

APPENDIX J

**Florida Grasshopper Sparrow Survey Technical
Memorandum**

Memorandum

Subject: SR 70 from Jefferson Avenue to County Road 29
Florida Grasshopper Sparrow Technical Results Memorandum
FPID 414506-1-22-01
Highlands County, FL

Introduction

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) study to evaluate options for widening State Road 70 (SR 70) in Highlands County. The study covers approximately 7.0 miles of SR 70 beginning at Jefferson Avenue and ending at County Road 29. See **Appendix A** Project Location and Station Maps for project location. The objective of the PD&E study is to evaluate widening the existing two-lane undivided roadway to a four-lane divided roadway. The purpose of this project is to improve operational conditions for emergency evacuations and enhance safety along the SR 70 corridor in Highlands County. Other goals of this project are to support rural area of opportunity initiatives, increase regional mobility and improve direct access to US 27 for north-south travel and movement of goods, and accommodate increased traffic demand.

This project is within the U.S. Fish and Wildlife Service's (USFWS) consultation area for the federally endangered Florida grasshopper sparrow (*Ammodramus savannarum floridanus*). Florida grasshopper sparrows were listed as a federally threatened species by the USFWS in 1986 and receive protection under the Endangered Species Act 16 U.S.C. §1531-1544, Florida's Endangered and Threatened Species Rule 68A-27 F.A.C., and the Migratory Bird Treaty Act 16 U.S.C. §§ 703–712.

Methodology

A desktop review was conducted for the project area to assess the suitable Florida grasshopper sparrow habitat in the project area. Suitable habitat is defined by the U.S. Fish and Wildlife Service as prairie-like (i.e., unforested areas with some grass cover). Florida grasshopper sparrows prefer areas within that habitat that are greater than 100 meters from the forest edge (Delany and Linda 1994, Delany et al. 1995). Habitat information was derived from the Florida Department of Transportation's Florida Land Use Cover, Forms, and Classification System (FLUCCS). Within the project limits there is suitable habitat, consisting of improved pasture (FLUCCS 211), and other open lands (FLUCCS 260). Based on the proposed project activities and the desktop review, it was determined that a formal Florida grasshopper sparrow was required, to be conducted between April 1, 2025, to June 15, 2025, per the USFWS' Florida grasshopper sparrow Draft Survey Protocol (USFWS 2004). This period encompasses peak nesting season.

Various field surveys were conducted by qualified biologists in March and April 2025, to confirm suitable habitat and the locations of survey stations. Based on the desktop and field assessments, 4 survey stations were strategically placed at 200-meter (656 foot) intervals along the project corridor where suitable habitat is present. The survey stations were located to document any Florida grasshopper sparrow observations within the project limits and a 100-meter (328 feet) buffer to account for off-site territories that might overlap onto the project area. Please note that the project was originally combined with 414506-5-32-01 and the stations were numbered numerically. The missing stations are included in the 414506-5-32-01

report. See **Appendix A** Project Location and Station Map. Coordinates of each sampling station and its habitat type are provided in **Table 1**.

Table 1. Coordinates of each sampling station and its habitat type.

Survey Station	Latitude	Longitude	Habitat Type
1	27.208671	-81.327246	Other open lands
10	27.2065	-81.389184	Improved pasture
11	27.206568	-81.387577	Improved pasture
12	27.210101	-81.328372	Other open lands

Biologists experienced in avian surveys conducted the surveys, beginning no earlier than 30 minutes prior to sunrise, and ending no later than three hours after sunrise. The surveys were conducted one morning every two weeks for duration of the survey period (3 survey days total for each station). The Florida grasshopper sparrow survey for the 2025 nesting season began on May 8, and lasted until June 5, 2025. Surveys were performed only on calm days, with wind speeds less than 15 miles per hour. Each station survey first consisted of one minute of passive watching and listening. This was followed by a thirty second Florida grasshopper sparrow vocalization playback in each of the four cardinal directions, separated by one minute of listening and watching. The volume of the audio player was sufficient to hear the call from a distance of 100 meters. Results of each survey were documented on field data sheets and summarized in **Table 3**.

Results

Table 2 summarizes the survey dates, sunrise times, and weather conditions (start and end temperature, wind speed, visibility, and precipitation) for the 2025 season.

Table 2. Survey dates and weather conditions.

Survey Date	Sunrise ¹	Start Weather Temperature/Wind/ Visibility/Precipitation	End Weather Temperature/Wind/ Visibility/Precipitation
5/8/25	0639	71°F/5mph/9 miles/0"	74°F/5mph/10 miles/0"
5/22/25	0637	75°F/1mph/4 miles/0"	77°F/8mph/10 miles/0"
6/5/25	0635	72°F/6mph/8 miles/0"	74°F/6mph/9 miles/0"

¹ Sunrise time for Lake Placid, FL. Rounded to nearest minute.

