EWCONSULTANTS.COM
	MAR 2024 FIGURE

WETLAND CREATION PLANTING PLAN



Groundcover - BR, 2' o.c. (7,070)

- Pontederia Cordata* - Pickerel Weed (1,415)
- Sagittaria lancifolia* - Duck Potato (1,415)
- Acrostichum aureum* - Leather Fern (2,120)
- Osmunda regalis var. spectabilis* - Royal Fern (1,415)
- Annona glabra* - Pond Apple, 20' o.c., 1 gal. (50)

QUANTITY OF PLANTS WILL BE DETERMINED BY SIZE OF RESTORATION AREA AND SPACING (O.C.) OF SELECTED PLANTS.

REFERENCED SPECIES MAY BE SUBSTITUTED WITH OTHER APPROPRIATE NATIVE SPECIES BASED ON AVAILABILITY.

NOTE: PLANTS TO BE INSTALLED AS TO MIMIC NATURAL OCCURRENCE.

THE PRESERVE AT LOBLOLLY NORTH WETLAND CREATION PLANTING

MAR 2024

FIGURE

The Preserve at Loblolly North planting plans.dwg WETLAND CREATION

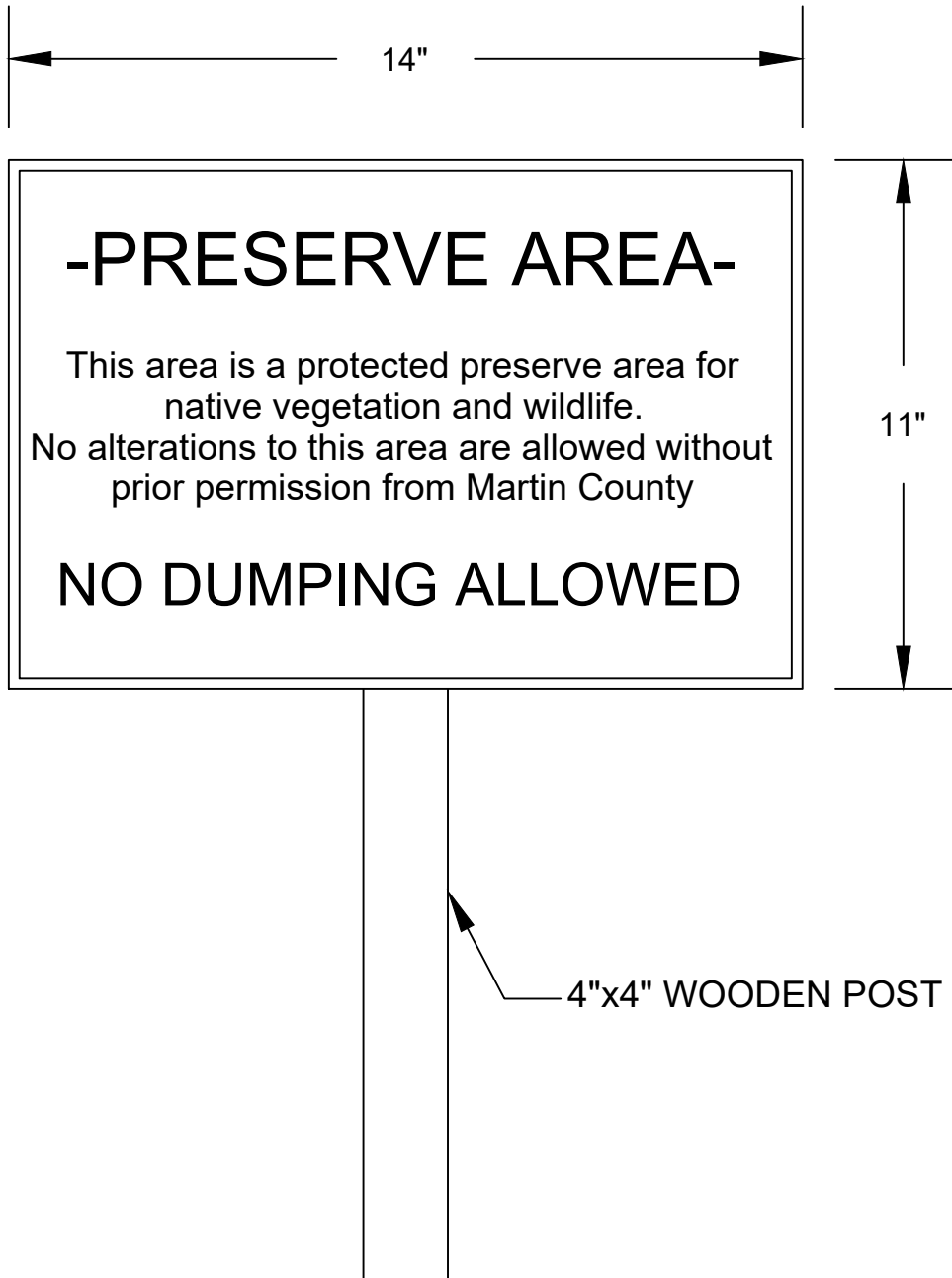


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PRESERVE AREA SIGN

PRESERVE SIGN STANDARD.dwg Layout1

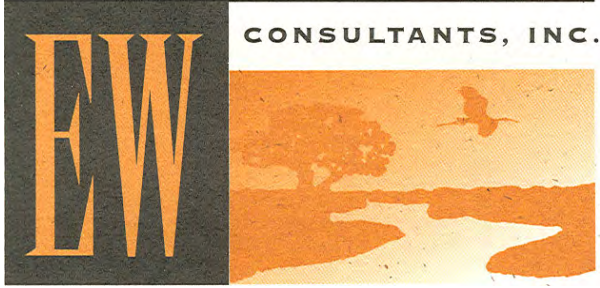


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OCT 2013
 FIGURE

EW Consultants, Inc.

Natural Resource Management, Wetland, and Environmental Permitting Services



THE PRESERVE AT LOBLOLLY NORTH

ENVIRONMENTAL ASSESSMENT

Prepared for:

LOBLOLLY COMMUNITY SERVICE CORP.

Prepared by:

EW CONSULTANTS, INC.

July 2023/March 2024

INTRODUCTION -

The 51.2+/- acre property covered by this Environmental Assessment, referred to as The Preserve at Loblolly North, is located at the north end of Gomez Avenue, north of Osprey Street within Hobe Sound, in unincorporated Martin County (see Figure 1 in Appendix A, Location Map). It lies within the Gomez Grant, Township 39S, and Range 42E (see Figure 2 in Appendix A, USGS Quadrangle Map). The property is located east of and adjacent to Gomez Avenue, just north of the entrances to the Loblolly developments (Loblolly Pines to the west and Loblolly Bay to the east).

The property is bounded to the north by vacant land, to the east by the Indian River Lagoon/Intracoastal Waterway, to the south by the Loblolly Bay development, and to the west by Gomez Avenue/the Loblolly Pines Golf Course. Figure 3 in Appendix A is a 2023 aerial photo of the subject property and immediate surroundings.

PROPERTY DESCRIPTION -

The subject property has three distinct areas: the mangrove and red maple/bay wetland assemblage associated with the Indian River Lagoon in its eastern half; the altered area (including two manmade wetlands) within the central portion of the site that was used for past Florida Inland Navigation District (FIND) operations, and; sand pine scrub native upland habitat along the southern and western boundaries. Each of these areas, as well as the wetlands, is described in subsequent sections of this assessment.

SOILS -

A Soils Report produced by the United States Department of Agriculture/Natural Resources Conservation Service is provided in Appendix B of this report. The NRCS report identifies soils associated with the mangrove swamp (and soil deposition within), the red maple/bay swamp, the historic pine flatwoods used for the FIND operations, as well as the scrub soils in the extreme western portions of the site.

