PHASE I ENVIRONMENTAL SITE ASSESSMENT

DEVIL'S GARDEN FF PROJECT
ALICO, INC.
PROPERTY IDS: 19378, 19377, 19386, 19387, 19391, 19390, 19398, 19399, AND PORTIONS OF 19403 AND 19402
SECTIONS 2, 3, 10, 11, 14, 15, 22, 23, 26, AND 27
TOWNSHIP 45 SOUTH, RANGE 31 EAST

HENDRY COUNTY, FLORIDA
CONTRACT PL269.021
NORTHSTAR PROJECT NO.: 40-21-400

Submitted to:
Mr. James Parker
Bureau of Land Acquisition
Department of Environmental Protection
3900 Commonwealth Boulevard, Mail Station 115
Tallahassee, Florida 32399
Phone: (850) 245-3045

Submitted by:
NorthStar Contracting Group, Inc.
508-A Capital Circle S.E.
Tallahassee, Florida 32301
Phone: (850) 531-9860
Fax: (850) 531-9866

February 2021

DEVIL'S GARDEN FF PROJECT
ALICO, INC.
PROPERTY IDS: 19378, 19377, 19386, 19387, 19391, 19390, 19398, 19399, AND PORTIONS OF 19403 AND 19402
SECTIONS 2, 3, 10, 11, 14, 15, 22, 23, 26, AND 27
TOWNSHIP 45 SOUTH, RANGE 31 EAST
HENDRY COUNTY, FLORIDA
CONTRACT PL269.021

NorthStar Contracting Group, Inc. (NorthStar) certifies the authenticity of this report to the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida. NorthStar provides the following:

a) A task assignment (TA) was issued to NorthStar by the Florida Department of Environmental Protection (FDEP) Division of State Lands (DSL) on January 13, 2021;
b) NorthStar began preliminary work for the environmental site assessment on January 14, 2021, and the initial site visit was performed on the Subject Property February 1, 2021;
c) The environmental assessment meets the requirements of the current American Society of Testing Materials (ASTM) E2247-16 standard and the federal Environmental Protection Agency's all Appropriate Inquiry Rule;
d) The accuracy, correctness, and completeness of the environmental assessment is provided with the knowledge of the ASTM; and
e) The FDEP and the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida are entitled to rely on the information set forth in this environmental assessment.

Prepared by:

Craig Obrecht

Craig Obrecht, PE
Florida Professional Engineer No. 55451
Date: February 12, 2021

TABLE OF CONTENTS

SECTION 1.0 INTRODUCTION **1**

SECTION 2.0 DEVIATIONS AND DATA GAPS FROM ASTM PRACTICE E2247-16 **2**

SECTION 3.0 PHYSICAL ENVIRONMENT AND ECOLOGY **3**
3.1 Subject Property Location 3
3.2 Area Geomorphology 3
3.3 Physical Setting Review of Subject Property 3
3.4 Land Use of the Subject Property 4
3.5 Land Use of the Adjoining Properties to the Subject Property 4

SECTION 4.0 HYDROLOGY **6**
4.1 Surface Water Classification of Hendry County 6
4.2 Aquifer Classification of Hendry County 6

SECTION 5.0 SITE CONDITIONS **8**
5.1 Subject Property Description 8
5.2 Site Inspection: Recognized Environmental Conditions and Items of Concern 9

SECTION 6.0 HISTORICAL LAND USES **12**
6.1 Environmental Liens/Land Use Restrictions on the Subject Property 12
6.2 Historical Aerial Photograph and Topographical Map Review 12
6.3 Regulatory Records Review 13
6.4 Historical City Directory Abstract and Sanborn Map Review 14
6.5 Interviews of Persons and Adjoining Property Owners with Knowledge of the Subject Property 15
6.8 User Responsibility 16

SECTION 7.0 QUALIFICATIONS **17**

SECTION 8.0 CONCLUSIONS AND RECOMMENDATIONS **18**

SECTION 9.0 REFERENCES **20**

FIGURE

1. Subject Property Map

APPENDICES

A. Contractor's Itemized Checklist and Executed Task Assignment
B. Legal Description/Environmental Lien Search
C. NRCS Custom Soil Resource Report
D. Photographic Documentation and Field Observations Maps
E. Historical Aerial Photographs
F. Regulatory and Other Records Reviewed
G. Pre-Environmental Site Assessment Questionnaire
H. User Responsibility Questionnaire
I. Resume of Environmental Professional

SECTION 1.0 INTRODUCTION

The FDEP DSL tasked NorthStar Contracting Group, Inc. (NorthStar) with performance of a Phase I Environmental Site Assessment (ESA) on Devil's Garden FF Project, property currently owned by Alico, Inc. The Hendry County property identification numbers are: 19378, 19377, 19386, 19387, 19391, 19390, 19398, and 19399. Portions of Hendry County properties 19403 and 19402 are also included. These properties are collectively referred to as the Subject Property within this document. The Subject Property is located with Sections 2, 3, 10, 11, 14, 15, 22, 23, 26, and 27 of Township 45 South, Range 31 East. All of the Subject Property is located in Hendry County, Florida. The purpose of this assessment was to collect and analyze enough data to identify recognized environmental conditions and, if necessary, provide a basis for a Phase II investigation. The Subject Property is being considered for acquisition by FDEP DSL from Alico, Inc., as part of the Devil's Garden Florida Forever project. This report presents data collected during the Phase I ESA. This report also presents, if warranted, any recommendations for additional ESA activity.

A Phase I ESA is an investigation into the history of activity and land uses of a Subject Property and surrounding area. A Phase I typically consists of:

(1) a review of historical sources for evidence of prior land uses that could result in soil and/or groundwater contamination,

(2) a review of regulatory agencies' enforcement and permitting records for indications of prior contamination at the Subject Property and/or surrounding properties,

(3) a 50-year chain of title/environmental lien search,

(4) a review of current and historical aerial photographs of the site and surrounding area, and

(5) a site investigation and, if available, field interviews with people possessing knowledge of the area and prior land usage.

A Contractor's Itemized Checklist and a copy of the executed task assignment, required per Contract PL 269, is included as **Appendix A**.

NorthStar has completed Phase I ESA item numbers 1, 2, 3, 4, and 5 per ASTM requirements. The conclusions regarding the environmental integrity of this site are based on the observations and information gathered during this study and in no way represent a warranty that environmental conditions beyond the scope of this Phase I ESA do not exist. NorthStar accepts no liability for subsurface anomalies, which can only be identified through Phase II assessment activities. Radon, lead-based paint, asbestos, and microbial surveys were waived by the FDEP. It is understood that any future use of Subject Property structures will be for storage purposes only.

SECTION 2.0 DEVIATIONS AND DATA GAPS FROM ASTM PRACTICE E2247-16

The services conducted for the Phase I ESA conformed to the scope of work/task assignment provided to NorthStar by FDEP. Historical aerial photographs prior to 1949 were not reasonably ascertainable. This data gap does not constitute a significant data failure, and therefore did not affect NorthStar's ability to identify recognized environmental conditions (REC).

Historic city directories and fire insurance maps were not available; as the Subject Property is located outside city limits and the area remains primarily undeveloped. This data gap does not constitute a significant data failure, and therefore did not affect NorthStar's ability to identify REC.

The only deviation from the ASTM Practice E2247-16 is that a "draft" and "final" version of the Phase I ESA report will be submitted. This deviation was requested by FDEP.

SECTION 3.0 PHYSICAL ENVIRONMENT AND ECOLOGY

3.1 Subject Property Location

The Subject Property is approximately 5,804 acres in total area consisting of one rectangular shaped parcel of land. The Subject Property is located with Sections 2, 3, 10, 11, 14, 15, 22, 23, 26, and 27 of Township 45 South, Range 31 East, as located on the Graham Marsh Quadrangle, Florida United States Geological Survey (USGS) 7.5-minute topographic map (**Figure 1**). The Subject Property is described in the legal description provided by the FDEP, which is included in **Appendix B.**

3.2 Area Geomorphology

Florida is subdivided into three major geomorphic divisions, the Northern or Proximal Zone, the Central or Mid-Peninsular Zone and the Southern or Distal Zone (Scott, 1992). Hendry County is located in the Southern, or Distal, Physiographic Zone. Three general physiographic units within Hendry County are differentiated based on topographic elevations and vegetation types. These units include the Big Cypress Swamp, the Sandy Flatlands, and the Everglades (Klein, 1964). The Subject Property is situated in the Sandy Flatlands.

The Sandy Flatlands is the largest physiographic unit in Hendry County and includes all but the eastern and southern edges of the county. The Sandy Flatlands extends northward into Highlands County, westward to the Gulf of Mexico, and southward into Collier County.

The sands of the Sandy Flatlands were deposited as marine terraces during the late Pleistocene period, when sea level fluctuated from more than 70 feet to less than 25 feet above sea level (Klein, 1964). These marine terraces included the Penholoway terrace, the Talbot terrace, and the Pamlico terrace. The Subject Property is located on the Talbot terrace.

The Subject Property has a low, relatively flat topography, and relatively poorly drained, sandy soil sometimes underlain by an organic horizon. The soils are typically related to flatwoods, drainageways, and depressions on marine terraces. The land surface at the Subject Property is generally flat. The land elevation ranges from approximately 28 to 32 feet NGVD 1929.

3.3 Physical Setting Review of Subject Property

Fourteen soil map units were identified on the Subject Property by the National Resource Conservation Service (NRCS, 2021) included in **Appendix C**. The soils identified at the Subject Property 1-B Central are listed in the table on the following page.

Map Unit Symbol	Hendry County, Florida (Phase I-B Central) Map Unit Name	Estimated Acreage
4	Oldsmar sand, 0 to 2 percent slopes	1,137.6
6	Wabasso sand, 0 to 2 percent slopes	153.1
8	Malabar sand, 0 to 2 percent slopes	23.5
9	Riviera fine sand, 0 to 2 percent slopes	3.2
13	Gentry fine sand, depressional	100.8
21	Holopaw sand, 0 to 2 percent slopes	25.0
32	Riviera sand, frequently ponded, 0 to 1 percent slopes	458.7
33	Holopaw sand, frequently ponded, 0 to 1 percent slopes	282.9
37	Tuscawilla fine sand	1,172.2
50	Delray sand, depressional	86.0
57	Chobee fine sandy loam, frequently ponded, 0 to 1 percent slopes	723.2
59	Winder fine sand, frequently ponded, 0 to 1 percent slopes	1632.7
69	Denaud-Gator mucks	1.5

Based on a review of the Geologic Map of the State of Florida (Scott et al, 2001, Map Series 146) the surface geologic unit present at the Subject Property consists of shelly sediments of Plio-Pleistocene age.

	Hendry County, Florida
Map Unit Symbol	**Geologic Unit Name**
TQsu	Shelly sediments of Plio-Pleistocene age

3.4 Land Use of the Subject Property

The Subject Property is an undeveloped tract of land used for recreation and cattle ranching. The property has no permanent residential structures, but there is one hunting camp present on the property.

3.5 Land Use of the Adjoining Properties to the Subject Property

Information regarding the current and historical land use of the adjoining properties was primarily gathered through a site inspection, the review of historical aerial photographs, and a review of information from the Hendry County Property Appraiser's office.

The Subject Property is bound to the south and east by additional undeveloped ranch land owned by Alico. This southern adjoining property is part of the Wetlands Reserve Program Easement #193. The west side of the property is bound by the Devil's Garden FF Project and is owned by the State of Florida. The north side of the Subject Property is adjacent to County Road 832. Undeveloped ranchland owned by Albritton & Sons LLLP is located north of CR 832.

SECTION 4.0 HYDROLOGY

4.1 Surface Water Classification of Hendry County

In Hendry County, Lake Okeechobee and a portion of the Caloosahatchee River, to the north of the Subject Property, are classified as a Class I water (surface water bodies used for potable water supplies) (FDEP, 2016). All other oceans, rivers, creeks, swamps, bogs, or any other surface water features are classified as Class III Freshwater or Marine water and should follow the Class III Freshwater or Marine water Criteria as established in Chapter 62-302.400 of the Florida Administrative Code (FAC) (FDEP, 2016).

All waters in National Parks, State Parks, preserves, memorials, wildlife refuge, and wilderness areas are classified as Outstanding Florida Waters as established in Chapter 62-302.700, FAC (FDEP, 2016).

Surface water within the Subject Property will infiltrate through site soils. Surface water that does not infiltrate flows generally to the south across the property, where it is captured by numerous small basin swamps and other small surface depressions.

4.2 Aquifer Classification of Hendry County

The potable groundwater in Hendry County can be classified into two aquifer systems, the Surficial Aquifer System and the Floridan Aquifer System.

The surficial aquifer system is defined by the South East Geological Society (SEGS) as "the permeable hydrologic unit contiguous with the land surface that is comprised principally of unconsolidated, to poorly indurated, siliciclastic deposits." The surficial aquifer is the uppermost system in the area of the Subject Property and occurs within the sands of cypress head formations and the underlying sands and clayey sands of the Hawthorn Group. It is unconfined and yields quantities of water suitable for domestic use.

Most of the recharge for the surficial aquifer is from local rainfall. Some recharge is derived from the slow upward movement of water from the deeper artesian aquifers in the northern and western portion of Hendry County. The surficial aquifer discharges chiefly by evapotranspiration, springs, lakes, rivers, canals, drainage ditches and wells. Some water also moves downward into the underlying artesian aquifers in the northern and eastern portion of Hendry County where the elevation of the potentiometric surface of the artesian system is lower than the elevation of the water table.

The Floridan Aquifer in Hendry County is the principle source of water for potable use as well as for irrigation and industrial uses. The Floridan Aquifer is composed of the Mid to Late Eocene Age Ocala Limestone and the underlying Mid-Eocene Age Avon Park Formation. The

Floridan Aquifer is under artesian conditions under most of Hendry County. The impermeable clay beds of the Hawthorn Group form the upper confining unit of the Floridan Aquifer. The gradient of the potentiometric surface of the Floridan Aquifer in the vicinity of the Subject Property is eastward.

SECTION 5.0 SITE CONDITIONS

5.1 Subject Property Description

The Subject Property is approximately 5,804 acres in total area consisting of one generally rectangular shaped parcel of land. The Subject Property 1-B East is located within Sections 2, 3, 10, 11, 14, 15, 22, 23, 26, and 27, Township 45 South, Range 31 East, as located on the Graham Marsh Quadrangle, Florida United States Geological Survey (USGS) 7.5-minute topographic map (**Figure 1**). The Subject Property is described in the legal description provided by the FDEP, which is included in **Appendix B.**

Currently, the Subject Property is used as a cattle ranch with around 1,200 head of cattle present on the Subject Property. The Subject Property has areas of improved pasture and has numerous wetlands, woodlands, and sections of unimproved pasture. There is one main improved road (called Loop Road) running from west to east across the property. Loop Road is accessed from CR 832 to the northeast of the Subject Property. There are also several gates to access the north pasture from CR 832. Loop Road is unstabilized sand, is filled to raise the grade, and has side swales and ditches in many areas. There are several other unimproved trails in various areas of the property. There are several canals and drainage ditches on the Subject Property. Several culverts are in place for crossing canals. The canal on the west side of the Subject Property is reportedly called the Melissa Canal.

Many of the trails, particularly south of Loop Road are old fire breaks and have not been maintained. Due to overgrowth, sections of these trails have become impassable. Additionally, the area was unseasonably wet at the time of the site reconnaissance. The southern portion of the Subject Property is largely wetlands. There are few trails in this area and, due to the wet conditions, access was limited. The pastures are fenced with access by gates. A number of cattle ponds have been excavated in various areas across the property. Game plots have been fenced in several areas, but were fallow. Several cattle supplement and game feeders were observed within the Subject Property.

On the north side of the Subject Property on the eastern side of the property is a large cattle pen complex. There are multiple corrals, a roofed treatment chute, a floor scale, and a loading chute. There is a concrete slab at the east end of the treatment chute and concrete footings associated with the scale. On the south side of the pen is a two-inch well and a gas powered pump. PVC piping runs from the well to fill horse tanks. The pen can be accessed through a gate at CR 832 via a dirt road or from the adjacent pasture. Based on the historical aerial photograph review, the cattle pen was constructed sometime between 1990 and 1994. Some telephone equipment owned by Sprint is located on the north side of the property, near the west border.

On the north property line, approximately one-quarter mile west of the cattle pen is an unusual feature identified in the historical aerial photograph review. A large ditch was excavated forming three sides of a square with each leg around 300 feet long. The west side of the square was not excavated. The excavation occurred sometime between 1949 and 1957. The ditch is about 20 to 30 feet wide. A parallel spoil pile remains to the south of the south ditch. Spoil is scattered in several other areas, mainly on the north side. The sides of the ditch are now overgrown with trees. There are several clusters of trees within the square, but most is open pasture. Other than a fence line on the east side of the east ditch, no manmade objects were observed in or around this feature. The northern leg of the ditch is now part of the canal that runs east-west along the north property line. Mr. Mike Moore, land manager, called several people familiar with the property including his water engineer and several cowboys to inquire if they has any knowledge about this feature. No one could add any information.

The Subject Property is also used for hunting and recreation. There is a hunting camp near the west property line, a little over one-half mile south of Loop Road. The hunting camp consists of a wood-framed two bedroom cabin, a small wood-framed bath house that includes a shower and toilet, a pole barn for vehicle storage, a shed used as a small bunkhouse, and a shed used for storage. There are several RVs parked at the camp. A wood deck and roofed outdoor kitchen is to the east of the cabin. An electrically powered water well with a water tower supplies water to the camp. The bath house has a PVC sewer line that runs to the south to a presumed septic tank and drainfield located east of the cabin.

The cabin has two bedrooms, a kitchen, and a living room. The building is wood framed and has a small electrically powered central air unit as well as two window air conditioners. The stove is gas. The cabin has an instant hot water heater. The northernmost storage shed contained some game feeders and a car battery that needs to be properly disposed. The outdoor kitchen area had multiple 20-pound propane tanks stored around it, as did several of the RVs. Several off road vehicles were parked in the pole barn and at other areas of the camp. A campfire pit for wood burning was observed, but no burn barrels.

5.2 Site Inspection: Recognized Environmental Conditions and Items of Concern

NorthStar personnel performed a site reconnaissance of the Subject Property on February 1, 2021. The NorthStar representative was accompanied by Mr. Michael Moore, land manager for Alico, Inc. The site inspection included ground reconnaissance of the Subject Property and adjoining properties in order to identify recognized environmental conditions and items of concern. The ground reconnaissance was conducted on foot and by vehicle. Global position system technology (LG G7 with the Collector Application for ArcGIS) were used to track ground positions during the investigation. Reconnaissance for areas inaccessible to vehicles or foot

traffic was conducted through review of publically available, recent satellite and aerial photography. Emphasis of the site inspection was placed on looking for the following items or conditions:

- Dumps, especially with drums or containers;
- Debris including household, farm, or industrial waste;
- Fill used for possible cover material for landfills;
- Unusual odors;
- Sewage disposal / septic tanks;
- Water supply and wells;
- Storage tanks used for petroleum storage, pesticide storage, or other chemical storage;
- Buildings with chemical storage equipment or repair areas, solvent storage areas, or structures showing evidence of asbestos sprayed fire roofing or acoustical plaster;
- Vegetation different from the surrounding area for no apparent reason (e.g., bare ground or stressed vegetation);
- Modified surface water bodies or surface water bodies showing oil seeps, stained ground, discolored stream banks, oil slicks on water, or unusual colors in the water;
- Air strips with spray operation base;
- Equipment parking areas;
- Machine repair areas / hydraulic equipment;
- Pipelines or major electrical equipment;
- Oiled or formerly oiled roads; and
- Electric transmission lines including pole mounted transformers or pad mounted transformers (leaks).

Recognized environmental conditions (REC) are defined as the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into the ground, groundwater, or surface water of the Subject Property (ASTM E2247-16, Chapter 3.2.80).

The Phase I ESA has revealed no Recognized Environmental Conditions (REC) in connection with the Subject Property.

Older cattle pens can be RECs due to past practices of spraying cattle with chlorinated pesticides for tick control. However, since the pen was built sometime after 1990, when the long lasting chlorinated pesticides had already been banned and practices changed to applying transdermal compounds to the cattle's skin for tick control, this pen is not a significant concern to the environmental condition of the Subject Property.

Historical REC (HREC) are defined as a past release of hazardous or petroleum substances that have been remediated and now meet all requirements for unrestricted residential use. (ASTM E2247-16, Chapter 3.2.43). Controlled recognized environmental conditions (CREC) are defined as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that have been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk based criteria established by regulatory authority). CREC have hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls) (ASTM E2247-16, Chapter 3.2.19). No HREC or CREC were identified on the Subject Property.

De minimis conditions (items of concern, or IOCs) are defined as conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions. However, it is recommended that corrective measures be executed in order to secure the transfer of land ownership. The IOCs identified on the Subject Property during the site reconnaissance were as follows:

1. There are two water wells on the Subject Property, one at the hunting camp and one at the cattle pen. (Photos Nos. 6 and 40);
2. There is one suspected septic tank and drainfield system on the property associated with the bath house and cabin at the hunting camp. (Photo Nos. 9 and 21);
3. There are multiple vehicles stored at the hunting camp. A car battery was observed in the north storage shed and portable propane tanks were stored in multiple locations. It is possible that used oil containers or other items associated with vehicle maintenance are stored in the area. (Photo Nos. 10, 16, 17, and 23;
4. There was an old tire observed in the north pasture. (Photo No. 34) and;
5. A cattle pen is on the Subject Property. This pen is likely constructed of pressure treated wood. (Photo Nos. 35 – 40).

Photographic documentation and field observations from the Subject Property reconnaissance are provided in **Appendix D**.

SECTION 6.0 HISTORICAL LAND USES

6.1 Environmental Liens/Land Use Restrictions on the Subject Property

Environmental Data Management, Inc., (EDM) conducted a search for environmental liens for the Subject Property in January 6, 2021. They identified no leases or environmental liens relating to Subject Property. Additionally, no Activity Use Limitations (AUL) were identified for the Subject Property (**Appendix B**). The report does note there is a Warranty Easement Deed in Perpetuity granted to the United States of America. The easement encompasses at least a portion of Sections 27 and 28, Township 45 South, Range 31 East. It was not determined if this easement applies to a portion of the Subject Property or the area to the south. Alico, Inc., currently owns the Subject Property.

6.2 Historical Aerial Photograph and Topographical Map Review

Additional site history was gathered through a review of aerial photographs and topographical maps. NorthStar reviewed historical aerial photographs from 1949, 1957, 1968, 1974, 1980, 1990, 2004, 2017, and 2020 showing the Subject Property and adjoining properties. These historical aerial photographs are included in **Appendix E**.

The findings of the historical aerial photograph review are as follows:

Prior to or during 1949: The Subject Property and surrounding area are undeveloped land. No roads or structures were identified in the area. A few jeep trails were observed on the Subject Property. No activity areas were identified.

Between 1949 and 1957: County Road 832 (Keri Road) was constructed adjacent to the north of the Subject Property. The current Loop Road was constructed in its current configuration running east-west across the Subject Property. A ditch was excavated near the north property line approximately ½-mile west of the northeast corner of the Subject Property. The ditch is in a square configuration with three sides and is open to the west. Each leg of the square is approximately 380 feet long. It is not clear what the purpose of the ditch was. No structures are visible in or around the square area. A drainage ditch was excavated in the southern portion of the Subject Property on the east side. A number of additional jeep trails are evident. Surrounding properties appear to be pastureland. Some areas of the adjacent property to the west were developed into improved pasture.

Between 1957 and 1968: Significantly more jeep trails are evident and some clearing was performed around the perimeter of some of the wetlands on the Subject Property. Some additional drainage ditches were excavated both on the Subject Property and on adjacent properties. Tree growth is getting denser in various areas.

Between 1968 and 1974: There is little change to the Subject Property or surrounding areas.

Between 1974 and 1980: Some cattle ponds were excavated on the subject property.

Between 1980 and 1990: There is little change from 1980 with the exception that an area near the southwest corner of the Subject Property appears to have been converted to improved pasture.

***Between 1990 and 2004*:** A cattle pen was constructed near the northeast corner of the Subject Property. The pen is accessed from County Road 832 to the north. The hunting camp is now visible near the west property line of the Subject Property. Based on interviews with knowledgeable persons, the original cabin was constructed in 1965. However, due to tree cover and the photograph resolution it was not clearly visible in previous aerial photographs. Based on a review of historic Google Maps (not included), the cattle pen was constructed sometime between 1990 and 1994. Several more cattle ponds have been excavated. Additionally, some game plots have been planted.

Between 2004 and 2017: There is little change from 2004.

Between 2017 and 2020: The subject property and surrounding area are similar to today.

6.3 Regulatory Records Review

A records review of regulatory agencies' enforcement and permitting records for the Subject Property was conducted by EDM on January 18, 2021. The record review was conducted in accordance with ASTM E2247-16 standards to research indications of prior contamination at the Subject Property and surrounding properties. FDEP databases such as the Stationary Tank Inventory (STI) and Petroleum Contamination Detail Report, above ground storage tanks (AST), leaking underground storage tanks (LUST), and underground storage tanks (UST) were reviewed. The USEPA databases such as the Facility Index System List (FINDS), the National Priorities List (NPL), the Comprehensive Environmental Response Compensation and Liability Act Index (CERCLIS), the Resource Conservation and Recovery Information System (RCRIS), and the Dry Clean Index (DRYCLN) were also reviewed. The records review listed zero (0) database records and four (4) unmappable sites for the Subject Property and surrounding area. The government report is included in **Appendix F**.

The environmental professional reviewed each of the four "orphan" unmappable sites. Two of the sites in the "ECHO" datatbase (USEPA Enforcement and Compliance History) had names that could potentially be associated with the Subject Property. The first site is called the Alico Camp Site with no location given. The database records were viewed on the USEPA Internet site. The entry is related to the Safe Drinking Water Information System (SDWIS). The entry is for a well that serves a population of 40 people. No violations were identified. A location of Arcadia, Florida was listed, although it was not clear if that was where the well was actually located.

A second ECHO listing was for the Devil's Garden Slough Wetland Restoration Plan. That listing also showed no violations identified. The entry was related to an NPDES construction stormwater permit. The location for the permit was several miles east of the subject property.

The next orphan site was Ridgedill and Son Construction with a location listed as State Rd 832. This listing was on the Emergency Response Notification System (ERNS) database. No specific information was found related to this listing. The construction company is an earthwork contractor based in Clewiston.

Lastly, a stationary tank is listed for US Sugar on State Hwy 832. The location of the tank was not determined. It was a 2,000 above-ground diesel tank that had been removed.

EC's report also searched state, federal, and local databases for water well information. No permitted wells were found in the search.

Mr. Joe Lecea with the Florida Forestry Service was contacted by telephone and email related to the Subject Property. Mr. Lecea has worked with Mr. Moore, the Alico land manager, in the past on various Alico properties. However, when sent a map showing the boundaries of the Subject Property, he stated that he was not familiar with that area.

6.4 Historical City Directory Abstract and Sanborn Map Review

City directories were published for cities and towns across the U.S. since the 1700s. Originally a list of residents, the city directory developed into a sophisticated tool for locating individuals and businesses in a particular urban or suburban area. Twentieth century directories were generally divided into three sections: a business index, a list of resident names and addresses, and a street index. With each address, the directory lists the name of the resident or, if a business is operated from this address, the name and type of business (if unclear from the name). While city directory coverage is comprehensive for major cities, it may be spotty for rural areas and small towns. No city directories were available for the Subject Property or surrounding area.

Similarly, Sanborn maps were originally developed as a tool to assess fire insurance liability in urban areas. These maps contained detailed information on the types of businesses and common uses of properties within cities and towns. No Sanborn maps were available for the Subject Property.

6.5 Interviews of Persons and Adjoining Property Owners with Knowledge of the Subject Property

NorthStar attempted to identify, contact and conduct interviews with all past and present owners, operators and occupants of the Subject Property as well as any representatives of local and state regulatory agencies who may have intimate knowledge of the Subject Property.

An environmental questionnaire was sent to the property owners and was completed by Mr. Mike Moore, land manager. A copy of the pre-environmental site assessment questionnaire completed by Mr. Moore is included in **Appendix G**. Mr. Moore was also interviewed at the time of the site reconnaissance.

According to Mr. Moore, the property is leased for cattle operations and for one hunting camp. There are two water wells on the property. A cattle pen is associated with the cattle operation. He is unaware of any environmental issues, former chemical use, or dumps present on the property. Mr. Moore indicated there are wetlands on the property; he did not supply any names for the wetlands or water bodies with the exception that the canal running north-south near the west property border is called the Melissa Canal. A South Florida Water Management District (SFWMD) Environmental Resource Permit (ERP) exists for portions of the Subject Property and surrounding areas related to dispersed water storage.

Mr. Moore stated that trash at the hunting camp is carried out and not disposed or burned on the Subject Property. Alico makes two Dumpsters available off the site for camper trash disposal. He had previously interviewed the lessee for the hunting camp and taken notes of the interview. The notes are also included in Appendix G. The cabin had been constructed in 1965.

Mr. Bobby Fulford is the cattle lessee for the Subject Property and was interviewed by telephone. He stated that he ran about 3,000 cattle on the leased property (which includes more than the Subject Property). He estimated that 1,200 cattle were on the 5,800 acre Subject Property. He has been associated with the property for 2.5 years. Mr. Fulford stated that he did not apply herbicides or fertilizer to the Subject Property. He did not spray the cattle with pesticides. He has burned and/or roller chopped some of the acreage.

6.8 User Responsibility

In order to qualify for one of the *Landowner Liability Protections (LLP)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"), the potential user of the Subject Property must provide certain information regarding the Subject Property.

NorthStar requested this information by way of a User Questionnaire submitted to Mr. James Parker of FDEP. Mr. Parker completed the questionnaire in January 2021. The answers he provided indicated that FDEP had no specialized knowledge of the site, that the purchase price for the property was reasonable, and that there were no known environmental issues related to the property. A copy of the completed User Questionnaire is included in this report as **Appendix H**.

SECTION 7.0 QUALIFICATIONS

I declare that, to the best of our professional knowledge and belief, I meet the definition of EP as defined in 312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. NorthStar has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. The following is a brief description of the experience level of the EP that performed work during this project.

Craig Obrecht, PE – Mr. Obrecht has over 35 years of experience conducting environmental work within the state of Florida. He holds a wide range of environmental experience that includes civil design, construction management, water resource design, geotechnical engineering, environmental engineering, groundwater hydrology, and due diligence investigations. Mr. Obrecht holds a Bachelor of Science in Biology, Bachelor of Science in Civil Engineering, and a Master of Science in Civil Engineering. He has been responsible for projects conducted for the Southwest Florida Water Management District, the South Florida Water Management District, FDEP, FDOT, and Sarasota County.

Resumes detailing educational background; training, certifications and memberships; previous work experience and noteworthy projects is included in this report as **Appendix I**.

SECTION 8.0 CONCLUSIONS AND RECOMMENDATIONS

NorthStar performed a Phase I ESA on the Subject Property, Hendry County property IDs 19378, 19377, 19386, 19387, 19391, 19390, 19398, 19399 and portions of 19403 and 19402. The Subject Property is located in Hendry County, Florida. The Subject Property is located on the Graham Marsh Quadrangle, Florida USGS 7.5-minute topographic map (**Figure 1**).

Currently, the property is utilized as cattle pasture and for recreation and hunting. There is a hunting camp on the property, with a water well, and suspected septic system. There are multiple vehicular trail roads throughout the Subject Property. Many of these trails are unmaintained and are inaccessible by vehicle due to heavy overgrowth or wet and muddy conditions. A cattle pen is present on the property. This pen was constructed between 1990 and 1994.

The Subject Property was accessed from CR 832 onto the unpaved Loop Road that begins to the northeast of the Subject Property. The property was inspected both on foot and by vehicle. Land elevation at the Subject Property ranges from approximately 28 to 32 feet NGVD.

The Phase I ESA has revealed no REC, HREC, or CREC in connection with the Subject Property.

The IOCs identified on the Subject Property during the site reconnaissance were as follows:

1. Two water wells on the Subject Property, one at the hunting camp and one at the cattle pen. (Photos Nos. 6 and 40);
2. One suspected septic tank and drainfield system on the property associated with the bath house and cabin at the hunting camp. (Photo Nos. 9 and 21);
3. Multiple vehicles stored at the hunting camp. A car battery was observed in the north storage shed and portable propane tanks were stored in multiple locations. It is possible that used oil containers or other items associated with vehicle maintenance are also stored in the area. (Photo Nos. 10, 16, 17, and 23);
4. A waste tire observed in the north pasture. (Photo No. 34) and;
5. A cattle pen is present on the Subject Property. This pen is likely constructed of pressure treated wood. (Photo Nos. 35 – 40).

Based on the field observations, review of the historical aerial photography, and regulatory records review from the Phase I ESA, NorthStar does not recommend any additional assessment work be conducted at the Subject Property. NorthStar does, however, make the following recommendations relative to the identified IOCs:

- IOC #1 and #2 (water wells and septic system): If there is no plan to utilize these wells or septic system, NorthStar recommends they be properly abandoned by a licensed well driller and septic tank contractor to prevent inadvertent contaminant migration into the Subject Property groundwater.

- IOC #3 and #4 (vehicles and associated items): The vehicles and any vehicular fluid containers, batteries, tires, and propane cylinders, etc. should be removed and properly disposed.
- IOC #5 (cattle pen): If there is no plan to utilize this pen, it should be removed and any treated wood should be properly disposed.

SECTION 9.0 REFERENCES

American Society for Testing and Materials. Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Practice, E 2247-16. West Conshohocken, PA

Environmental Data Management, Inc. (EDM). Environmental Data Report: Standard ASTM Research, January 18, 2021.

EDM. Environmental Lien/AUL Search Report, January 26, 2021.

Florida Department of Environmental Protection, Bureau of Surveying and Mapping, Tallahassee, Florida. 2004.

Florida Department of Environmental Protection (FDEP). Water Resource Management. Tallahassee, Florida. URL: http://www.dep.state.fl.us/water/division/tmdl/default.htm. (2021).

FDEP, Oculus. Tallahassee, Florida. URL: **http://dwmedms.dep.state.fl.us/Oculus/servlet/login** (2021).

FDEP, Water Resource Management. Tallahassee, Florida. URL: http://www.dep.state.fl.us/water/division/tmdl/default.htm. (2021).

FDEP, Tallahassee, Florida. Florida Statutes: 62-302.400 and 62-302.700. Retrieved February 2021 from the World Wide Web: http://www.dep.state.fl.us

Florida Department of Transportation, Bureau of Surveying and Mapping, Tallahassee, Florida. 2017.

Florida Department of Transportation, Bureau of Surveying and Mapping, Tallahassee, Florida. 1990.

Florida Department of Transportation, Bureau of Surveying and Mapping, Tallahassee, Florida. 1980.

Klein, Howard, 1964, Geology and Groundwater Resources of Glades and Hendry Counties, Florida. Report of Investigations No. 37, Florida Geological Survey, Tallahassee.

Myers, Ronald and Ewel, John J., Ecosystems of Florida. Orlando, Florida, 1990, University of Central Florida Press.

National Park Service. "Nationwide Rivers Inventory". National Center for Recreation & Conservation. URL: ***http://www.nps.gov/ncrc/programs/rtca/nri/index.html***

Natural Resource Conservation Service (NRCS), Soil Conservation Service, Soil Survey of Hendry County, Florida, January 15, 2021. http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

Publication of Archival Library and Museum Materials Aerial Photography Florida. November 2019. http://web.uflib.edu/digital/collections/FLAP/

Scott, T.M., K.M. Campbell, F.R. Rupert, J.D. Arthur, T.M. Missimer, J.M. Lloyd, J.W. Yon, and J.G. Duncan, 2001. Geologic Map of the State of Florida. Florida Geological Survey and Department of Environmental Protection, Map Series No. 146.

Scott, T. M., 1992, A Geological Overview of Florida. Open File Report No. 50, Florida Geological Survey, Tallahassee.
State University Libraries of Florida, Publication of Archival, Library & Museum Materials, Gainesville, Florida. 1974.

State University Libraries of Florida, Publication of Archival, Library & Museum Materials, Gainesville, Florida. 1968.