During the 2025 nest season, no Florida grasshopper sparrows were observed or heard, and no nests were discovered. Suitable habitat within and adjacent to the project limits has largely been converted into low maintained cropland, which is generally incompatible with grasshopper sparrows (Delaney and Linda, 1994; Pranty and Tucker, Jr., 2006). See **Table 3** for Field Data Summary. See **Appendix B** for Photo Documentation.

Table 3 summarizes the survey dates and observations for the 2025 season.

Table 3. Field data summary of the Spring 2025 Florida grasshopper sparrow surveys.

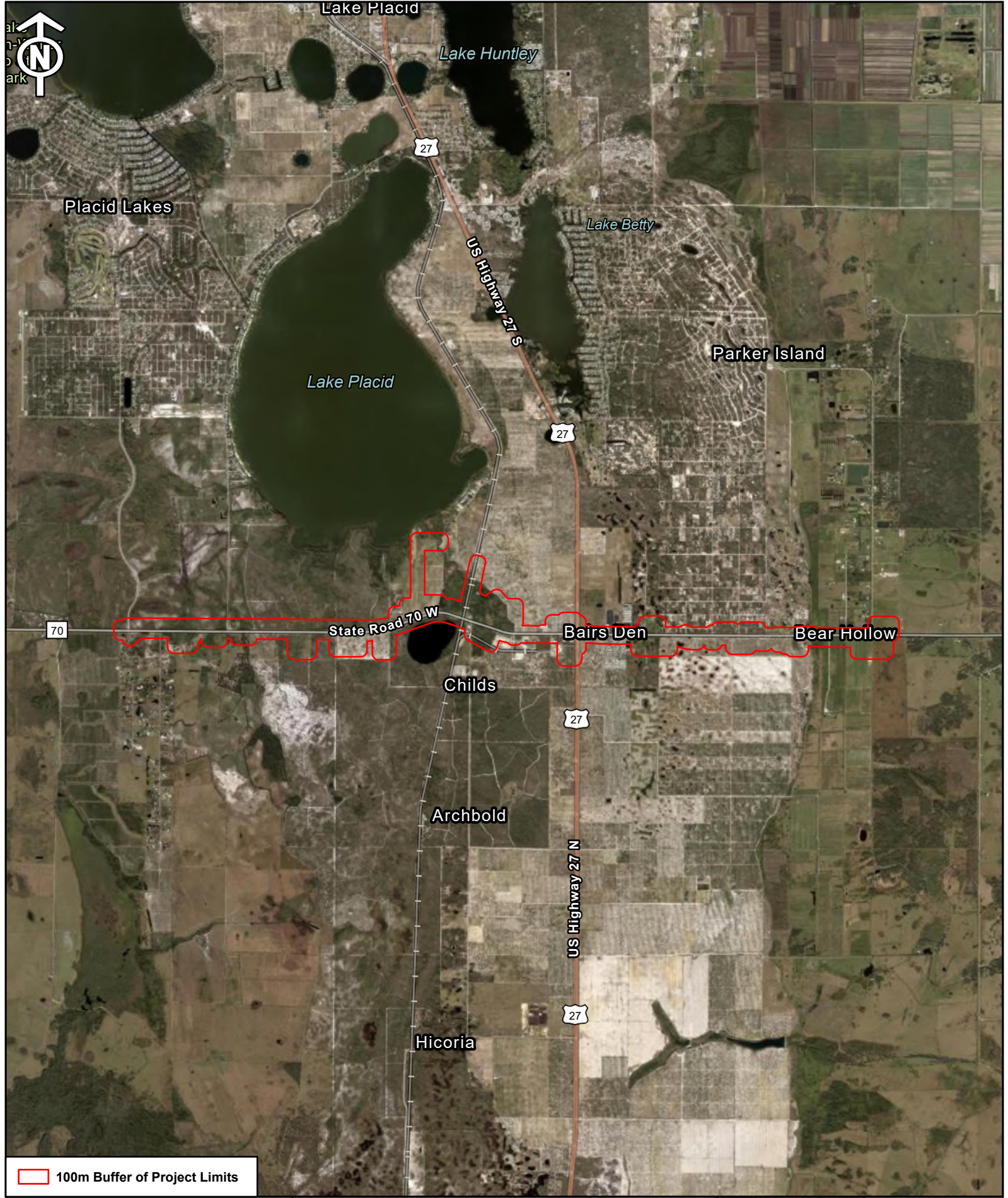
Survey Event	Survey Point	Date	Present/Absent	Number Observed/Heard	Observation Type
Event 1	1	5/8/2025	Absent	0	N/A
Event 1	10	5/8/2025	Absent	0	N/A
Event 1	11	5/8/2025	Absent	0	N/A
Event 1	12	5/8/2025	Absent	0	N/A
Event 2	1	5/22/2025	Absent	0	N/A
Event 2	10	5/22/2025	Absent	0	N/A
Event 2	11	5/22/2025	Absent	0	N/A
Event 2	12	5/22/2025	Absent	0	N/A
Event 3	1	6/5/2025	Absent	0	N/A
Event 3	10	6/5/2025	Absent	0	N/A
Event 3	11	6/5/2025	Absent	0	N/A
Event 3	12	6/5/2025	Absent	0	N/A

Conclusion

Results of the Spring 2025 Florida grasshopper sparrow survey indicate that active nests or foraging territory do not occur within the project footprint or the 100-meter buffer zone around the perimeter of the project area. Therefore, it has been determined that the proposed construction *may affect, not likely to adversely affect* the Florida grasshopper sparrow. This survey is valid for one year. If construction does not begin within that year, coordination with USFWS will be re-initiated to determine if additional surveys are required.