NATURAL COMMUNITIES AND LAND COVER -

The natural communities and land cover types on the subject property have been classified in accordance with the Florida Land Use and Cover Classification System (FLUCCS) developed by FDOT. Corresponding Florida Areas Inventory (FNAI) categories are included in the land cover descriptions below. Based on field reconnaissance and aerial photograph interpretation, the subject site has several land cover types based on the historic activities which altered portions of the property.

The landward extent of the wetland areas described in the portion of the EA have been verified by the South Florida Water Management District (SFWMD). That correspondence is included in Appendix C. The wetland lines have been surveyed by a Professional Surveyor & Mapper (PSM) registered in Florida.

In addition, the limits of the upland portions of the site have been verified by Martin County Growth Management Department staff during February 2024 site visits.

The limits of each land cover type are shown on Figure 4 in Appendix A, FLUCCS Map, as well as described below.

#411: Pine Flatwoods (FNAI Mesic Flatwoods) – There is a small piece of remnant native upland pine flatwood habitat located in the southern portion of the site adjacent to the roadway serving Loblolly Bay. This habitat contains mature slash pines, saw palmetto, rusty fetterbush, gallberry, and bluestem grasses. Gopher tortoise, a state threatened species, may inhabit this land cover type.

#412/413: Scrubby Flatwoods/Sand Pine Scrub (FNAI Scrub) - This hybrid scrub category includes areas on-site which are dominated by scrub oak species. Some of these areas contain more slash pine in the canopy, while most of this polygon as shown on Figure 4 contains mature sand pine and scrub hickory. Understory and groundcover plants include saw palmetto, gallberry, fetterbush, rusty fetterbush, prickly pear cactus, flag pawpaw, rosemary, hogs plum, wire grass, as well as open patches of sand. Gopher tortoise, a state threatened species, has been observed using this land cover type on-site for foraging and burrowing.

#611: Bay Swamp (FNAI Bottomland Forest) – The east-central portion of the project site consists of a freshwater bay/red maple swamp associated with the Indian River Lagoon to the east. This area contains mature red, loblolly and sweet bay trees, as well as red maple, cabbage palm, slash pine, Carolina willow, sawgrass, leather fern, swamp fern, royal fern, and cinnamon fern. Brazilian pepper and earleaf acacia occur on the spoil mounds within the bay swamp. This habitat provides potential foraging and nesting habitat for a variety of common and listed avian wildlife species.

#612: Mangrove Swamp (FNAI Mangrove Swamp) – The eastern portion of the subject site consists of mangrove swamp associated with and connected to the Indian River Lagoon/ICW. This wetland habitat generally consists of white, red and black mangrove trees mixed with invasive vegetation such as Australian pine and Brazilian pepper. This habitat provides foraging and nesting habitat for a variety of common and listed avian wildlife species.

#612/437: Mangrove Swamp/Australian Pine (FNAI Mangrove Swamp/Invasive Exotic Monoculture) – This hybrid vegetative cover type consists of the mangroves described above with the invasive Australian pine tree. It occurs within the northeastern portion of the site on spoil piles within the mangrove swamp adjacent to the ICW. Once these pines establish, they typically dominates a landscape, providing very little wildlife value. However, due to their tremendous

height, they can provide nesting and roosting opportunities for a variety of raptors, especially ospreys.

#618: Willow Swamp (FNAI Depression Marsh) – This wetland vegetative cover consists of a dominance of Carolina and primrose willow, but also contains a variety of freshwater ferns, as well as sawgrass, torpedo grass and paragrass. The willow marsh occurs in the northwestern portion of the project site, just west of the bay swamp. It appears to be the result of previous land alterations, and is therefore a low-quality wetland area, as indicated by the fringe of Brazilian pepper trees and thick stands of earleaf acacia which surround it.

#641: Freshwater Marsh (FNAI Depression Marsh) – Located in the west-central portion of the site is a small depressional marsh in poor ecological condition. It appears to exist as a result of the historic FIND land alterations, and contains Carolina and primrose willow, as well as *juncus* rushes, paragrass, lemon bacopa, torpedo grass, and other non-desirable plants. This wetland, W-3, is the subject of a manmade wetland discussion as found in Exhibit 1 of this report.

#740: Disturbed Lands (FNAI Clearing/Regeneration) – This land cover type represents those areas on-site which have been cleared as part of the FIND operations of the past. It is now being used a staging area for the Loblolly Pines golf course, and contains mainly pioneer weeds and open sand. Numerous potentially occupied gopher tortoise burrows were observed within the 740 area.

#740/422: Disturbed Lands/Brazilian Pepper (FNAI Invasive Exotic Monoculture) – Along the boundaries of the bay swamp and willow marsh are altered areas now dominated by invasive plant species such as Brazilian pepper and earleaf acacia. Invasive grasses also exist in these areas, in particular guinea grass and paragrass. Numerous vines are also present such as wild grape and greenbrier. This land cover, while not optimal, is potentially suitable habitat for the state threatened gopher tortoise along the manmade berms. No such species were observed during the numerous site visits over the past year.

PREVIOUS IMPACTS

A review of historical aerial photographs was conducted to document any past land alterations or improvements. A series of such photographs can be found in the manmade wetland discussion in Exhibit 1. In general, alterations along the shoreline of the site are visible back to 1958 with dredging and filling activities apparent (which is the cause of the Australian pine presence in the mangrove swamp). By 1981, FIND had begun its alterations within the central/western portion of the site just west of the bay swamp. After regeneration of this area through the 1980's and 1990's, it was razed again in 2011, with mowing activities continuing through present day.

LISTED SPECIES DISCUSSION

During the field assessment of the property, observations were made for the presence or potential presence of listed fauna and endangered flora on the property. Given that the site exhibits rare/unique upland habitat (scrub), as well as open sand, the property provides potential foraging and/or nesting habitat for state and federally listed wildlife species. Gopher tortoise, listed as a threatened species by the State of Florida, was directly observed on the subject property. Numerous gopher tortoises and associated burrows were located throughout the upland portions of the site.

The Florida scrub-jay is state and federally listed as a Threatened. According to U.S. Fish and Wildlife (USFWS) literature, "*The presence of scrub oaks, no matter how sparsely distributed, is the key indicator of "scrub" habitat.*" Therefore, the southern and western edges of the site that are considered potential habitat for the Florida scrub-jay. Based on site observations, the majority of the scrub habitat is overgrown, (taller than 5.5 feet in height), and includes mature slash and sand pines and/or dense scrub oak cover with few areas of barren sand available for acorn caching. The open sand areas found on site are the result of previous land alteration activities, and are regularly mowed keeping the vegetation to less than six inches. During the initial field assessment, no Florida scrub-jays were observed or heard on-site.

The site also constitutes suitable habitat for the eastern indigo snake given the presence of upland scrub habitat and gopher tortoise burrows. Based on the USFWS' Eastern Indigo Snake Effect Determination Key (dated August 1, 2017), the size of the site represents only a fraction of what an eastern indigo snake requires (184 acres for males and 46 acres for females). Consequently, while suitable eastern indigo snake habitat exists on site, the potential for the presence of this species is very low.

The Florida pine snake, listed as threatened by the state of Florida, is found in dry sandy soils in scrub and sandhills that allow them to burrow. Although no Florida pine snakes were observed on the subject site during the gopher tortoise survey, the nature of the habitats on-site creates the potential for their presence on the subject property.

The wetland areas could provide foraging and nesting habitat for a variety of wading birds, in particular, the bay and mangrove swamp areas. Such areas are slated for preservation and therefore, should such species be present or use these wetlands in the future, their protection is assured. The willow wetland and small marsh contain minimal foraging and nesting opportunities for listed species.