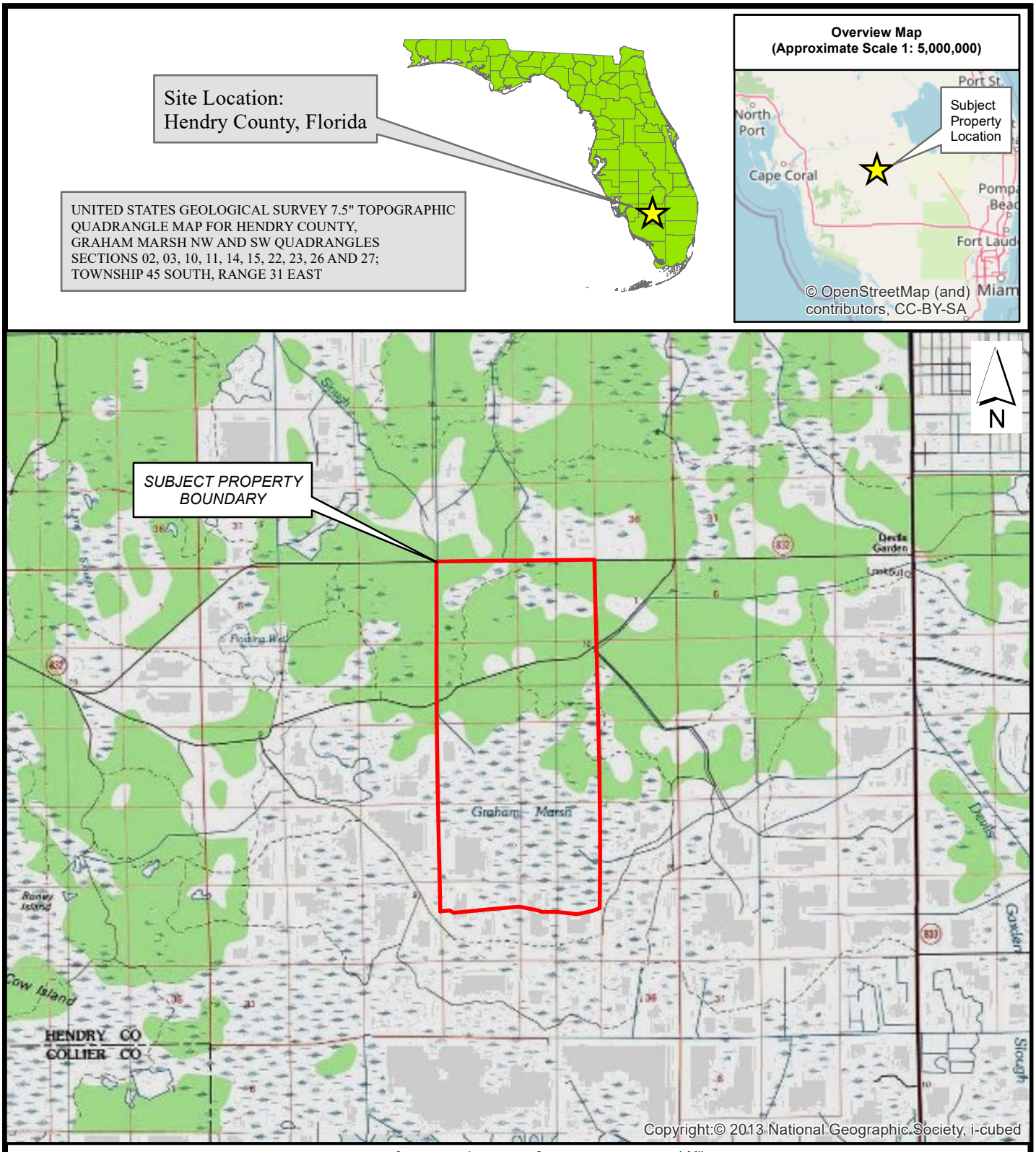
State University Libraries of Florida, Publication of Archival, Library & Museum Materials, Gainesville, Florida. 1957.

State University Libraries of Florida, Publication of Archival, Library & Museum Materials, Gainesville, Florida. 1949.

United States Department of the Interior- Geological Survey, Graham Marsh, FL Quadrangle, 7.5 Minute Series (Topographic), 2018.

United States Environmental Protection Agency. *Surf Your Watershed, 2020.* Washington, D.C. URL: http://www.epa.gov/surf3/locate/.

FIGURE



PROJECT NO.: 40-21-400		GIS ID: 4021400A001_SVM	PROJECT MANAGER: PJ		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHK BY:	STATUS: FINAL

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PHONE: (850) 661-4415

FIGURE 1
SITE VICINITY MAP
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Appendix A.

Contractor's Itemized Checklist and Executed Task Assignment

CONTRACTOR'S ITEMIZED CHECKLIST

Phase I ESA (ASTM E1527 and ASTM E2247}; Updated Phase I ESA (ASTM E 1527 and ASTM E 2247)

Directions: Please fill out each blank with the appropriate response. An appendix may be indicated instead of a page number, if appropriate.

1) YES/NO NO Have any requests for deviation to the DSL Scope of Services been approved?

2) Page # ii Certification to the Board of Trustees, with subsections a, b, c, d, and e.

3) Page # 13 Determination of whether other or previous ESAs or environmental work has been performed at the Subject Property. If other ESAs or environmental work exists, state the Appendix in which copies of the previous ESAs or environmental work can be found in the report: Appendix F.

4) Page # 12 Determination of existing environmental liens and AULs on the Subject Property.

5) Page # 4 Adjoining property owner landowner identification.

6) YES/NO NO Were any adjoining landowners interviewed? If so, what page number can this information be found on in the report? Page # _____.

7) Page # 12 Summary of current and historical aerial photographs.

8) Page # 9 GPS points and GPS manufacturer and model.

9) Page # Appendix D Photograph points oriented on a site map to scale or current aerial photograph.

10) Page # 6 Groundwater information.

11) Page # 2 Data failure information.

12) Page # 18 Discussion and evaluation of findings, conclusions and recommendations.

TASK ASSIGNMENT NOTIFICATION FORM
DEP CONTRACT NO. PL269

Task Assignment Number**: PL269.021** BLA File Number: **328397** Date: **January 13, 2021**

Project Name: Devils Garden FF
Owner's Name: Alico Inc.
Parcel ID No: Multiple (See attached)

County**: Hendry**
Acres: **5,804**

Contractor: **NORTHSTAR CONTRACTING GROUP, INC.** FEID No: 13-3879343
Contractor Contract Manager: Pamela Jackson Phone Number: 850-531-9860

DEP Designated Task Manager: James Parker Phone Number: 850-245-3045
DEP Contract Manager: James Parker Phone Number: 850-245-3045
Subcontractors: (List, if any) _____ MBE: _____ Yes ___ No
_____ MBE: _____ Yes ___ No

Task Description (Use additional sheets if necessary):
1) Provide a **Phase I Environmental Site Assessment** for the above referenced parcel(s) as described in Exhibit "A" in accordance with Division of State Lands (DSL) standards which are attached as Exhibit "B" and in accordance with the cost estimate submitted by Northstar on January 11, 2021 in Exhibit C. In addition, the Contractor must comply with the most current American Society of Testing and Materials (ASTM) E2247 standard. If the DSL standards and ASTM requirements for Phase I ESAs conflict, then the Contractor must perform to the more stringent of the requirements (ASTM scope and limitations will be provided to the Contractor upon request). The signatory on the report must be an "environmental professional", as that term is defined by ASTM. Please be aware that DSL requires the contractor to conduct an AUL/lien search on its behalf, as outlined in the DSL Scope of Services.

Deviations:
The following deviations from DSL standards and/or Contract PL269 will be authorized: Submittal of DRAFT and FINAL products may be done electronically; paper copies will not be required. Two (2) compact discs containing the FINAL report will be required upon approval of the DRAFT product. **No other deviations from the above-mentioned standards are allowed, unless in writing from the Division of State Lands.**

The User Questionnaire is completed and attached. For property specific questions contact the seller John Kiernan at jkiernan@alicoinc.com. For property access, contact the sellers representative Tim Hughes at thughes@trenam.com or 727-820-3965 (office) or 727-366-4995 (cell)

Attachments: **Exhibit "A", Exhibit "B", Exhibit C, & User Questionnaire**

DRAFT Products Due Date: **February 26, 2021**
Liquidated Damages Per Day Charge: **$ 25.00**

Task Assignment Type:	Amount Not to Exceed:
Fee Schedule (Phase I ESA)	**$ 5,913.63**
Cost Reimbursement	$ n/a
Total Task Assignment Value	**$ 5,913.63**

NORTHSTAR CONTRACTING GROUP, INC.

Pamela JW Jackson — Digitally signed by Pamela JW Jackson Date: 2021.01.15 07:03:13 -05'00'

Contract Manager Date

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

James Parker — Digitally signed by James Parker Date: 2021.01.13 10:12:31 -05'00'

DEP Contract Manager or designee Date

APPROVED:
Robbie Parrish — Digitally signed by Robbie Parrish Date: 2021.01.13 10:29:46 -05'00'

Contractual Authority Date

Sheryl Boutin Digitally signed by Sheryl Boutin Date: 2021.01.14 15:30:57 -05'00'

Funding Authority Date

Funding Information:

Org. Code	E. O.	Fund	Object Code	Budget Entity	Module	Special Category	Project #	Year	Amount
37102400000	**QH**	**423001**	**131545**	**37100400**	**NA**	**084108**	**FF03020**	**21**	**$5,913.63**

cc: Contracts Office (MS93)
Bureau of Finance & Accounting (MS75) 2 copies

29-Digit FLAIR Code: 37202423001371004000008410821

Performance Measure: DEP Contract Manager will review deliverable to ensure specifications were met.

Financial Consequences: DEP will not pay for unsatisfactory deliverables. Contractor shall be given the right to remedy at no cost to DEP.

Appendix B.

Legal Description/Environmental Lien Search

Environmental Lien/AUL Search Report

Subject Property:

Devil's Garden
Phase 1B East
Hendry County, Florida

Prepared For:

NorthStar Contracting Group, Inc
508-A Capital Circle SE
Tallahassee, FL 32301

Prepared By:

Environmental Data Management, Inc.
2840 West Bay Drive, Suite 208
Largo, Florida 33770

January 26, 2021

Environmental Data Management, Inc.
2840 West Bay Drive, Suite 208
Largo, Florida 33770
(727) 586-1700
http://www.edm-net.com

26 January 2021

Pamela Jackson, PG
NorthStar Contracting Group, Inc
508-A Capital Circle SE
Tallahassee, FL 32301

EDM Project #: **25410**

RE: Environmental Lien and AUL Search, 10 Parcels, Hendry County, Florida

Dear Ms. Jackson,

The title history for the above-referenced subject sites (see Attachment 1) located in Hendry County, Florida, was reviewed from previous to 1976, to the present, January 12, 2021. Over this time period **Alico, Inc.** has been the apparent owner.

The Public Records of Hendry County, Florida have no current Environmental Liens of Judgment or AUL on the subject property; however that part of the subject property located in Sections 26 and 27 is possibly subject to the document indicated as Attachment 2. The Hendry County Property Appraiser indexes this document as part of those properties' land records history.

If you have any questions regarding this report or our service in general, please feel free to contact us. We appreciate the opportunity to be of service to you and look forward to working with you in the future.

ENVIRONMENTAL DATA MANAGEMENT, INC.

No Guarantee, No Warranty or Insurance of Title to Property: EDM does not guarantee nor warrant title to a property. Furthermore, EDM does not insure title to a property. EDM shall not be liable for any loss to the extent that such loss was due to inaccurate or misleading information in the source records and databases outside our control and from which we obtained the data. This search represents surface conveyances only. This report is prepared for information purposes and the responsibility hereunder is confined to the party for which it is compiled. In consideration of the limited charges thereof, and in

accordance with Florida Statutes Section 627.7843, the liability for any negligence, errors or omissions with respects to the contents hereof is limited to the actual loss or damage of the certified party up to a maximum of $1,000.00, or the amount charged for this report. This report is being provided for use only as a part of an overall Phase I Environmental Site Assessment as performed by a qualified Environmental Engineer/Consultant as specified in the ASTM Standard E 1527-13 and as specified in the Comprehensive Environmental Response, Compensation and Liabilities Act of 1980, as amended, and may not be relied upon for any other purpose.

Attachment 1

Parcel ID List
10 Hendry County Parcels

1-31-45-02-A00-0001.0000

1-31-45-03-A00-0001.0000

1-31-45-10-A00-0001.0000

1-31-45-11-A00-0001.0000

1-31-45-14-A00-0001.0000

1-31-45-15-A00-0001.0000

1-31-45-22-A00-0001.0000

1-31-45-23-A00-0001.0000

1-31-45-26-A00-0001.0000

1-31-45-27-A00-0001.0000

Attachment 2
(15 Pages)

U.S. Department of Agriculture
Natural Resources Conservation Service
12/2009

NRCS-LTP-30
01/2010

WARRANTY EASEMENT DEED IN PERPETUITY

Prepared by and please return to:
Wendi McAleese
American Government Services Corporation
3812 W. Linebaugh Avenue
Tampa, Fl 33624

WETLANDS RESERVE PROGRAM
EASEMENT NO. 6642091201BPN

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
DC,Barbara S. Butler,Hendry County Page 1 of 15 B:865 P:1364

THIS WARRANTY EASEMENT DEED is made by and between Alico, Inc., f/k/a Alico Land Development Company, a Florida corporation of 10070 Daniels Interstate Court, Suite 100, Ft. Myers, Florida, 33913 (hereafter referred to as the "Landowner"), Grantor(s), and **the UNITED STATES OF AMERICA**, by and through the Commodity Credit Corporation (CCC) (hereafter referred to as the "United States"), Grantee. The Landowner and the United States are jointly referred to as the "Parties". The acquiring agency of the United States is the Natural Resources Conservation Service (NRCS), United States Department of Agriculture.

Witnesseth:

Purposes and Intent. The purpose of this easement is to restore, protect, manage, maintain, and enhance the functional values of wetlands and other lands, and for the conservation of natural values including fish and wildlife and their habitat, water quality improvement, flood water retention, groundwater recharge, open space, aesthetic values, and environmental education. It is the intent of NRCS to give the Landowner the opportunity to participate in the restoration and management activities on the easement area. By signing this deed, the Landowner agrees to the restoration of the Easement Area and grants the right to carry out such restoration to the United States.

Authority. This easement deed acquisition is authorized by Title XII of the Food Security Act of 1985, as amended (16 U.S.C. §3837), for the Wetlands Reserve Program.

NOW THEREFORE, for and in consideration of the sum of Twenty Million, Six Hundred Seventy-Eight Thousand, One Hundred Forty-Three and 00/100 ($20,678,143.00), the Grantor(s), hereby grants and conveys with general warranty of title to the UNITED STATES OF AMERICA and its assigns, (the Grantee), in perpetuity, all rights, title and interest in the lands comprising the easement area described in Part I and appurtenant rights of access to the easement area, but reserving to the Landowner only those rights, title, and interest expressly enumerated in

Part II. It is the intention of the Landowner to convey and relinquish any and all other property rights not so reserved. This easement shall constitute a servitude upon the land so encumbered; shall run with the land for the duration of the easement; and shall bind the Landowner, (the Grantor(s)), their heirs, successors, assigns, lessees, and any other person claiming under them.

SUBJECT, however, to all valid rights of record, if any.

PART I. Description of the Easement Area. The lands encumbered by this easement deed, referred to hereafter as the easement area, are described on EXHIBIT A which is appended to and made a part of this easement deed.

TOGETHER with a right of access for ingress and egress to the easement area across adjacent or other properties of the Landowner. Such a right-of-way for access purposes is described in EXHIBIT B which is appended to and made a part of this easement deed.

PART II. Reservations in the Landowner on the Easement Area. Subject to the rights, title, and interest conveyed by this easement deed to the United States, including the restoration, protection, management, maintenance, enhancement, and monitoring of the wetland and other natural values of the easement area, the Landowner reserves:

A. Title. Record title, along with the Landowner's right to convey, transfer, and otherwise alienate title to these reserved rights.

B. Quiet Enjoyment. The right of the Landowner to enjoy the rights reserved on the easement area without interference from others.

C. Control of Access. The right to prevent trespass and control access by the general public subject to the operation of State and Federal law.

D. Recreational Uses. The right to undeveloped recreational uses, including undeveloped hunting and fishing and leasing of such rights for economic gain, pursuant to applicable State and Federal regulations that may be in effect at the time. Undeveloped recreational uses must be consistent with the long-term protection and enhancement of the wetland and other natural values of the easement area. Undeveloped recreational use may include hunting equipment, such as, tree stands and hunting blinds that are rustic and customary for the locale as determined by NRCS.

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
DC;Barbara S. Butler,Hendry County Page 2 of 15 B:865 P:1365

E. Subsurface Resources. The right to oil, gas, minerals, and geothermal resources underlying the easement area, provided that any drilling or mining activities are to be located outside the boundaries of the easement area, unless activities within the boundaries are specified in accordance with the terms and conditions of EXHIBIT C which is appended to and made a part of this easement deed, if applicable.

F. Water uses and water rights. The right to water uses and water rights identified as reserved to the Landowner in EXHIBIT D which is appended to and made a part of this easement deed, if applicable.

PART III. Obligations of the Landowner. The Landowner shall comply with all terms and conditions of this easement, including the following:

A. Prohibitions. Without otherwise limiting the rights of the United States acquired hereunder, it is expressly understood that the rights to carry out the following activities and uses have been acquired by the United States and, unless authorized by the United States under Part IV, are prohibited on the easement area:

1. haying, mowing, or seed harvesting for any reason;
2. altering of grassland, woodland, wildlife habitat or other natural features by burning, digging, plowing, disking, cutting or otherwise destroying the vegetative cover;
3. dumping refuse, wastes, sewage, or other debris;
4. harvesting wood products;
5. draining, dredging, channeling, filling, leveling, pumping, diking, impounding, or related activities, as well as altering or tampering with water control structures or devices, except as specifically set forth in EXHIBIT D, if applicable;
6. diverting or causing or permitting the diversion of surface or underground water into, within, or out of the easement area by any means, except as specifically set forth in EXHIBIT D, if applicable;
7. building, placing, or allowing to be placed structures on, under, or over the easement area, except for structures for undeveloped recreational use;
8. planting or harvesting any crop;
9. grazing or allowing livestock on the easement area;
10. disturbing or interfering with the nesting or brood-rearing activities of wildlife including migratory birds;
11. use of the easement area for developed recreation. These uses include but are not limited to, camping facilities, recreational vehicle trails and tracks, sporting clay operations, skeet shooting operations, firearm range operations and the infrastructure to raise, stock, and release captive raised waterfowl, game birds and other wildlife for hunting or fishing;

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
DC,Barbara S. Butler,Hendry County Page 3 of 15 B:865 P:1366

12. any activities which adversely impact or degrade wildlife cover or other habitat benefits, water quality benefits, or other wetland functions and values of the easement area; and
13. any activities to be carried out on the Landowner's land that is immediately adjacent to, and functionally related to, the land that is subject to the easement if such activities will alter, degrade, or otherwise diminish the functional value of the eligible land.

B. Noxious Plants and Pests. The Landowner is responsible for noxious weed control and emergency control of pests as required by all Federal, State, and local laws. A plan to control noxious weeds and pests must be approved in writing by the NRCS prior to implementation by the Landowner.

C. Fences. Except for establishment cost incurred by the United States and replacement cost not due to the Landowner's negligence or malfeasance, all other costs involved in maintenance of fences and similar facilities to exclude livestock shall be the responsibility of the Landowner. The installation or use of fences which have the effect of preventing wildlife access and use of the easement area are prohibited on the easement or easement boundary.

D. Use of water for easement purposes. The landowner shall use water for easement purposes as set forth in EXHIBIT D, which is appended to and made a part of this easement deed, if applicable.

E. Protection of water uses and water rights. As set forth in EXHIBIT D, if applicable, the Landowner shall undertake actions necessary to protect any water rights and water uses for easement purposes.

F. Taxes. The Landowner shall pay any and all real property and other taxes and assessments, if any, which may be levied against the land.

G. Reporting. The Landowner shall report to the NRCS any conditions or events which may adversely affect the wetland, wildlife, and other natural values of the easement area.

H. Survival. Irrelevant of any violations by the Landowner of the terms of this deed, this easement survives and runs with the land for its duration.

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
DC,Barbara S. Butler,Hendry County Page 4 of 15 B:865 P:1367

PART IV. Compatible Uses by the Landowner.

A. General. The United States may authorize, in writing and subject to such terms and conditions the NRCS may prescribe at its sole discretion, the use of the easement area for compatible economic uses, including, but not limited to, managed timber harvest, periodic haying, or grazing.

B. Limitations. Compatible use authorizations will only be made if, upon a determination by NRCS in the exercise of its sole discretion and rights, that the proposed use is consistent with the long-term protection and enhancement of the wetland and other natural values of the easement area. The NRCS shall prescribe the amount, method, timing, intensity, and duration of the compatible use.

PART V. Rights of the United States. The rights of the United States include:

A. Management activities. The United States has the right to enter the easement area to undertake, on a cost-share basis with the Landowner or other entity as determined by the United States, any activities to restore, protect, manage, maintain, enhance, and monitor the wetland and other natural values of the easement area. The United States may apply to or impound additional waters, in accordance with State water law, on the easement area in order to maintain or improve wetland and other natural values.

B. Access. The United States has a right of reasonable ingress and egress to the easement area over the Landowner's property, whether or not the property is adjacent or appurtenant to the easement area, for the exercise of any of the rights of the United States under this easement deed. The authorized representatives of the United States may utilize vehicles and other reasonable modes of transportation for access purposes. To the extent practical, the United States shall utilize the access identified in EXHIBIT B.

C. Easement Management. The Secretary of Agriculture, by and through the NRCS, may delegate all or part of the management, monitoring or enforcement responsibilities under this easement to any entity authorized by law that the NRCS determines to have the appropriate authority, expertise and resources necessary to carry out such delegated responsibilities. State or federal agencies may utilize their general statutory authorities in the administration of any delegated management, monitoring or enforcement responsibilities for this easement. The authority to modify or terminate this easement (16 U.S.C. §3837e(b)) is reserved to the Secretary of Agriculture in accordance with applicable law.

D. Violations and Remedies - Enforcement. The Parties, Successors, and Assigns, agree that the rights, title, interests, and prohibitions created by this easement deed constitute things of value to the United States and this easement deed may be

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:14747.4000
DC,Barbara S. Butler,Hendry County Page 5 of 15 B:865 P:1368

introduced as evidence of same in any enforcement proceeding, administrative, civil or criminal, as the stipulation of the Parties hereto. If there is any failure of the Landowner to comply with any of the provisions of this easement deed, the United States or other delegated authority shall have any legal or equitable remedy provided by law and the right:

1. To enter upon the easement area to perform necessary work for prevention of or remediation of damage to wetland or other natural values; and,

2. To assess all expenses incurred by the United States (including any legal fees or attorney fees) against the Landowner, to be owed immediately to the United States.

PART VI. General Provisions.

A. Successors in Interest. The rights granted to the United States shall accrue to any of its agents or assigns. All obligations of the Landowner under this easement deed shall also bind the Landowner's heirs, successors, agents, assigns, lessees, and any other person claiming under them. All the Landowners who are parties to this easement deed shall be jointly and severally liable for compliance with its terms.

B. Rules of Construction and Special Provisions. All rights in the easement area not reserved by the Landowner shall be deemed acquired by the United States. Any ambiguities in this easement deed shall be construed in favor of the United States to effect the wetland and conservation purposes for which this easement deed is being acquired. The property rights of the United States acquired under this easement shall be unaffected by any subsequent amendments or repeal of the Wetlands Reserve Program. If the Landowner receives the consideration for this easement in installments, the Parties agree that the conveyance of this easement shall be totally effective upon the payment of the first installment.

C. Environmental Warranty. "Environmental Law" or "Environmental Laws" means any and all Federal, State, local or municipal laws, orders, regulations, statutes, ordinances, codes, guidelines, policies, or requirements of any governmental authority regulating or imposing standards of liability or standards or conduct (including common law) concerning air, water, solid waste, hazardous materials or substance, worker and community right-to-know, hazard communication, noise, radioactive material, resource protection, subdivision, inland wetlands and watercourses, health protection and similar environmental health, safety, building and land use as may now or at any time hereafter be in effect.

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
DC,Barbara S. Butler,Hendry County Page 6 of 15 B:865 P:1369

"Hazardous Materials" means any petroleum, petroleum products, fuel oil, waste oils, explosives, reactive materials, ignitable materials, corrosive materials, hazardous chemicals, hazardous wastes, hazardous substances, extremely hazardous substances, toxic substances, toxic chemicals, radioactive materials, infectious materials, and any other element, compound, mixture, solution or substance which may pose a present or potential hazard to human health or the environment.

Landowner warrants that it is in compliance with, and shall remain in compliance with, all applicable Environmental Laws. Landowner warrants that there are no notices by any government authority of any violation or alleged violation of, non-compliance or alleged non-compliance with or any liability under any Environmental Law relating to the operations or conditions of the Property. Landowner further warrants that it has no actual knowledge of a release or threatened release of Hazardous Materials, as such substance and wastes are defined by applicable Federal and State law.

D. General Indemnification. Landowner shall indemnify and hold harmless , its employees, agents, and assigns for any and all liabilities, claims, demands, loses, expenses, damages, fines, fees, penalties, suits, proceedings, actions, and cost of actions, sanctions asserted by or on behalf of any person or government authority, and other liabilities (whether legal or equitable in nature and including, without limitation, court costs, and reasonable attorneys' fees and attorneys' fees on appeal) to which the United States may be subject or incur relating to the easement area, which may arise from, but is not limited to, Landowner's negligent acts or omissions or Grantor's breach of any representation, warranty, covenant, agreements contained in this easement deed, or violations of any Federal, State, or local laws, including all Environmental Laws.

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
DC,Barbara S. Butler,Hendry County Page 7 of 15 B:865 P:1370

TO HAVE AND TO HOLD, this Warranty Easement Deed is granted to the United States of America and its assigns for the duration of the easement. The Landowner covenants that he, she, or they are vested with good title to the easement area and will warrant and defend the same on behalf of the United States against all claims and demands. The Landowner covenants to comply with the terms and conditions enumerated in this document for the use of the easement area and adjacent lands for access, and to refrain from any activity not specifically allowed or that is inconsistent with the purposes of this easement deed.

Dated this 16th day of July, 2013

Witness

Kenneth S Smith
Witness Printed Name

A. Denise Plair
Witness

A. Denise Plair
Witness Printed Name

Alico, Inc., f/k/a Alico Land Development Company, a Florida corporation

By: _____
JD Alexander, as President

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
DC,Barbara S. Butler,Hendry County Page 8 of 15 B:865 P:1371

ACKNOWLEDGMENT

STATE OF FL
COUNTY OF Lee

On this 16th day of July, 2013, before me, the undersigned, a Notary Public in and for said State personally appeared JD Alexander, as President of Alico, Inc. f/k/a Alico Land Development Company, a Florida corporation on behalf of said corporation, known or proved to me to be the person{s) described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and official seal the day and year first above written.

A. DENISE PLAIR
MY COMMISSION # EE 832069
EXPIRES: January 4, 2017
Bonded Thru Notary Public Underwriters

Notary Public for the State of Florida
Residing at 221 N. Elm Street LaBelle, FL 33935
My Commission Expires 1-4-17

A. Denise Plair

ACCEPTANCE BY GRANTEE:

I Roney Gutierrez (name), Assistant State Conservationist For Easements (title), being the duly authorized representative of the United States Department of Agriculture, Natural Resources Conservation Service, do hereby accept this Conservation Easement Deed with respect to the rights and duties of the United States of America, Grantee.

Dated this 17 day of July, 2013

Signature

Asst. Easements

Title

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:1447.40000
DC,Barbara S. Butler,Hendry County Page 9 of 15 B:865 P:1372

This instrument was drafted by the Office of the General Counsel, U.S. Department of Agriculture, Washington, D.C. 20250-1400.

NONDISCRIMINATION STATEMENT

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its program and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (1202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 705-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

PRIVACY ACT STATEMENT

The above statements are made in accordance with the Privacy Act of 1974 (U.S.C. 522a). Furnishing this information is voluntary; however, failure to furnish correct, complete information will result in the withholding or withdrawal of such technical or financial assistance. The information may be furnished to other USDA agencies, the Internal Revenue Service, the Department of Justice, or other State or Federal Law enforcement agencies, or in response to orders of a court, magistrate, or administrative tribunal.

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
DC;Barbara S. Butler;Hendry County Page 10 of 15 B:865 P:1373

Prepared for: USFWS/USDA
Description:

Date: June 28, 2013
File: 17111LGL.doc

Exhibit A

A parcel of land in Sections 12,13,24,25,26,27,28,33,34,35 & 36, Township 45 South, Range 31 East and Sections 16,17,18,19,20,21,28,29,30,31,32 & 33, Township 45 South, Range 32 East, Hendry County, Florida, described as follows;

Commence at the northeast corner of said Section 21, Township 45 South, Range 32 East; thence S 89°17'26" W a distance of 43.26 feet to the west right of way line of State Road 833 (Devil's Garden Road) as shown on Department of Transportation Right of Way Map Section 07080-2503 and the Point of Beginning; thence along said west right of way line for the following three courses (1) S 00°34'32" E a distance of 5327.39 feet; (2) S 00°34'32" E a distance of 5330.25 feet; (3) S 00°40'47" E a distance of 5156.57 feet to the intersection with the north top of bank of an existing canal; thence along said north top of bank for the following ten courses; (1) S 88°49'42" W a distance of 5141.18 feet; (2) S 88°08'04" W a distance of 1307.77 feet; (3) S 88°11'18" W a distance of 3061.54 feet; (4) S 88°34'19" W a distance of 2008.22 feet; (5) S 89°22'52" W a distance of 1001.04 feet; (6) S 88°55'55" W a distance of 3500.43 feet; (7) N 88°03'25" W a distance of 4544.44 feet; (8) N 87°25'55" W a distance of 494.39 feet; (9) N 89°56'22" W a distance of 1854.84 feet; (10) S 88°59'25" W a distance of 436.42 feet; thence S 00°00'24" W a distance of 80.00 feet to a point on the south line of said Section 35, Township 45 South, Range 31 East as shown on a Boundary Survey titled "Panther Glades – Florida Forever 2000 / Dinner Island" acquired from the Florida Department of Environmental Protection (FDEP); thence S 89°53'41" W along said south line a distance of 3373.04 feet to the southeast corner of said Section 34, Township 45 South, Range 31 East as shown on said FDEP survey; thence N 89°02'13" W along the south line of said Section 34 a distance of 5339.71 feet to the southeast corner of said Section 33, Township 45 South, Range 31 East, as shown on said FDEP survey; thence N 89°01'45" W along the south line of said Section 33 a distance of 2591.89 feet to the intersection with the east line of a parcel of land described in Official Records Book 648, Page 1244 of the public Records of Hendry County, Florida; thence N 27°05'48" E along said east line a distance of 1696.46 feet; thence N 15°58'29" E along said east line and northerly extension thereof a distance of 1643.31 feet; thence N 23°44'50" W a distance of 263.19 feet; thence N 81°18'42" W a distance of 2002.13 feet; thence N 24°36'20" E a distance of 898.94 feet; thence N 10°27'34" E a distance of 919.25 feet; thence N 53°12'48" W a distance of 65.98 feet; thence N 22°30'13" E a distance of 3115.04 feet; thence S 80°18'00" E a distance of 1588.99 feet; thence N 42°58'37" E a distance of 416.34 feet; thence N 87°20'42" E a distance of 652.60 feet; thence S 50°40'11" E a distance of 434.93 feet; thence N 85°08'05" E a distance of 4314.79 feet; thence S

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
DC,Barbara S. Butler,Hendry County Page 11 of 15 B:865 P:1374

80°34'00" E a distance of 2294.32 feet; thence S 89°53'16" E a distance of 1693.53 feet; thence N 80°34'08" E a distance of 1533.17 feet; thence N 00°00'18" W a distance of 1877.08 feet; thence N 00°01'21" W a distance of 1946.66 feet; thence N 00°31'33" W a distance of 3466.52 feet; thence N 00°31'33" W a distance of 9521.50 feet; thence N 39°39'04" E a distance of 152.09 feet; thence S 44°44'18" E a distance of 2255.98 feet; thence S 42°53'40" E a distance of 443.52 feet; thence S 39°22'14" E a distance of 1108.85 feet; thence S 38°41'05" E a distance of 1092.22 feet; thence S 35°57'40" E a distance of 638.03 feet; thence S 36°19'05" E a distance of 552.08 feet to the beginning of a non-tangent curve concave to the northeast and having a radius of 630.00 feet; thence along said curve to the left through a central angle of 58°49'30", an arc distance of 646.81 feet (chord = 618.78 feet, chord bearing = S 65°57'40" E); thence N 85°18'32" E a distance of 208.26 feet; thence N 84°02'25" E a distance of 1030.44 feet to the beginning of a curve concave to the southwest and having a radius of 550.00 feet; thence along said curve to the right through a central angle of 58°43'26", an arc distance of 563.74 feet (chord = 539.39 feet, chord bearing = S 66°35'52" E); thence S 37°14'09" E a distance of 1087.86 feet to the beginning of a non-tangent curve concave to the southwest and having a radius of 870.00 feet; thence along said curve to the right through a central angle of 25°50'51", an arc distance of 392.48 feet (chord = 389.16 feet, chord bearing = S 25°24'15" E); thence S 11°26'45" E a distance of 275.91 feet; to the beginning of a non-tangent curve concave to the west and having a radius of 955.00 feet; thence along said curve to the right through a central angle of 14°08'08", an arc distance of 235.61 feet (chord = 235.01 feet, chord bearing = S 02°57'52" E); thence S 02°39'48" W a distance of 631.71 feet to the beginning of a non-tangent curve concave to the east and having a radius of 825.00 feet; thence along said curve to the left through a central angle of 30°45'19", an arc distance of 442.84 feet (chord = 437.55 feet, chord bearing = S 12°21'59" E); thence S 28°02'43" E a distance of 526.51 feet; thence S 28°21'05" E a distance of 413.81 feet; thence S 46°02'33" E a distance of 52.87 feet; thence S 27°55'59" E a distance of 1673.14 feet; thence N 61°54'25" E a distance of 119.33 feet; thence S 28°05'35" E a distance of 103.36 feet to the south side of an existing canal, thence along the south side of said existing canal for the following eight courses (1) N 54°17'52" E a distance of 3179.15 feet; (2) N 74°40'48" E a distance of 547.44 feet; (3) S 84°25'57" E a distance of 1384.77 feet; (4) N 89°26'23" E a distance of 3950.35 feet; (5) N 58°07'23" E a distance of 1100.20 feet; (6) N 88°47'10" E a distance of 901.32 feet; (7) N 55°16'51" E a distance of 2166.73 feet; (8) N 80°11'06" E a distance of 342.18 feet to the intersection with said west right of way line of State Road 833 (Devil's Garden Road); thence along said right of way line for the following two courses (1) S 00°35'31" E a distance of 2959.93 feet; (2) N 89°25'28" E a distance of 5.00 feet to the Point of Beginning.

Containing 11,591.18 acres

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
_____DC,Barbara S. Butler,Hendry County Page 12 of 15 B:865 P:1375

EXHIBIT B

Access Description

Access will be via State Road 833

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.4000
DC,Barbara S. Butler,Hendry County Page 13 of 15 B:865 P:1376

EXHIBIT C

NOT APPLICABLE

Inst:201326006633 Date:8/1/2013 Time:1:09 PM
Doc Stamp-Deed:144747.40 00
DC,Barbara S. Butler,Hendry County Page 14 of 15 B:865 P:1377

EXHIBIT D

NOT APPLICABLE

Inst 201326006633 Date 8/1/2013 Time 1:09 PM
Doc Stamp-Deed 14747.4000
DC,Barbara S. Butler,Hendry County Page 15 of 15 B 865 P 1378

Appendix C.