References

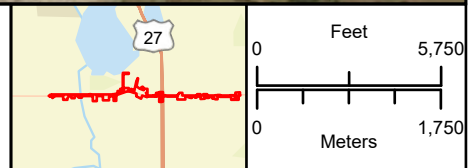
- Delaney, M.F. and S.B. Linda. 1994. Characteristics of occupied and abandoned Florida Grasshopper Sparrow territories. *Florida Field Naturalist* 22:106-109.
- Delany, M.F., C.T. Moore, and D.R. Progulsk, Jr. 1995. Territory size and movements of Florida grasshopper sparrows. *Journal of Field Ornithology*, 66(2):305-309.
- Pranty, B., and J.W. Tucker, Jr. 2006. Ecology and Management of the Florida Grasshopper Sparrow. *Land of Fire and Water: The Florida Dry Prairie Ecosystem*. Reed F. Noss, ed.
- U.S Fish and Wildlife Service (USFWS). 2004. Draft Species Conservation Guidelines, South Florida, Florida Grasshopper Sparrow. South Florida Ecological Services Office, Vero Beach, Florida.

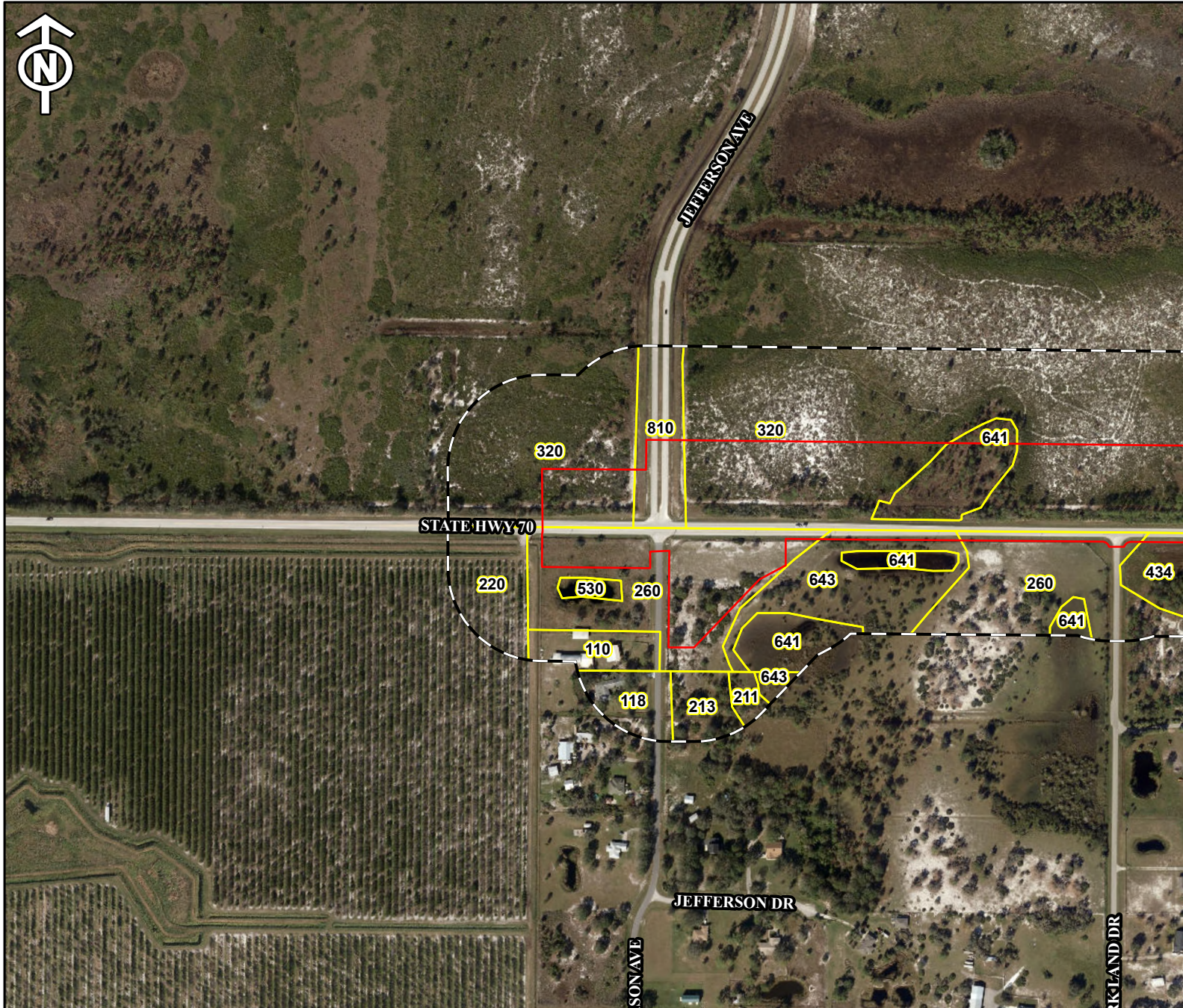


 100m Buffer of Project Limits



SR 70 FROM JEFFERSON AVENUE TO CR 29
FPID: 414506-1-22-01
FLORIDA GRASSHOPPER SPARROW
LOCATION MAP



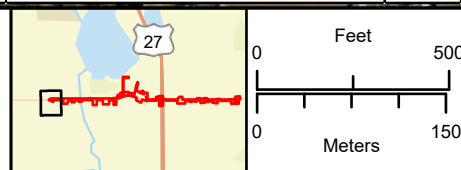


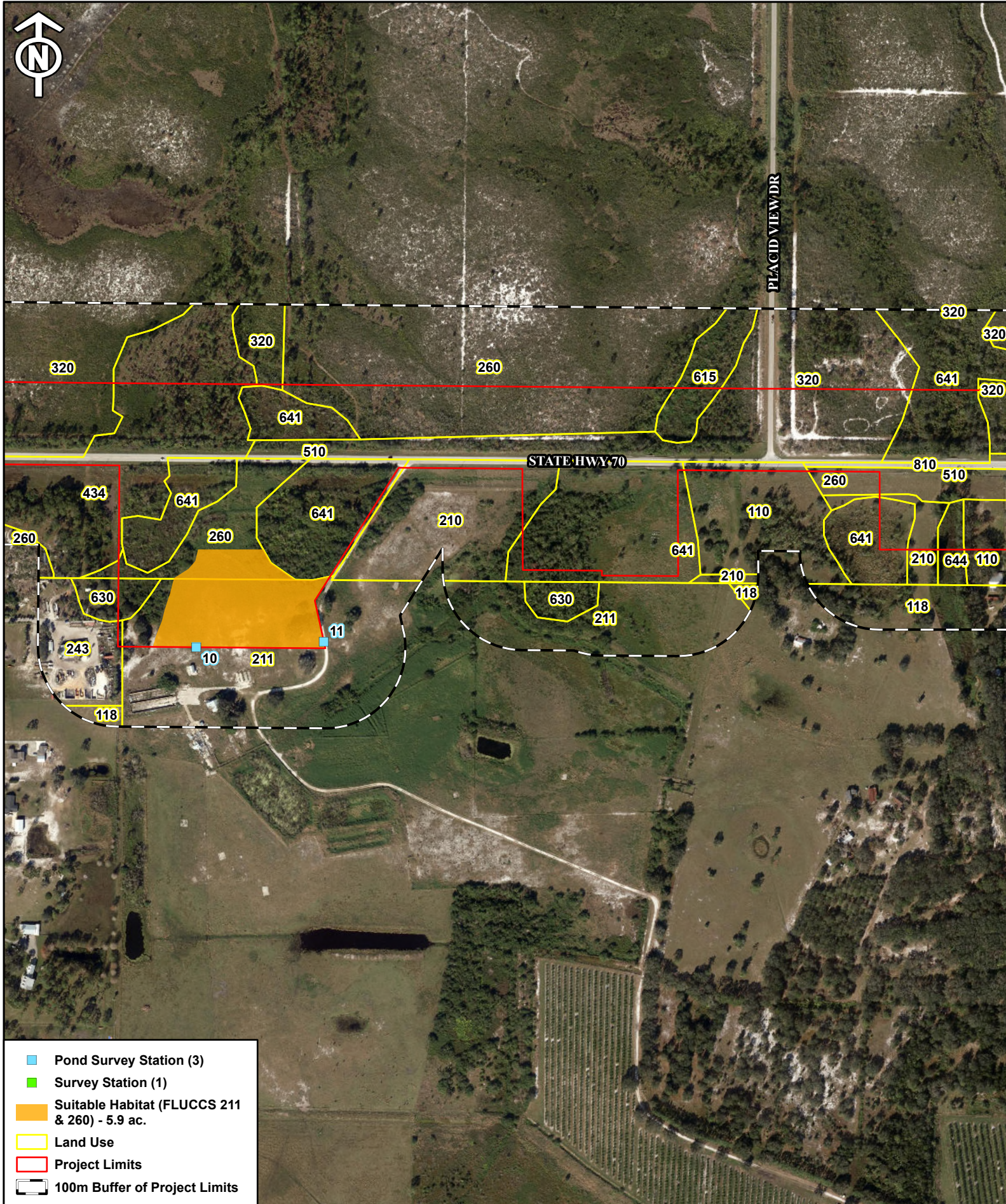