Although the bald eagle has been removed from the Endangered Species Act list, it remains protected under the Bald and Golden Eagle Protection Act (Eagle Act). The Eagle Act prohibits the taking of bald eagles unless pursuant to regulations. The subject property contains mature canopy trees that could provide potential nesting opportunities for bald eagles and is located adjacent to the Indian River Lagoon to the east. However, no bald eagles were observed nesting or foraging on-site or flying in the vicinity of the site and no bald eagle nests were observed on-site. The closest nests are located to the north of the project site within the Seabranck State Park

(MT028) and to the west within the Atlantic Ridge State Park (MT010). A map showing Florida Fish and Wildlife Conservation Commission documented bald eagle nests is attached as Figure 5 in Appendix A.

Recognized wading bird colonies are shown on Figure 6 in Appendix A. The foraging range for the federally threatened wood stork is 18.6 miles. Therefore, the project site is within the foraging range of documented wading bird and wood stork colonies.

No other listed wildlife species were observed on-site at the time of the field reconnaissance. In addition, observations were also made to evaluate the presence or potential presence of endangered flora on the subject property. Although no endangered flora was initially identified on the subject property, because of its location in Hobe Sound, a full survey for listed plant species is recommended within the proposed development areas prior to alteration. Should listed plants be found within the development footprint, they will be relocated to the scrub preserve areas on-site. The four-petal pawpaw (*Asimina tetramera*) is state and federally-listed as endangered. This plant species is restricted to dry sandy scrub habitat within Paola and St. Lucie soil types. Such soils occur on the subject site in a narrow strip along Gomez Avenue, which is slated for preserve as part of the scrub habitat.

Another state and federally listed plant species found in high, xeric soils in Martin County is the Florida perforated reindeer moss (*Cladonia perforate*). While no specimens of this species were found during the site investigations, observations will be made during the listed plant survey to identify this species on-site within the development footprint.

AGENCY COORDINATION –

Databases of the U.S. Fish and Wildlife Service (USFWS) and the Florida Fish and Wildlife Conservation Commission (FFWCC) for listed avian species are available on-line and shown on Figures 5 and 6 in Appendix A.

The landward extents of the on-site wetland have been confirm with the South Florida Water Management District as part of the on-going Environmental Resource Permit (ERP) process. Such documentation is provided in Appendix C. The approved wetland areas shown on Figure 4 in Appendix A have been tied-in by a Professional Land Surveyor.

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APPENDIX A

Maps and Figures:

Figure 1: Location Map

Figure 2: USGS Quadrangle Map

Figure 3: 2023 Aerial Photograph

Figure 4: FLUCCS Map


Figure 5: FWCC Eagle Nests Map

Figure 6: FWCC Wading Bird Colonies Map



© OpenStreetMap (and) contributors, CC-BY-SA



LEGEND
 - SITE (51.3+/- AC)

THE PRESERVE AT LOBLOLLY NORTH LOCATION MAP

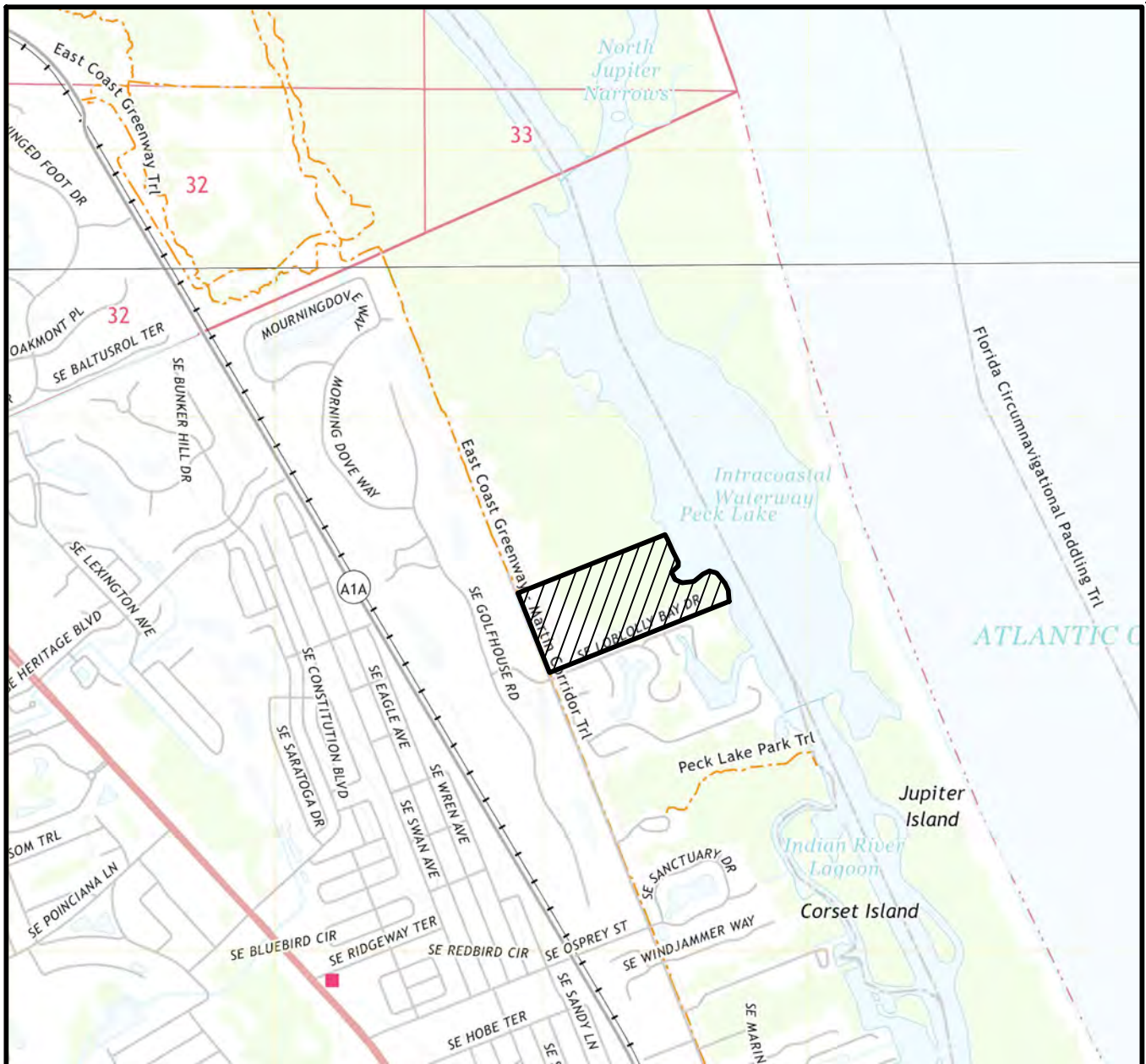


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FIGURE

1



USGS QUAD MAP "GOMEZ", GOMEZ GRANT, TOWNSHIP 39 SOUTH, RANGE 42 EAST, HOBE SOUND, MARTIN COUNTY, FLORIDA, LATITUDE 27°06'48.26" LONGITUDE -80°08'59.21"

LEGEND

 - SITE (51.3± AC)



THE PRESERVE AT LOBLOLLY NORTH QUAD

The Preserve at Loblolly North.dwg QUAD



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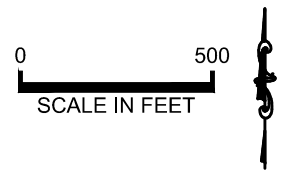
FIGURE