NRCS Custom Soil Resource Report

United States Department of Agriculture

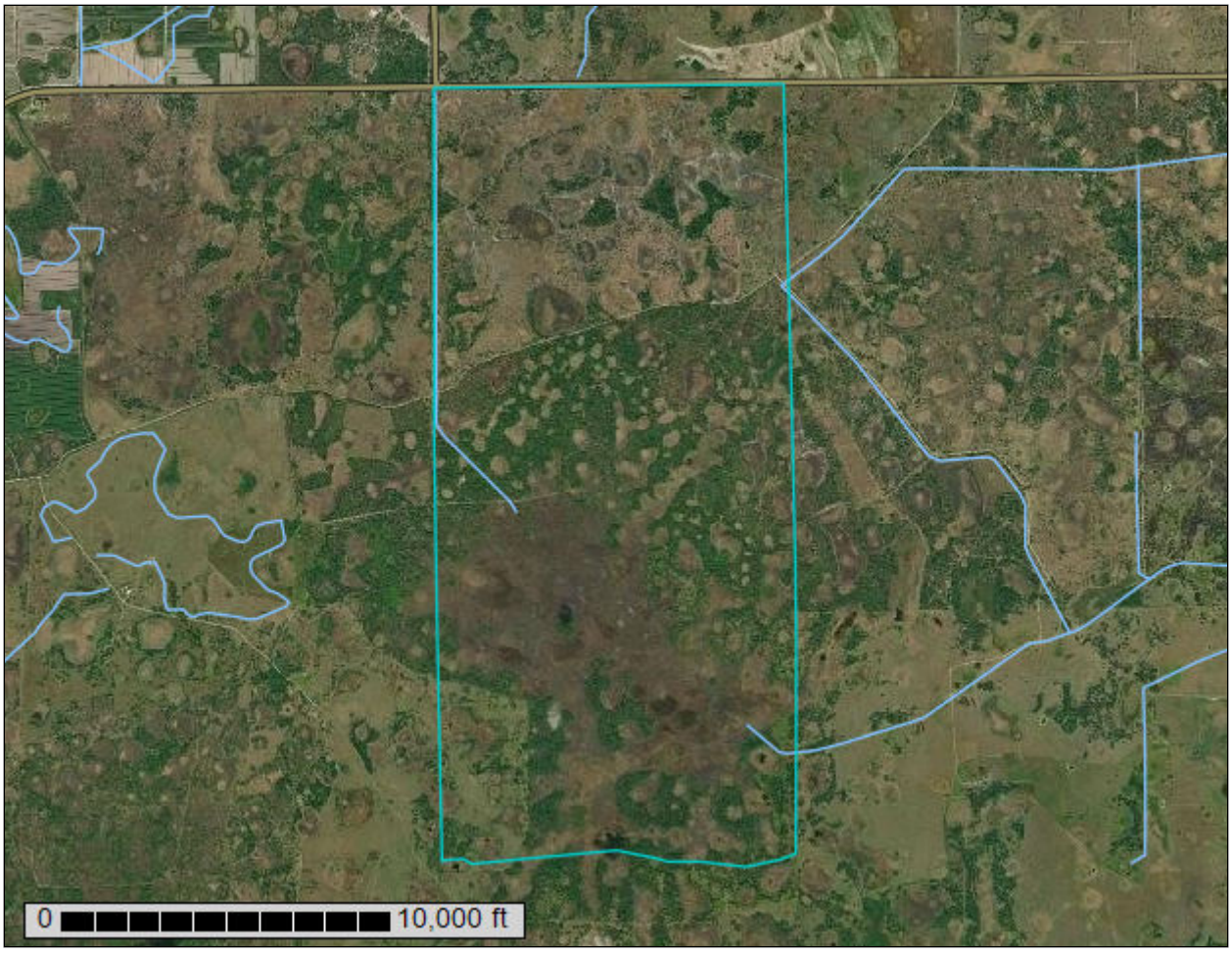
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Hendry County, Florida

Devils_Garden_Subject_Parcel_Phase_1B_East



January 15, 2021

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Hendry County, Florida.....14
4—Oldsmar sand, 0 to 2 percent slopes.....14
6—Wabasso sand, 0 to 2 percent slopes.....16
8—Malabar sand, 0 to 2 percent slopes.....17
9—Riviera fine sand, 0 to 2 percent slopes.....19
13—Gentry fine sand, depressional.....21
21—Holopaw sand, 0 to 2 percent slopes.....23
32—Riviera sand, frequently ponded, 0 to 1 percent slopes.....25
33—Holopaw sand, frequently ponded, 0 to 1 percent slopes.....27
37—Tuscawilla fine sand.....29
50—Delray sand, depressional.....31
51—Malabar fine sand, high, 0 to 2 percent slopes.....32
57—Chobee fine sandy loam, frequently ponded, 0 to 1 percent slopes.....34
59—Winder fine sand, frequently ponded, 0 to 1 percent slopes.....36
60—Myakka sand, depressional.....38
69—Denaud-Gator mucks.....40
References.....44

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

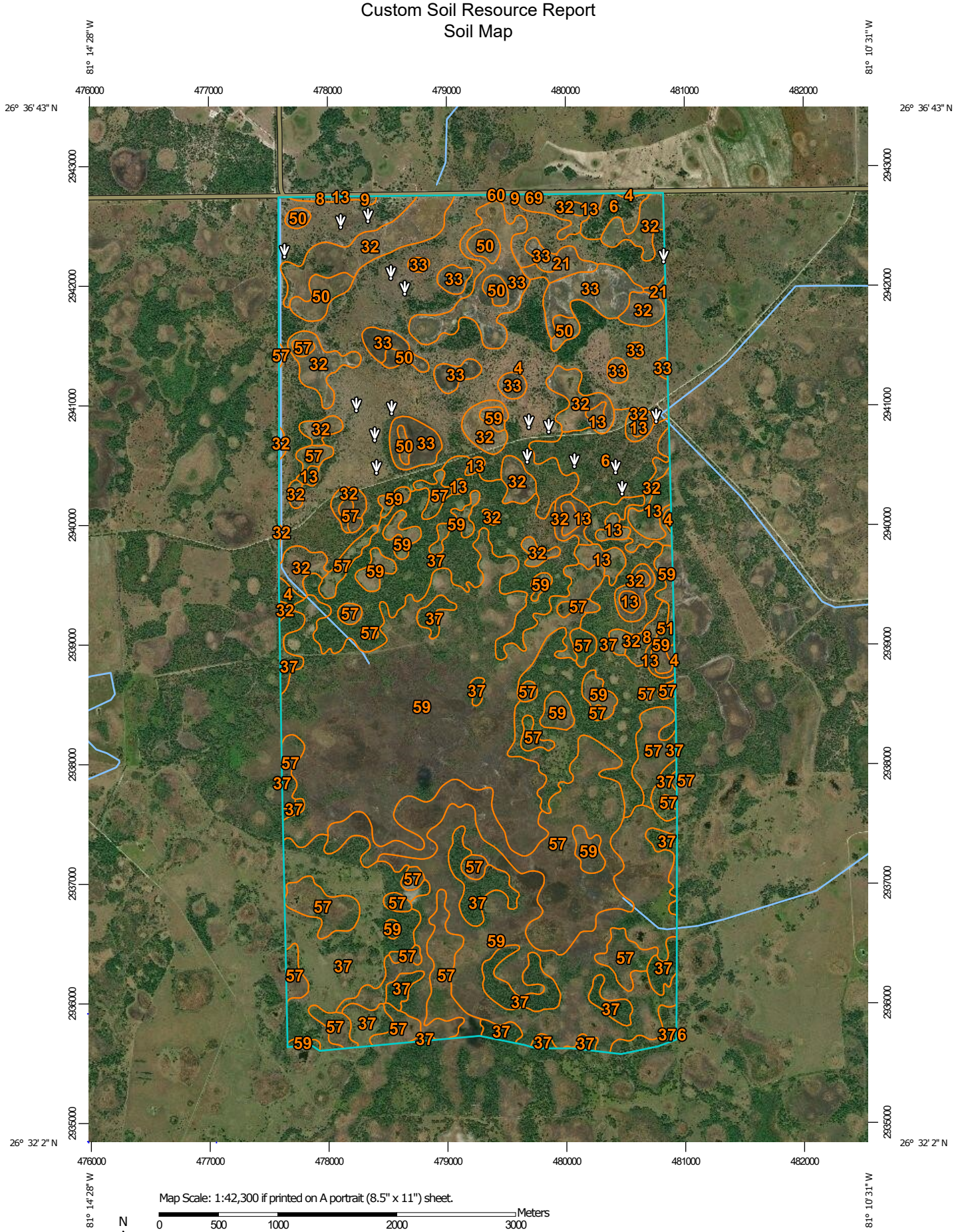
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:42,300 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 500 1000 2000 3000

Feet: 0 2000 4000 8000 12000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

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 1:24,000.

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: Hendry County, Florida
Survey Area Data: Version 20, Jun 8, 2020

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

Date(s) aerial images were photographed: Dec 19, 2010—Nov 1, 2017

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
4	Oldsmar sand, 0 to 2 percent slopes	1,137.6	19.6%
6	Wabasso sand, 0 to 2 percent slopes	153.1	2.6%
8	Malabar sand, 0 to 2 percent slopes	23.5	0.4%
9	Riviera fine sand, 0 to 2 percent slopes	3.2	0.1%
13	Gentry fine sand, depressional	100.8	1.7%
21	Holopaw sand, 0 to 2 percent slopes	25.0	0.4%
32	Riviera sand, frequently ponded, 0 to 1 percent slopes	458.7	7.9%
33	Holopaw sand, frequently ponded, 0 to 1 percent slopes	282.9	4.9%
37	Tuscawilla fine sand	1,172.2	20.2%
50	Delray sand, depressional	86.0	1.5%
51	Malabar fine sand, high, 0 to 2 percent slopes	4.4	0.1%
57	Chobee fine sandy loam, frequently ponded, 0 to 1 percent slopes	723.2	12.5%
59	Winder fine sand, frequently ponded, 0 to 1 percent slopes	1,632.7	28.1%
60	Myakka sand, depressional	0.0	0.0%
69	Denaud-Gator mucks	1.5	0.0%
Totals for Area of Interest		**5,804.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without

including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Hendry County, Florida

4—Oldsmar sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2sm4p
Elevation: 0 to 80 feet
Mean annual precipitation: 42 to 56 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Oldsmar and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Oldsmar

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear, convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: sand
E - 6 to 38 inches: sand
Bh - 38 to 50 inches: sand
Btg - 50 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

Minor Components

Immokalee

Percent of map unit: 6 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex, linear
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

Holopaw

Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Other vegetative classification: Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Basinger

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Boca

Percent of map unit: 2 percent
Landform: Flats on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Ecological site: R155XY003FL - South Florida Flatwoods
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: Yes

Tequesta

Percent of map unit: 1 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R156BY010FL), Organic soils in depressions and on flood plains (G156AC645FL)
Hydric soil rating: Yes

6—Wabasso sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2svyr
Elevation: 0 to 70 feet
Mean annual precipitation: 46 to 55 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 355 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Wabasso and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wabasso

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: sand
E - 6 to 25 inches: sand
Bh - 25 to 30 inches: sand
Btg - 30 to 58 inches: sandy clay loam
Cg - 58 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 9 to 50 inches to strongly contrasting textural stratification
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w

Hydrologic Soil Group: C/D
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

Minor Components

Hallandale
Percent of map unit: 6 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Boca
Percent of map unit: 5 percent
Landform: Flats on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Ecological site: R155XY003FL - South Florida Flatwoods
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: Yes

Pineda
Percent of map unit: 4 percent
Landform: Drainageways on marine terraces, flats on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear
Across-slope shape: Concave, linear
Other vegetative classification: Slough (R155XY011FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: Yes

8—Malabar sand, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: 2sm5k
Elevation: 0 to 40 feet
Mean annual precipitation: 46 to 57 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Malabar and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Malabar

Setting

Landform: Flats on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Linear
Across-slope shape: Linear, concave
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: sand
E - 5 to 15 inches: sand
Bw - 15 to 35 inches: sand
E' - 35 to 45 inches: sand
Btg - 45 to 65 inches: sandy loam
Cg - 65 to 80 inches: loamy sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 3 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 4 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Other vegetative classification: Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Minor Components

Holopaw

Percent of map unit: 5 percent
Landform: Flatwoods on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave

Other vegetative classification: Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Basinger

Percent of map unit: 4 percent
Landform: Drainageways on marine terraces, flats on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Other vegetative classification: Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Boca

Percent of map unit: 3 percent
Landform: Drainageways on marine terraces, flatwoods on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Ecological site: R155XY003FL - South Florida Flatwoods
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: Yes

Oldsmar

Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear, convex
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

9—Riviera fine sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2tzw2
Elevation: 0 to 80 feet
Mean annual precipitation: 44 to 59 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Riviera and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Riviera

Setting

Landform: Drainageways on marine terraces, flats on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear
Across-slope shape: Concave, linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 6 inches: fine sand
E - 6 to 28 inches: fine sand
Bt/E - 28 to 32 inches: fine sandy loam
Btg - 32 to 42 inches: sandy clay loam
C - 42 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: About 3 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Other vegetative classification: Slough (R155XY011FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: Yes

Minor Components

Wabasso

Percent of map unit: 8 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Convex, linear
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

Pinellas

Percent of map unit: 4 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf

Down-slope shape: Convex, linear
Across-slope shape: Linear
Other vegetative classification: Cabbage Palm Flatwoods (R155XY005FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: No

Hallandale

Percent of map unit: 4 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Floridana

Percent of map unit: 2 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

Oldsmar

Percent of map unit: 2 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex, linear
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

13—Gentry fine sand, depressional

Map Unit Setting

National map unit symbol: 17n4d
Elevation: 10 to 80 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 358 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Gentry and similar soils: 90 percent
Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gentry

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loamy marine deposits

Typical profile

A - 0 to 23 inches: fine sand
Btg - 23 to 75 inches: sandy clay loam
Cg - 75 to 80 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C/D
Forage suitability group: Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

Minor Components

Chobee, depressional

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)
Hydric soil rating: Yes

Delray

Percent of map unit: 3 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

Winder, depressional

Percent of map unit: 2 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Linear, concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)
Hydric soil rating: Yes

Gator

Percent of map unit: 2 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G155XB645FL)
Hydric soil rating: Yes

21—Holopaw sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2x9g9
Elevation: 0 to 190 feet
Mean annual precipitation: 46 to 57 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Holopaw and similar soils: 84 percent
Minor components: 16 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holopaw

Setting

Landform: Flats on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, talf, dip

Down-slope shape: Linear, concave
Across-slope shape: Concave, linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: sand
Eg - 5 to 48 inches: sand
Btg - 48 to 65 inches: sandy clay loam
BCkg - 65 to 80 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 3 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 4 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Low (about 4.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Other vegetative classification: Slough (R155XY011FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

Minor Components

Basinger

Percent of map unit: 6 percent
Landform: Flats on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Concave
Across-slope shape: Linear
Other vegetative classification: Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Riviera

Percent of map unit: 4 percent
Landform: Drainageways on marine terraces, flats on marine terraces, flatwoods on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Other vegetative classification: Slough (R156BY011FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G156BC241FL)
Hydric soil rating: Yes

Oldsmar

Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear, concave
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

Boca

Percent of map unit: 2 percent
Landform: Flats on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Convex, linear
Across-slope shape: Linear, concave
Ecological site: R155XY003FL - South Florida Flatwoods
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: Yes

Gentry

Percent of map unit: 1 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

32—Riviera sand, frequently ponded, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2tzwm
Elevation: 0 to 70 feet
Mean annual precipitation: 46 to 58 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Riviera and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Riviera

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 0 inches: sand
E - 0 to 22 inches: sand
Btg/E - 22 to 31 inches: sandy loam
Btg1 - 31 to 42 inches: sandy loam
Btg2 - 42 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 4 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Moderate (about 6.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C/D
Forage suitability group: Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

Minor Components

Chobee

Percent of map unit: 5 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R155XY010FL - Freshwater Marshes and Ponds
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)
Hydric soil rating: Yes

Wabasso

Percent of map unit: 4 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

Malabar

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Ecological site: R155XY011FL - Slough
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Hallandale

Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

33—Holopaw sand, frequently ponded, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2x9gb
Elevation: 0 to 190 feet
Mean annual precipitation: 46 to 57 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Holopaw and similar soils: 88 percent
Minor components: 12 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Holopaw

Setting

Landform: Depressions on marine terraces

Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave, linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: sand
Eg - 5 to 48 inches: sand
Btg - 48 to 65 inches: sandy clay loam
BCkg - 65 to 80 inches: sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 4 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Low (about 4.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

Minor Components

Basinger

Percent of map unit: 7 percent
Landform: Flats on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, talf, dip
Down-slope shape: Concave, convex
Across-slope shape: Linear, concave
Other vegetative classification: Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Riviera

Percent of map unit: 5 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave

Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

37—Tuscawilla fine sand

Map Unit Setting

National map unit symbol: 17n4z
Elevation: 0 to 100 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 358 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Tuscawilla and similar soils: 82 percent
Minor components: 18 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tuscawilla

Setting

Landform: Rises on marine terraces, flats on marine terraces
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 4 inches: fine sand
E - 4 to 8 inches: fine sand
Btg - 8 to 56 inches: sandy clay loam
Cg - 56 to 80 inches: loamy fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Low (about 5.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: B/D
Forage suitability group: Loamy and clayey soils on flats of hydric or mesic lowlands (G155XB341FL)
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Loamy and clayey soils on flats of hydric or mesic lowlands (G155XB341FL)
Hydric soil rating: Yes

Minor Components

Boca

Percent of map unit: 5 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: No

Jupiter

Percent of map unit: 5 percent
Landform: Flats on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: Cabbage Palm Flatwoods (R155XY005FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Pineda

Percent of map unit: 4 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Other vegetative classification: Slough (R155XY011FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: Yes

Wabasso

Percent of map unit: 4 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

50—Delray sand, depressional

Map Unit Setting

National map unit symbol: 17n56
Elevation: 0 to 30 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 358 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Delray and similar soils: 82 percent
Minor components: 18 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Delray

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 22 inches: sand
E - 22 to 50 inches: sand
Btg - 50 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Moderate (about 6.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)

Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

Minor Components

Gentry
Percent of map unit: 6 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

Okeelanta, drained
Percent of map unit: 6 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G155XB645FL)
Hydric soil rating: Yes

Holopaw, depressional
Percent of map unit: 6 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

51—Malabar fine sand, high, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: 2svz4
Elevation: 0 to 80 feet
Mean annual precipitation: 42 to 64 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 355 to 365 days
Farmland classification: Farmland of unique importance

Map Unit Composition

Malabar, high, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Malabar, High

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear, convex
Across-slope shape: Linear
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 5 inches: fine sand
E - 5 to 17 inches: fine sand
Bw - 17 to 42 inches: fine sand
Bt - 42 to 59 inches: fine sandy loam
Cg - 59 to 80 inches: loamy fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A/D
Ecological site: R155XY003FL - South Florida Flatwoods
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

Minor Components

Oldsmar

Percent of map unit: 5 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex, linear
Across-slope shape: Linear

Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

Pineda

Percent of map unit: 4 percent
Landform: Drainageways on marine terraces, flats on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear
Across-slope shape: Concave, linear
Other vegetative classification: Slough (R155XY011FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: Yes

Felda

Percent of map unit: 4 percent
Landform: Drainageways on marine terraces, flatwoods on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear
Across-slope shape: Concave, linear
Ecological site: R155XY011FL - Slough
Other vegetative classification: Slough (R155XY011FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: Yes

Basinger

Percent of map unit: 2 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

57—Chobee fine sandy loam, frequently ponded, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2tzvw
Elevation: 10 to 70 feet
Mean annual precipitation: 45 to 55 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Chobee and similar soils: 88 percent
Minor components: 12 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chobee

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Loamy marine deposits

Typical profile

A - 0 to 9 inches: fine sandy loam
Btg1 - 9 to 13 inches: fine sandy loam
Btg2 - 13 to 68 inches: sandy clay loam
Cg - 68 to 80 inches: fine sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 14 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C/D
Ecological site: R155XY010FL - Freshwater Marshes and Ponds
Forage suitability group: Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)
Hydric soil rating: Yes

Minor Components

Tequesta

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R156BY010FL), Organic soils in depressions and on flood plains (G156AC645FL)
Hydric soil rating: Yes

Placid

Percent of map unit: 3 percent

Landform: Depressions on marine terraces, drainageways on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

Gator

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G155XB645FL)
Hydric soil rating: Yes

Winder

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)
Hydric soil rating: Yes

59—Winder fine sand, frequently ponded, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2svzv
Elevation: 20 to 130 feet
Mean annual precipitation: 46 to 55 inches
Mean annual air temperature: 68 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Winder and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Winder

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip

Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Parent material: Sandy and loamy marine deposits

Typical profile

A - 0 to 4 inches: fine sand
E - 4 to 14 inches: fine sand
B/E - 14 to 18 inches: sandy loam
Btg1 - 18 to 30 inches: sandy clay loam
Btg2 - 30 to 47 inches: sandy loam
Ckg1 - 47 to 60 inches: sandy loam
Ckg2 - 60 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 4 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Moderate (about 7.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C/D
Forage suitability group: Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)
Hydric soil rating: Yes

Minor Components

Riviera

Percent of map unit: 4 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

Chobee

Percent of map unit: 4 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave

Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R156BY010FL), Loamy and clayey soils on stream terraces, flood plains, or in depressions (G156BC345FL)
Hydric soil rating: Yes

Boca

Percent of map unit: 4 percent
Landform: Drainageways on marine terraces, flats on marine terraces
Landform position (three-dimensional): Tread, dip, talf
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Ecological site: R155XY003FL - South Florida Flatwoods
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy over loamy soils on flats of hydric or mesic lowlands (G155XB241FL)
Hydric soil rating: Yes

Okeelanta

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Tread, dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G155XB645FL)
Hydric soil rating: Yes

60—Myakka sand, depressional

Map Unit Setting

National map unit symbol: 17n5f
Elevation: 20 to 30 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 358 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Myakka, depressional, and similar soils: 87 percent
Minor components: 13 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Myakka, Depressional

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy marine deposits

Typical profile

A - 0 to 3 inches: sand
E - 3 to 25 inches: sand
Bh - 25 to 60 inches: sand
C - 60 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Forage suitability group: Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

Minor Components

Basinger

Percent of map unit: 4 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Other vegetative classification: Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Oldsmar, depressional

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

Okeelanta, drained

Percent of map unit: 3 percent

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G155XB645FL)
Hydric soil rating: Yes

Immokalee

Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: No

69—Denaud-Gator mucks

Map Unit Setting

National map unit symbol: 17n5q
Elevation: 0 to 80 feet
Mean annual precipitation: 46 to 54 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 358 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Denaud and similar soils: 50 percent
Gator and similar soils: 25 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denaud

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy and loamy marine deposits organic material

Typical profile

Oa - 0 to 11 inches: muck
A - 11 to 20 inches: fine sand
AC - 20 to 23 inches: fine sand
Ck - 23 to 42 inches: fine sandy loam
2Ck - 42 to 80 inches: fine sand

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: A/D
Forage suitability group: Organic soils in depressions and on flood plains (G155XB645FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G155XB645FL)
Hydric soil rating: Yes

Description of Gator

Setting

Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Herbaceous organic material over loamy and sandy marine deposits

Typical profile

Oa - 0 to 32 inches: muck
Cg1 - 32 to 35 inches: sandy loam
Cg2 - 35 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water capacity: Very high (about 15.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: A/D
Forage suitability group: Organic soils in depressions and on flood plains (G155XB645FL)
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Organic soils in depressions and on flood plains (G155XB645FL)
Hydric soil rating: Yes

Minor Components

Basinger
Percent of map unit: 4 percent
Landform: Drainageways on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Other vegetative classification: Slough (R155XY011FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)
Hydric soil rating: Yes

Holopaw, depressional
Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

Pineda, depressional
Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

Chobee, depressional
Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)
Hydric soil rating: Yes

Delray
Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip

Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy soils on stream terraces, flood plains, or in depressions (G155XB145FL)
Hydric soil rating: Yes

Winder, depressional

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Linear, concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Loamy and clayey soils on stream terraces, flood plains, or in depressions (G155XB345FL)
Hydric soil rating: Yes

Gentry

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

Riviera, depressional

Percent of map unit: 3 percent
Landform: Depressions on marine terraces
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Other vegetative classification: Freshwater Marshes and Ponds (R155XY010FL), Sandy over loamy soils on stream terraces, flood plains, or in depressions (G155XB245FL)
Hydric soil rating: Yes

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

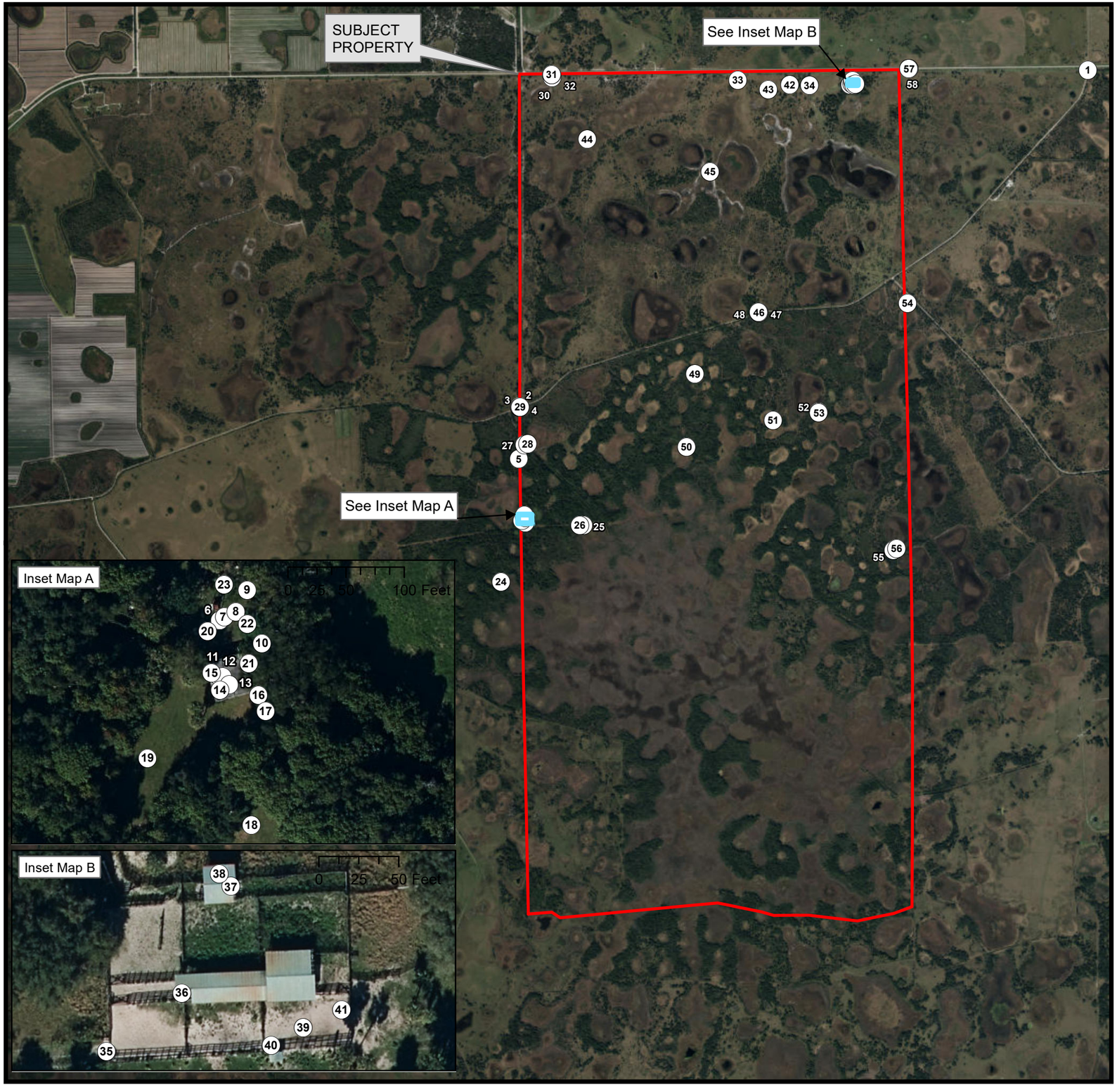
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Appendix D.

Photographic Documentation and Field Observations Maps



FIELD OBSERVATIONS:

Map ID	Photo Description	Latitude	Longitude
1	East entrance to Subject Property. Gate at Loop Road to east of property, looking north.	26.60564772230	-81.17634511850
2	West property line at Loop road, looking south.	26.57987979360	-81.22508988380
3	West property line at Loop road, looking north.	26.57987634370	-81.22509171010
4	At west property line, looking east at Loop Road	26.57988818260	-81.22507658900
5	A section corner on west property line.	26.57590488430	-81.22513864690
6	Water well and water tower at hunting camp, looking north.	26.57150223200	-81.22465950190
7	Bath house at hunting camp, looking north.	26.57151073220	-81.22464720910
8	Bath house. Sewer pipe at right, looking east.	26.57152269300	-81.22461720720
9	Sewer line from bath house to septic tank, looking south.	26.57157396950	-81.22458764730
10	Outdoor kitchen and deck east of cabin, looking south.	26.57144801890	-81.22454853020
11	Kitchen inside cabin.	26.57136852430	-81.22465942880
12	Living room inside cabin.	26.57136886600	-81.22465161800
13	East bedroom.	26.57134987230	-81.22463462610
14	West bedroom.	26.57133782880	-81.22465868940
15	Air handler in living room.	26.57137798750	-81.22468150040
16	Pole barn south of cabin, looking south.	26.57132571230	-81.22455739710
17	RVs south of cabin, looking southwest.	26.57128800230	-81.22453863010
18	Cabin, looking north.	26.57101832280	-81.22457528240
19	Cabin, looking northeast.	26.57117599100	-81.22484943860
20	North elevation of cabin, looking south.	26.57147623240	-81.22469164960
21	Assumed septic tank location east of cabin, looking south.	26.57140028720	-81.22458304960
22	Bunkhouse shed, looking east.	26.57149374700	-81.22458714060
23	Car battery in northernmost shed at hunting camp.	26.58127641690	-81.23010705600
24	From west of subject property, looking east toward property.	26.56649513240	-81.22665647750
25	Interior of Subject Property, looking east at impassable trail.	26.57083175570	-81.21958597490
26	From same location as previous, looking west at overgrown trail.	26.57081511080	-81.21990838810
27	One of several culvert crossings for a road leading to a pasture.	26.57698997630	-81.22465729740
28	A pasture south of Loop road near west side of Subject Property, looking southeast.	26.57705195950	-81.22438547890
29	Melissa Canal with culvert from Loop Road at west property line, looking south.	26.57986703000	-81.22502586890
30	Telephone equipment just south of north property line, looking south.	26.60507078850	-81.22227540160
31	From near northwest corner of Subject Property looking south.	26.60531425940	-81.22230682890
32	From near northwest corner of Subject Property looking east.	26.60531464570	-81.22231030480
33	Typical pasture north of Loop Road.	26.60487824080	-81.20636421780
34	Abandoned tire in pasture.	26.60447130930	-81.20022562570
35	Cattle pen, looking east.	26.60451421030	-81.19673152380
36	Treatment chute in cattle pen, looking east.	26.60461505850	-81.19658720790
37	Scale in cattle pen, looking west.	26.60479880150	-81.19649364780
38	Scale in cattle pen, looking south.	26.60482014940	-81.19651549990
39	Cattle pen, looking north.	26.60455555380	-81.19635436770
40	Water well and pump at south side of cattle pen, looking south.	26.60452518890	-81.19641564270
41	Cattle pond east of cattle pen, looking east.	26.60458694360	-81.19628103250
42	Southwest corner of three sided excavated ditch near north property line, looking east.	26.60450579230	-81.20191916770
43	Typical mineral feeder in pasture.	26.60416103250	-81.20375813050
44	Typical pasture.	26.60034662150	-81.21926238300
45	Game feeder.	26.59788938220	-81.20875803460
46	Loop Road looking west.	26.58711074420	-81.20456164940
47	Loop Road looking east.	26.58710266940	-81.20455300930
48	Pasture looking north from Loop Road.	26.58713298860	-81.20459511950
49	Fallow food plot.	26.58238580980	-81.21004644140
50	Typical wetland	26.57681073400	-81.21076020220
51	One of multiple cattle ponds.	26.57884819650	-81.20334477810
52	Looking south from end of a north-south trail south of Loop Road.	26.57950340830	-81.19943802540
53	Looking north from end of a north-south trail south of Loop Road.	26.57946260710	-81.19944191090
54	East property line looking south.	26.58782578090	-81.19181138110
55	Typical woodland.	26.56893369780	-81.19302181680
56	Typical wet trail.	26.56906072080	-81.19275413780
57	From near northeast corner of Subject Property, looking west along CR 832.	26.60574867250	-81.19166344220
58	From near northeast corner of Subject property, looking south.	26.60574882650	-81.19171331030

Legend

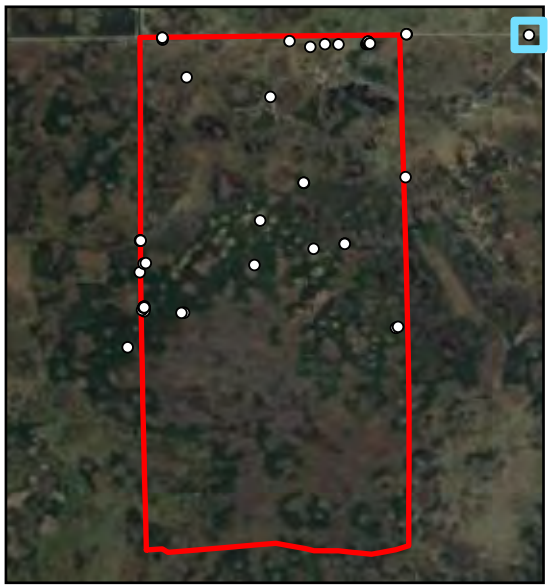
- Photo Observation
- Subject Boundary

0 0.5 1 2 Miles

N

FIELD OBSERVATIONS MAP
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 1:

East entrance to Subject Property. Gate at Loop Road to east of property, looking north.



Legend

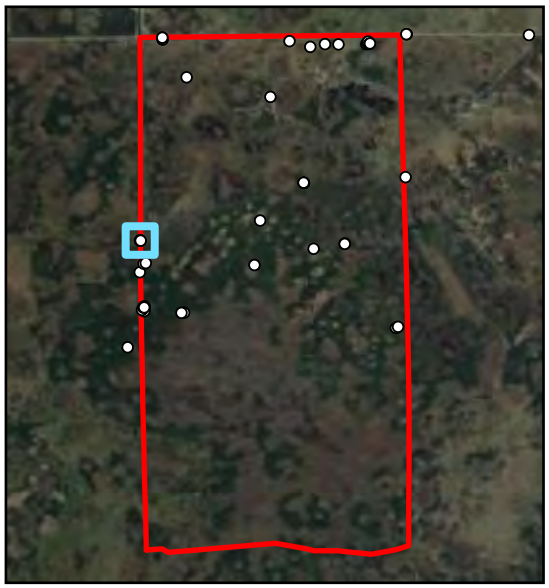
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 2:

West property line at Loop road, looking south.



Legend

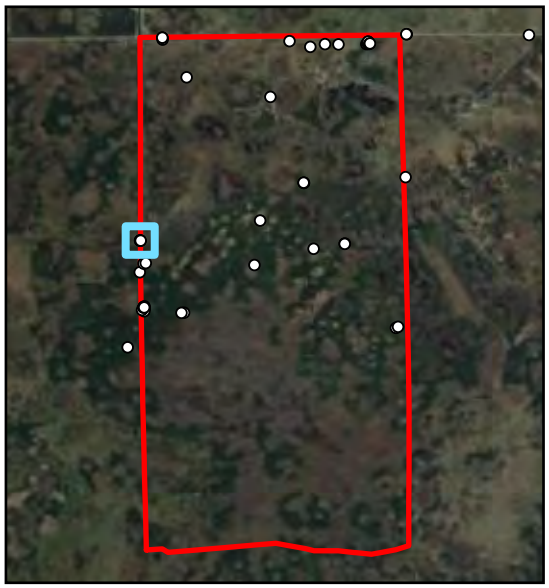
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 3:

West property line at Loop road, looking north.



Legend

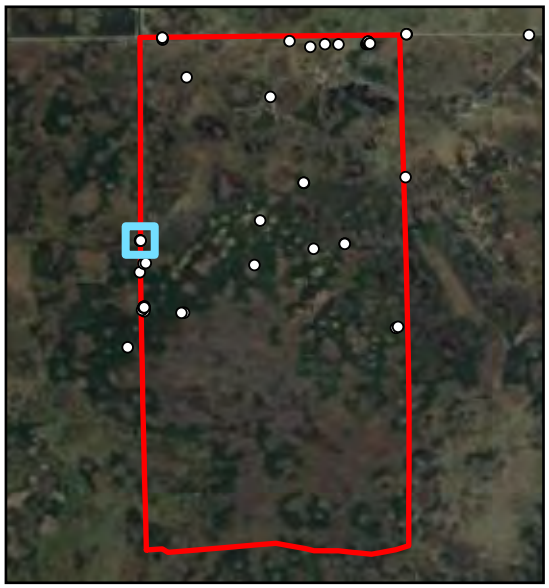
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 4:

At west property line, looking east at Loop Road



Legend

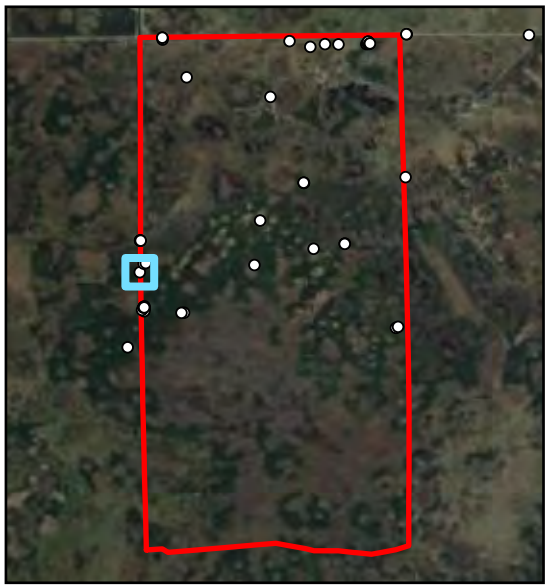
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 5:

A section corner on west property line.



Legend

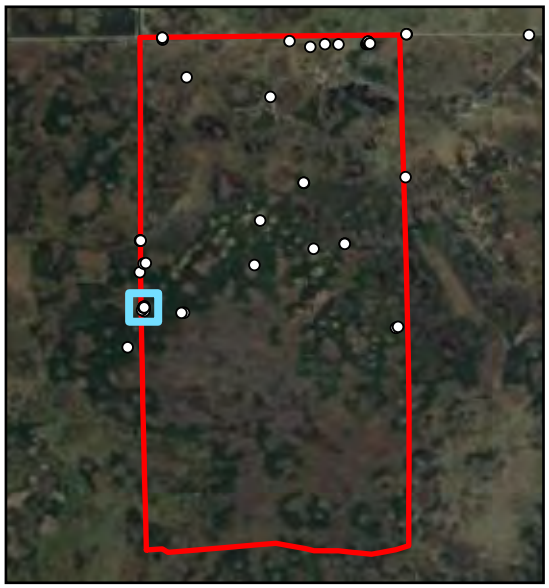
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 6:

Water well and water tower at hunting camp, looking north.



Legend

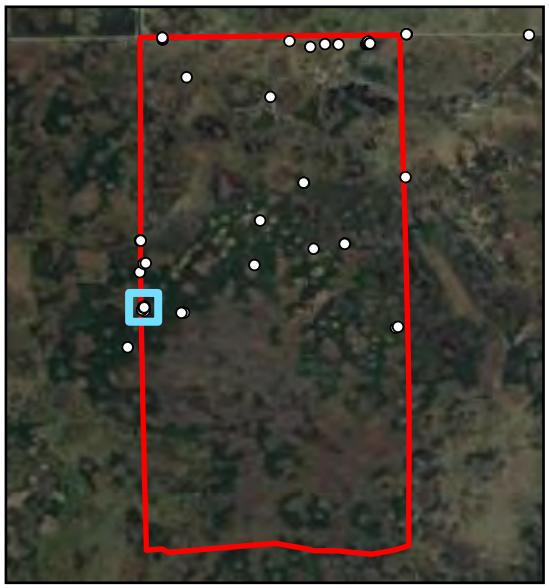
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 7:

Bath house at hunting camp, looking north.