FLUCCS CODE	FLUCCS DESCRIPTION	ACRES	FLUCCS CODE	FLUCCS DESCRIPTION	ACRES
110	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS PER ACRE	120.1	422	BRAZILIAN PEPPER	9.0
118	RURAL RESIDENTIAL	38.9	434	UPLAND HARDWOOD - CONIFEROUS MIX	84.3
130	RESIDENTIAL HIGH DENSITY	17.4	510	STREAMS AND WATERWAYS	2.8
140	COMMERCIAL AND SERVICES	8.7	520	LAKES	5.2
150	INDUSTRIAL	32.2	530	RESERVOIRS	4.3
190	OPEN LAND	44.1	615	STREAM AND LAKE SWAMPS (BOTTOMLAND)	47.5
210	CROPLAND AND PASTURELAND	8.8	617	MIXED WETLAND HARDWOODS	3.9
211	IMPROVED PASTURES	98.0	630	WETLAND FORESTED MIXED	2.0
213	WOODLAND PASTURES	3.4	640	VEGETATED NON-FORESTED WETLANDS	1.7
220	TREE CROPS	443.2	641	FRESHWATER MARSHES / GRAMINOID PRAIRIE - MARSH	68.1
221	CITRUS GROVES	40.3	643	WET PRAIRIE	11.8
240	NURSERIES AND VINEYARDS	11.0	644	EMERGENT AQUATIC VEGETATION	0.8
243	ORNAMENTALS	3.3	653	INTERMITTENT PONDS	2.8
260	OTHER OPEN LANDS	71.7	810	TRANSPORTATION	48.0
261	FALLOW CROPLAND	1.9	820	COMMUNICATION	9.6
320	SHRUB AND BRUSHLAND	194.8	830	UTILITIES	14.4
				TOTAL	1454.0