2



GOMEZ AVE

MARTIN COUNTY AERIALS DATED 2023



THE PRESERVE AT LOBLOLLY NORTH AERIAL

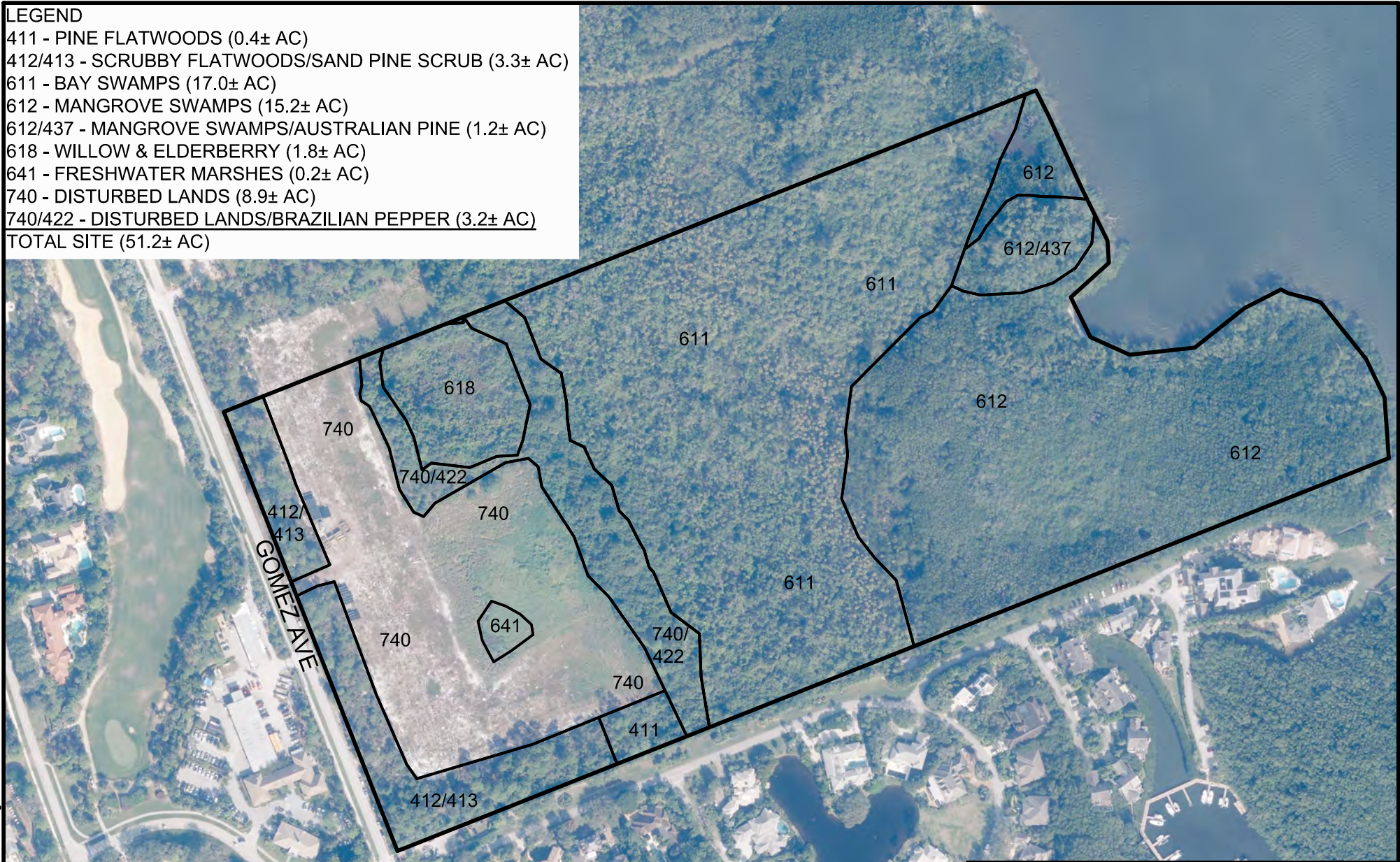
The Preserve at Loblolly North.dwg AERIAL



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FIGURE
3

LEGEND
 411 - PINE FLATWOODS (0.4± AC)
 412/413 - SCRUBBY FLATWOODS/SAND PINE SCRUB (3.3± AC)
 611 - BAY SWAMPS (17.0± AC)
 612 - MANGROVE SWAMPS (15.2± AC)
 612/437 - MANGROVE SWAMPS/AUSTRALIAN PINE (1.2± AC)
 618 - WILLOW & ELDERBERRY (1.8± AC)
 641 - FRESHWATER MARSHES (0.2± AC)
 740 - DISTURBED LANDS (8.9± AC)
 740/422 - DISTURBED LANDS/BRAZILIAN PEPPER (3.2± AC)
TOTAL SITE (51.2± AC)



MARTIN COUNTY AERIALS DATED 2023



THE PRESERVE AT LOBLOLLY NORTH FLUCCS		JUNE 2023
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		4



LEGEND

 FFWCC EAGLE NESTING 2016

0 3 Miles



**THE PRESERVE
AT LOBLOLLY NORTH
EAGLE NESTING MAP**



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JULY 2023

FIGURE

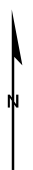
5



LEGEND

-  FFWCC WOST COLONIES 2009-2018
-  FFWCC 1999 WOODSTORK NESTING COLONIES & WADING BIRD ROOKERY

0 6 Miles



**THE PRESERVE
AT LOBLOLLY NORTH
WADING BIRDS MAP**



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JULY 2023
 FIGURE
6

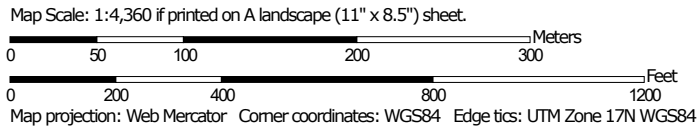
APPENDIX B

USDA Custom Soil Resource Report

Soil Map—Martin County, Florida
(The Preserve at Loblolly North)




Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Martin County, Florida

Survey Area Data: Version 21, Sep 1, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 21, 2021—Feb 4, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6	Paola and St. Lucie sands, 0 to 8 percent slopes	2.8	5.4%
22	Okeelanta muck, frequently ponded, 0 to 1 percent slopes	13.2	25.6%
27	Arents, organic substratum, 0 to 5 percent slopes	0.1	0.2%
35	Salerno sand	8.2	16.0%
41	Jonathan sand, 0 to 5 percent slopes	6.1	12.0%
50	Wulfert and Durbin mucks, tidal	12.5	24.3%
53	Udorthents, 0 to 35 percent slopes	8.3	16.2%
99	Water	0.1	0.2%
Totals for Area of Interest		51.3	100.0%

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APPENDIX C

SFWMD Non-Binding Wetland Determination

From: [Ticknor, Megan](#)
To: [Paul Ezzo](#); [Huffman, Jessica](#)
Cc: [Jason hahner](#)
Subject: RE: The Preserve at Loblolly North
Date: Thursday, February 1, 2024 4:09:31 PM
Attachments: [image001.png](#)
[image002.jpg](#)

Good afternoon Paul,

The wetland boundaries on the attached document are not binding, but District staff visited the site and agreed with the indicated wetland boundaries. Have a great day!

Respectfully,



[Megan Ticknor](#)
Environmental Analyst 3
Environmental Resource Bureau | Regulation Division
South Florida Water Management District
3301 Gun Club Road, West Palm Beach, FL 33406
Phone: 561-682-2989
mticknor@sfwmd.gov

To electronically submit a new application or a response to a request for additional information, go to:

[logoepermitting2](#)



From: Paul Ezzo <pezzo@ewconsultants.com>
Sent: Thursday, February 1, 2024 3:16 PM
To: Ticknor, Megan <mticknor@sfwmd.gov>; Huffman, Jessica <jhuffman@sfwmd.gov>
Cc: Jason hahner <jhahner@ewconsultants.com>
Subject: RE: The Preserve at Loblolly North

You don't often get email from pezzo@ewconsultants.com. [Learn why this is important](#)

[Please remember, this is an external email]

Megan and Jessica,

If you all could sign-off (return email is fine) on the attached verified wetland lines that would be great. Martin County will need the documentation form SFWMD in order to move ahead with their review.

Thanks again.