Legend

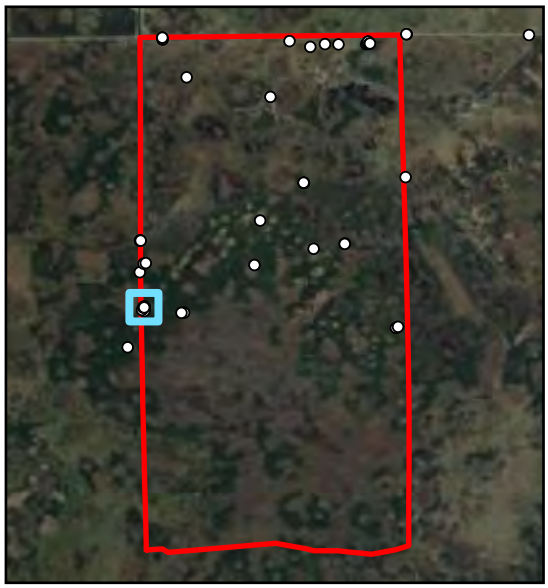
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 8:

Bath house. Sewer pipe at right, looking east.



Legend

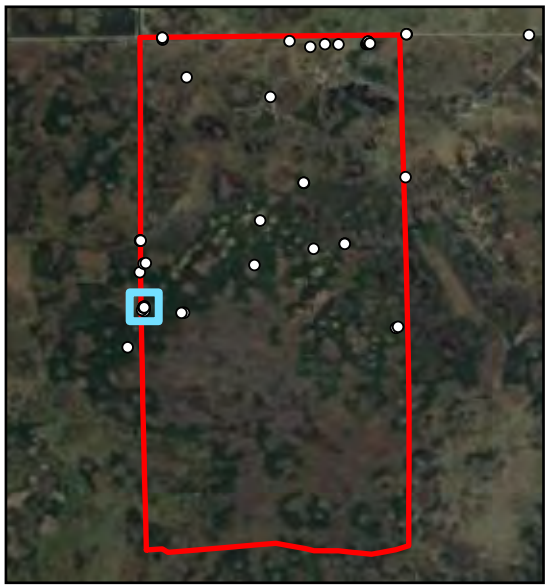
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Legend

- Photo Observation
- Subject Property Boundary

Photograph 9:

Sewer line from bath house to septic tank, looking south.

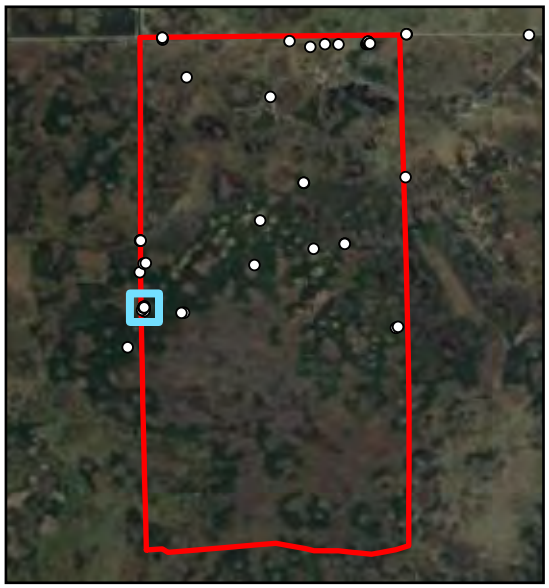


PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

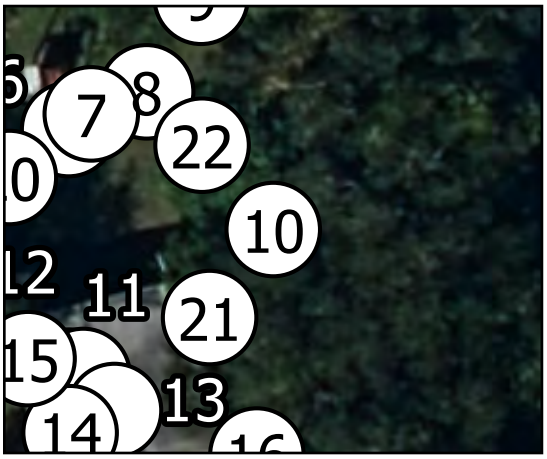
Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Legend

- Photo Observation
- Subject Property Boundary

Photograph 10:

Outdoor kitchen and deck east of cabin, looking south.

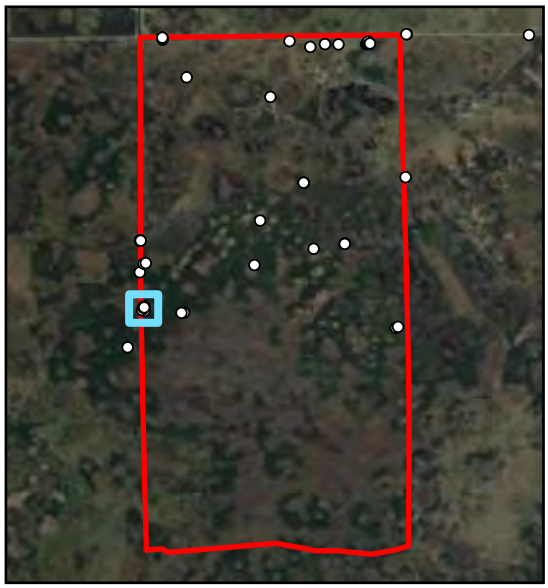


PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 11:

Kitchen inside cabin.



Legend

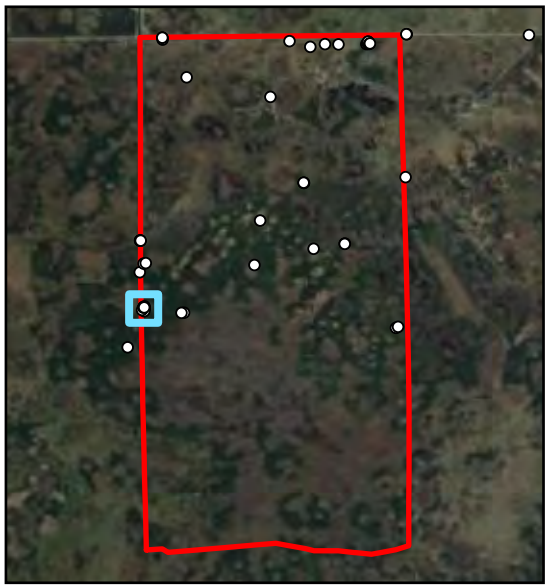
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 12:

Living room inside cabin.



Legend

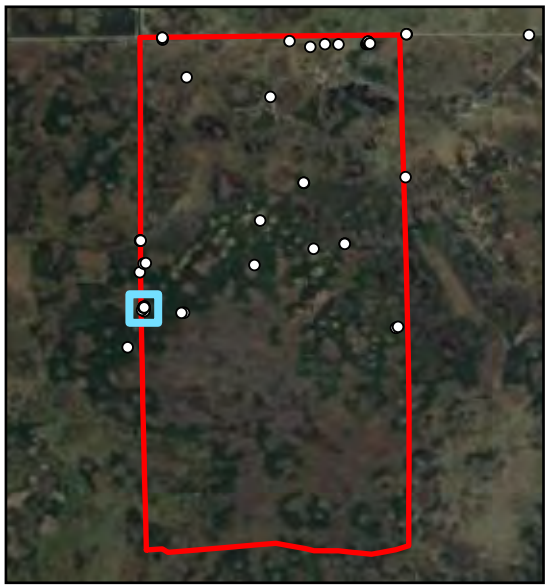
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 13:

East bedroom.



Legend

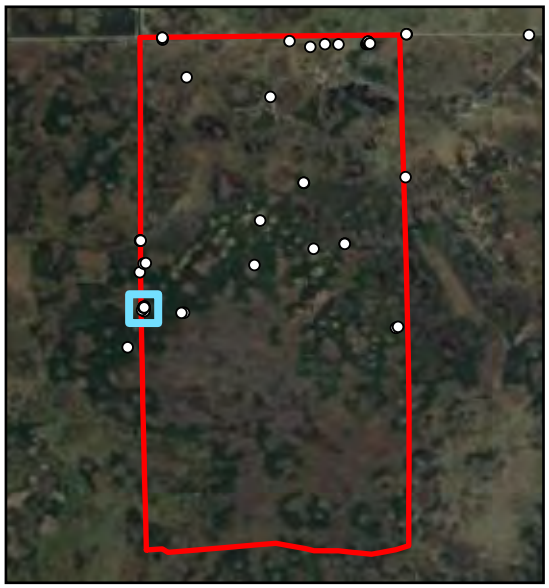
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 14:

West bedroom.



Legend

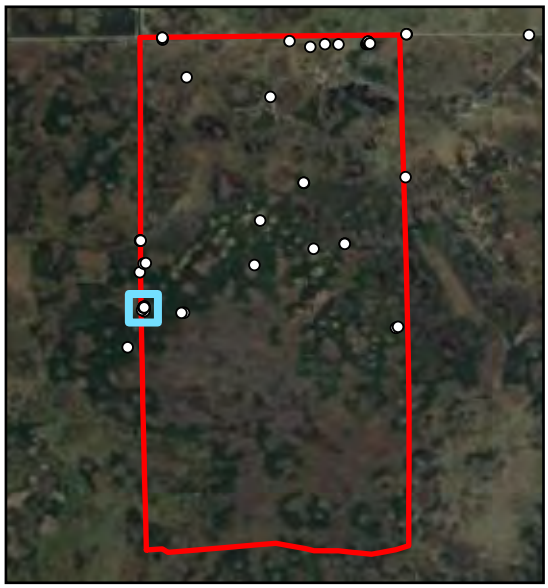
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 15:

Air handler in living room.



Legend

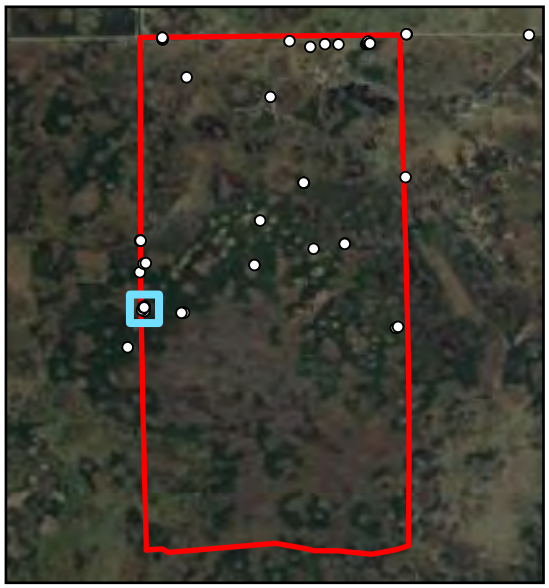
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 16:

Pole barn south of cabin, looking south.



Legend

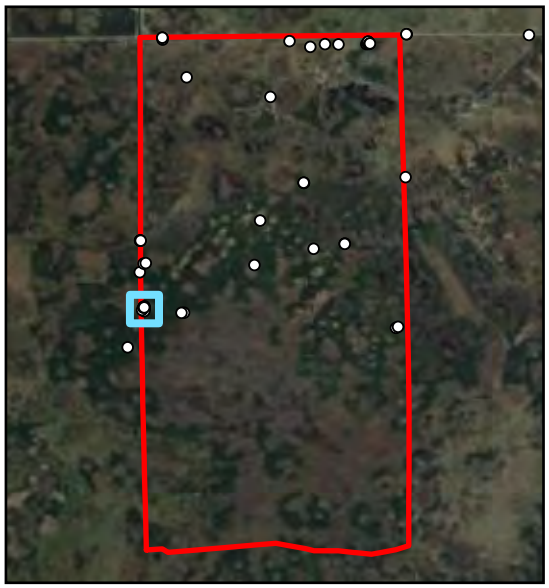
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 17:

RVs south of cabin, looking southwest.



Legend

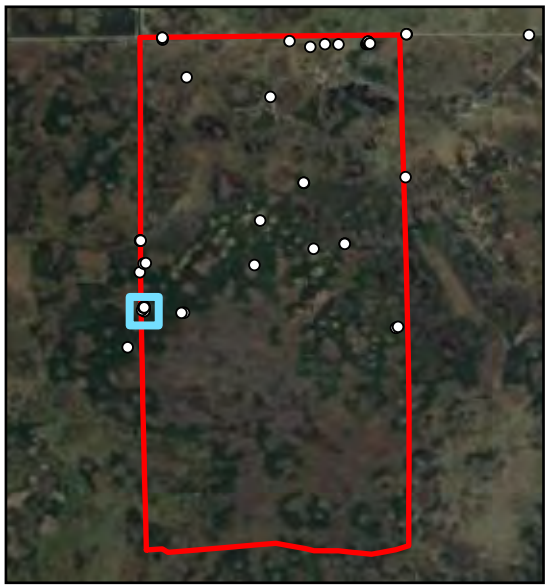
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 18:

Cabin, looking north.



Legend

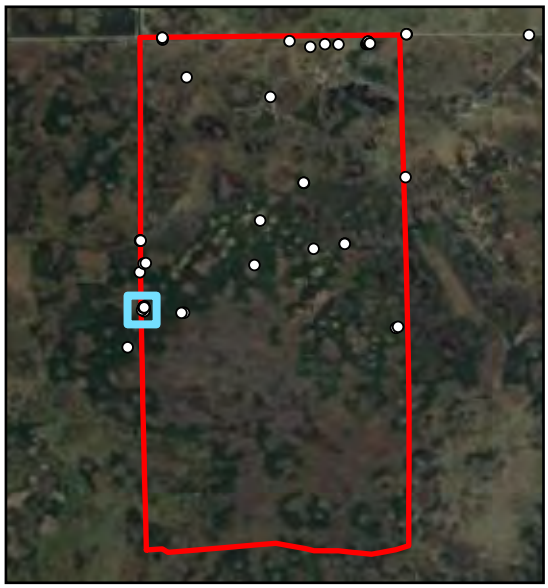
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 19:

Cabin, looking northeast.



Legend

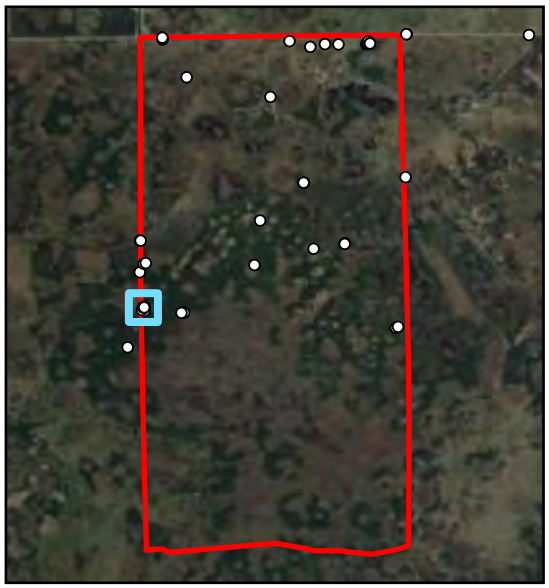
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 20:

North elevation of cabin, looking south.



Legend

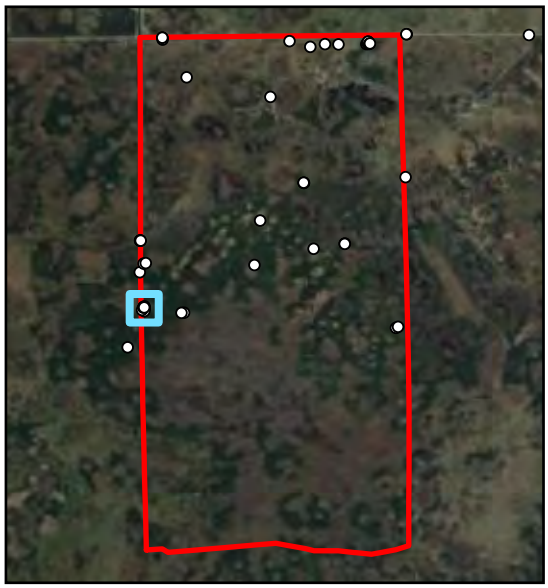
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 21:

Assumed septic tank location east of cabin, looking south.



Legend

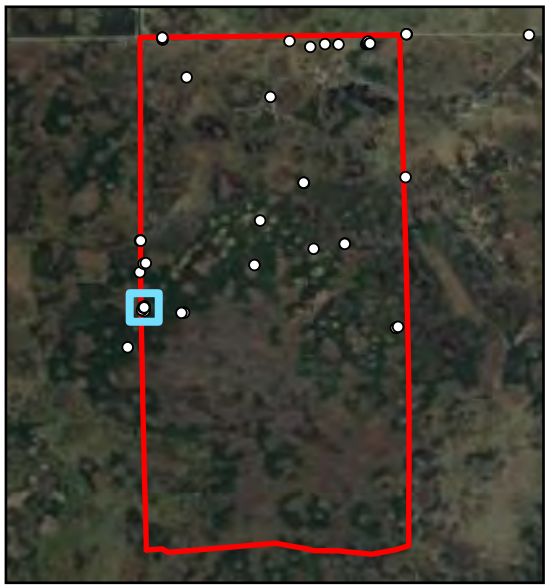
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Legend

- Photo Observation
- Subject Property Boundary

Photograph 22:

Bunkhouse shed, looking east.

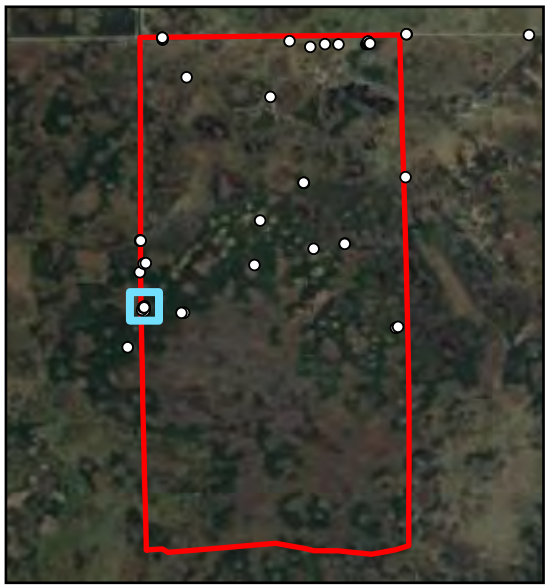


PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 23:

Car battery in northernmost shed at hunting camp.



Legend

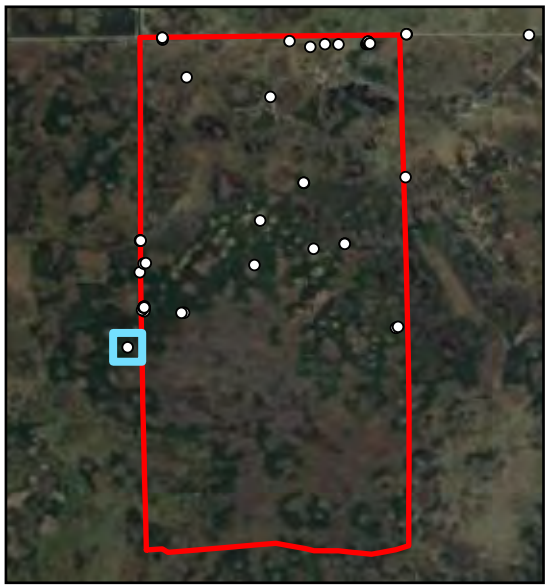
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 24:

From west of subject property, looking east toward property.



Legend

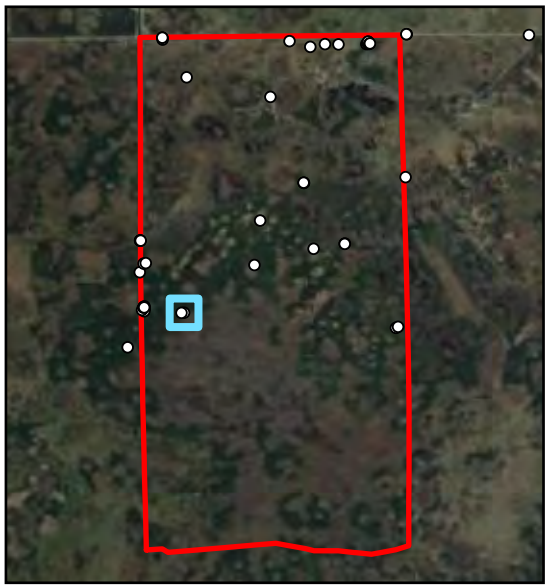
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 25:

Interior of Subject Property, looking east at impassable trail.



Legend

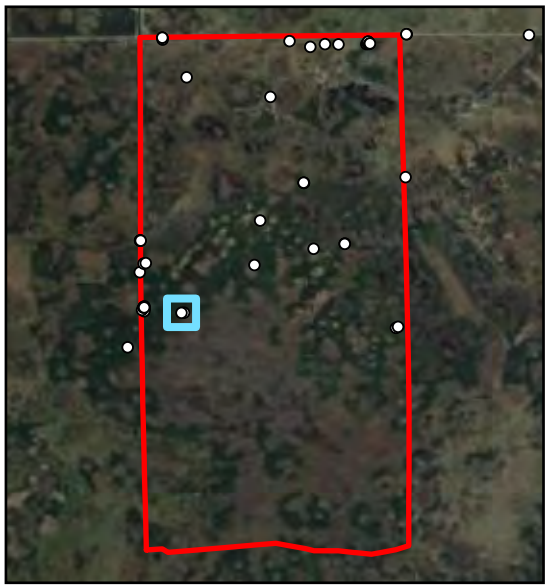
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 26:

From same location as previous, looking west at overgrown trail.



Legend

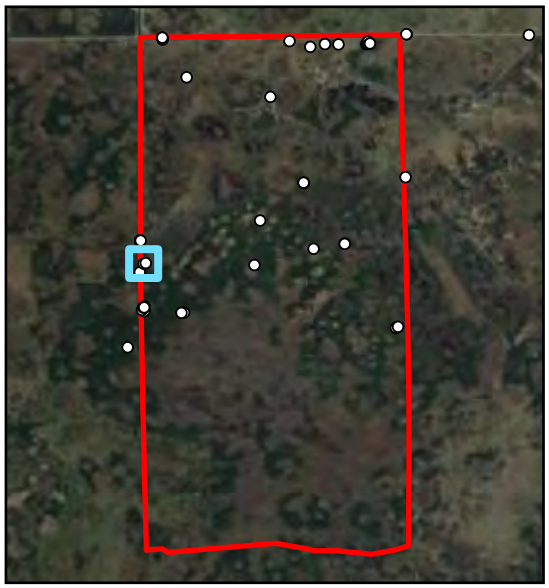
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 27:

One of several culvert crossings for a road leading to a pasture.



Legend

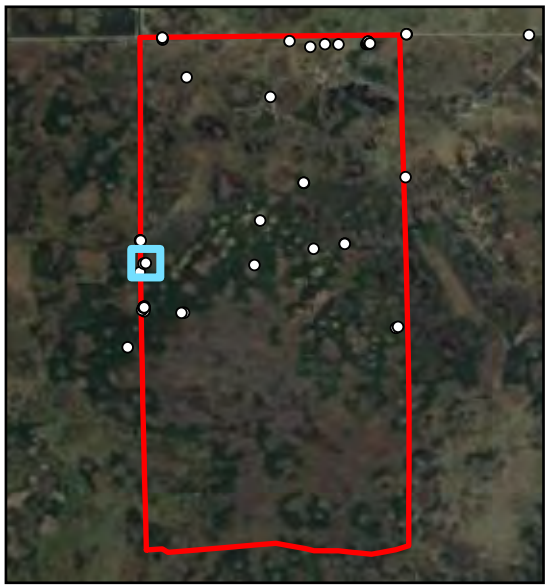
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 28:

A pasture south of Loop road near west side of Subject Property, looking southeast.



Legend

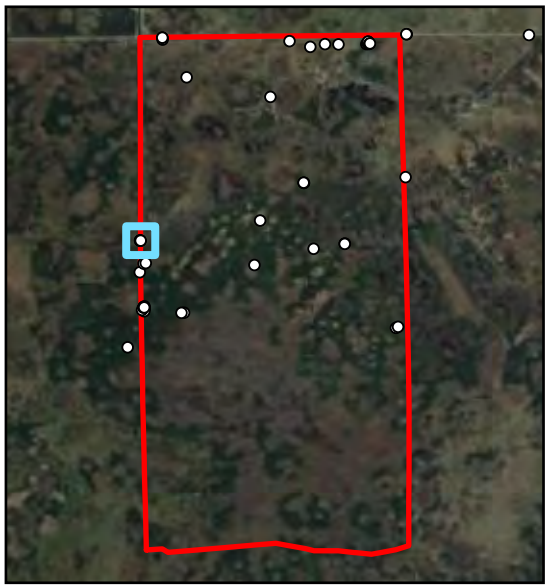
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 29:

Melissa Canal with culvert from Loop Road at west property line, looking south.



Legend

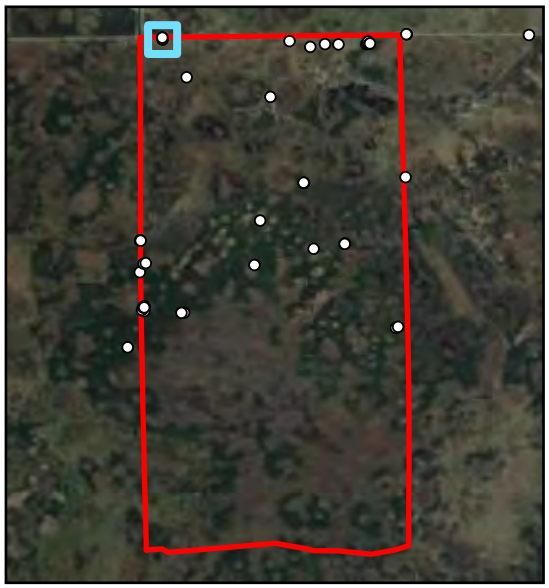
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 30:

Telephone equipment just south of north property line, looking south.



Legend

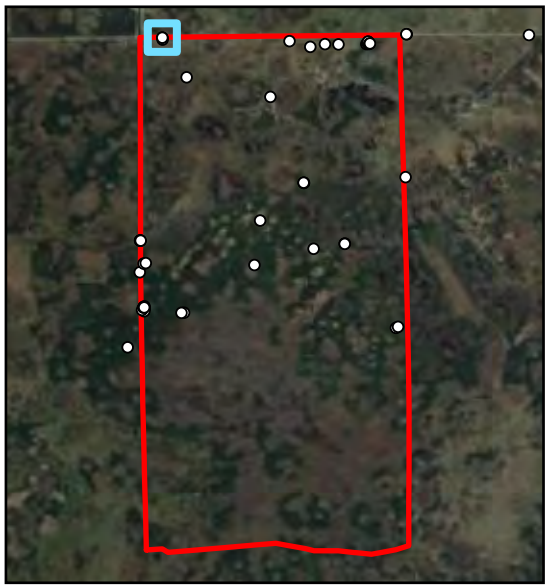
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 31:

From near northwest corner of Subject Property looking south.



Legend

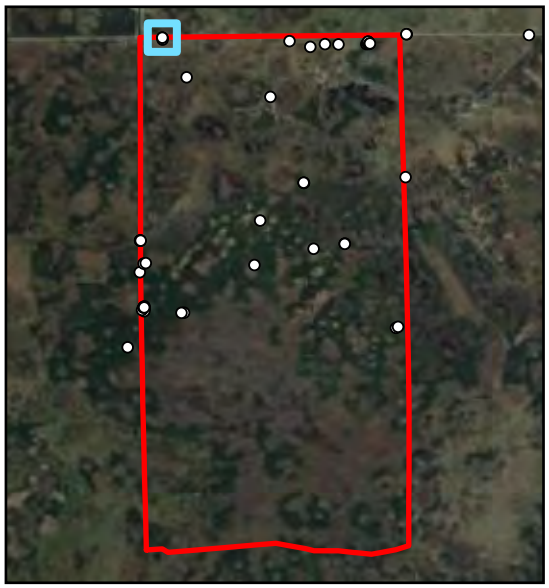
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 32:

From near northwest corner of Subject Property looking east.



Legend

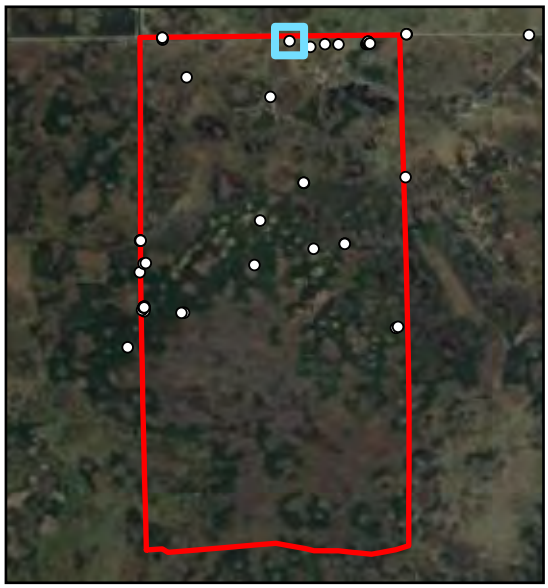
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 33:

Typical pasture north of Loop Road.



Legend

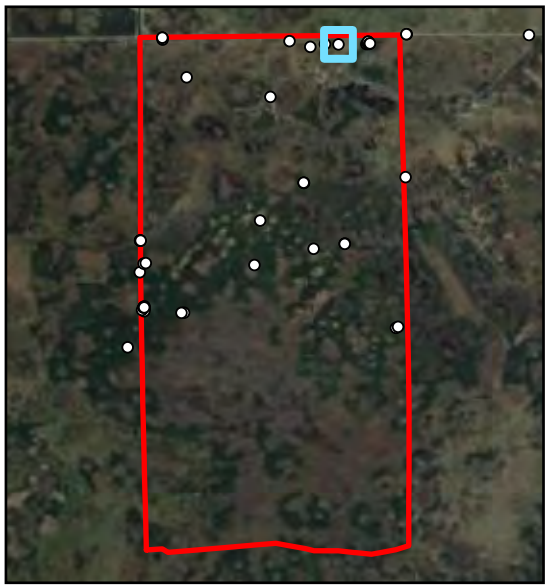
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 34:

Abandoned tire in pasture.



Legend

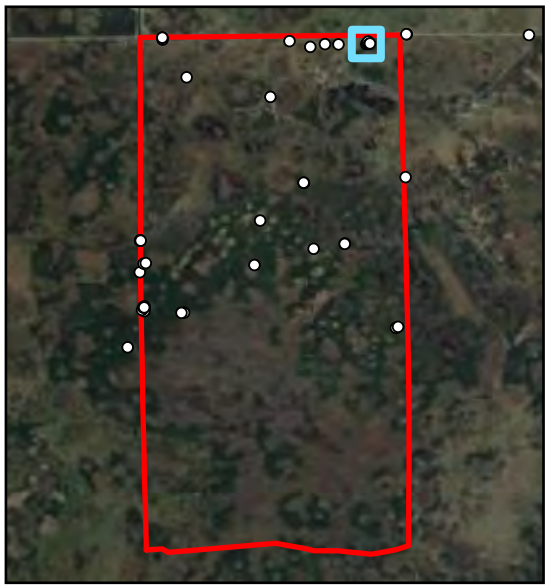
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 35:

Cattle pen, looking east.



Legend

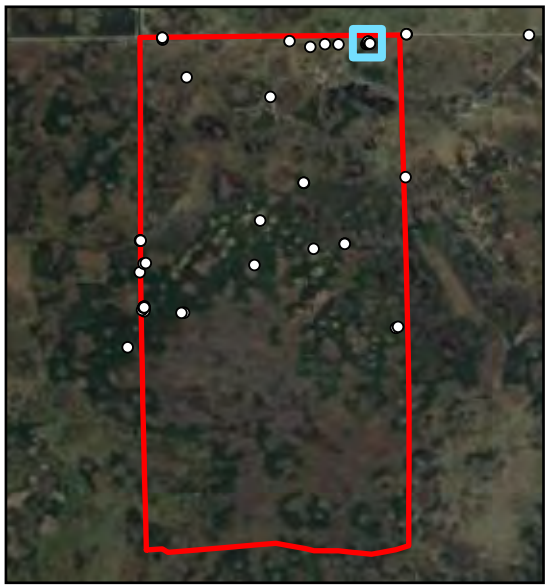
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

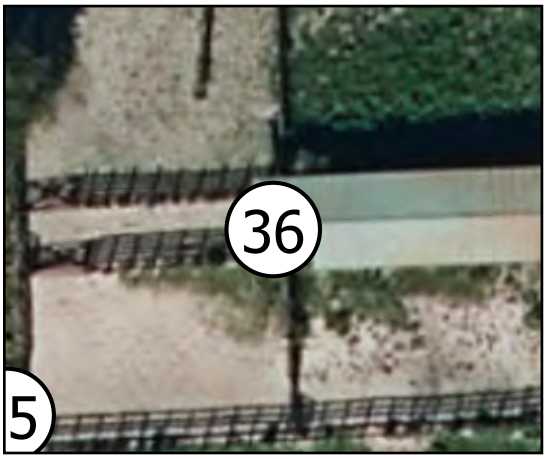
Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 36:

Treatment chute in cattle pen, looking east.



Legend

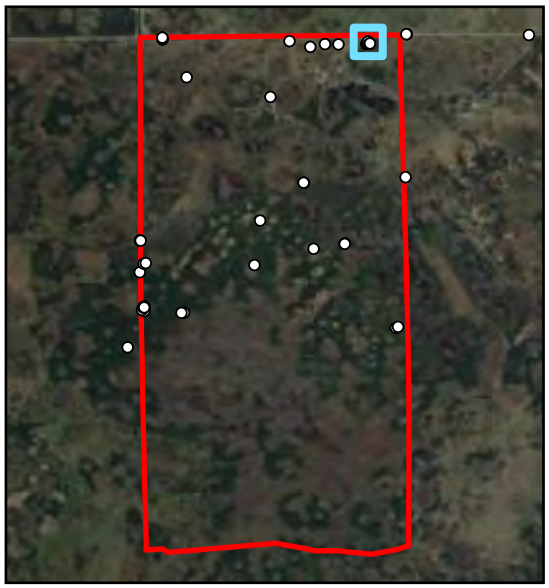
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 37:

Scale in cattle pen, looking west.



Legend

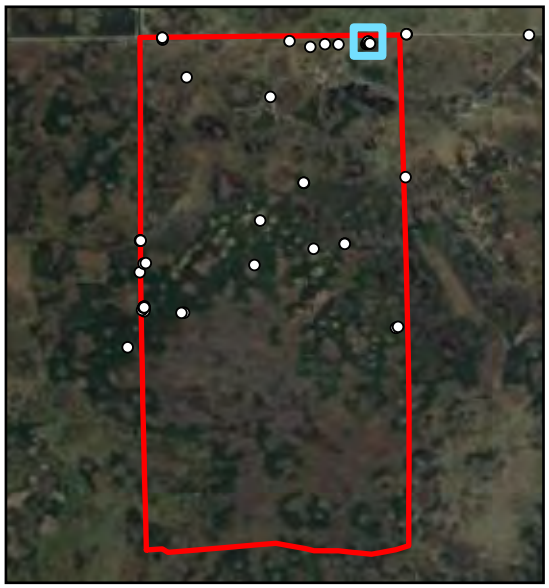
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 38:

Scale in cattle pen, looking south.



Legend

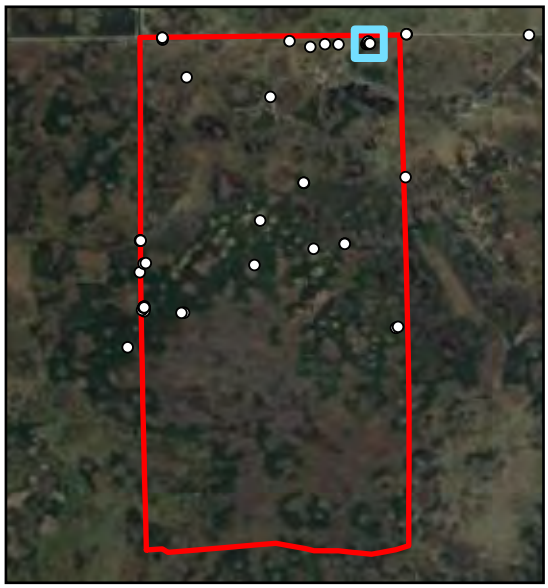
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

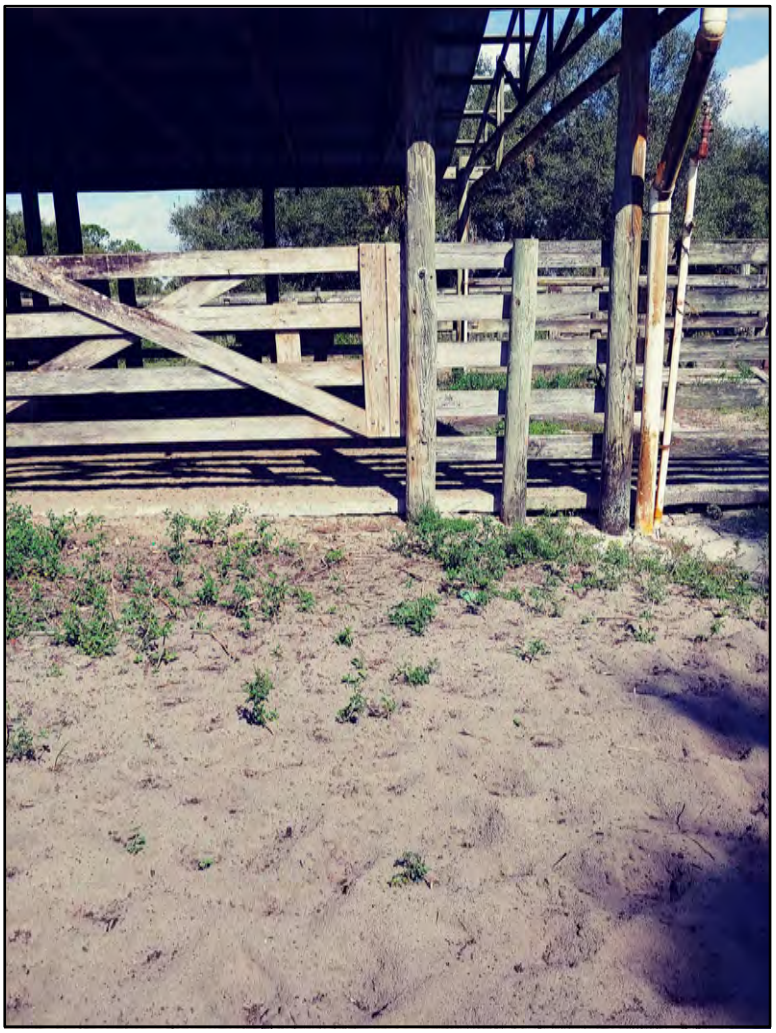
Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 39:

Cattle pen, looking north.