- Pond Survey Station (3)
- Survey Station (1)
- Suitable Habitat (FLUCCS 211 & 260) - 5.9 ac.
- Land Use
- Project Limits
- 100m Buffer of Project Limits

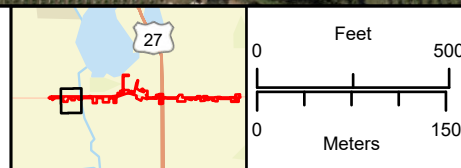


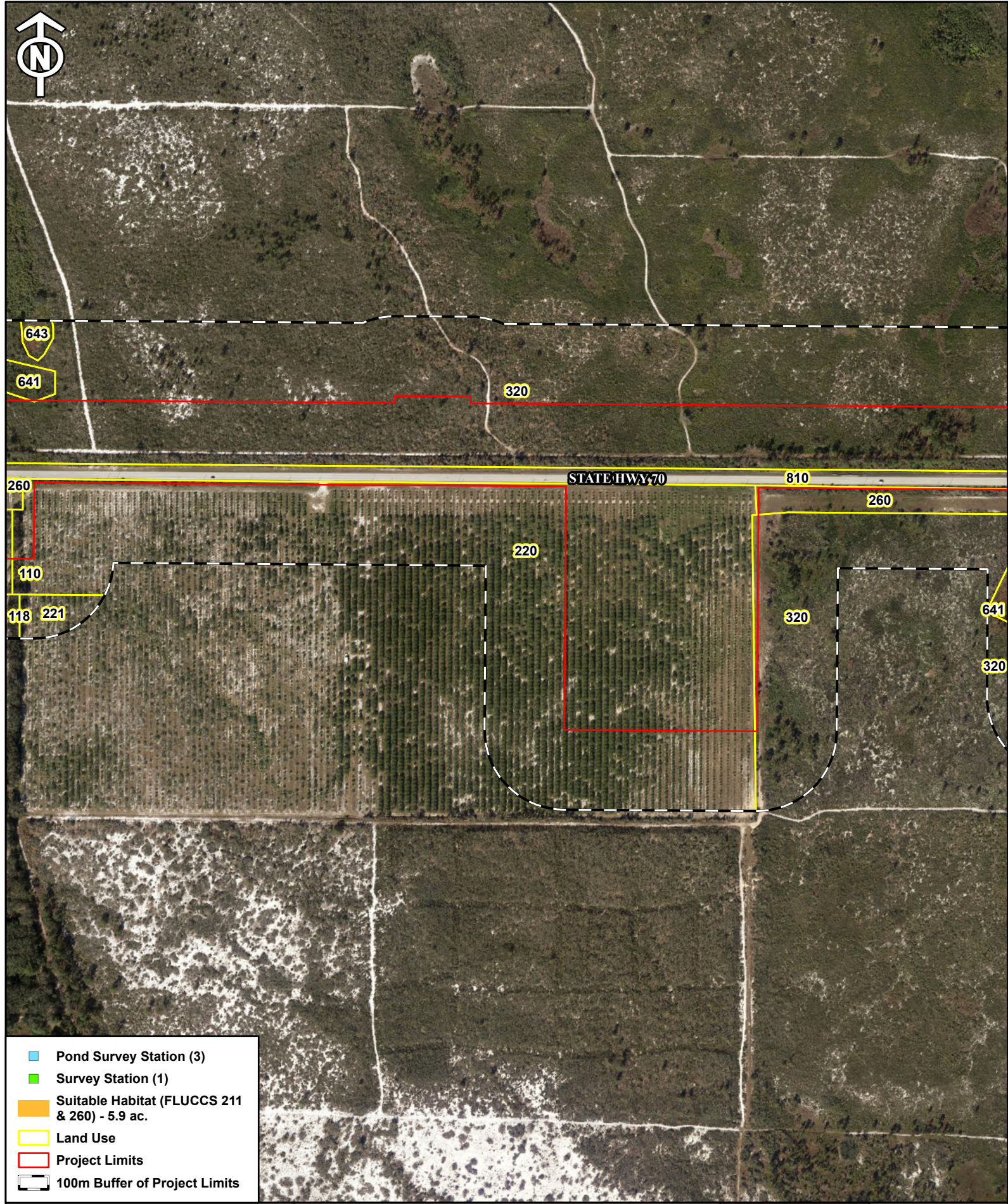
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FLORIDA GRASSHOPPER SPARROW
SURVEY STATION MAP 1 of 11