Paul

From: Ticknor, Megan <mticknor@sfwmd.gov>
Sent: Wednesday, January 31, 2024 4:40 PM
To: Paul Ezzo <pezzo@ewconsultants.com>
Subject: The Preserve at Loblolly North

Good afternoon Paul,

Thank you for meeting me at the site today. After discussing Wetland 2 with Morgan upon returning to the office, we concluded that, based on the site photos, the presence of the berm, and the elevation differences between Wetland 2 and the adjacent property's wetland area, Wetland 2 should be considered isolated and not tidally influenced. Therefore, please include the confirmed seasonal high elevations from our field visit today in the plans. Please utilize this elevation data when providing the gradient analysis for the lake-wetland separation criteria mentioned in comment #9, as well as when addressing any other applicable comments in the RAI.

Respectfully,



[Megan Ticknor](#)
Environmental Analyst 3
Environmental Resource Bureau | Regulation Division
South Florida Water Management District
3301 Gun Club Road, West Palm Beach, FL 33406
Phone: 561-682-2989
mticknor@sfwmd.gov

To electronically submit a new application or a response to a request for additional information, go to:

[logoepermitting2](#)



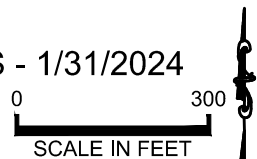


MARTIN COUNTY AERIALS DATED 2023

LEGEND



- SFWMD VERIFIED WETLAND LIMITS - 1/31/2024
 (35.4± AC)



**THE PRESERVE
 AT LOBLOLLY NORTH
 SFWMD VERIFIED WETLANDS**



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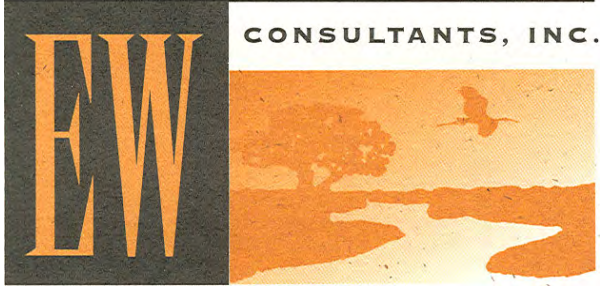
FEB 2024
 FIGURE

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EXHIBIT 1

Manmade Wetland Justification Analysis

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Natural Resource Management, Wetland, and Environmental Permitting Services



THE PRESERVE AT LOBLOLLY NORTH

MANMADE WETLAND JUSTIFICATION FOR W-2 BUFFER AND W-3

Prepared for:

LOBLOLLY COMMUNITY SERVICE CORP.

Prepared by:

EW CONSULTANTS, INC.

July 2023/March 2024

INTRODUCTION AND PURPOSE -

The Preserve at Loblolly North is a 51.2+/- acre property located at the north end of Gomez Avenue, north of Osprey Street within Hobe Sound, in unincorporated Martin County. It consists of a mosaic of freshwater and estuarine wetlands, altered lands and native upland habitat areas. In general, the site slopes from west to east, with higher, sandy soils and scrub habitat along Gomez Avenue, remnant pine flatwood soils to the east of the scrub, a bay/red maple swamp east of the flatwoods soils, and mangrove swamp along the Indian River Lagoon (IRL).

The purpose of this Manmade Wetland Justification Report is to examine the historic conditions on-site with regard to wetlands W-2 and W-3. W-2 is a 1.8-acre willow marsh located in the northern portion of the site immediately west of the bay/red maple swamp. W-3 is a 0.20-acre isolated marsh located in the west-central portion of the project site. Based on the information in this report, it appears that the majority of W-2 (less a sliver along its eastern edge) and all of W-3 are manmade excavations as defined by Section 4.2.A. of Division 1 – Wetlands and Shoreline Protection of Martin County’s Land Development Regulations.

PROPERTY DESCRIPTION -

The subject property has three distinct areas: the mangrove and red maple/bay swamp assemblage (W-1) associated with the Indian River Lagoon in its eastern half; the altered upland area (including W-2 and W-3) within the northern and central and portions of the site that was used for past Florida Inland Navigation District (FIND) operations, and; sand pine scrub native upland habitat along the southern and western boundaries. The areas altered by historic FIND activities is the focus of this report, with an emphasis on the area shown as W-2 and W-3 on the associated historic aerial photographs.

ON-SITE SOILS AND DESCRIPTIONS -

A Soils Map produced by the United States Department of Agriculture/Natural Resources Conservation Service is overlaid on each of the historic aerials attached to this report (1958, 1981, 1986 and 2011). Such soils generally align with the habitats described above as is clearly shown on the 1958 aerial photograph. For example, soils #6 (Paola and St. Lucie sands, 0 to 8 percent slopes) and #41 (Jonathan sand, 0 to 5 percent slopes) exist in the western portion of the site near Gomez Avenue and are typical excessively drained “scrub” soils. To the east of these soil types is #35 Salerno sand which is typical of pine flatwoods (upland) soils. East of the Salerno sand polygon begins the wetlands soils associated with the bay and mangrove swamps (#22, Okeelanta muck and #50 Wulfert and Durbin mucks (tidal)), as well as # 53 (Udorthents, 0 to 35 percent slopes) which reflects the spoil deposition within the mangrove swamp along the IRL now containing mature Australian pine trees.

MANMADE WETLAND DISCUSSION -

According to Martin County's Land Development Regulations, only manmade wetlands clearly excavated in uplands are exempt from protection standards. Such wetlands must be artificially created where there were no wetlands at the time of the excavation and where there are no wetlands adjacent to the top of bank. In order to be considered exempt from wetland protection standards, such wetlands cannot be navigable canals connected to waters of the state or within or directly adjacent to natural wetlands.

While the majority of W-2 appears to have been excavated from uplands, it is being preserved in its entirety (1.8 acres) as shown on the site plan for The Preserve at Loblolly North. In addition, it will be enhanced and restored in accordance with the specifications detailed in the Preserve Area Management Plan (PAMP) for the project site, as well. Since W-2 occurs within the previously-altered upland area, there are currently no native upland habitats surrounding it. Therefore, such buffers (50-feet wide on its south and west) will be restored to native pine flatwood upland habitat. The eastern buffer of W-2, which consists of a manmade berm dominated by invasive trees, will be a scraped-down to match adjacent wetland elevations and planted with native wetland plants, thus expanding the areal extent of W-2 and connecting it with W-1 to the east.

W-3 within The Preserve at Loblolly North meets the manmade wetlands exemption criteria based on the following information:

- 1) **Soils** – Reviewing any of the attached historic aerials shows that W-3 lies wholly within upland soil types: #41 Jonathan sand, 0 to 5 percent slopes (a scrub soil) within its western half, and; soil type #35-Salerno sand within its eastern half. Salerno sand, as described by the Martin County Soil Survey (1981) is nearly level, poorly drained and found in broad areas of flatwoods. The water table is within a depth of 10 inches for 2 to 4 months during the wet season and below a depth of 40 inches for 1 to 4 months in the dry season. The natural vegetation is South Florida slash pine, saw palmetto, gallberry, fetterbush, wax myrtle, creeping bluestem, broomsedge bluestem, chalky bluestem, pineland threeawn and panicums. These are plants typically found in pine flatwoods upland habitat, including the sliver of pine flatwoods on-site remaining along the south boundary.
- 2) **1958 Aerial Photograph** - The 1958 aerial photograph of the project site is attached. The projected wetlands lines and the soil types are overlaid on it for reference. Gomez Avenue at this time is dirt (actually white sand), with the scrub areas adjacent to it showing white sand characteristics. A portion of W-3 is within the #41 Jonathan sand soil type, with the remainder of it within #35, Salerno sand. The bay and mangrove swamp to the east show very clearly on this image. W-3 is clearly within an upland area based on the sandy soils shown on the 1958 aerial photograph.