Legend

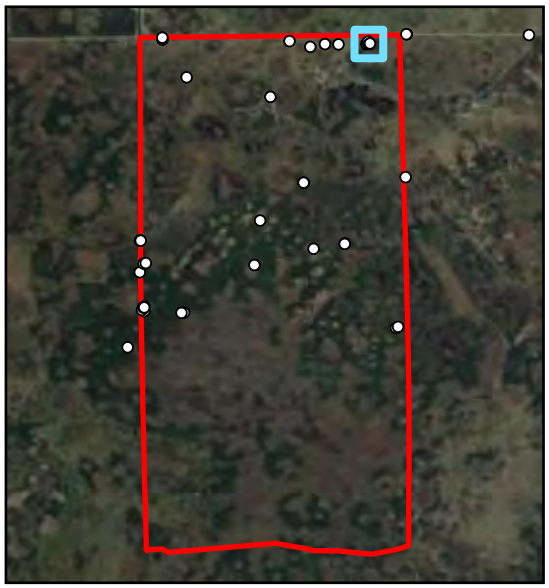
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 40:

Water well and pump at south side of cattle pen, looking south.



Legend

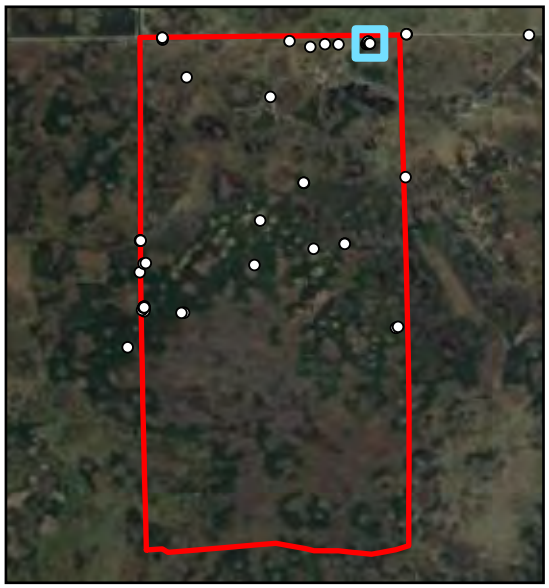
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 41:

Cattle pond east of cattle pen, looking east.



Legend

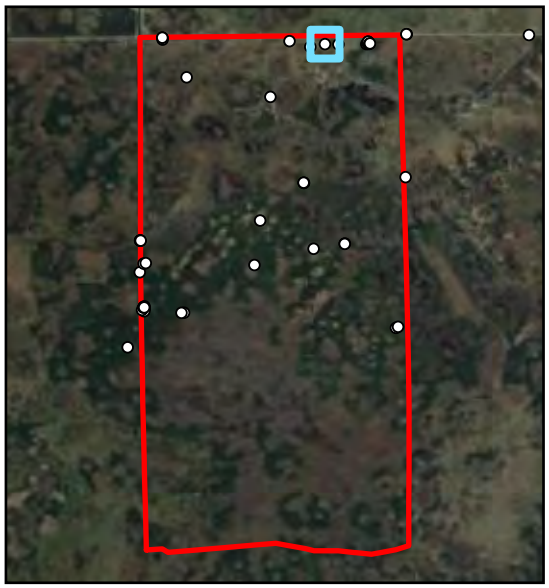
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 42:

Southwest corner of three sided excavated ditch near north property line, looking east.



Legend

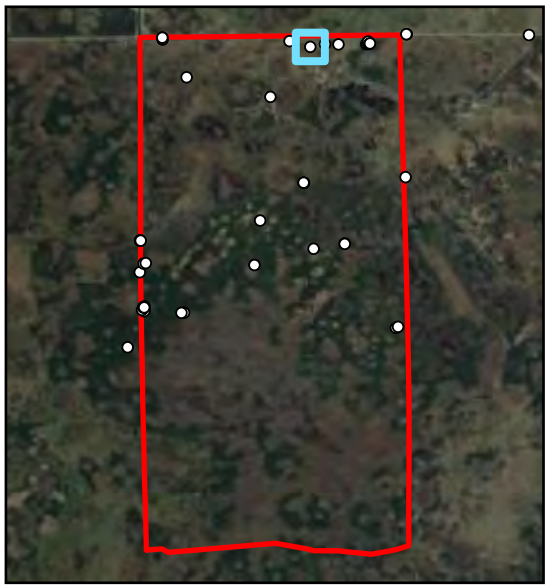
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 43:

Typical mineral feeder in pasture.



Legend

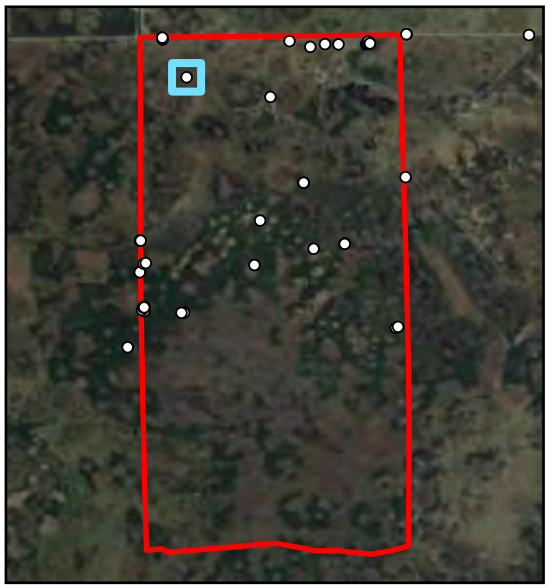
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 44:

Typical pasture.



Legend

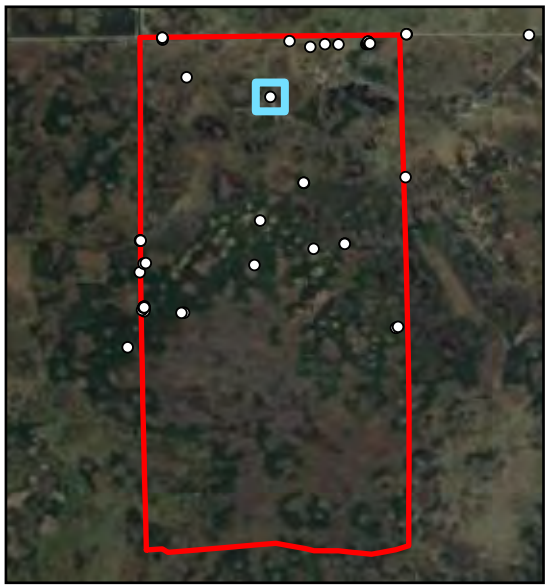
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 45:

Game feeder.



Legend

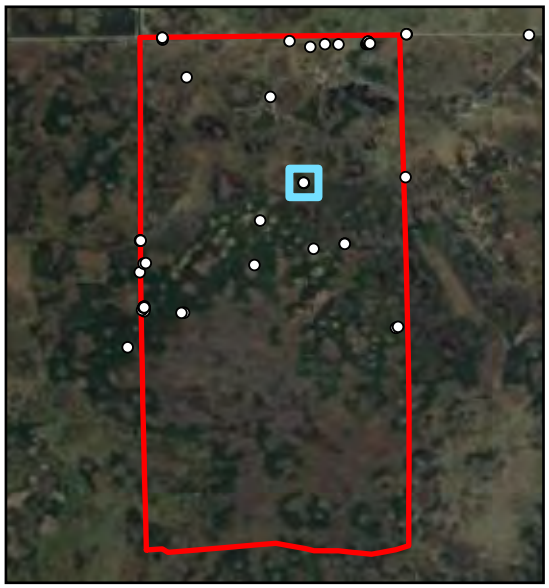
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 46:

Loop Road looking west.



Legend

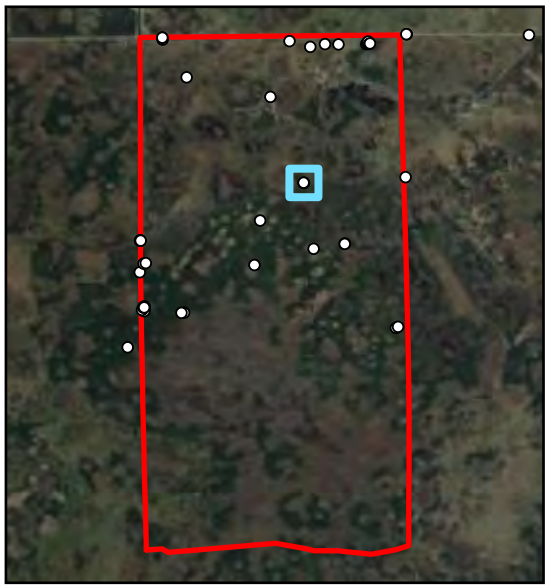
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 47:

Loop Road looking east.



Legend

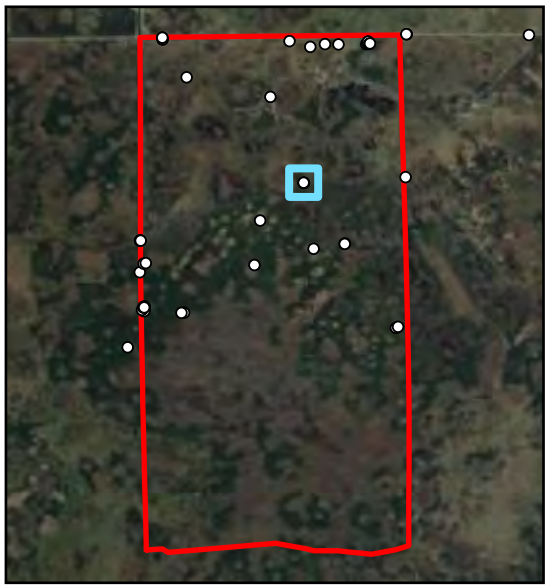
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 48:

Pasture looking north from Loop Road.



Legend

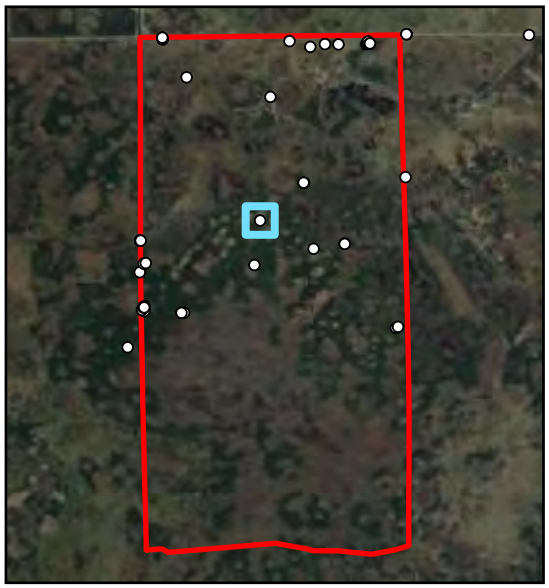
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 49:

Fallow food plot.



Legend

- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 50:

Typical wetland



Legend

- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 51:

One of multiple cattle ponds.



Legend

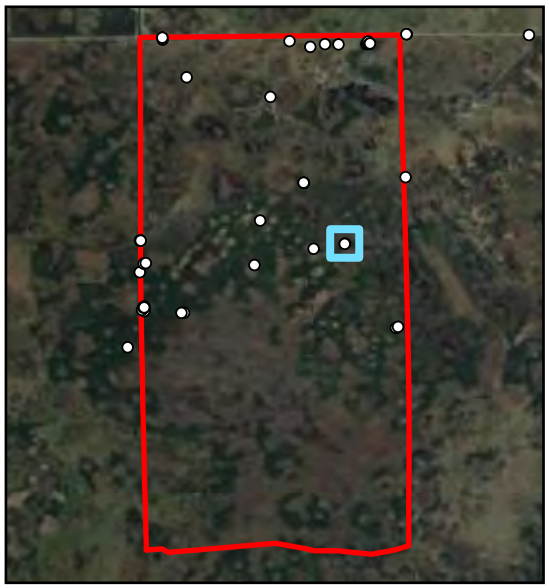
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 52:

Looking south from end of a north-south trail south of Loop Road.



Legend

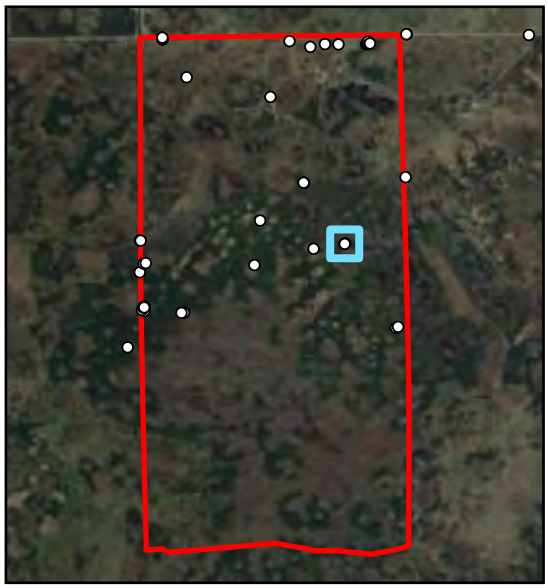
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 53:

Looking north from end of a north-south trail south of Loop Road.



Legend

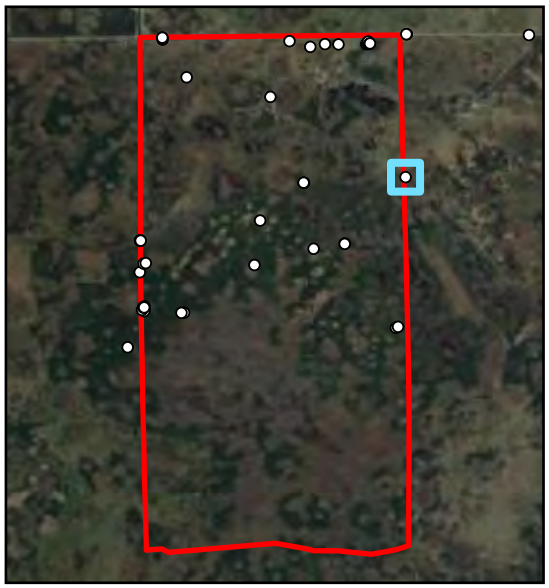
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 54:

East property line looking south.



Legend

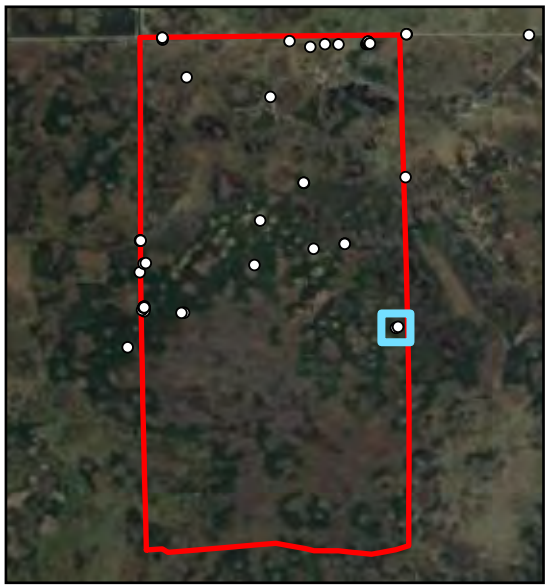
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 55:

Typical woodland.



Legend

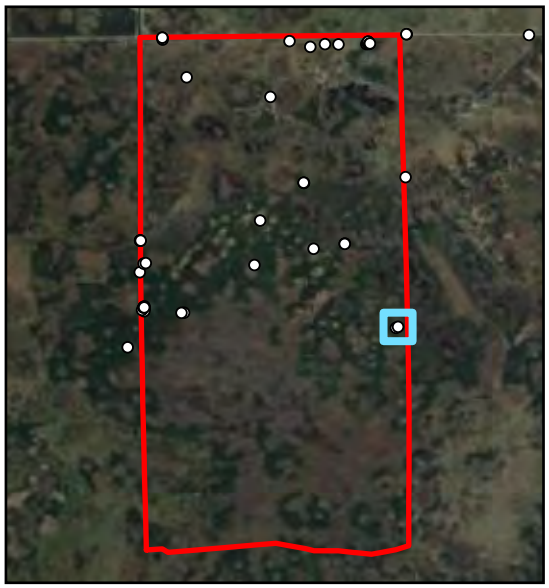
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 56:

Typical wet trail.



Legend

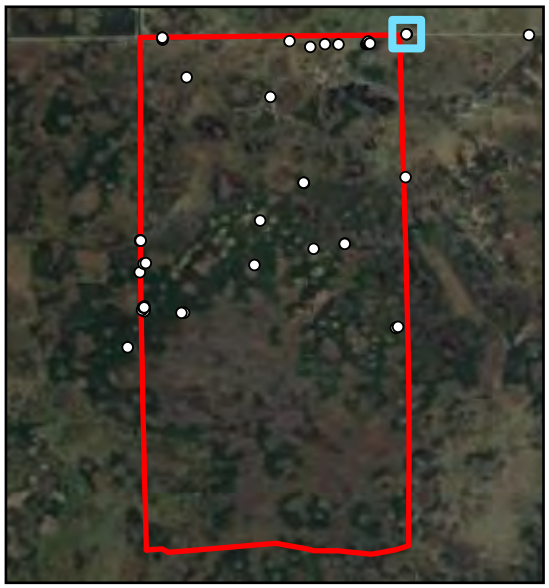
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 57:

From near northeast corner of Subject Property, looking west along CR 832.



Legend

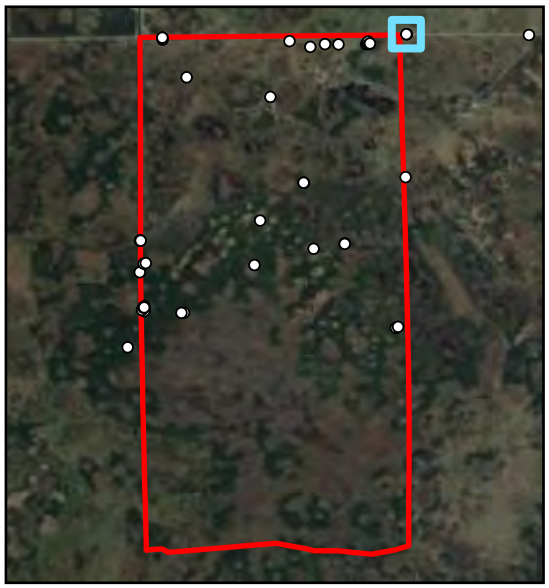
- Photo Observation
- Subject Property Boundary

PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Overview Map



0 0.5 1 2 3 4 Miles

Detail Map

*Area shown indicated by blue outline on Overview Map.



Photograph 58:

From near northeast corner of Subject property, looking south.



Legend

- Photo Observation
- Subject Property Boundary

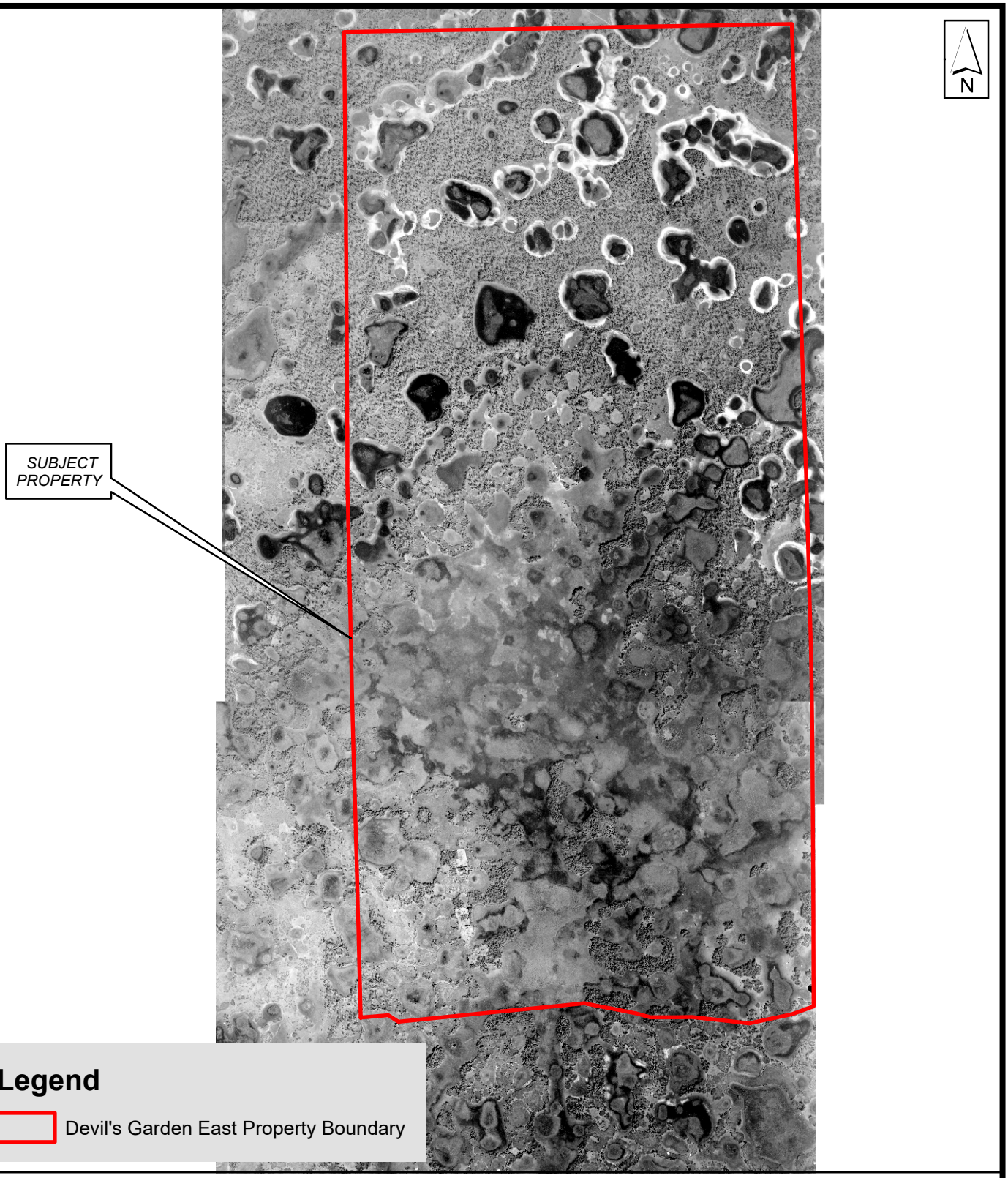
PROJECT NO.: 40-21-400		GIS ID: Photo Observation Log	PROJECT MANAGER: PAMELA JACKSON, PG		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 2/12/2021	DRN BY: MT	CHECK BY: CO	STATUS: DRAFT

NorthStar
Contracting Group, Inc.
325 JOHN KNOX ROAD, BUILDING C, SUITE 100, TALLAHASSEE, FLORIDA 32303
PH:(850) 661-4415

PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Appendix E.

Historical Aerial Photographs



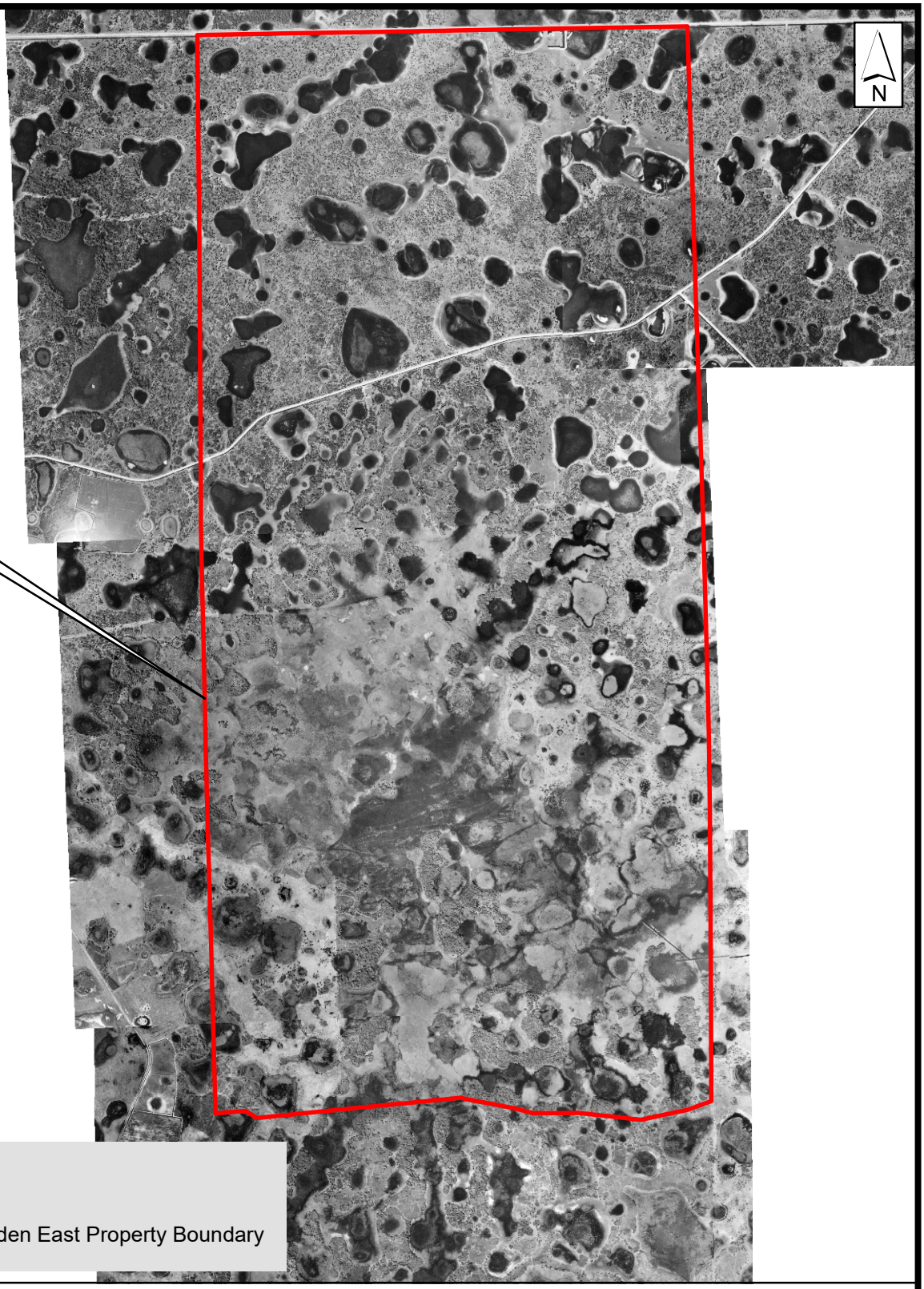
IMAGERY SOURCE: SARASOTA COUNTY, FLORIDA DEPARTMENT OF TRANSPORTATION

0 0.5 1 2 Miles

PROJECT NO.: 40-21-400		GIS ID: 4021400_HistoricAerials	PROJECT MANAGER: KEANAN BELL		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 1/27/2021	DRN BY: GIS	CHK BY: CO	STATUS: FINAL

NorthStar Contracting Group, Inc.
2760 FALKENBURG ROAD, RIVERVIEW, FLORIDA 33578
PHONE: (813) 684-4400 FAX: (813) 684-9177

1949 HISTORIC AERIAL IMAGERY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400



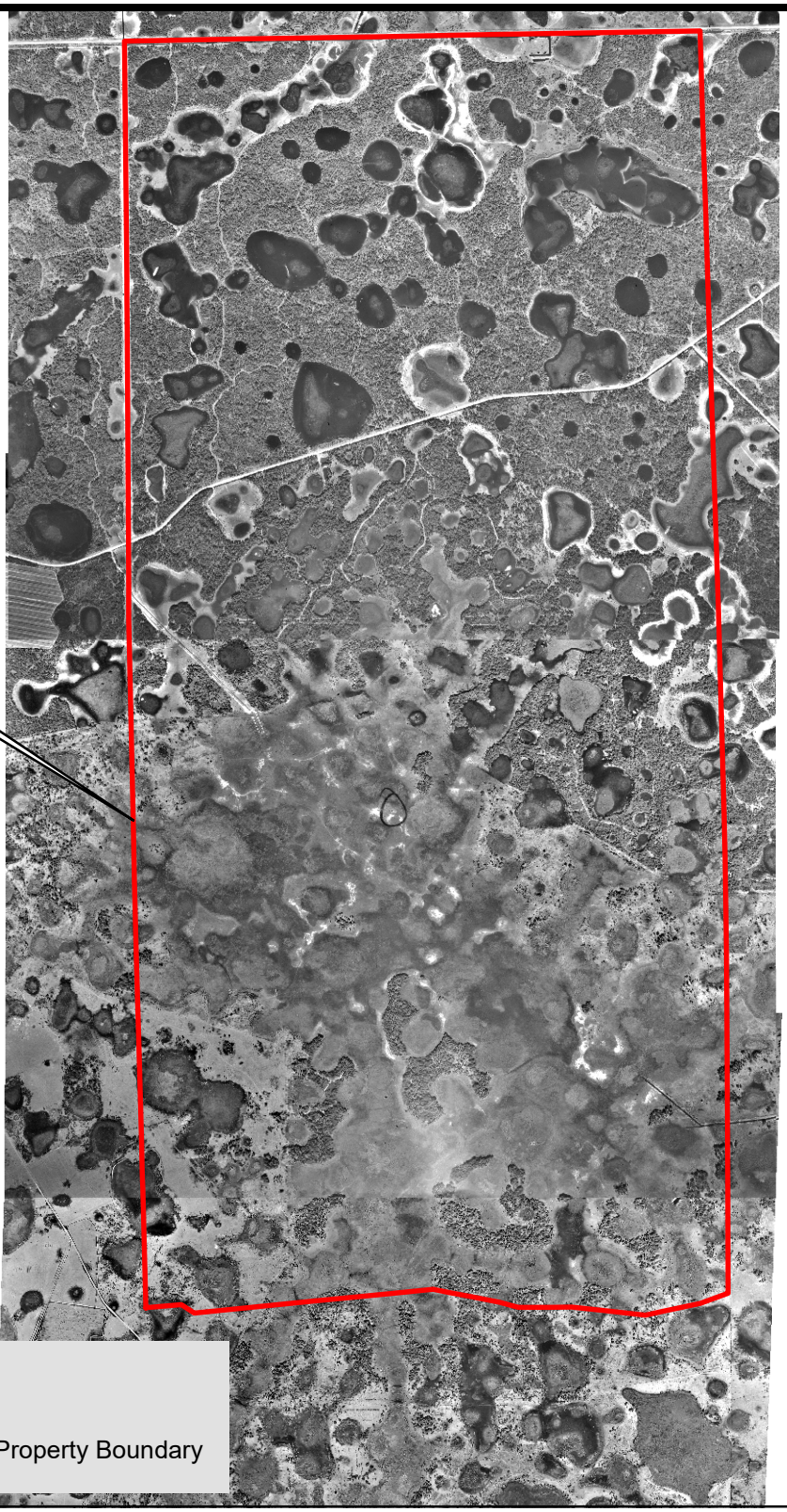
IMAGERY SOURCE: SARASOTA COUNTY, FLORIDA DEPARTMENT OF TRANSPORTATION

0 0.5 1 2 Miles

PROJECT NO.: 40-21-400		GIS ID: 4021400_HistoricAerials	PROJECT MANAGER: KEANAN BELL		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 1/27/2021	DRN BY: GIS	CHK BY: CO	STATUS: FINAL

NorthStar Contracting Group, Inc.
2760 FALKENBURG ROAD, RIVERVIEW, FLORIDA 33578
PHONE: (813) 684-4400 FAX: (813) 684-9177

1957 HISTORIC AERIAL IMAGERY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400



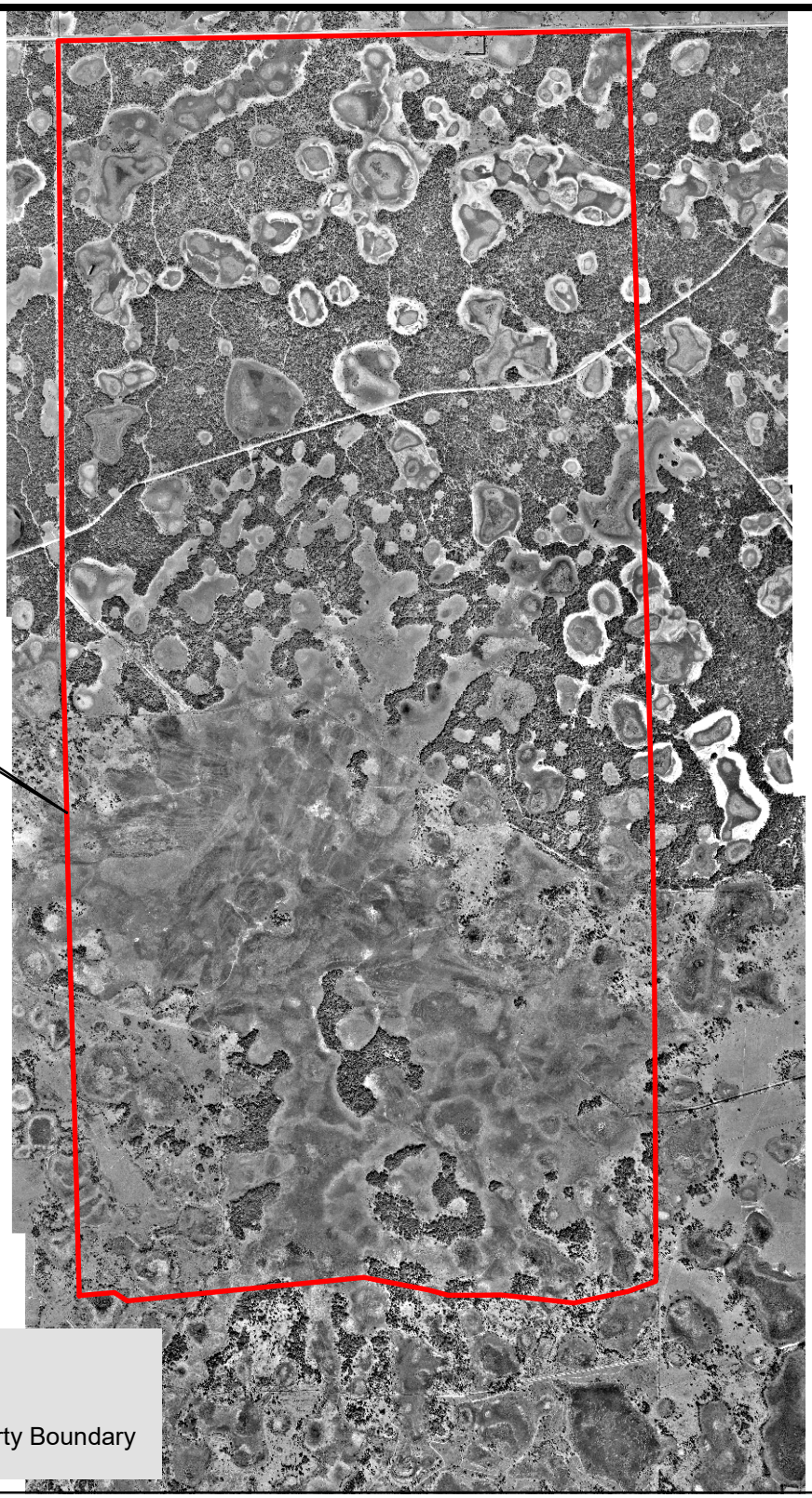
IMAGERY SOURCE: SARASOTA COUNTY, FLORIDA DEPARTMENT OF TRANSPORTATION

0 0.5 1 2 Miles

PROJECT NO.: 40-21-400		GIS ID: 4021400_HistoricAerials	PROJECT MANAGER: KEANAN BELL		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 1/27/2021	DRN BY: GIS	CHK BY: CO	STATUS: FINAL

NorthStar Contracting Group, Inc.
2760 FALKENBURG ROAD, RIVERVIEW, FLORIDA 33578
PHONE: (813) 684-4400 FAX: (813) 684-9177