SR 70 FROM JEFFERSON AVENUE TO CR 29
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FLORIDA GRASSHOPPER SPARROW
SURVEY STATION MAP 2 of 11

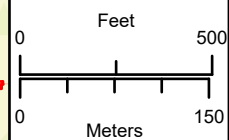
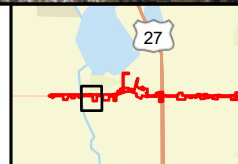


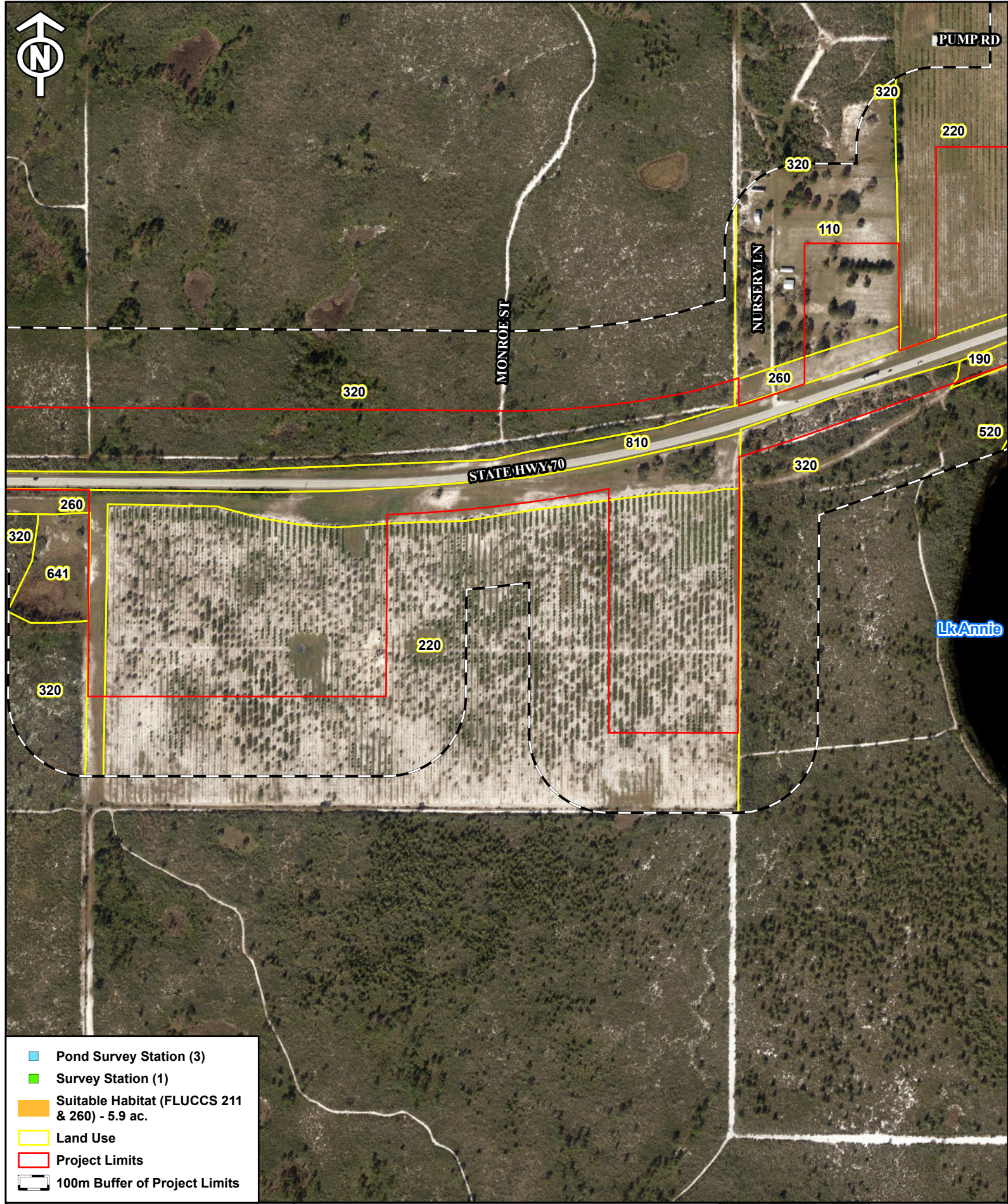


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- Survey Station (1)
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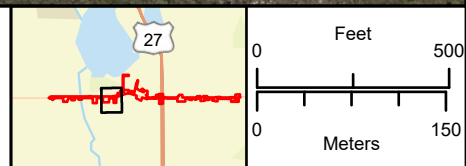