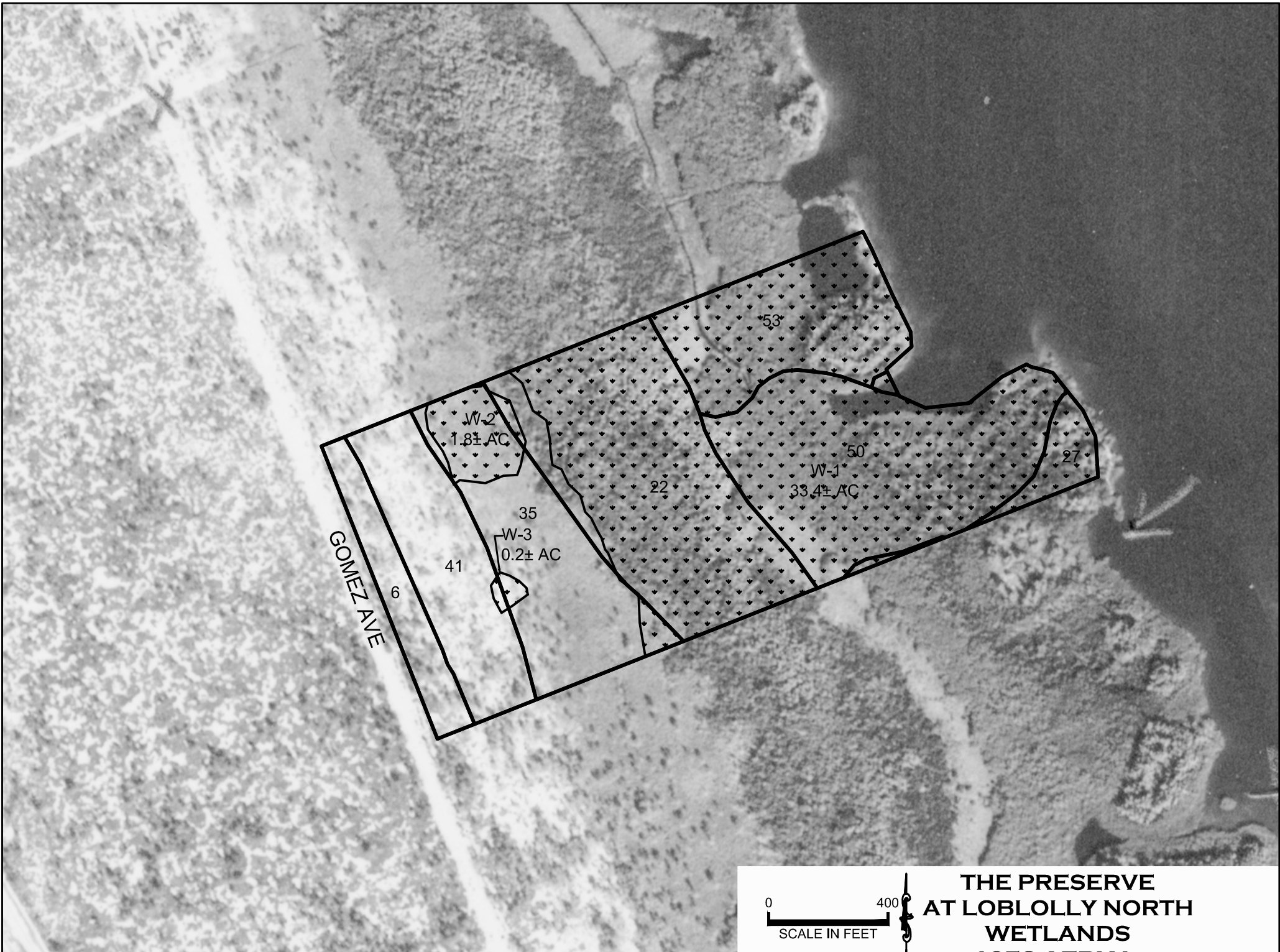
- 3) **1966 Aerial Photograph** – This aerial is the clearest in the set. W-3 is shown with sand (presumably scrub) soils surrounded by what appears to be pine flatwood habitat. This aerial also includes the distance from the eastern edge of W-3 to the western edge of the bay swamp (approximately 300 feet).
- 4) **1981 Aerial Photograph** – The 1981 aerial photograph of the project site shows the initial FIND operations, with W-2 clearly shown as being excavated and the surrounding lands cleared/alterd. W-3 appears to be slightly south of a small excavation of a similar same size, which simply may be a case of the aerial photograph not being rectified. This aerial clearly shows the excavations within uplands on-site.
- 5) **1986 Aerial Photograph** – The 1986 aerial shows the vegetative regeneration that occurred on-site since the 1981 photo. W-2 and W-3 are now covered in vegetation, with additional impact areas occurring between W-3 and the bay swamp to the east (a driveway and staging area).
- 6) **2011 Aerial Photograph** – The 2011 aerial photograph shows renewed FIND activities on-site with additional clearing between Gomez Avenue and the bay swamp. The driveway accessing the site from Gomez Avenue is now visible. A sand road or berm now appears to surround W-2 and W-3.

CONCLUSION -

Based on the information provided in this justification document, and using the Martin County Soil Survey and historic aerial photographs with the wetland lines overlaid on them, it is clear that the majority of W-2 and all of W-3 are a manmade excavations from uplands resulting from past land-altering activities. In particular, both the very clear 1958 and 1966 aerials attached to this report show most of W-2 and all of W-3 not only within an upland area, but largely within open, sandy, scrub and pine flatwoods soils.

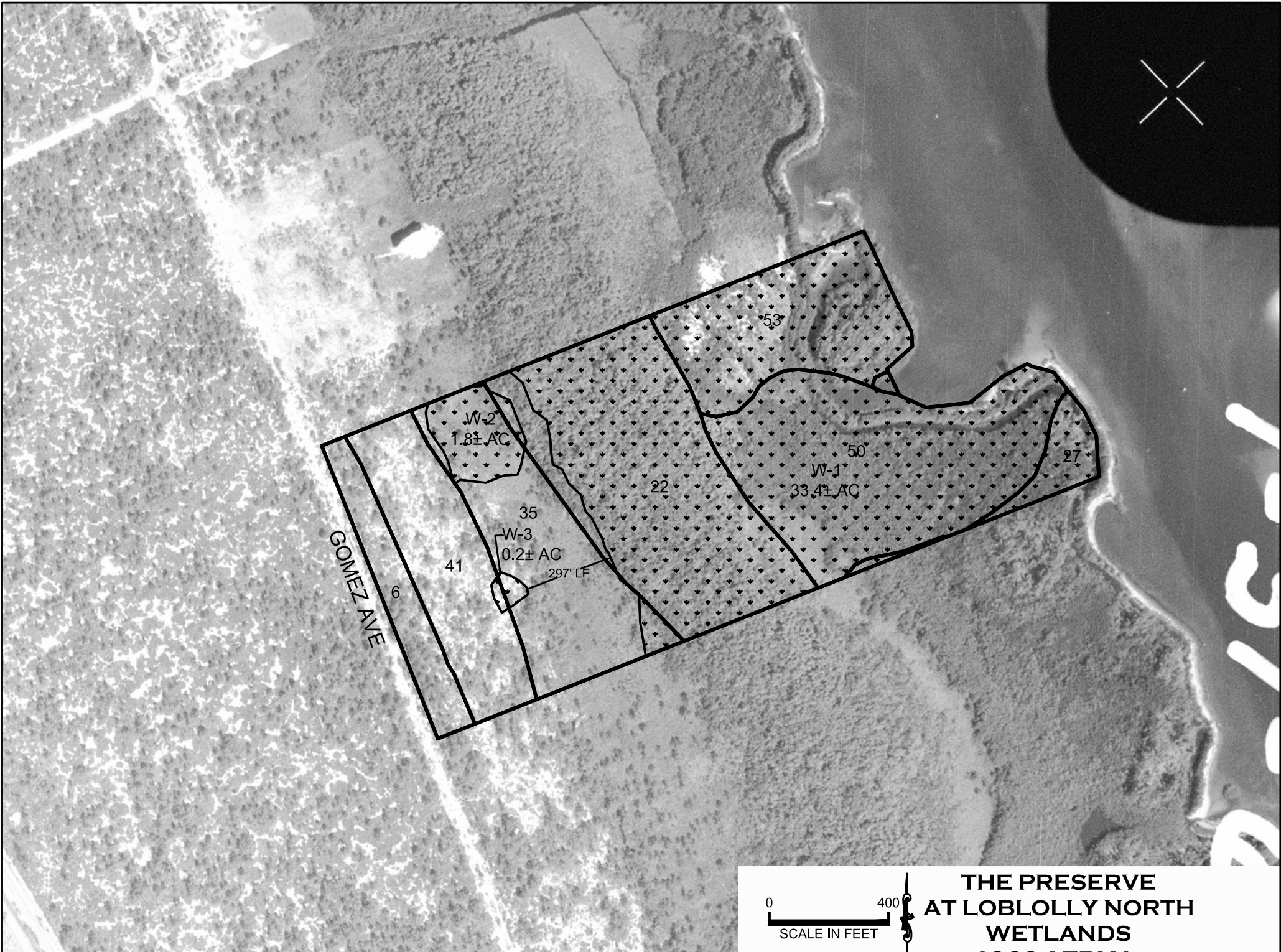
Alterations to the site are shown on the 1981 photograph, and appear again in 2011. The activities associated with the 1981 photograph appear to have created the majority of W-2 and all of W-3 from uplands, while the 2011 aerial shows renewed land altering activities around W-2 and W-3 in an apparent attempt to avoid them (perhaps due to inundation or soil conditions).