1968 HISTORIC AERIAL IMAGERY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400



Legend

Devil's Garden East Property Boundary

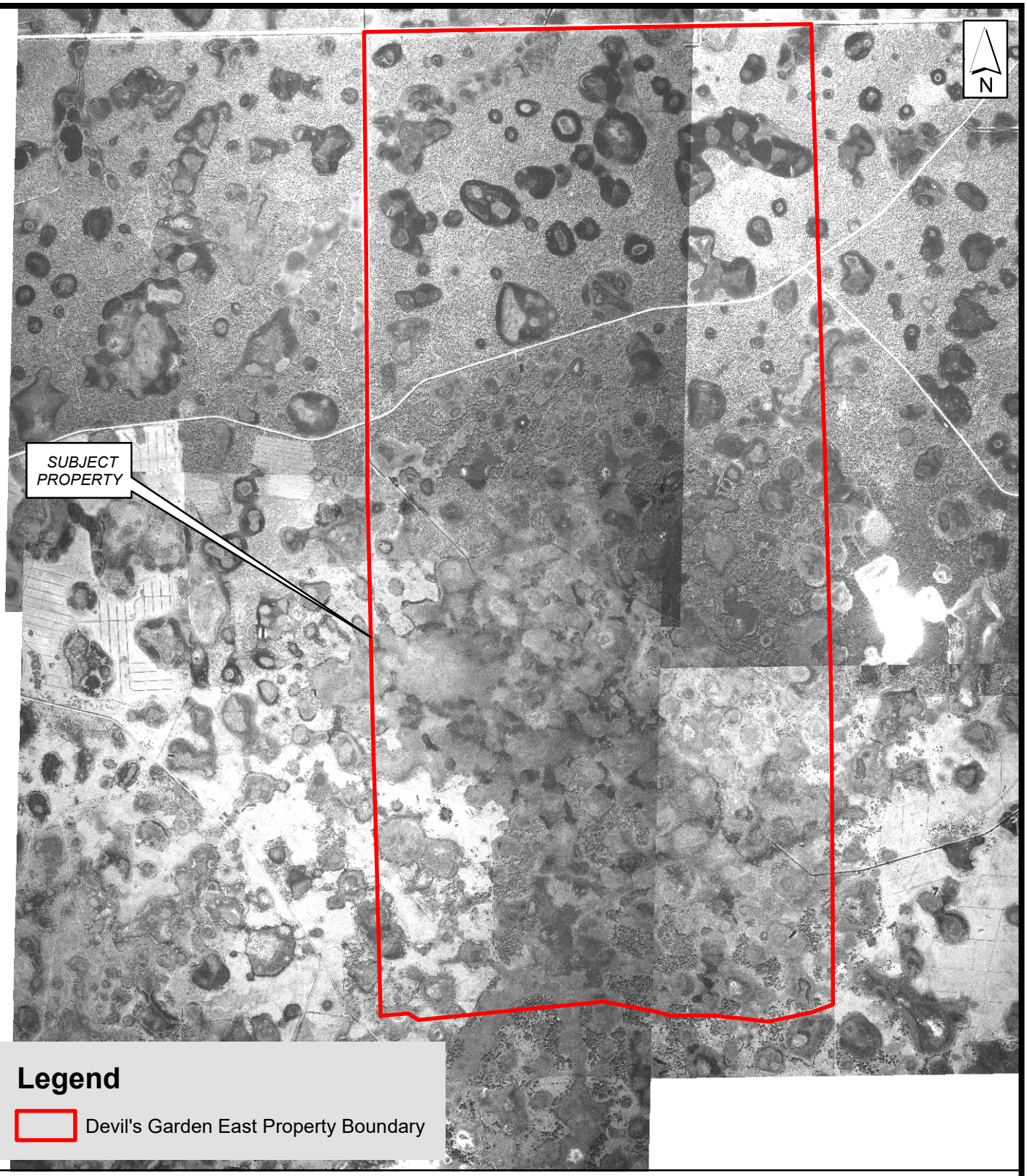
IMAGERY SOURCE: SARASOTA COUNTY, FLORIDA DEPARTMENT OF TRANSPORTATION

0 0.5 1 2 Miles

PROJECT NO.: 40-21-400		GIS ID: 4021400_HistoricAerials	PROJECT MANAGER: KEANAN BELL		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 1/27/2021	DRN BY: GIS	CHK BY: CO	STATUS: FINAL

NorthStar Contracting Group, Inc.
2760 FALKENBURG ROAD, RIVERVIEW, FLORIDA 33578
PHONE: (813) 684-4400 FAX: (813) 684-9177

1974 HISTORIC AERIAL IMAGERY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400



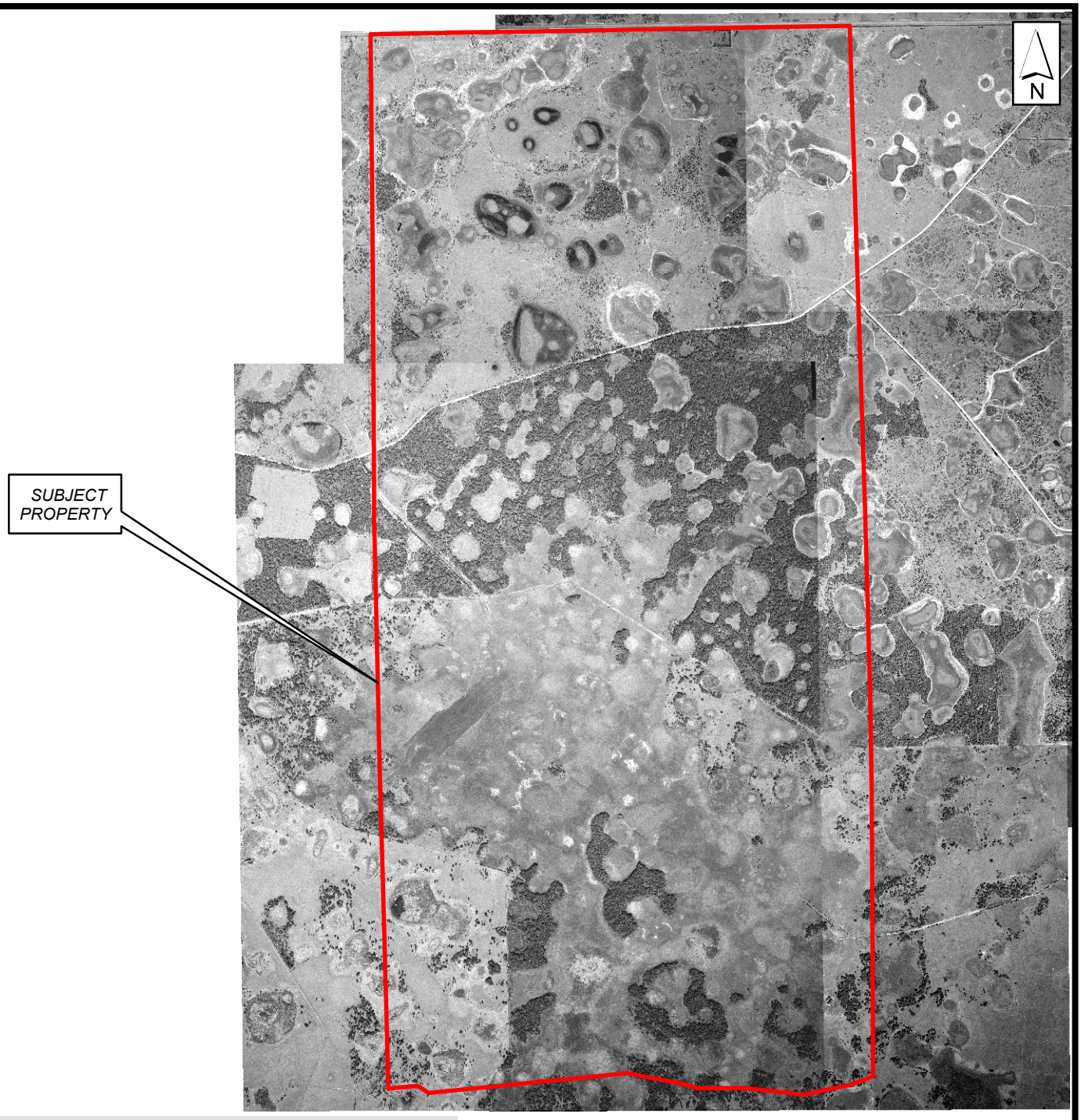
IMAGERY SOURCE: SARASOTA COUNTY, FLORIDA DEPARTMENT OF TRANSPORTATION

0 0.5 1 2 Miles

PROJECT NO.: 40-21-400		GIS ID: 4021400_HistoricAerials	PROJECT MANAGER: KEANAN BELL		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 1/27/2021	DRN BY: GIS	CHK BY: CO	STATUS: FINAL

NorthStar Contracting Group, Inc.
2760 FALKENBURG ROAD, RIVERVIEW, FLORIDA 33578
PHONE: (813) 684-4400 FAX: (813) 684-9177

1980 HISTORIC AERIAL IMAGERY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400



Legend

Devil's Garden East Property Boundary

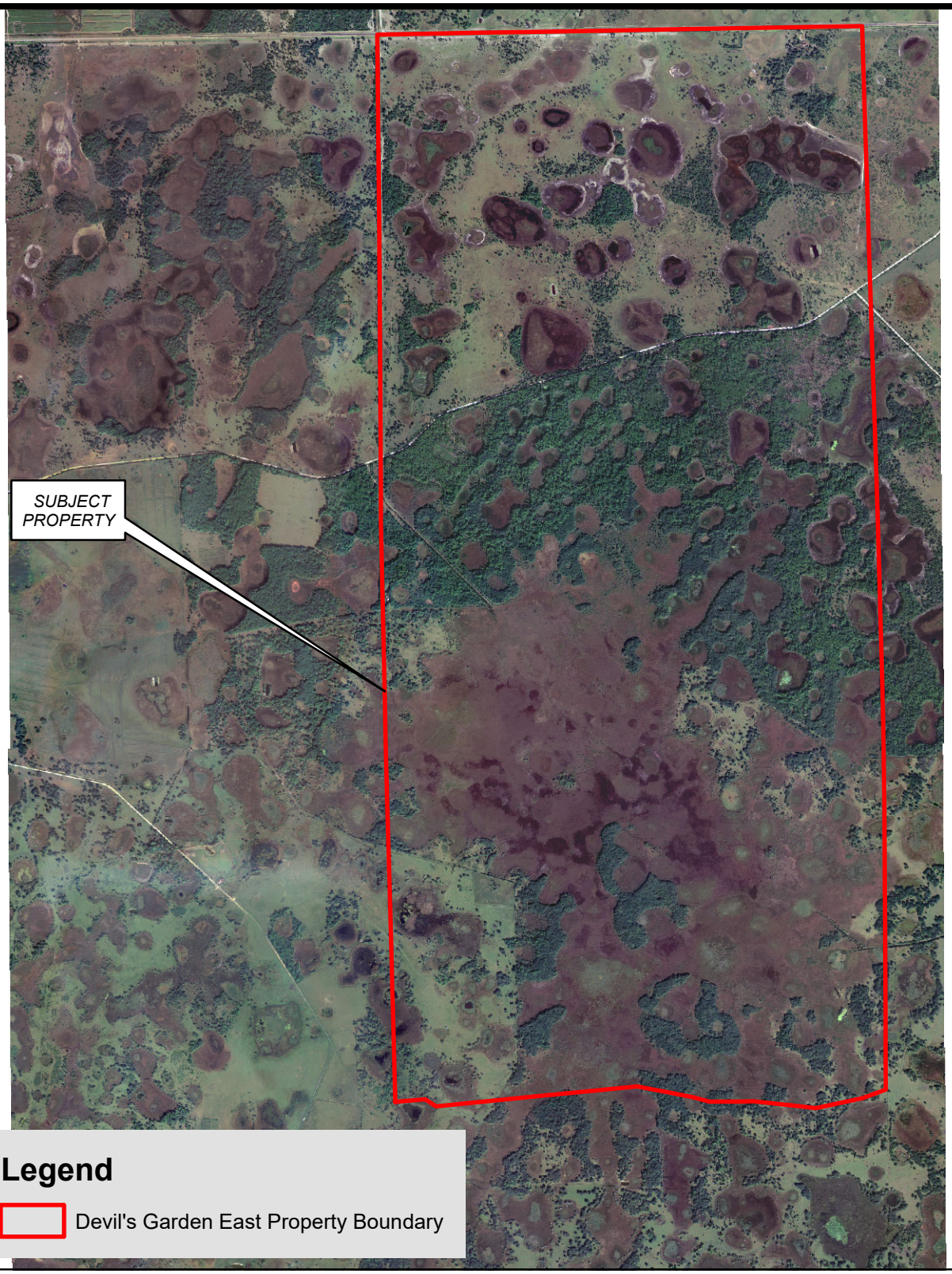
IMAGERY SOURCE: SARASOTA COUNTY, FLORIDA DEPARTMENT OF TRANSPORTATION

0 0.5 1 2 Miles

PROJECT NO.: 40-21-400		GIS ID: 4021400_HistoricAerials	PROJECT MANAGER: KEANAN BELL		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 1/27/2021	DRN BY: GIS	CHK BY: CO	STATUS: FINAL

NorthStar Contracting Group, Inc.
2760 FALKENBURG ROAD, RIVERVIEW, FLORIDA 33578
PHONE: (813) 684-4400 FAX: (813) 684-9177

1990 HISTORIC AERIAL IMAGERY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400



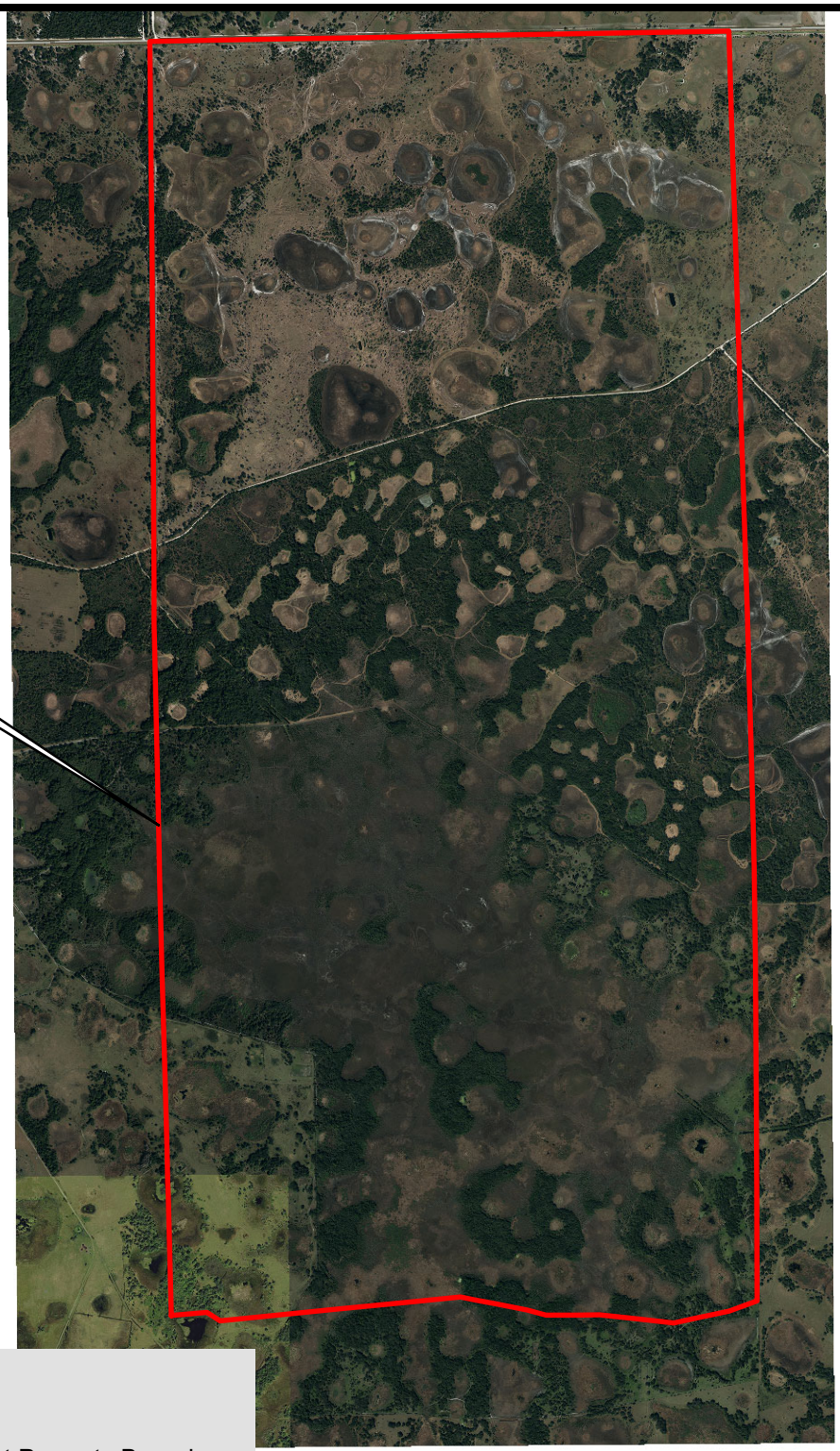
IMAGERY SOURCE: SARASOTA COUNTY, FLORIDA DEPARTMENT OF TRANSPORTATION

0 0.5 1 2 Miles

PROJECT NO.: 40-21-400		GIS ID: 4021400_HistoricAerials	PROJECT MANAGER: KEANAN BELL		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 1/27/2021	DRN BY: GIS	CHK BY: CO	STATUS: FINAL

NorthStar
Contracting Group, Inc.
2760 FALKENBURG ROAD, RIVERVIEW, FLORIDA 33578
PHONE: (813) 684-4400 FAX: (813) 684-9177

2004 HISTORIC AERIAL IMAGERY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400



Legend

Devil's Garden East Property Boundary

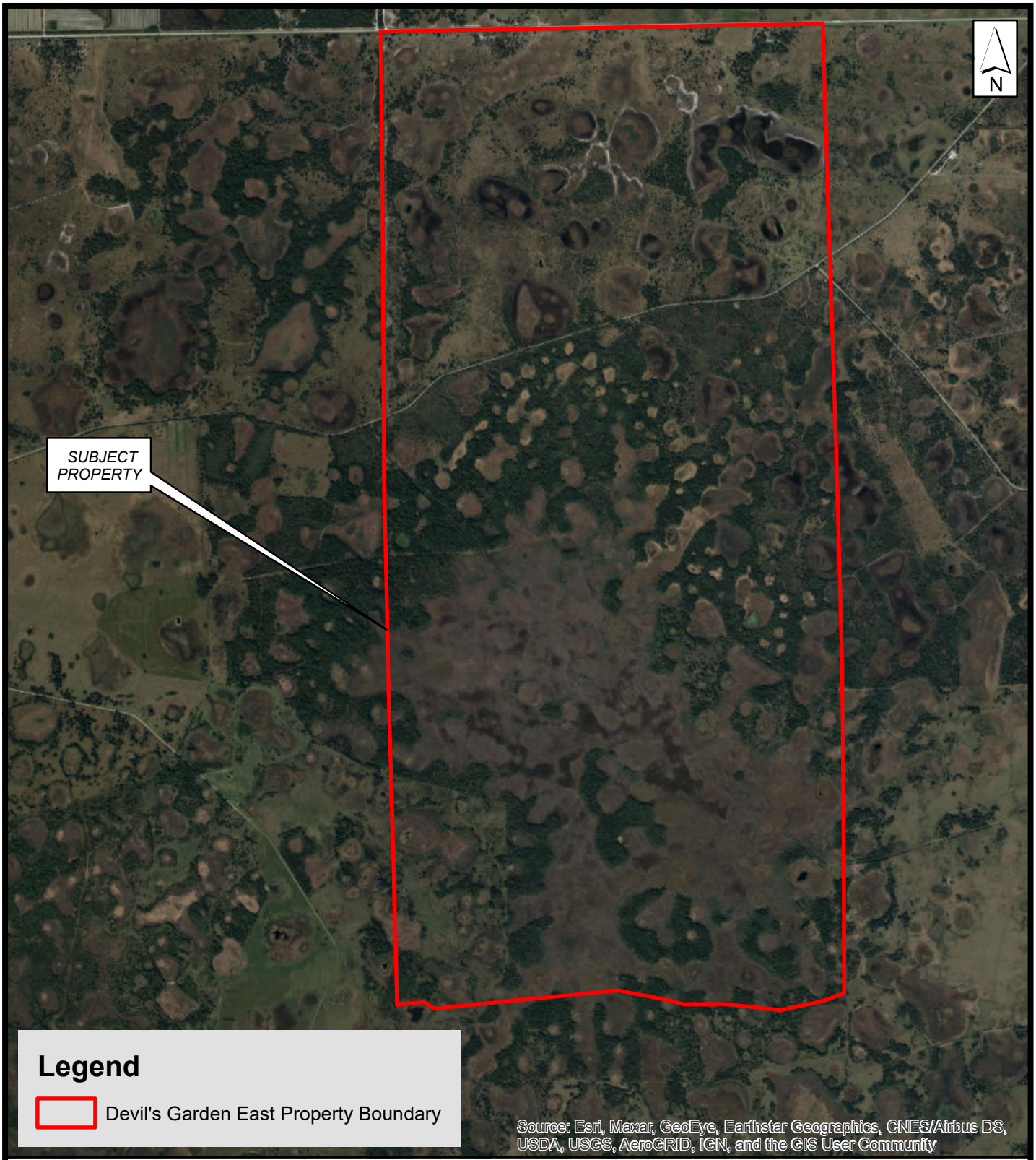
IMAGERY SOURCE: SARASOTA COUNTY, FLORIDA DEPARTMENT OF TRANSPORTATION

0 0.5 1 2 Miles

PROJECT NO.: 40-21-400		GIS ID: 4021400_HistoricAerials	PROJECT MANAGER: KEANAN BELL		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 1/27/2021	DRN BY: GIS	CHK BY: CO	STATUS: FINAL

NorthStar Contracting Group, Inc.
2760 FALKENBURG ROAD, RIVERVIEW, FLORIDA 33578
PHONE: (813) 684-4400 FAX: (813) 684-9177

2017 HISTORIC AERIAL IMAGERY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400



IMAGERY SOURCE: SARASOTA COUNTY, FLORIDA DEPARTMENT OF TRANSPORTATION

0 0.5 1 2 Miles

PROJECT NO.: 40-21-400		GIS ID: 4021400_HistoricAerials	PROJECT MANAGER: KEANAN BELL		
REVISION NO.: 00	REVISION DATE: 00/00/2020	DATE: 1/27/2021	DRN BY: GIS	CHK BY: CO	STATUS: FINAL

NorthStar
Contracting Group, Inc.
2760 FALKENBURG ROAD, RIVERVIEW, FLORIDA 33578
PHONE: (813) 684-4400 FAX: (813) 684-9177

2020 HISTORIC AERIAL IMAGERY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
ALICO, INC. PARCEL
DEVIL'S GARDEN PHASE 1B EAST PROJECT
HENDRY COUNTY, FLORIDA
NORTHSTAR PROJECT NO.: 40-21-400

Appendix F

Government and Other Records Reviewed

Environmental Data Report

Standard ASTM Research

Subject Property:

Devil's Garden
Phase 1B East
Hendry County, Florida

Prepared For:

NorthStar Contracting Group, Inc
508-A Capital Circle SE
Tallahassee, FL 32301

Prepared By:

Environmental Data Management, Inc.
2840 West Bay Drive, Suite 208
Largo, Florida 33770

January 18, 2021

Environmental Data Management, Inc.
2840 West Bay Drive, Suite 208
Largo, Florida 33770
Tel. (727) 586-1700
http://www.edm-net.com

January 18, 2021

Pamela Jackson, PG
NorthStar Contracting Group, Inc
508-A Capital Circle SE
Tallahassee, FL 32301

Subject: **Standard ASTM Research - EDM Project #25410**

Dear Ms. Jackson

Thank you for choosing Environmental Data Management, Inc. The following report provides the results of our environmental data research that you requested for the following location:

Devil's Garden
Phase 1B East
Hendry County, Florida

The following is a summary of the components contained within this report:

- **Executive Summary** –lists the databases that were searched for this report, the search distance criteria and the number of sites identified for each database.
- **Map of Study Area**– street map showing the location of the Subject Property and any regulatory listed sites identified within the search criteria.
- **Site Summary Table** –displays the Map ID number, Permit or Registration number, Name/Address and the Government Database(s) for the identified regulatory listed sites.
- **Detail Reports** – data detail for each database record identified.
- **Proximal Records Table** – a listing of potentially relevant sites identified just beyond the search criteria.
- **Non-Mapped Records Table** - lists those government records that do not contain sufficient address information to plot within our GIS system, but may still exist within your study area.
- **Addl Maps (where applicable)** – includes Recent Aerial Photo, USGS Topographic maps, FEMA Floodplain & NWI Wetland Map, map of statewide American Indian Lands and our Environmental Impact Areas map, showing the location of suspect sites such as NPL/STNPL, Brownfields, FUDS, etc.... Our Florida well data report is also include with the Standard and Comprehensive formats.
- **Agency List Descriptions –** defines the regulatory databases included in this report along with the dates that each database was last updated by the respective agency and EDM.

At EDM we take great pride in our work, and continually strive to provide you with the most accurate and thorough research service available. This report is only intended as a means to assist in identifying locations that may pose an environmental concern relative to the property under evaluation. Its use is not intended to replace the need for a complete environmental assessment or regulatory file review, but rather as a supplement to the overall evaluation.

Thank you again for selecting EDM as your data research provider. Should you have any questions regarding this report or our service, please feel free to contact us. We appreciate the opportunity to be of service to you and look forward to working with you in the future.

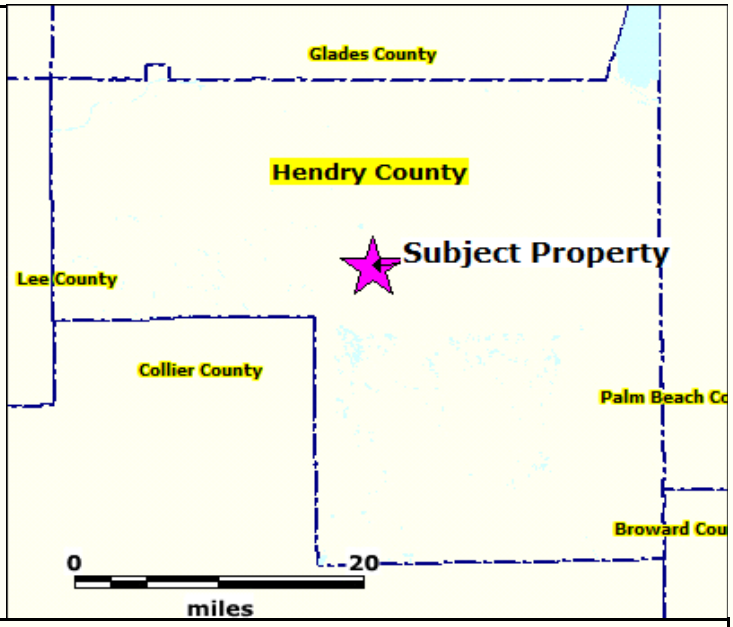
ENVIRONMENTAL DATA MANAGEMENT, INC.

Report Date: 1/18/2021

Executive Summary

Subject Property Location and Physical Setting Information

SUBJECT PROPERTY	Devil's Garden Phase 1B East Hendry County, Florida
COUNTY	HENDRY
LAT/LON -DMS (NAD 83) -DECIMAL	26 34' 23.0988" / -81 12' 29.6064" 26.5731 / -81.2082
APPROX SITE ELEV	0 Feet
SEC-TWN-RNG	15-45S-1E
USGS QUAD	Graham Marsh-26081-E2
PREDOM WETLAND	UPLAND
PREDOM FLOOD ZONE?	NO
FLOOD ZONE TYPE	X - AREA OF MINIMAL FLOOD HAZARD
FEMA FIRM PANEL	12051C0400D
PREDOM SOIL TYP	NF



EPA RADON DATA FOR: HENDRY COUNTY

Zone 3-Low Potential: Zone 3 Counties have a predicted average indoor radon screening level less than 2 pCi/L (pico curies per liter) EPA HYPERLINK http://www.city-data.com/radon-zones/Florida/Florida.html

CDC RADON DATA FOR: HENDRY COUNTY

SAMPLE YRS	MEDIAN pCi/L	COMMENTS	CDC HYPERLINK
2005-2014	0.8	< 10 Tests	https://ephtracking.cdc.gov/DataExplorer/index.html
2006-2015	0.8	< 10 Tests	https://ephtracking.cdc.gov/DataExplorer/index.html
2007-2016	1.4	< 10 Tests	https://ephtracking.cdc.gov/DataExplorer/index.html
2008-2017	1.0		https://ephtracking.cdc.gov/DataExplorer/index.html

SUBJECT PROPERTY MAP ID NO NA
SUBJECT PROPERTY LIST NONE

The following table displays the databases that were included in the research provided and the number of records identified for each database. Site distance values indicated in this report are measured from the boundary of the Subject Property. The absence of records in this table and the Site Summary Tables indicates that our research found no regulated sites within the specified search distances from the Subject Property.

AGENCY DATABASES RESEARCHED	Max Search Radius (Miles)	Subject Property	From 0 - 0.25 mile	From 0.26 - 0.5 mile	From 0.51 - 1 mile	Total # Found
EPA DATABASES						
National Priorities List(NPL)	1.00	0	0	0	0	0
SEMS Active Site Inventory List(SEMSACTV)	0.50	0	0	0	N/A	0
Comp Env Resp, Compensation & Liability Info Sys List(CERCLIS)	0.50	0	0	0	N/A	0
SEMS Archived Site Inventory List(SEMSARCH)	0.50	0	0	0	N/A	0
Archived Cerclis Sites(NFRAP)	0.50	0	0	0	N/A	0
Emergency Response Notification System List(ERNS)	0.25	0	0	N/A	N/A	0
RCRIS Handlers with Corrective Action(CORRACTS)	1.00	0	0	0	0	0
RCRA-Treatment, Storage and/or Disposal Sites(TSD)	1.00	0	0	0	0	0
RCRA-LQG,SQG,CESQG and Transporters(NONTSD)	0.25	0	0	N/A	N/A	0
Tribal Tanks List(TRIBLTANKS)	0.25	0	0	N/A	N/A	0
Tribal Lust List(TRIBLLUST)	0.50	0	0	0	N/A	0

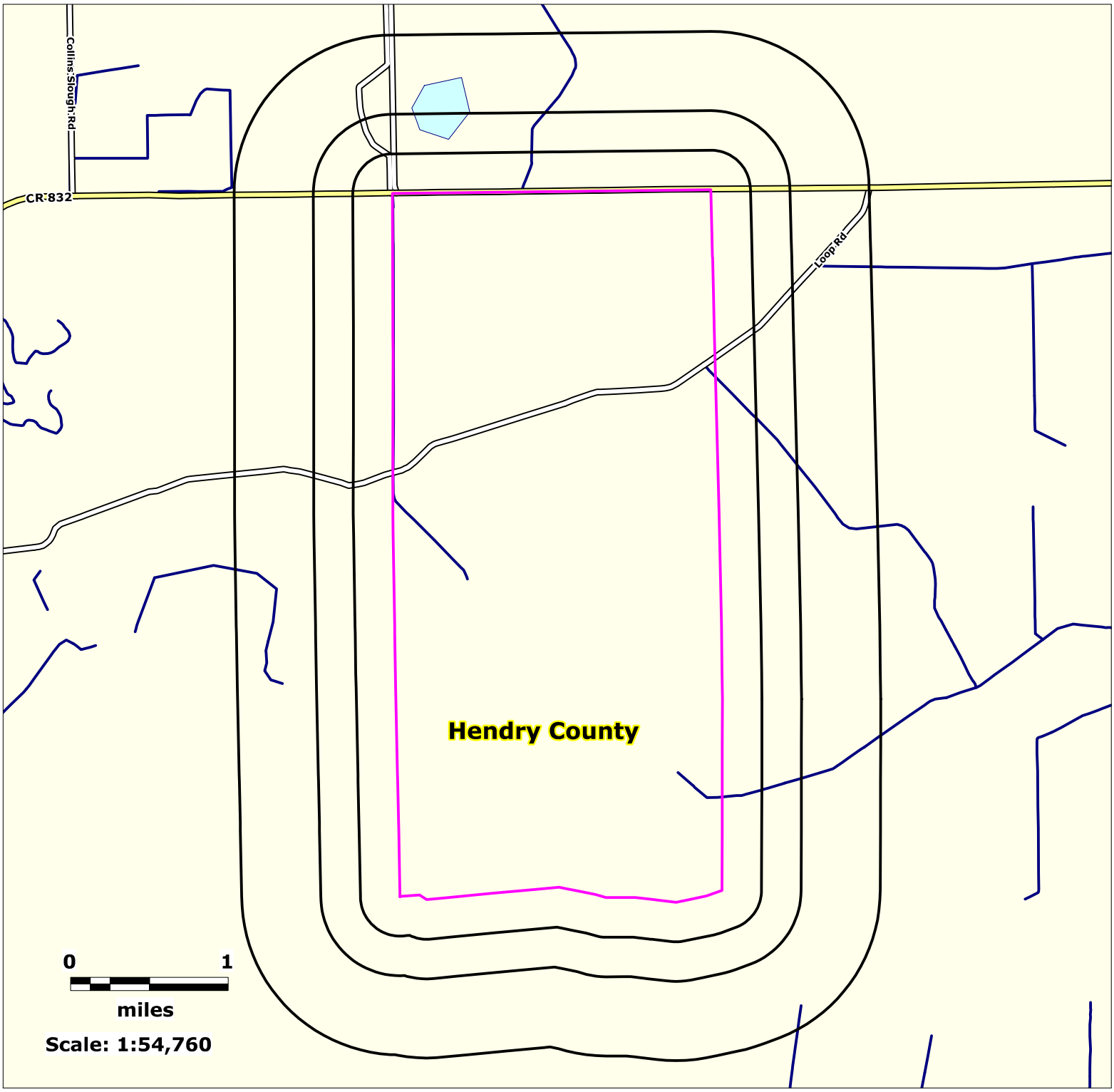
EDM
Copyright © 1990-2020 Environmental Data Management, Inc.
For further information please contact us at 727-586-1700
Use of this information is strictly limited by EDM's authorization agreement, acknowledged by our clients for each report.

AGENCY DATABASES RESEARCHED	Max Search Radius (Miles)	Subject Property	From 0 - 0.25 mile	From 0.26 - 0.5 mile	From 0.51 - 1 mile	Total # Found
Brownfields Management System(USBRWNFLDS)	0.50	0	0	0	N/A	**0**
Institutional and/or Engineering Controls(USINSTENG)	0.25	0	0	N/A	N/A	**0**
NPL Liens List(NPLLIENS)	1.00	0	0	0	0	**0**
Enforcement and Compliance History(ECHO)	0.25	0	0	N/A	N/A	**0**
FDEP DATABASES						
State NPL Equivalent(STNPL)	1.00	0	0	0	0	**0**
State CERCLIS/SEMS Equivalent(STCERC)	0.50	0	0	0	N/A	**0**
Solid Waste Facilities List(SLDWST)	0.50	0	0	0	N/A	**0**
Leaking Underground Storage Tanks List(LUST)	0.50	0	0	0	N/A	**0**
Underground/Aboveground Storage Tanks(TANKS)	0.25	0	0	N/A	N/A	**0**
State Designated Brownfields(BRWNFLDS)	0.50	0	0	0	N/A	**0**
Voluntary Cleanup List(VOLCLNUP)	0.50	0	0	0	N/A	**0**
Institutional and/or Engineering Controls(INSTENG)	0.25	0	0	N/A	N/A	**0**
Dry Cleaners List(DRY)	0.50	0	0	0	N/A	**0**
FDEP Public Water Systems(FLPWS)	0.50	0	0	0	N/A	**0**
FDOH DATABASES						
FDOH Well Surveillance Program Public Water Wells(WELLSADOHC)	0.50	0	0	0	N/A	**0**
FDOH Well Surveillance Program Private Water Wells(WELLSADOHN)	0.25	0	0	N/A	N/A	**0**
WMD DATABASES						
SWFWMD Public Water Supply Report(SWFWMDPUB)	0.50	0	0	0	N/A	**0**
SWFWMD Domestic Water Supply Report(SWFWMDDOM)	0.25	0	0	N/A	N/A	**0**
SJRWMD Public Water Supply Report(SJRWMDPUB)	0.50	0	0	0	N/A	**0**
SJRWMD Private Water Well Report(SJRWMDPRV)	0.25	0	0	N/A	N/A	**0**
SFWMD Public Water Supply Report(SFWMDPUB)	0.50	0	0	0	N/A	**0**
SFWMD Private Water Well Report(SFWMDPRV)	0.25	0	0	N/A	N/A	**0**

*** Disclaimer ***

Please understand that the regulatory databases we utilize were not originally intended for our use, but rather for the source agency's internal tracking of sites for which they have jurisdiction or other interest. As a result of this difference in intended use, their data is frequently found to be incomplete or inaccurate, and is less than ideal for our use. Our report is not to be relied upon for any purpose other than to "point" at approximate locations where further evaluation may be warranted. No conclusion can be based solely upon our report. Rather, our report should be used as a first step in directing your attention at potential problem areas, which should be followed up by site inspections, interviews with relevant personnel, regulatory file review and other means as specified in the ASTM Standard E 1527-13. Readers proceed at their own risk in relying upon this data, in whole or in part, for use within any evaluation. More detailed language with regard to such limitations and our Terms and Conditions may be found on our website at edm-net.com.