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FLORIDA GRASSHOPPER SPARROW
SURVEY STATION MAP 3 of 11





SR 70 FROM JEFFERSON AVENUE TO CR 29
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FLORIDA GRASSHOPPER SPARROW
SURVEY STATION MAP 4 of 11



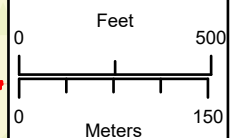
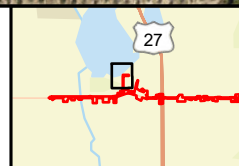


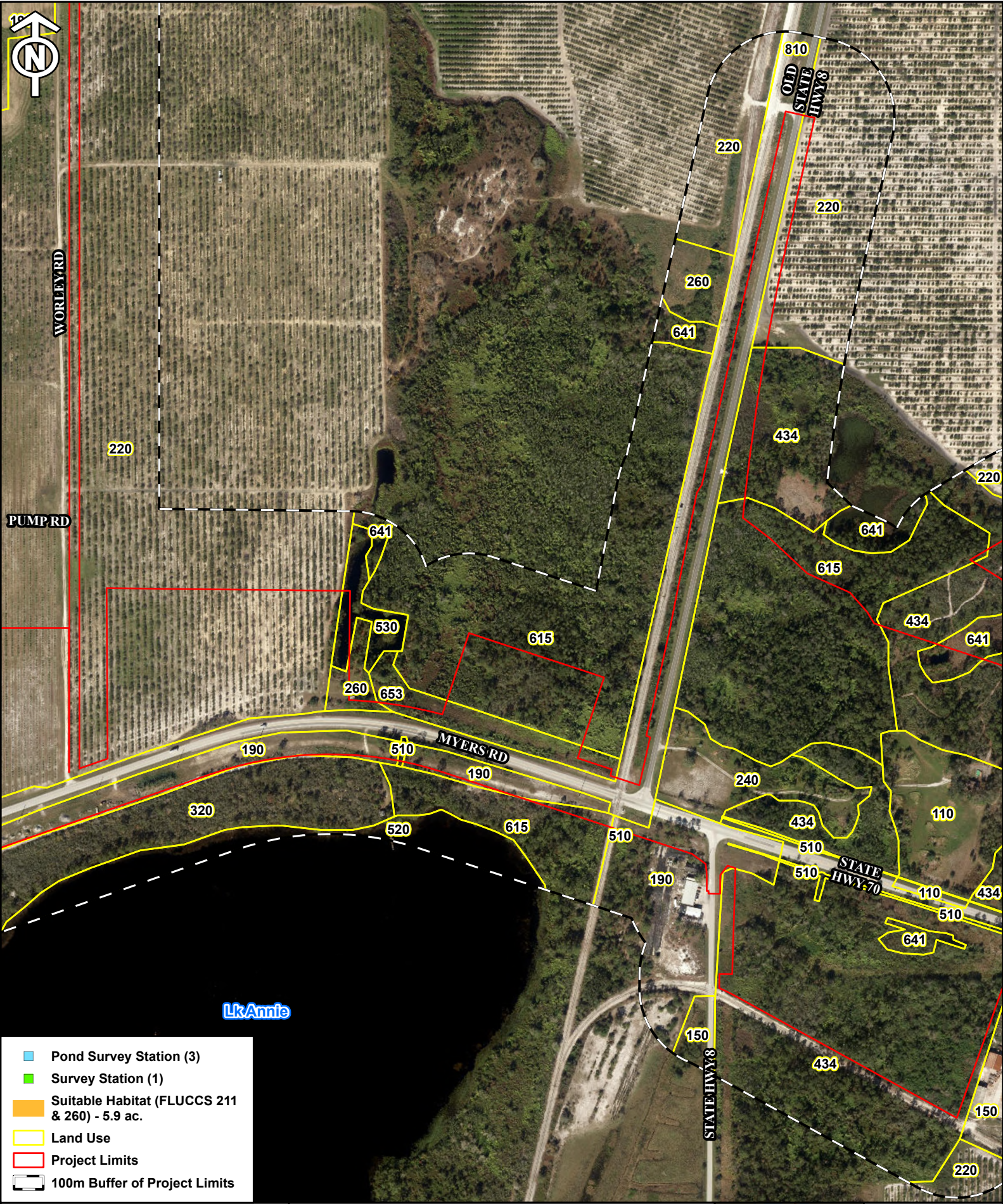
Lk Placid

-  Pond Survey Station (3)
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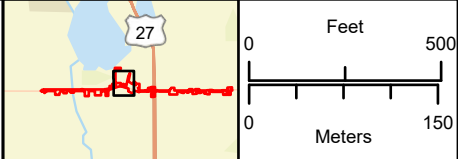