Therefore, while W-2 is being preserved in its entirety, W-3 clearly meets the criteria of Section 4.2.A., Division 1 of Martin County's Land Development Regulations due to its excavation from upland soils/habitat. It is not a canal connected to surface waters of the state, and is not "within or directly adjacent to natural wetlands." As shown on the 1966 aerial photograph, the eastern edge of W-3 is approximately 300 feet from the western edge of the bay swamp (W-1).



0 400
SCALE IN FEET

THE PRESERVE
AT LOBLOLLY NORTH
WETLANDS
1958 AERIAL



FDOT AERIALS

0 400
SCALE IN FEET

THE PRESERVE
AT LOBLOLLY NORTH
WETLANDS
1966 AERIAL



GOMEZ AVE

6

41

35

W-3
0.2± AC

22

53

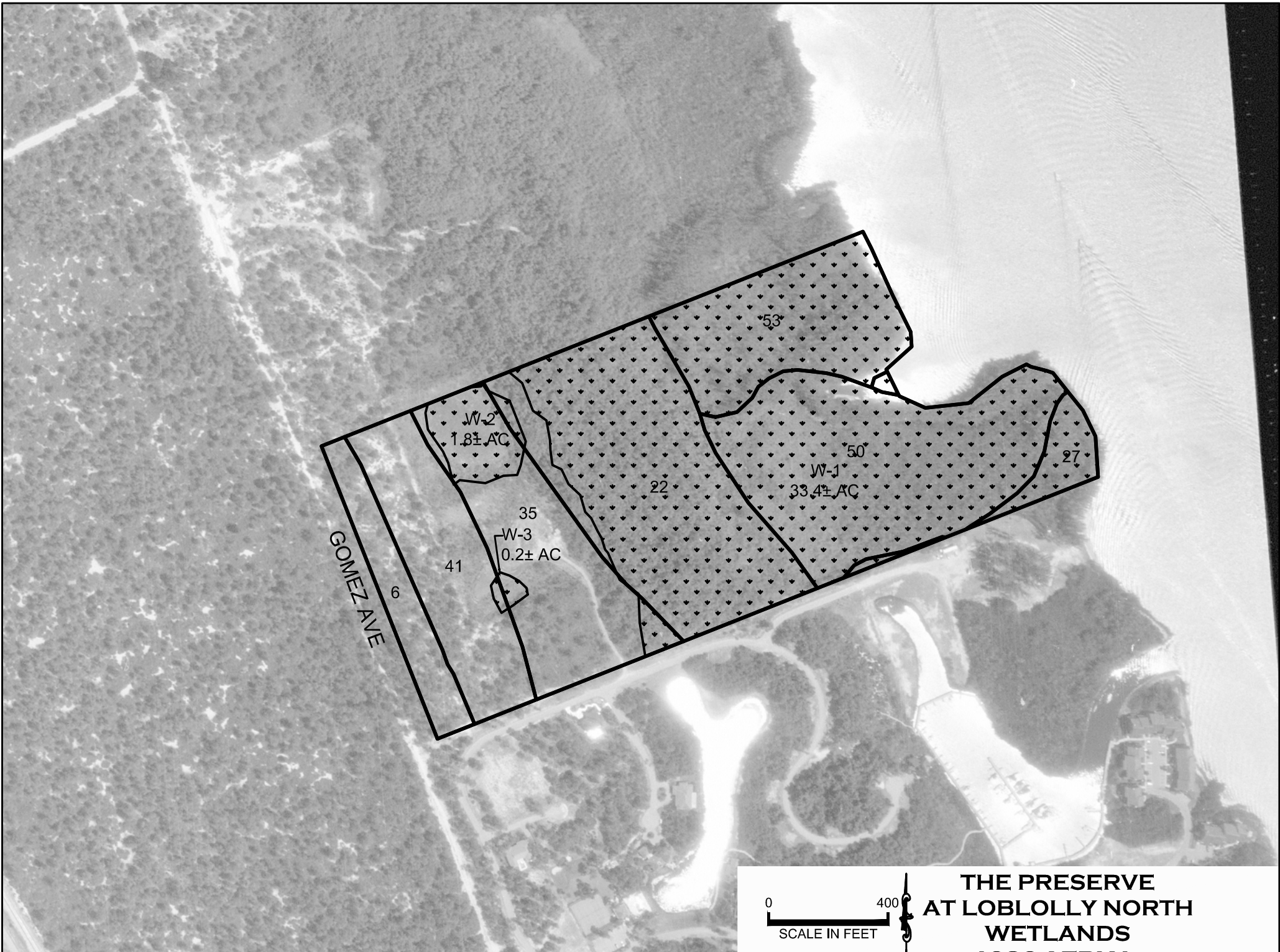
W-1
33.4± AC

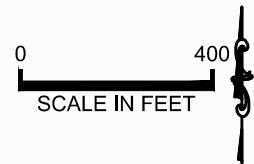
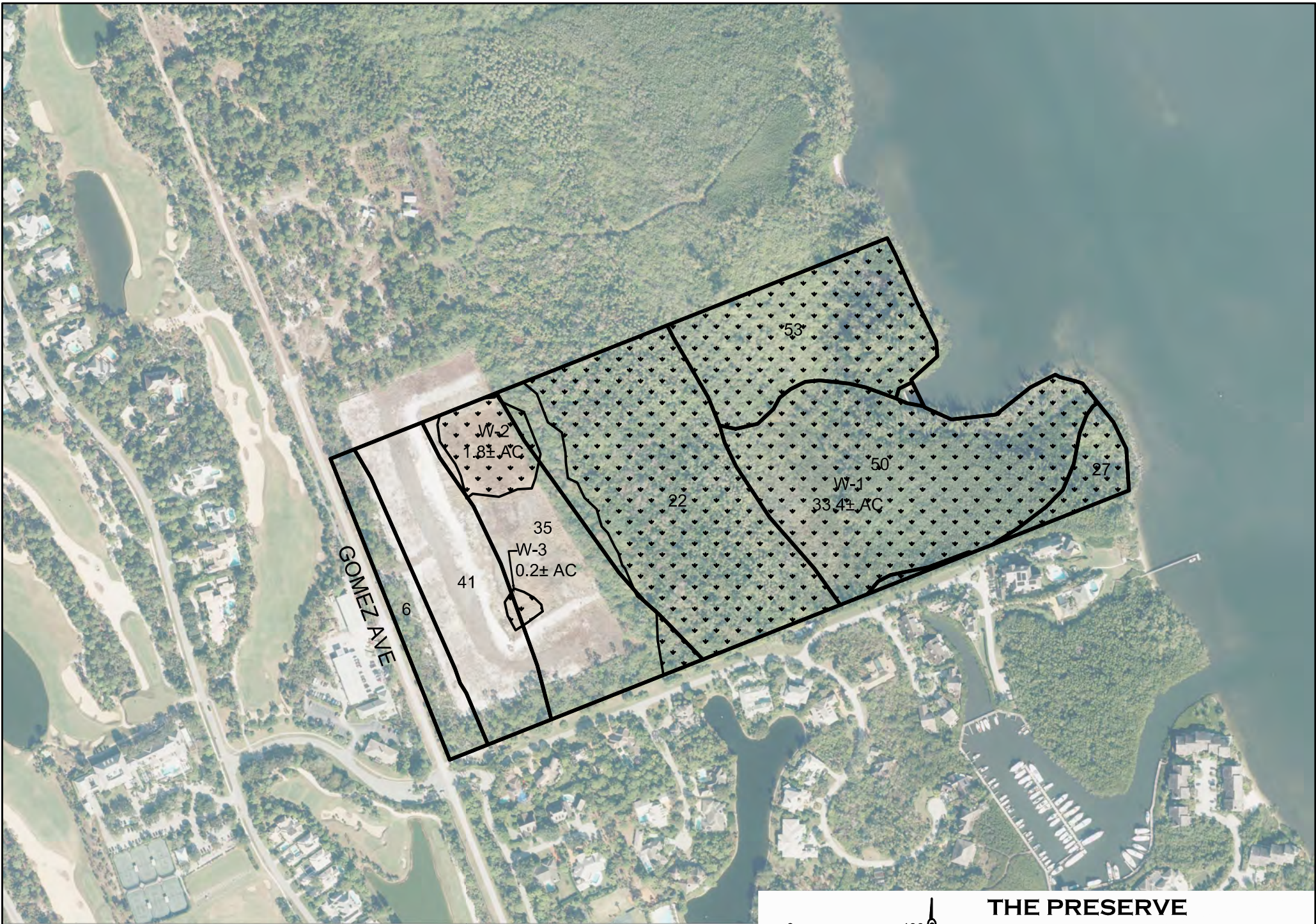
50

27

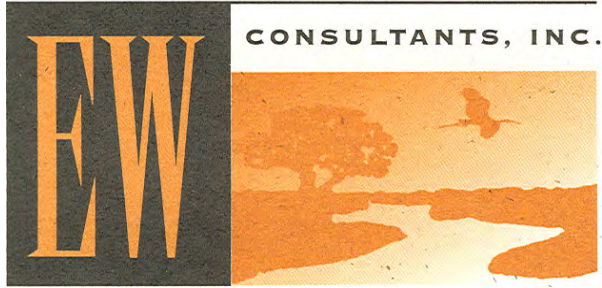


**THE PRESERVE
AT LOBLOLLY NORTH
WETLANDS
1981 AERIAL**





**THE PRESERVE
AT LOBLOLLY NORTH
WETLANDS
2011 AERIAL**



THE PRESERVE AT LOBLOLLY NORTH

LAKE AREA MANAGEMENT PLAN

**Martin County, Florida
July 2023**

The following Lake Area Management Plan is provided for the wet retention lake within The Preserve at Loblolly North development site. It is to be used in conjunction with the master site plan, the construction plans, and the lake planting plans which are included in the landscape plans. This plan addresses standards set forth in the Martin County Land Development Regulation pertaining to stormwater facilities.

Erosion Control and Water Management Provisions –

The operator shall use Best Management Practices to minimize erosion. The use of native topsoil is encouraged, especially in areas reclaimed for aquatic or wildlife habitats. Where topsoil is not used, the operator shall use a soil or growing medium, including amendments, suitable for the type of vegetative communities planned. Should washes or rills develop after re-vegetation and before final release of the area, the operator shall repair the eroded areas and stabilize the slopes.

Best Management Practices also apply to water quality within the lake so as to protect the health of the plant material. Turbid water will be kept to a minimum so that sunlight may reach the littoral shelf floor promoting aquatic grass recruitment. The water levels within the lake have been designed to a specific elevation. This elevation will be staked along the littoral shelf in order to provide the plant installation contractor a reference from which to install the appropriate plant material. Should water levels within the completed lake drop to elevations potentially harmful to the planted littoral plants, temporary irrigation will be established by using a small pump and spray-rig situated within the lake.

Installation of Native Plant Material –

The installation of the native plant material within the lake's littoral and upland transition zones will be in accordance with the landscape plans. Planting of such material will be conducted at the appropriate time after the lake banks are sloped in accordance with the approved construction drawings. Plants are to be installed in accordance with the spacing and quantities detailed on the littoral zone and UTZ planting plans.

All plant material will be of appropriate type for the soils found on site. **An Environmental Professional familiar with aquatic plant installation will oversee this activity.**