Standard ASTM Research Report
Street Map



Source: US Census Bureau TIGER Files

Map Scale and Property Boundaries are Approximate

Subject Property

Devil's Garden
Phase 1B East
Hendry County, Florida

Lat (DMS): 26 34' 23.0988"
Lon (DMS: -81 12' 29.6064"

EDM Job No: 25410
January 18, 2021

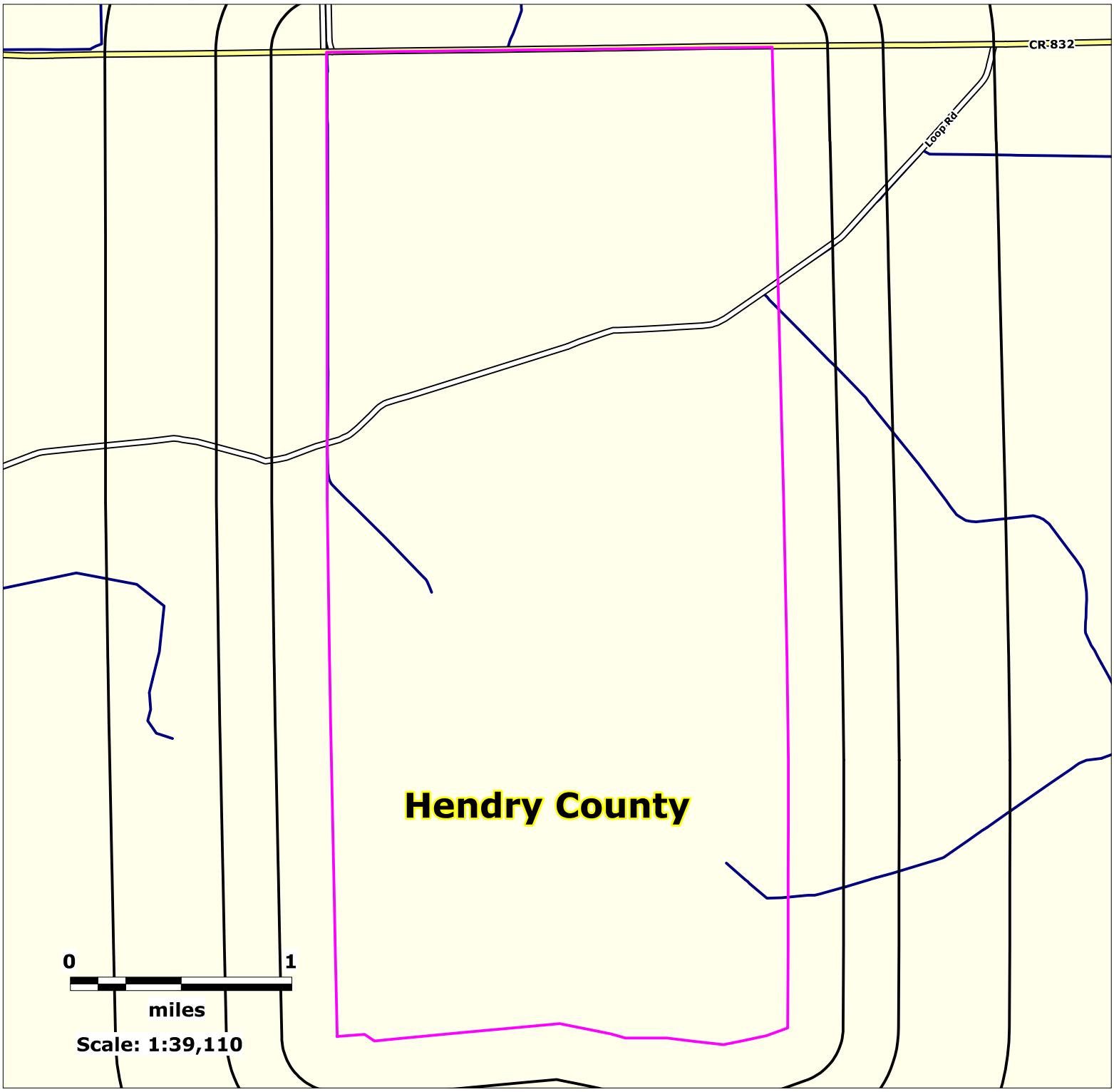
Approximate Site Boundary

NPL, STNPL, NPLLIENS, CORRACTS & TSD sites - 1 Mile Radius

CERCLIS, SEMSACTV, NFRAP, SEMSARCH, STCERC, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites - 1/2 Mile Radius

ERNS, NONTSD, ECHO, TANKS & INSTENG sites - 1/4 Mile Radius

Standard ASTM Research Report
Street Map



Source: US Census Bureau TIGER Files

Map Scale and Property Boundaries are Approximate

Subject Property

Devil's Garden
Phase 1B East
Hendry County, Florida

Lat (DMS): 26 34' 23.0988"
Lon (DMS: -81 12' 29.6064"

EDM Job No: 25410
January 18, 2021

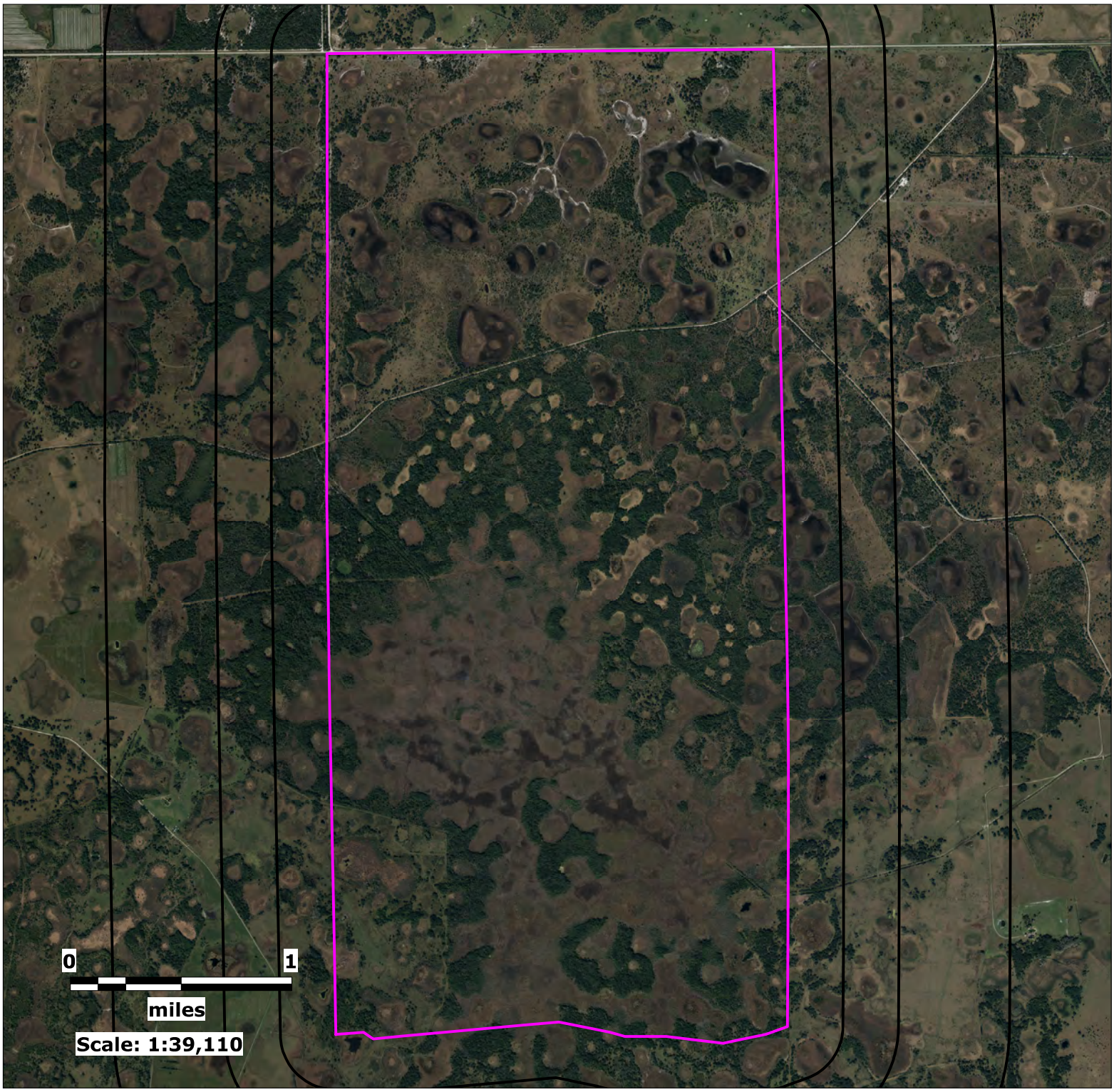
Approximate Site Boundary

NPL, STNPL, NPLLIENS, CORRACTS & TSD sites - 1 Mile Radius

CERCLIS, SEMSACTV, NFRAP, SEMSARCH, STCERC, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites - 1/2 Mile Radius

ERNS, NONTSD, ECHO, TANKS & INSTENG sites - 1/4 Mile Radius

Standard ASTM Research Report
2020 Aerial Photo



Source: Florida Department of Transportation

Map Scale and Property Boundaries are Approximate

Subject Property

Devil's Garden
Phase 1B East
Hendry County, Florida

Lat (DMS): 26 34' 23.0988"
Lon (DMS: -81 12' 29.6064"

EDM Job No: 25410
January 18, 2021

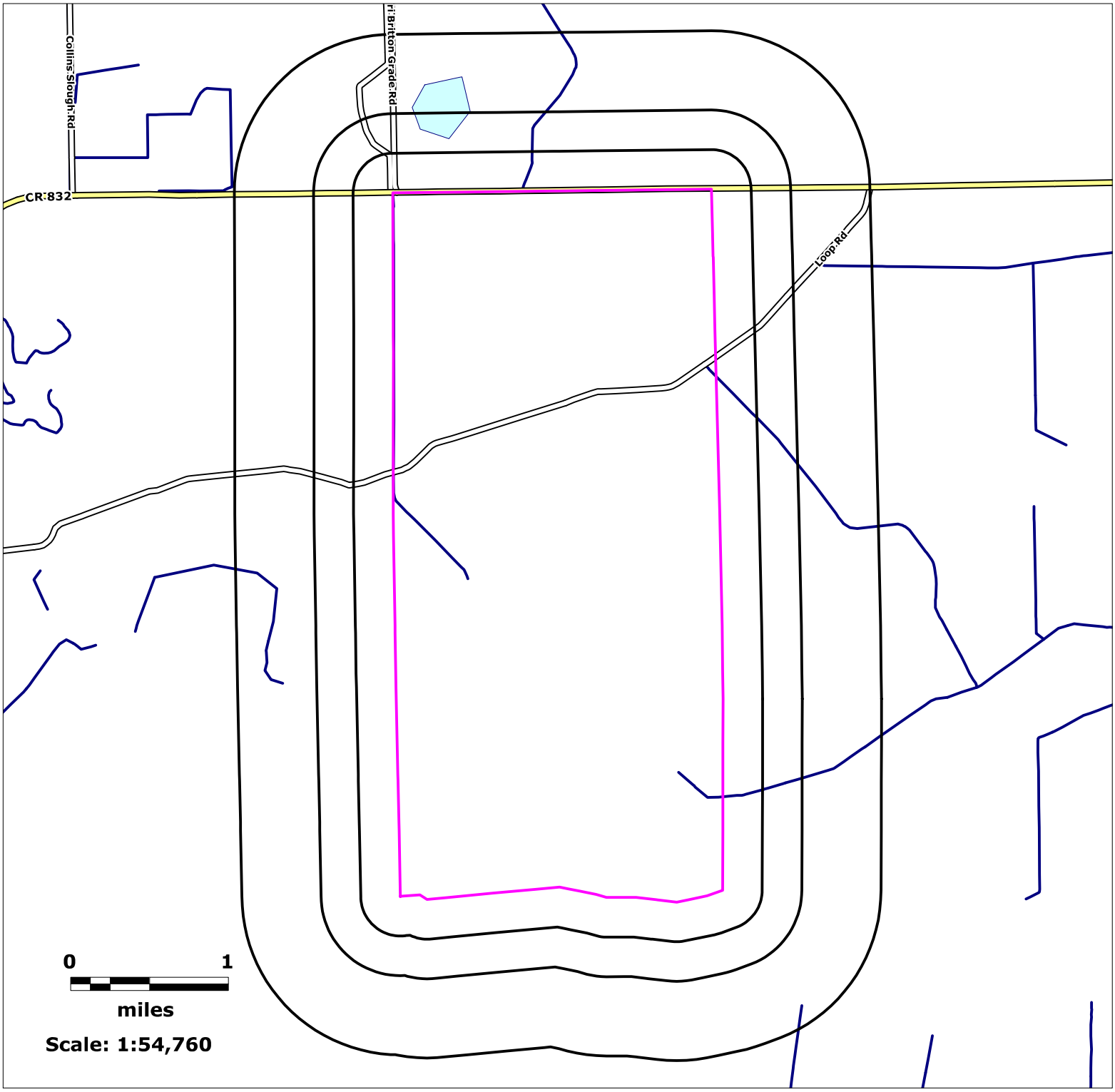
Approximate Site Boundary

NPL, STNPL, NPLLIENS, CORRACTS & TSD sites - 1 Mile Radius

CERCLIS, SEMSACTV, NFRAP, SEMSARCH, STCERC, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites - 1/2 Mile Radius

ERNS, NONTSD, ECHO, TANKS & INSTENG sites - 1/4 Mile Radius

Standard ASTM Research Report
Environmental Impact Areas Map



Source: FDEP and USEPA Geodata

Map Scale and Property Boundaries are Approximate

Subject Property

Devil's Garden
Phase 1B East
Hendry County, Florida

Lat (DMS): 26 34' 23.0988"
Lon (DMS: -81 12' 29.6064"

EDM Job No: 25410
January 18, 2021

- FDEP Brownfield Areas
- FDEP Brownfield Sites
- USEPA NPL & FDEP STNPL Sites
- FDEP Delineated GW Contamination
- Formerly Used Defense Sites FUDS
- FUDS Munitions Response Areas
- FDEP Cattle Dipping Vat
- FDEP Solid Waste Sites
- Institutional Controls
- Approximate Site Boundary

ENVIRONMENTAL DATA MANAGEMENT

Standard ASTM Research

Report Date: 1/18/2021

Site Summary Table

MapID Prgm List	Fac ID No	Site Dist (mi)	Site Dir	Site Elev (ft)	Elev vs Sub Prop	Site Name	Site Address

Copyright © 1990-2020 Environmental Data Management, Inc.
For further information please contact us at 727-586-1700
Use of this information is strictly limited by EDM's authorization agreement, acknowledged by our clients for each report.

ENVIRONMENTAL DATA MANAGEMENT

Standard ASTM Research

Proximal Site Summary Table

This table includes mapped sites whose plotted coordinates fall just outside of the ASTM or client defined research distance but whose property boundaries may still extend into the search area. These sites are typically large commercial or industrial tracts that may merit inclusion in the evaluation process. Detail data reports on any of these sites may be requested and will be sent as an addendum to this report at no additional cost.

MapID Prgm List	Fac ID No	Site Dist (mi)	Site Dir	Site Elev (ft)	Elev vs Sub Prop	Site Name	Site Address

Copyright © 1990-2020 Environmental Data Management, Inc.
For further information please contact us at 727-586-1700
Use of this information is strictly limited by EDM's authorization agreement, acknowledged by our clients for each report.

ENVIRONMENTAL DATA MANAGEMENT

Standard ASTM Research

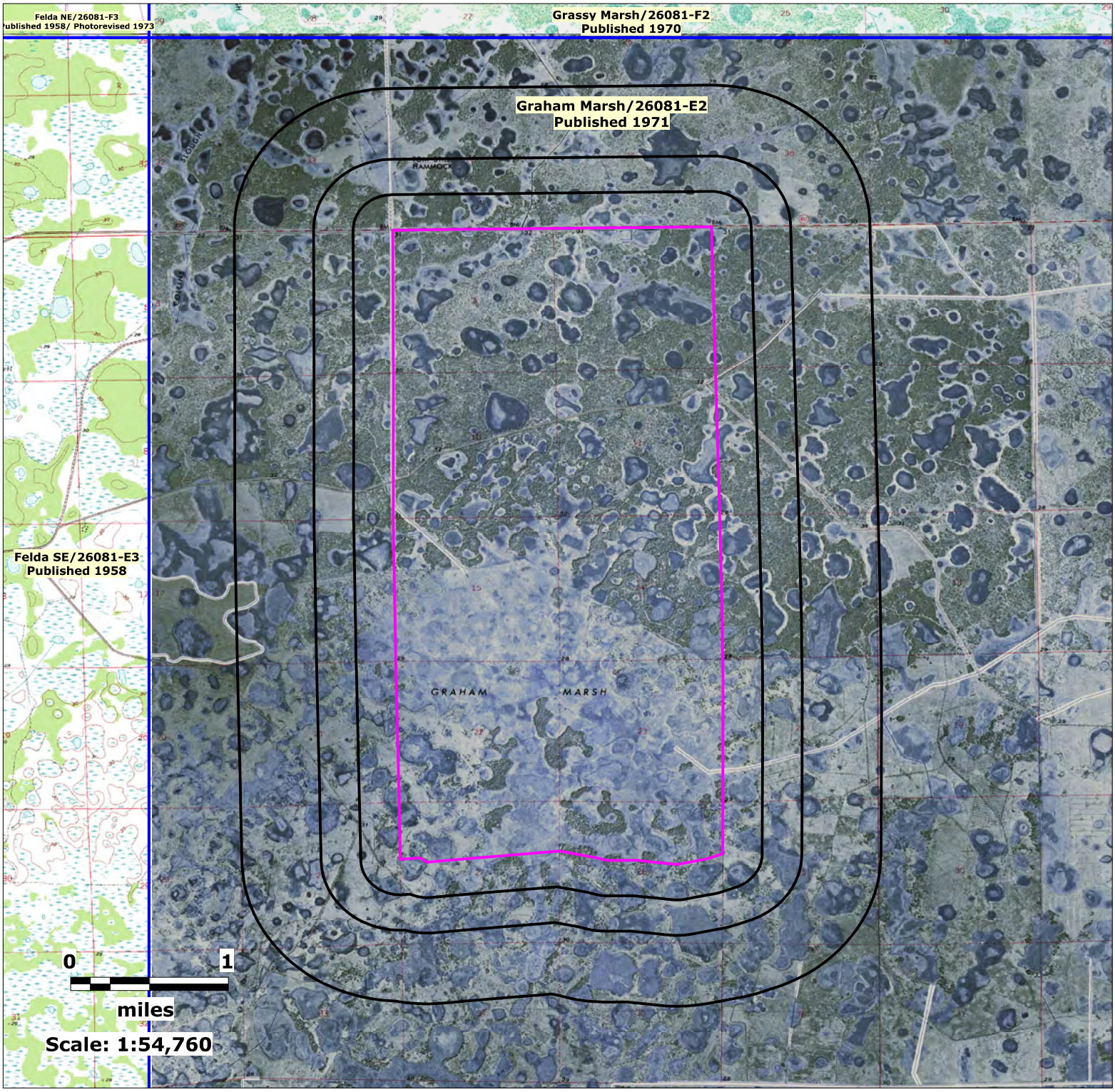
Non-Mapped Records Summary Table

This table is a listing of database records that have not been plotted within our mapping system. Detail data reports on any of these sites may be requested and will be sent as an addendum to this report at no additional cost.

Prgm List / Fac ID No	Site Name	Site Address
ECHO		
110053697353	ALICO CAMP SITE	, FL
110070210666	DEVILS GARDEN SLOUGH WETLAND RESTORATION PLAN	UNKNOWN CLEWISTON, FL 33440
ERNS		
7028	RIDGEDILL AND SON CONSTRUCTION	STATE RD. 832 SOUTH OF CLEWISTON COMPANY LOCATION CLEWISTON, FL
TANKS		
8520418	US SUGAR CORP-TOWNSITE #1-BERNER OIL	STATE HWY 832 CLEWISTON, FL 33440

Copyright © 1990-2020 Environmental Data Management, Inc.
For further information please contact us at 727-586-1700
Use of this information is strictly limited by EDM's authorization agreement, acknowledged by our clients for each report.

Standard ASTM Research Report
USGS Topographic Map



Source: USGS Digital Raster Graphic (DRG)

Map Scale and Property Boundaries are Approximate

Subject Property

Devil's Garden
Phase 1B East
Hendry County, Florida

Lat (DMS): 26 34' 23.0988"
Lon (DMS: -81 12' 29.6064"

EDM Job No: 25410
January 18, 2021

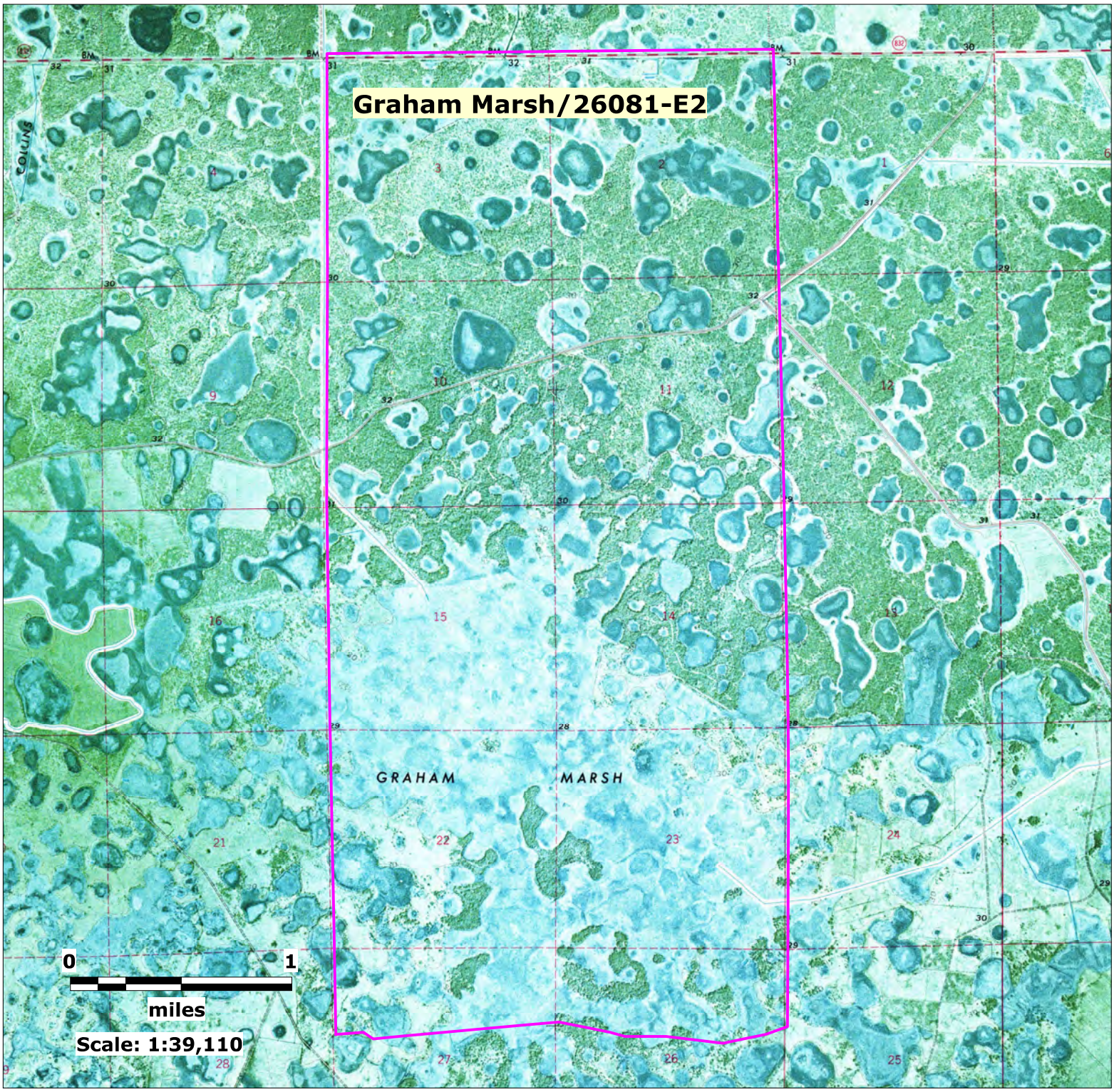
Approximate Site Boundary

NPL, STNPL, NPLLIENS, CORRACTS & TSD sites - 1 Mile Radius

CERCLIS, SEMSACTV, NFRAP, SEMSARCH, STCERC, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites - 1/2 Mile Radius

ERNS, NONTSD, ECHO, TANKS & INSTENG sites - 1/4 Mile Radius

Historical Topographic Map
Graham Marsh 1971



Source: USGS Historical Topographic Map Collection

Map Scale and Property Boundaries are Approximate

Subject Property

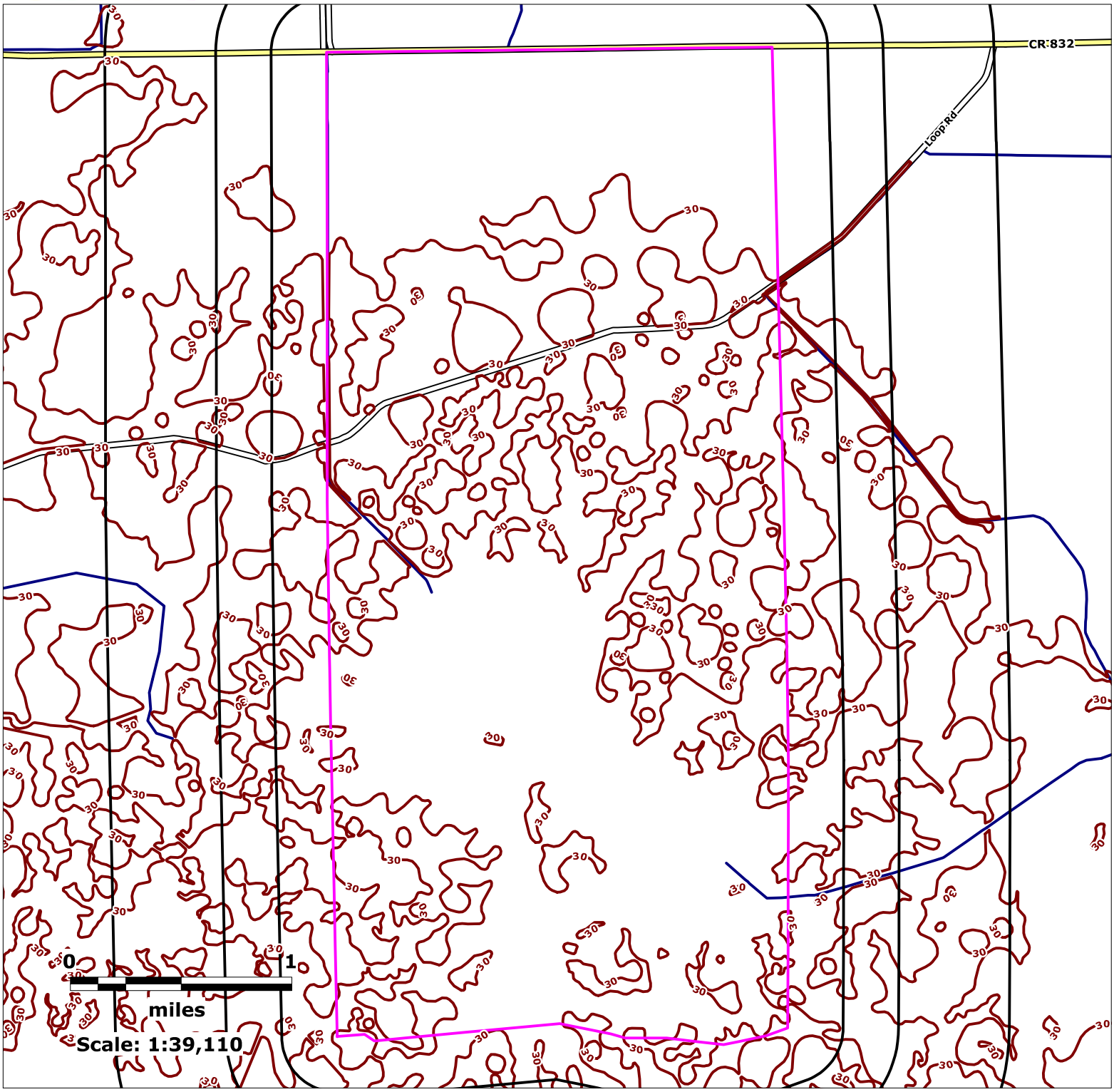
Approximate Site Location

Devil's Garden
Phase 1B East
Hendry County, Florida

Lat (DMS): 26 34' 23.0988"
Lon (DMS: -81 12' 29.6064"

EDM Job No: 25410
January 18, 2021

Standard ASTM Research Report
Elevation Contours Map



Source: US Census Bureau TIGER Files

Map Scale and Property Boundaries are Approximate

Subject Property

Devil's Garden
Phase 1B East
Hendry County, Florida

Lat (DMS): 26 34' 23.0988"
Lon (DMS: -81 12' 29.6064"

EDM Job No: 25410
January 18, 2021

55
Elevation Contour Line (Feet)

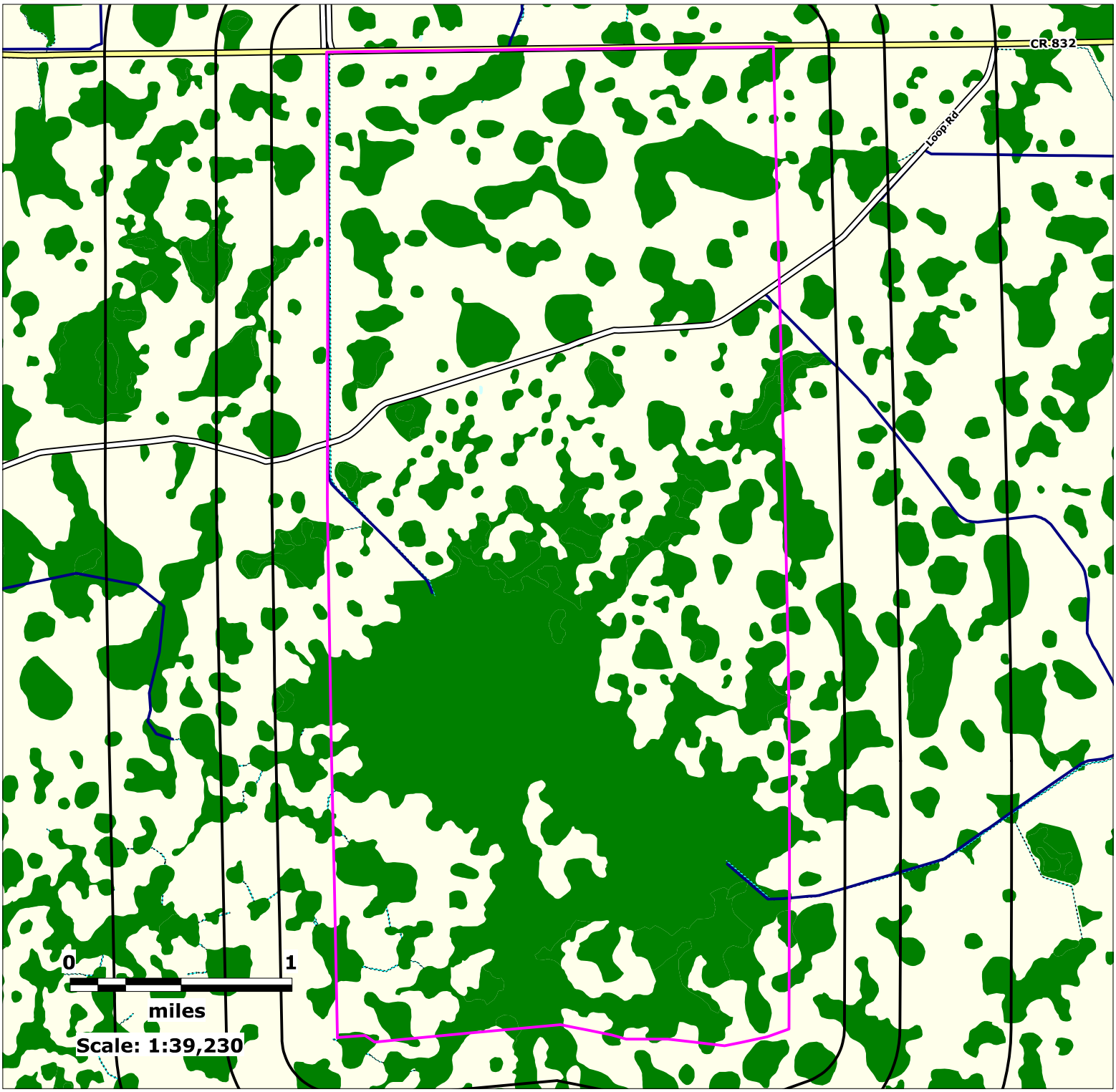
Approximate Site Boundary

NPL, STNPL, NPLLIENS, CORRACTS & TSD sites - 1 Mile Radius

CERCLIS, SEMSACTV, NFRAP, SEMSARCH, STCERC, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites - 1/2 Mile Radius

ERNS, NONTSD, ECHO, TANKS & INSTENG sites - 1/4 Mile Radius

Standard ASTM Research Report
National Wetlands Inventory Map



Source: US Fish & Wildlife Service National Wetlands Inventory

Map Scale and Property Boundaries are Approximate

Subject Property

Devil's Garden
Phase 1B East
Hendry County, Florida

Lat (DMS): 26 34' 23.0988"
Lon (DMS: -81 12' 29.6064"

EDM Job No: 25410
January 18, 2021

NWI Wetlands

- Upland
- Riverine
- Palustrine
- Estuarine
- Lacustrine
- Marine
- Freshwater Pond

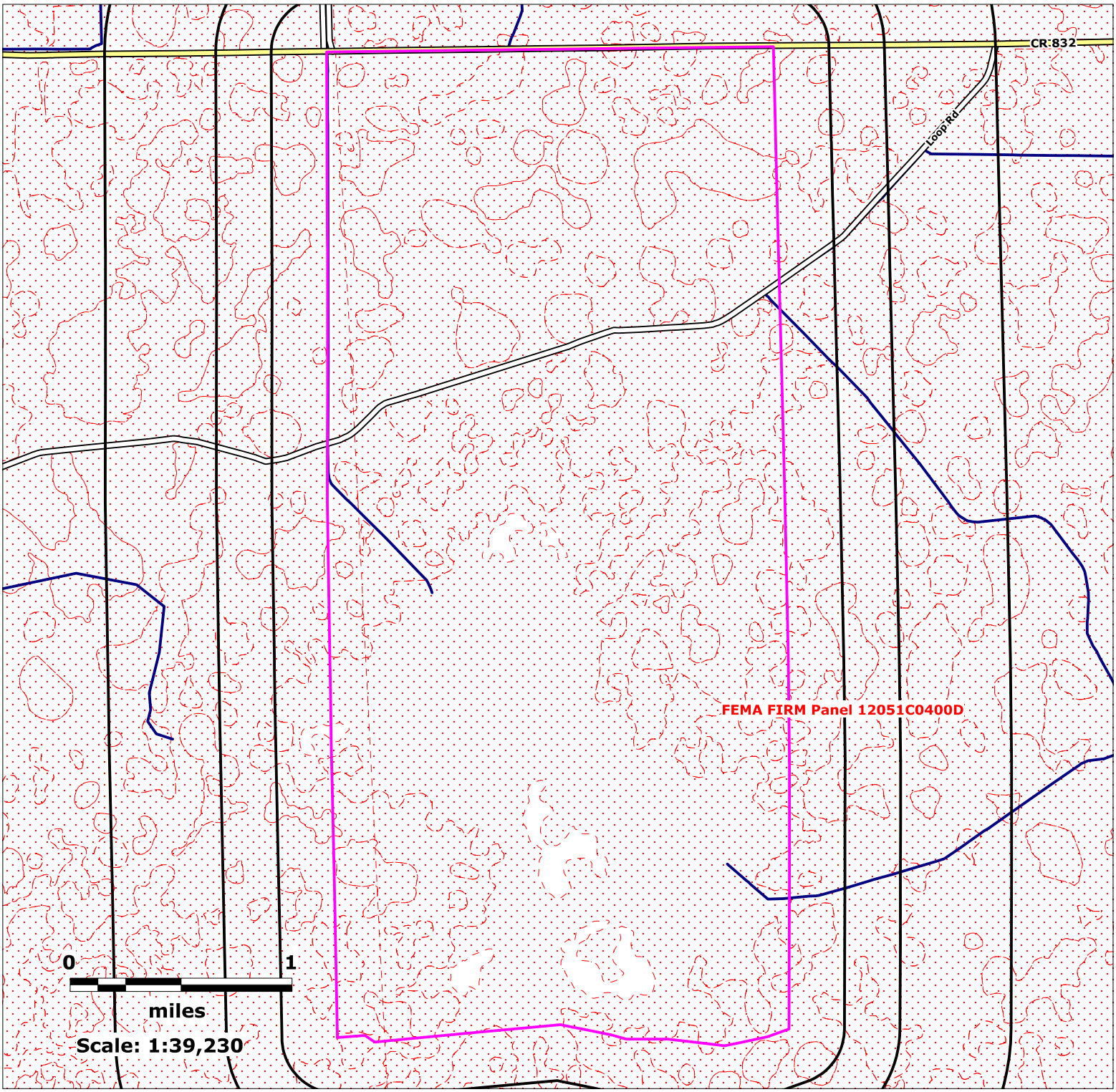
Approximate Site Boundary

NPL, STNPL, NPLLIENS, CORRACTS & TSD sites - 1 Mile Radius

CERCLIS, SEMSACTV, NFRAP, SEMSARCH, STCERC, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites - 1/2 Mile Radius

ERNS, NONTSD, ECHO, TANKS & INSTENG sites - 1/4 Mile Radius

Standard ASTM Research Report
FEMA Floodplain Map



Source: US FEMA Q3 Flood Data

Map Scale and Property Boundaries are Approximate

Subject Property

Devil's Garden
Phase 1B East
Hendry County, Florida

Lat (DMS): 26 34' 23.0988"
Lon (DMS: -81 12' 29.6064"

EDM Job No: 25410
January 18, 2021

FEMA Flood Zone

100 Year Floodplain
1-Percent Annual Chance Flood Event

500 Year Floodplain
.2-Percent Annual Chance Flood Event

Area of Minimal Flood Hazard

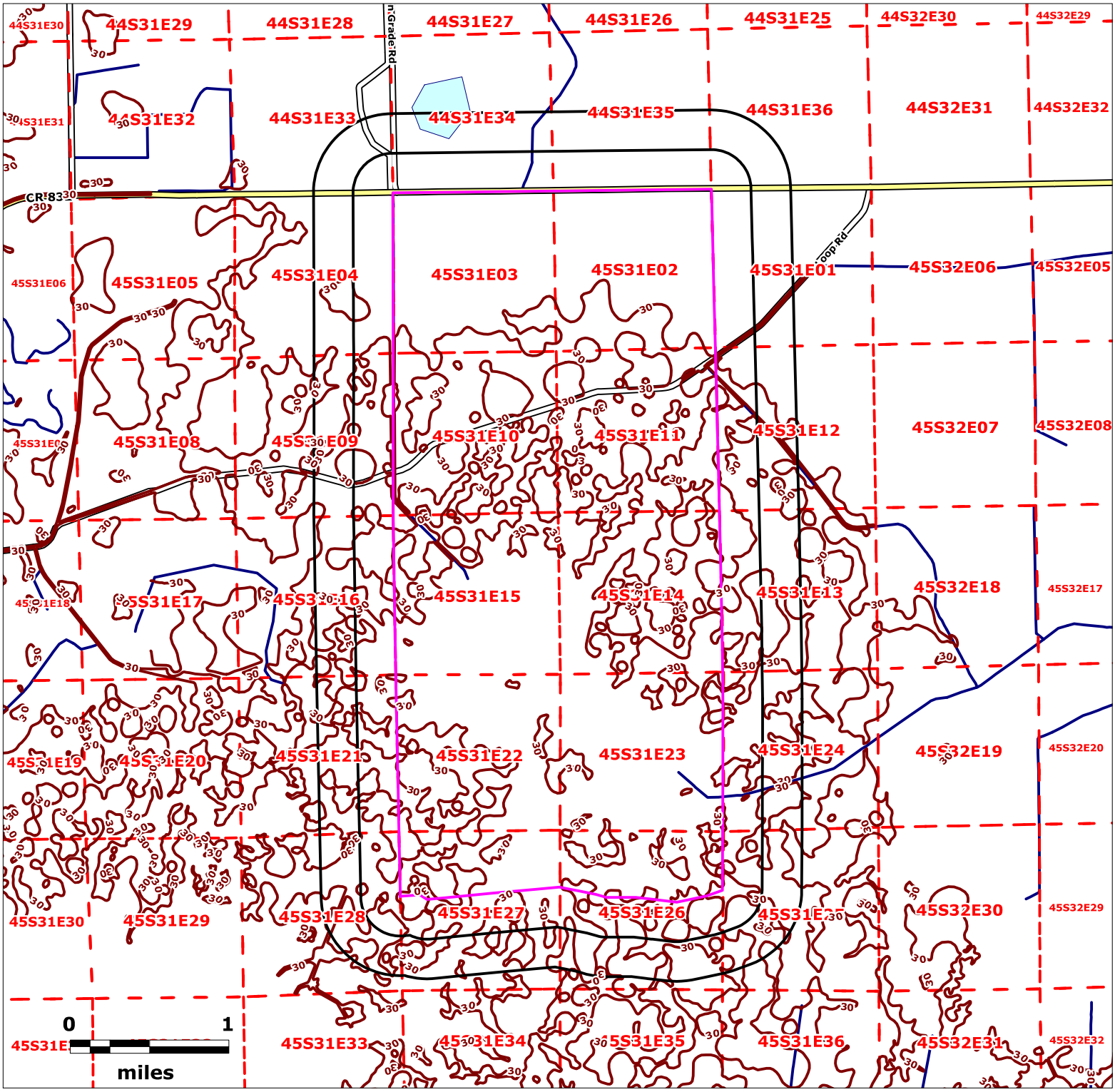
Approximate Site Boundary

NPL, STNPL, NPLLIENS, CORRACTS & TSD sites - 1 Mile Radius

CERCLIS, SEMSACTV, NFRAP, SEMSARCH, STCERC, SLDWST, LUST, BRWNFLDS, VOLCLNUP & DRY sites - 1/2 Mile Radius

ERNS, NONTSD, ECHO, TANKS & INSTENG sites - 1/4 Mile Radius

Water Well Research Report
Well Location Map



Source: FDEP, FDOH, FL Water Mgt Districts

Map Scale and Property Boundaries are Approximate

Subject Property

Devil's Garden
Phase 1B East
Hendry County, Florida

Lat (DMS): 26 34' 23.0988"
Lon (DMS: -81 12' 29.6064"

EDM Job No: 25410
January 18, 2021

55
Elevation Contour Line (Feet)

1234S56E
Sec/Twp/Rng

Public Water Supply System-1/2 mile

Private Water Well System -1/4 mile

Approximate Site Boundary

ENVIRONMENTAL DATA MANAGEMENT

Standard ASTM Research

Site Summary Table

Report Date: 1/18/2021

MapID Prgm List	Fac ID No	Site Dist(mi) Direction	Site Name	Site Address

Copyright © 1990-2020 Environmental Data Management, Inc.
For further information please contact us at 727-586-1700
Use of this information is strictly limited by EDM's authorization agreement, acknowledged by our clients for each report.

Agency List Descriptions

USEPA and State Databases are updated on a quarterly basis. Supplemental Databases are updated on an annual basis.

Florida Department of Environmental Protection (FDEP)

State Designated Brownfields(BRWNFLDS)

The FDEP Brownfields database contains a listing of State Designated Brownfield Areas and Brownfield Sites. Brownfields are typically defined as abandoned, idled or underused industrial and commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination.

Agency File Date: 1/6/2021 **Received by EDM:** 1/8/2021 **EDM Database Updated:** 1/8/2021

Dry Cleaners List(DRY)

The FDEP Dry Cleaning Facilities List is comprised of data from the FDEP Storage Tank and Contamination Monitoring (STCM) database and the Drycleaning Solvent Cleanup Program- Priority Ranking List. It contains a listing of those Dry Cleaning sites (and suspected historical Dry Cleaning sites) who have registered with the FDEP and/or have applied for the Dry Cleaning Solvent Cleanup Program.

Agency File Date: 1/8/2021 **Received by EDM:** 1/8/2021 **EDM Database Updated:** 1/8/2021

FDEP Public Water Systems(FLPWS)

The FDEP Dinking Water Program Basic Facility Report and Public Water System Well data contain information on the location and type of public water systems and wells regulated by the department.

Agency File Date: 1/11/2020 **Received by EDM:** 1/13/2020 **EDM Database Updated:** 1/13/2020

Institutional and/or Engineering Controls(INSTENG)

The FDEP Institutional Controls Registry Database (INSTENG) contains sites that have had Institutional and/or Engineering Controls implemented to regulate exposure to environmental hazards

Agency File Date: 12/31/2020 **Received by EDM:** 1/8/2021 **EDM Database Updated:** 1/8/2021

Leaking Underground Storage Tanks List(LUST)

The FDEP LUST list identifies facilities and/or locations that have notified the FDEP of a possible release of contaminants from petroleum storage systems. This Report is generated from the FDEP Storage Tank and Contamination Monitoring Database (STCM).

Agency File Date: 1/8/2021 **Received by EDM:** 1/8/2021 **EDM Database Updated:** 1/8/2021

Solid Waste Facilities List(SLDWST)

The SLDWST list identifies locations that have conducted solid waste handling activities such as Landfills, Transfer Stations, Disaster Debris Staging Areas and sites handling Bio-Hazardous wastes. Sites listed with "##" after the Facility ID Number are historical locations, obtained from documents on record at local agencies.

Agency File Date: 1/14/2021 **Received by EDM:** 1/14/2021 **EDM Database Updated:** 1/14/2021

State CERCLIS/SEMS Equivalent(STCERC)

The STCERC list is compiled from the FDEP Site Investigation Section list, the Florida SITES list(historical) and the FDEP Cleanup Sites list. These sites are being assessed and/or cleaned up as a result of identified or suspected contamination from the release of hazardous substances. The FDEP Cleanup Sites list programs include: Brownfields, Petroleum, EPA Superfund (CERCLA), Drycleaning, Responsible Party Cleanup, State Funded Cleanup, State Owned Lands Cleanup and Hazardous Waste Cleanup.

Agency File Date: 9/17/2020 **Received by EDM:** 9/17/2020 **EDM Database Updated:** 9/22/2020

State NPL Equivalent(STNPL)

The FDEP State Funded Cleanup list contains facilities and/or locations where there are no viable responsible parties; the site poses an imminent hazard; and the site does not qualify for Superfund or is a low priority for EPA. Remedial efforts at these sites are currently being addressed through State funded cleanup action.

Agency File Date: 1/13/2020 **Received by EDM:** 12/2/2020 **EDM Database Updated:** 12/2/2020

Underground/Aboveground Storage Tanks(TANKS)

The FDEP TANKS list contains sites with registered aboveground and underground storage tanks containing regulated petroleum products.

Agency File Date: 11/19/2020 **Received by EDM:** 11/19/2020 **EDM Database Updated:** 11/20/2020

Voluntary Cleanup List(VOLCLNUP)

The VOLCLNUP List is derived from the FDEP Brownfields Site Rehabilitation Agreement (BSRA) database and the FDEP Office of Waste Cleanup Responsible Party Sites database. This list identifies those sites that have signed an agreement to Voluntarily cleanup a site and/or sites where legal responsibility for site rehabilitation exists pursuant to Florida Statutes and is being conducted either voluntarily or pursuant to enforcement activity.

Agency File Date: 9/21/2020 **Received by EDM:** 9/24/2020 **EDM Database Updated:** 9/24/2020

Florida Department of Health (FDOH)

FDOH Well Surveillance Program Public Water Wells(WELLSADOHC)

The FDOH Well Surveillance group manages several programs to identify and monitor areas in Florida where contaminated drinking water is suspected and may pose a threat to public health. The section coordinates with the County Health Departments to locate potable wells and conduct water sampling for contaminants of concern. This report contains data on public water wells that is contained in the Well Surveillance Program database.

Agency File Date: 1/29/2018 **Received by EDM:** 3/7/2018 **EDM Database Updated:** 3/9/2018

FDOH Well Surveillance Program Private Water Wells(WELLSADOHN)

The FDOH Well Surveillance group manages several programs to identify and monitor areas in Florida where contaminated drinking water is suspected and may pose a threat to public health. The section coordinates with the County Health Departments to locate potable wells and conduct water sampling for contaminants of concern. This report contains data on private water wells that is contained in the Well Surveillance Program database.

Agency File Date: 1/29/2018 **Received by EDM:** 3/7/2018 **EDM Database Updated:** 3/9/2018

Florida Water Management District (WMD)

SFWMD Private Water Well Report(SFWMDPRV)

The South Florida Water Management District (SFWMD) Water Use Regulation Facility database contains information on private well, pump and culvert locations as specified on Water Use Permits. These sites include uses for irrigation, commercial use, dewatering/mining and power. They do not include private potable sources, as they do not require SFWMD permitting.

Agency File Date: 1/8/2019 **Received by EDM:** 7/25/2019 **EDM Database Updated:** 7/25/2019

SFWMD Public Water Supply Report(SFWMDPUB)

The South Florida Water Management District (SFWMD) Water Use Regulation Facility database contains information on permitted Public Water Supply well, pump and culvert locations as specified on Water Use Permits.

Agency File Date: 1/8/2019 **Received by EDM:** 7/25/2019 **EDM Database Updated:** 7/25/2019

SJRWMD Private Water Well Report(SJRWMDPRV)

The St Johns River Water Management District (SJRWMD) Consumptive Use Permit database contains information on the location and characteristics of permitted water well and pump stations used for private purposes.

Agency File Date: 6/15/2020 **Received by EDM:** 6/15/2020 **EDM Database Updated:** 6/15/2020

SJRWMD Public Water Supply Report(SJRWMDPUB)

The St Johns River Water Management District (SJRWMD) Consumptive Use Permit database contains information on the location and characteristics of permitted water well and pump stations used for Public Water Supply.

Agency File Date: 6/15/2020 **Received by EDM:** 6/15/2020 **EDM Database Updated:** 6/15/2020

SWFWMD Domestic Water Supply Report(SWFWMDDOM)

The Southwest Florida Water Management District (SWFWMD) Well Construction Permit database contains information on the location and characteristics of SWFWMD Domestic Water Supply wells. Due to gross locational inaccuracies in the data prior to 2007, only data related to Permits issued after January 2007 is presented.

Agency File Date: 6/2/2020 **Received by EDM:** 6/10/2020 **EDM Database Updated:** 6/12/2020

SWFWMD Public Water Supply Report(SWFWMDPUB)

The Southwest Florida Water Management District (SWFWMD) Water Use Permit and Well Construction Permit databases contain information on the location and characteristics of SWFWMD Pulic Water Supply wells and withdrawal points.

Agency File Date: 6/2/2020 **Received by EDM:** 6/10/2020 **EDM Database Updated:** 6/12/2020

United States Environmental Protection Agency (EPA)

Comp Env Resp, Compensation & Liability Info Sys List(CERCLIS)

The US EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database tracks potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are proposed to be on the NPL, are on the NPL and sites that are in the screening and assessment phase for possible inclusion on the NPL. The CERCLIS database was retired in November of 2013 and has been replaced by the Superfund Enterprise Management System (SEMS).

Agency File Date: 11/12/2013 **Received by EDM:** 2/18/2016 **EDM Database Updated:** 2/18/2016

RCRIS Handlers with Corrective Action(CORRACTS)

The US EPA Corrective Action Sites (CORRACTS) database is a listing of hazardous waste handlers that have undergone RCRA corrective action activity.

Agency File Date: 9/21/2020 **Received by EDM:** 9/24/2020 **EDM Database Updated:** 9/24/2020

Enforcement and Compliance History(ECHO)

The US EPA Enforcement and Compliance History Online (ECHO) database provides integrated compliance and enforcement information on facilities regulated under the Clean Air Act (CAA), Clean Water Act (CWA), Safe Drinking Water Act (SDWA) and Resource Conservation and Recovery Act (RCRA).

Agency File Date: 10/10/2020 **Received by EDM:** 10/16/2020 **EDM Database Updated:** 10/19/2020

Emergency Response Notification System List(ERNS)

The Emergency Response Notification System (ERNS) database stores information on oil discharges and hazardous substance releases. The ERNS program is a cooperative data sharing effort among the EPA, DOT and the National Response Center (NRC), which currently provides access to this data.

Agency File Date: 9/20/2020 **Received by EDM:** 9/28/2020 **EDM Database Updated:** 9/29/2020

Archived Cerclis Sites(NFRAP)

The US EPA NFRAP list contains archived data of CERCLIS records where the EPA has completed assessment activities and determined that no further steps to list the site on the NPL will be taken. NFRAP sites may be reviewed in the future to determine if they should be returned to CERCLIS based upon newly identified contamination problems at the site. The NFRAP database was retired in November of 2013 and has been replaced by the Superfund Enterprise Management System (SEMS) .

Agency File Date: 10/25/2013 **Received by EDM:** 2/18/2016 **EDM Database Updated:** 2/18/2016

RCRA-LQG,SQG,CESQG and Transporters(NONTSD)

The EDM NONTSD list is a subset of the US EPA RCRAInfo System and identifies facilities that generate and transport hazardous wastes. These facilities may be Large Quantity Generators (LQG), Small Quantity Generators (SQG), Conditionally Exempt SQG's (CESQG) as well as" Non-Notifiers" and "Non-Handlers".

Agency File Date: 10/5/2020 **Received by EDM:** 10/6/2020 **EDM Database Updated:** 10/6/2020

National Priorities List(NPL)

The US EPA National Priorities List (NPL) contains facilities and/or locations where environmental contamination has been confirmed and prioritized for cleanup activities under the Superfund Program. EDM's NPL Report includes sites that are currently on the NPL as well as sites that have been Proposed, Withdrawn and/or Deleted from the list. Previously, information for the NPL was managed under the CERLIS data management system. In 2014 this system was replaced with the Superfund Enterprise Management System (SEMS). EPA last updated CERCLIS in November of 2013. EDM's NPL Report contains available SEMS data and the archived CERCLIS data relative to NPL sites.

Agency File Date: 9/22/2020 **Received by EDM:** 10/14/2020 **EDM Database Updated:** 10/14/2020

NPL Liens List(NPLLIENS)

The US EPA NPL Liens List identifies those sites where under authority granted by CERCLA, liens have been filed against real property in order to recover expenditures from remedial action or when the property owner receives a notice of potential liability.

Agency File Date: 9/22/2020 **Received by EDM:** 10/6/2020 **EDM Database Updated:** 10/6/2020

SEMS Active Site Inventory List(SEMSACTV)

The US EPA Superfund Enterprise Management System (SEMS) tracks potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. The SEMSACTV list contains sites that are on the National Priorities List (NPL) as well as sites that are prosposed for or in the screening and assessment phase for possible inclusion on the NPL. SEMS has replaced the CERCLIS database, which was retired in November of 2013.

Agency File Date: 9/22/2020 **Received by EDM:** 10/7/2020 **EDM Database Updated:** 10/7/2020

SEMS Archived Site Inventory List(SEMSARCH)

The US EPA Superfund Enterprise Management System (SEMS), contains archived data of CERCLIS or SEMS records where the EPA has completed assessment activities and determined that no further steps to list the site on the NPL will be taken. These sites may be reviewed in the future to determine if they should be returned to SEMS based upon newly identified contamination problems at the site. SEMS has replaced the CERCLIS database, which was retired in November of 2013. The SEMSARCH database contains these newly archived records under the SEMS database management system.

Agency File Date: 9/22/2020 **Received by EDM:** 10/7/2020 **EDM Database Updated:** 10/9/2020

Tribal Lust List(TRIBLLUST)

EDM's Tribal LUST list is derived from the USEPA Region IV Tribal Tanks database by extracting those sites with indicators of past and/or current releases.

Agency File Date: 2/24/2010 **Received by EDM:** 3/9/2010 **EDM Database Updated:** 3/9/2010

Tribal Tanks List(TRIBLTANKS)

The USEPA Region IV Tribal Tanks database lists Active and Closed storage tank facilities on Native American lands.

Agency File Date: 2/24/2010 **Received by EDM:** 3/9/2010 **EDM Database Updated:** 3/9/2010

RCRA-Treatment, Storage and/or Disposal Sites(TSD)

The EDM TSD list is a subset of the US EPA RCRAInfo system and identifies facilities that Treat, Store and/or Dispose of hazardous waste.

Agency File Date: 10/5/2020 **Received by EDM:** 10/6/2020 **EDM Database Updated:** 10/6/2020

Brownfields Management System(USBRWNFLDS)

The US EPA Brownfields program provides information on environmentally distressed properties that have received Grants or Targeted funding for cleanup and redevelopment . Tribal Brownfield sites are included in the USBRWNFLDS database.

Agency File Date: 10/14/2020 **Received by EDM:** 10/14/2020 **EDM Database Updated:** 10/16/2020

Institutional and/or Engineering Controls(USINSTENG)

The USINSTENG list is compiled from data elements contained in the NPL, CORRACTS, USBRWNFLDS and RCRAInfo databases.

Agency File Date: 10/16/2020 **Received by EDM:** 10/16/2020 **EDM Database Updated:** 10/16/2020

Environmental Impact Areas

Brownfield Areas and Sites

The FDEP Brownfields database contains a listing of State Designated Brownfield Areas and Brownfield Sites. Brownfields are typically defined as abandoned, idled or underused industrial and commercial sites where expansion or redevelopment is complicated by real or perceived environmental contamination.

Agency File Date: 1/6/2021 **Received by EDM:** 1/8/2021 **EDM Database Updated:** 1/8/2021

https://floridadep.gov/waste/waste-cleanup/content/brownfields-program

Cattle Dipping Vats

From the 1910's through the 1950's, vats were filled with an arsenic solution for the control and eradication of the cattle fever tick. Other pesticides such as DDT where also widely used. By State law, all cattle, horses, mules, goats, and other susceptible animals were required to be dipped every 14 days. Under certain circumstances, the arsenic and other pesticides remaining at the site may present an environmental or public health hazard.

Some of the sites have been located and are currently under investigation. However, most of the listings are from old records of the State Livestock Board, which listed each vat as it was put into operation. In addition, some privately operated vats may have existed which were not listed by the Livestock Board. EDM's Cattle Dipping Vat sites are retrieved from the Voluntary Cleanup and STCERC datablases. For additional information on Cattle Dipping Vats visit the FDEP and FDOH websites at:

Agency File Date: 10/31/2018 **Received by EDM:** 1/25/2019 **EDM Database Updated:** 1/25/2019

https://floridadep.gov/waste/district-business-support/content/cattle-dipping-vats-cdv

http://www.floridahealth.gov/environmental-health/drinking-water/cattledipvathome.html

Formerly Used Defense Sites

The DoD is responsible for the environmental restoration of properties that were formerly owned by, leased to or otherwise possessed by the United States and operated under the jurisdiction of the Secretary of Defense prior to October 1986. Such properties are known as Formerly Used Defense Sites (FUDS). The Army is the executive agent for the program and the U.S. Army Corps of Engineers manages and directs the program's administration. For more information on the FUDS Program, including maps and data on individual sites, visit the Army Corps of Engineers website at:

Agency File Date: 5/29/2018 **Received by EDM:** 1/25/2019 **EDM Database Updated:** 1/25/2019

http://www.usace.army.mil/Missions/Environmental/Formerly-Used-Defense-Sites/

FUDS Munitions Response Sites

The DoD developed the Military Munitions Response Program (MMRP) in 2001 to addresses munitions-related concerns, including explosive safety, environmental, and health hazards from releases of unexploded ordnance (UXO), discarded military munitions (DDM), and munitions constituents (MC) found at locations, other than operational ranges, on active and Base Realignment and Closure (BRAC) installations and Formerly Used Defense Sites (FUDS) properties. The MMRP addresses non-operational range lands with suspected or known hazards from munitions and explosives of concern (MEC) which occurred prior to September 2002, but are not already included with an Installation Response Program (IRP) site cleanup activity. For more information on the FUDS MMRP Program, including maps and data on individual sites, visit the Army Corps of Engineers website at:

Agency File Date: 5/14/2018 **Received by EDM:** 1/25/2019 **EDM Database Updated:** 1/25/2019

http://www.asaie.army.mil/Public/ESOH/mmrp.html

Groundwater Contamination Areas

The Ground Water Contamination Areas GIS layer is a statewide map showing the boundaries of delineated areas of known groundwater contamination pursuant to Chapter 62-524, F.A.C., New Potable Water Well Permitting In Delineated Areas. 38 Florida counties have been delineated primarily for the agricultural pesticide ethylene dibromide (EDB), and to a much lesser extent, volatile organic and petroleum contaminants. This GIS layer represents approximately 427,897 acres in 38 counties in Florida that have been delineated for groundwater contamination. However, it does not represent all known sources of groundwater contamination for the state of Florida.

This information is intended to be used by regulatory agencies issuing potable water well construction permits in areas of ground water contamination to protect public health and the ground water resource. Permitted water wells in these areas must meet specific well construction criteria and water testing prior to well use. This dataset only indicates the presence or absence of specific groundwater contaminants and does not represent all known sources of groundwater contamination in the state of Florida.

Agency File Date: 11/28/2018 **Received by EDM:** 1/24/2019 **EDM Database Updated:** 1/24/2019

https://floridadep.gov/water/source-drinking-water/content/delineated-areas

Institutional Controls

The FDEP Institutional Controls GIS layer is a statewide map showing the approximate boundaries of delineated areas where Institutional Controls are in place.

An institutional control provides for certain restrictions on a property. For example, a site may be cleaned up to satisfy commercial contamination target levels and an institutional control may be placed on that property indicating that it may only be used for commercial activities. If the owner of the property ever wanted to use that property for residential purposes, the owner would have to ensure that any contamination meets residential target levels.

The locational data for this layer is provided by the responsible party and reviewed by FDEP staff. Neither FDEP or EDM assumes respondibility for the accuracy of the boundary data.

Agency File Date: 12/30/2020 **Received by EDM:** 1/8/2021 **EDM Database Updated:** 1/8/2021

https://ca.dep.state.fl.us/mapdirect/?webmap=cff8d21797184421ab4763d3e4a01e48

National Priorities List

The US EPA National Priorities List (NPL) contains facilities and/or locations where environmental contamination has been confirmed and prioritized for cleanup activities under the Superfund Program. EDM's NPL site boundaries data include sites that are currently on the NPL as well as sites that have been Proposed, Withdrawn and/or Deleted from the list.

Agency File Date: 11/14/2018 **Received by EDM:** 12/10/2018 **EDM Database Updated:** 1/22/2019

https://www.epa.gov/superfund/search-superfund-sites-where-you-live

Solid Waste Facilities

The FDEP SLDWST list identifies locations that have been permitted to conduct solid waste handling activities.

Agency File Date: 1/23/2019 **Received by EDM:** 1/24/2019 **EDM Database Updated:** 1/25/2019

https://floridadep.gov/waste

State Funded Cleanup Sites

The FDEP State Funded Cleanup list contains facilities and/or locations where there are no viable responsible parties; the site poses an imminent hazard; and the site does not qualify for Superfund or is a low priority for EPA. Remedial efforts at these sites are currently being addressed through State funded cleanup action.

Agency File Date: 8/10/2019 **Received by EDM:** 8/12/2019 **EDM Database Updated:** 8/12/2019

https://floridadep.gov/waste/waste-cleanup/documents/state-funded-cleanup-program-site-list

Appendix G.

Pre-Environmental Site Assessment Questionnaire

Pre-Environmental Site Assessment Questionnaire

Please answer the following questions in good faith and to the best of your knowledge. If a question does not apply, or if you are unsure of the answer, please indicate that in your response.

1. List all the names of any individuals who have experience in operations at the Subject Property. Please include current operators, employees, and/or land managers. This list of contacts will be used to arrange interviews during the site assessment.

   Mike Moore

2. Identify the main contacts for further inquiries, if they are different from the current property owner.

   Mike Moore

3. Are any natural water bodies or wetland areas located on the Subject Property? If so, provide the name, if applicable, a brief description and location?

   There are several located throughout the property

4. Is the Subject Property located near any schools or recreational facilities? If so, please name.

   It is located East of the Okaloacoochee Slough State Park

5. Are any buildings, improvements (include cattle pens), or other modifications present on the Subject Property? Is so, please describe – including age, square footage (for buildings), if known.

   There is a House, Pole Building, Garage and other improvements on the Wade Lease.

   The improvements are located in Section 15 45S 31E

6. Are you aware of the presence of asbestos, lead paint, or PCBs in any structure, building, or equipment (electrical/mechanical) present on the Subject Property?

   To the best of my actual knowledge no.

7. How are the structures or storage areas being used?

House and buildings are being utilized as a hunting camp

8. What are the current land uses (commercial and recreational) of the Subject Property?

Recreational hunting and camping
Cattle Grazing

9. What are the previous uses of the Subject Property (to the best of your knowledge)?

The same as above answer to question 8

10. Are you aware of any previous environmental or archaeological assessments conducted for the Subject Property? If so, are you able to provide a copy of the assessment report(s) for review?

Archaeological Consultants, Incorporated (ACI), a Florida corporation, with business offices located at 8110 Blaikie Court, Suite A, Sarasota, Florida 34240, has prepared certain archeological studies in connection with the SFWMD's Alico Northern Everglades-Payment for Environmental Services project (described in response to Question 16 below). Other environmental studies may have also been conducted in connection with such project. If necessary, Alico may coordinate your review of such studies. Please let us know if that is desired.

11. Are you aware of any <u>past</u> underground or aboveground storage tanks (including heating oil tanks), chemical storage areas, cattle dipping vats, or chemical mixing areas located on or adjacent to the Subject Property? If so, please describe and provide a location.

To the best of my actual knowledge no.

12. If underground storage tanks (USTs) or aboveground storage tanks (ASTs) are <u>currently present</u> at the Subject Property, please complete the UST/AST form attached to this questionnaire. *<u>If no tanks are present at the Subject Property, please disregard the UST / AST form.</u>*

To the best of my actual knowledge no.

13. Are you aware of any landfills (public or private) or any dumping on, or adjacent to, the Subject Property? If so, please describe and provide location.

To the best of my knowledge no..

14. If yes, identify the waste types that were disposed of within the landfill and /or area of dumping.

N/A

15. Are you aware of any hazardous substances ever stored or produced on the Subject Property? If yes, please identify or provide the Safety Data Sheet for those hazardous substances.

To the best of my knowledge no.

16. Have any State-, Federal-, or government-issued environmental permits been issued in relation to the Subject Property (for example, NPDES permits)?

On September 18, 2018, the South Florida Water Management District (SFWMD) issued an Environmental Resource Permit with conditions, Permit Number 26-01213-P, Application Number 150604-4 to Alico, Inc., to construct and operate a stormwater management system for a water storage project known as the "Alico Northern Everglades- Payment for Environmental Services". This is a dispersed water storage project for improvements on private agricultural lands. The project is on 35,186 acres in Hendry County, Florida located within Sections 1-5 and 8-36, Township 45 South, Range 31 East, Sections 11-14, 23-26 and 35-36, Township 45 South, Range 30 East, and Sections 4-9, 16-21 and 28-33, Township 45 South, Range 32 East. On April 12, 2019, SFWMD issued a modification to the above-described Environmental Resource Permit, by Application Number 181227-4. A copy of the permit can be obtained by accessing the permit directly from SFWMD's website (www.sfwmd.gov) using the Application/Permit Search on the ePermitting page

17. Are there any wells (water, irrigation, monitoring, injection) located on the Subject Property? If so, please describe type and location.

Yes. There is a well on the property used for the hunting camp

18. Are you aware of any liens, use restrictions, or deed covenants associated with the Subject Property? If so, please describe and provide the location.

Except as set forth in the title insurance commitment provided by FDEP in connection with this proposed transaction, if any, to the best of my actual knowledge, I am unaware of any liens, use restrictions or deed covenants associated with the Subject Property

19. Is there any other information you feel would be important or useful related to the Subject Property or immediately adjacent properties?

To the best of my knowledge no.

Completed By: **Date Completed:**

Mike Moore **1/29/2020**

Joe Spratt
1/27/21
Cell 863-517-6235

- House Built Approximately 1965 For Joe's Dad
- the Jallocy and sash windows and doors came out of Joe's Dads House in Labelle.
- originally there was only the House and the Kithen outside. Both were Built then
- the water tower was part of the original House and the tank is a stainless steel tank that came out of an old Pullman Rail car. Joe had to replace the support Frame underneath the TANK As it was rotting.
- There was A Little Gas engine that pumped the water up into the tank and it Gravity Fed into the House.
- Original house had Coleman lanterns in Each room that ran off A Propane Tank outside,
- Joe Added the walkway + Roof Between the House and Kitchen, the cleaning Shed and the generator Shed And wiring in the house, Power Poles were Put up while Joe had the lease By Alico.
- Joe Also Built the Buggy Shed.
- House was Built in Place & Did not come From Somewhere Else.
- Joe said He would Be Glad to Talk to someone who wanted to Discuss Additional Questions

Appendix H.

User Responsibility Questionnaire

X3. USER QUESTIONNAIRE

(1) Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25)**.**

- **Are you aware of any environmental cleanup liens against the *property* that are filed or recorded under federal, tribal, state or local law? No, DSL looks to the ESA consultant to provide us with this information.**

(2) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26)**.**

- **Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? No, DSL looks to the ESA consultant to provide us with this information.**

(3) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28)**.**

- **As the *user* of this *ESA* do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business? No.**

(4) Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29)**.**

- **Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*? Yes, DSL looks to the DSL approved value established by review and approval of the appraisal of said property by its Bureau of Appraisal. Total compensation to be provided for this property reasonably reflects the fair market value of the property.**

(5) Commonly known or *reasonably ascertainable* information about the *property* (40 CFR 312.30)**.**

- **Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as *user*,**

  (a) **Do you know the past uses of the *property*? No, DSL looks to the ESA consultant to determine past uses of the property.**

  (b) **Do you know of specific chemicals that are present or once were present at the *property*? No, the ESA consultant will find out through their research of the property, interviews, etc.**

  (c) **Do you know of spills or other chemical releases that have taken place at the *property*? No, the ESA consultant will find out through their research of the property, interviews, etc.**

  (d) **Do you know of any environmental cleanups that have taken place at the *property*? No, the ESA consultant will determine this through their research and regulatory record review of the property.**

(6) The degree of obviousness of the presence of likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31)**.**

- **As the *user* of this *ESA*, based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property*? No.**

James Parker | **DSL Contract Manager**
Name *(Authorized User Representative)* | Title



Signature | **January 13, 2021**
Date

RE:

Project: *Devils Garden FF*
Property Owner: *Alico, Inc.*
Task Assignment No.: *PL269.021*

Appendix I.

Resume of Environmental Professional

Craig G Obrecht, PE
Senior Engineer I

Summary of Experience / Areas of Specialization

Mr. Obrecht is a professional engineer and environmental professional with 19 years of experience in the environmental field. In addition to his environmental expertise, he also has years of experience in geotechnical engineering, sinkhole investigation and remediation, groundwater hydrology, construction materials testing, and construction management. All of this work took place in Florida.

His environmental experience is primarily Phase I and Phase II Environmental Site Assessments and also includes Transaction Screen Questionnaires, Tank Closure Assessments, Contamination Assessments, and remedial actions related to petroleum, metals, pesticide, and solvent contamination of soil and groundwater. He has worked on hundreds of environmental projects ranging from aerospace manufacturers to a 15,000-acre citrus grove working for private and government clients.

Mr. Obrecht has performed investigations on dozens of rural and agricultural properties from hundreds to thousands of acres in area. Issues addressed during these investigations include above-ground and underground storage tanks, pesticide storage and mixing areas, cattle dipping vats and treatment pens, and dumps and landfills, including assessment and cleanup of these areas.

Mr. Obrecht is an experienced project manager, directing engineer interns, drillers and field and laboratory technicians related to a wide variety of projects. His experience has included working and coordinating with buyers, owners, lenders, architects, civil engineers, structural engineers, surveyors, contractors, and regulatory personnel on many hundreds of projects of all kinds. He has an excellent record of client satisfaction resulting from his attention to detail, innovative solutions to lower costs, and proactive communication. His most recent work has been providing construction management and engineering during construction services on several Everglades Restoration projects in South Florida.

Areas of Specialization

Project Management • Environmental Investigations and Recommendations • Geotechnical Investigations and Recommendations • Construction Management • Health and Safety Protocols • Site Access • All Media Sampling • Insurance Claims • Site Closures • Site Assessment • Quality Assurance/Quality Control • Cost Estimating and Cost Control • Scheduling • Data Evaluation • Report Preparation

Education

Bachelor of Science, Biology, Eastern Michigan University, 1974
Bachelor of Science, Civil Engineering – Environmental, University of South Florida, 1995
Master of Science, Civil Engineering – Environmental, Geotechnical, Groundwater Hydrology, University of South Florida, 1999

Professional Licenses/Organizations

Licensed Professional Engineer: Florida (No. 55451)

Professional Training

OSHA 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) Training
OSHA 8-Hour Refresher Course (29 CFR 1910.120), multiple years
Qualified Stormwater Management Inspector

Project Experience

2,000-Acre Agricultural Property, Manatee County Florida

This property was to be developed as a single and multi-family home subdivision. Mr. Obrecht performed a Phase I Environmental Site Assessment with several updates, Phase II soil and groundwater testing, and soil and groundwater remediation related to petroleum and pesticide spills which resulted in a No Further Action status from the FDEP. In addition, he performed Level I and II FDOT Contamination Screening Assessments, as well as a geotechnical report, along the southern portion of the property related to the widening of a State road. Subsequent geotechnical studies were performed on the property and the client was furnished with recommendations related to site development including geotechnical aspects of roadways, underground utilities, filling, stormwater facilities, and fill potential.

200-Acre Ranch, Parrish, Florida

Mr. Obrecht performed a Phase I and Phase II ESA of this cattle ranch proposed for development as a subdivision. The most significant issue was a cattle pen that had been used to treat cattle with pesticides since the 1950's. After a contamination assessment revealed high levels of chlorinated pesticides in the soil and exceedances for those compounds in the groundwater, a source removal was performed. Some of the soil was required to be disposed in a hazardous waste landfill, with the remaining soils disposed in a Class I landfill. Post remediation testing revealed that all contaminated soil had been removed and, after multiple quarters of groundwater monitoring, the site was granted a No Further Action status.

Publix Store, Sarasota, Florida

Mr. Obrecht performed the pre-purchase Phase I and Phase II Environmental Site Assessment of this former newspaper facility. Petroleum and solvents contamination was found and the contamination assessment and remediation was performed by others. Mr. Obrecht was the geotechnical engineer of record for the project and, due to residual contamination, special procedures were required for the stone column vibro-compaction soil improvement that was necessary due to high foundation loads. The contamination required a sheet pile cut-off wall and treatment of groundwater recovered from construction site de-watering operations.

Proposed Hotel, Sarasota, Florida

This was a multi-property site in the downtown area. Mr. Obrecht performed Phase I and Phase II Environmental Site Assessments on the individual parcels. He also managed a number of geotechnical investigations related to the foundations for a five-story building including underground parking. Recommendations were provided to the client related to a historic landfill that was found on a portion of the property as well as abandoned fuel tanks. Environmental cleanup costs were estimated and multiple options were provided related to foundation support and methane mitigation related to the landfill. Due to the recession, the project was abandoned after site demolition.