Maintenance of Littoral Zone and UTZ Areas -

The littoral zone and UTZ planting areas as shown on the planting plans, as well as the entire shoreline of the constructed lake, will be kept free of invasive vegetation in perpetuity. All Category I and II invasive vegetation as listed by the Florida Invasive Species Council will be treated within such areas. All treatment events will be through the application of the appropriate herbicide approved for use within aquatic environments. The criterion for acceptance of eradication for Category I and II invasive vegetation will be 100 percent treatment/kill and 95 percent treatment/kill for nuisance species. If initial efforts do not achieve this criterion, follow up treatments will be conducted.

Transport of vegetative debris from the lake and retention areas to the staging area will be conducted in a fashion that minimizes the distribution and dispersal of seeds from such debris. No nuisance woody vegetative material will be left in the littoral zone or UTZ.

All herbicide application activity will be conducted under the supervision of a Florida Department of Agriculture certified applicator, licensed for application of aquatic herbicides. All herbicide applied within aquatic systems on-site must be properly labeled for such use. All herbicide applied must include a visible tracer dye in the mix to facilitate observation of treated vegetation. Within the designated littoral zone and UTZ's, the areal extent of desirable native plants shall cover at least 80% of the surface area by the end of the second year of monitoring after installation.

Re-Vegetation Provisions -

Re-vegetation of the lake littoral zone and UTZ will occur using plant species native to the region in accordance with the approved planting plans. The operator has developed a plan for the proposed re-vegetation, including the species to be installed, and the spacing of vegetation.

Alteration Prohibition Statement –

It shall be unlawful to alter the approved slopes, contours, or cross sections or to chemically mechanically, or manually remove, damage, or destroy any plants in the littoral or upland transition zone buffer areas of constructed lakes except upon the written approval of the Growth Management Department Director, as applicable. It is the responsibility of the owner or property owners' association, its successors or assigns to maintain the required survivorship and coverage of the planted littoral zone and to ensure ongoing removal of prohibited and invasive non-native plant species from these areas.

MARTIN COUNTY, FLORIDA

PRESERVE AREA MANAGEMENT PLAN

ANNUAL MONITORING REPORT FOR (Year)

- **Name and address of current owner of Preserve Area;**
- **Location of Preserve Area**
- **Date PAMP approved;**
- **Documentation of vegetation changes, including encroachment of exotic vegetation;**
- **Fixed-point panoramic photos of all Preserve Areas;**
- **Synopsis of maintenance activities conducted in compliance with the PAMP requirements such as exotic vegetation removal, re-vegetation, and additional enhancement activities necessary to maintain the Preserve Area;**
- **A timetable for action within 90 days of the report;**
- **A list of all violations of the PAMP; and**
- **Recommendations for remedial actions, with a proposed schedule for the coming year.**

Signature/Date : _____

Typed Name/Title : _____

Company Name (if applicable) : _____