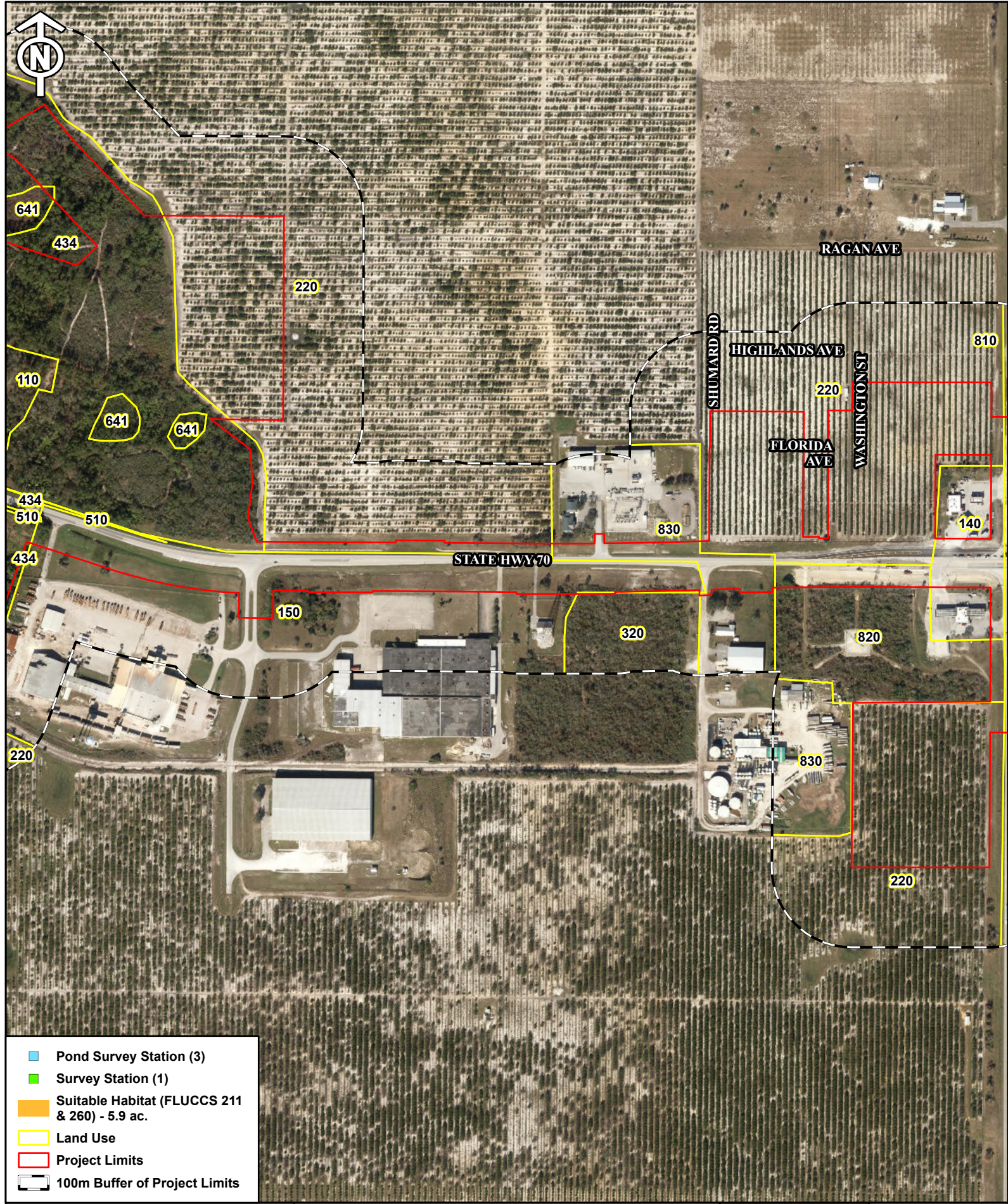
SR 70 FROM JEFFERSON AVENUE TO CR 29
FPID: 414506-1-22-01
FLORIDA GRASSHOPPER SPARROW
SURVEY STATION MAP 5 of 11



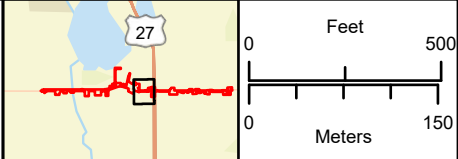


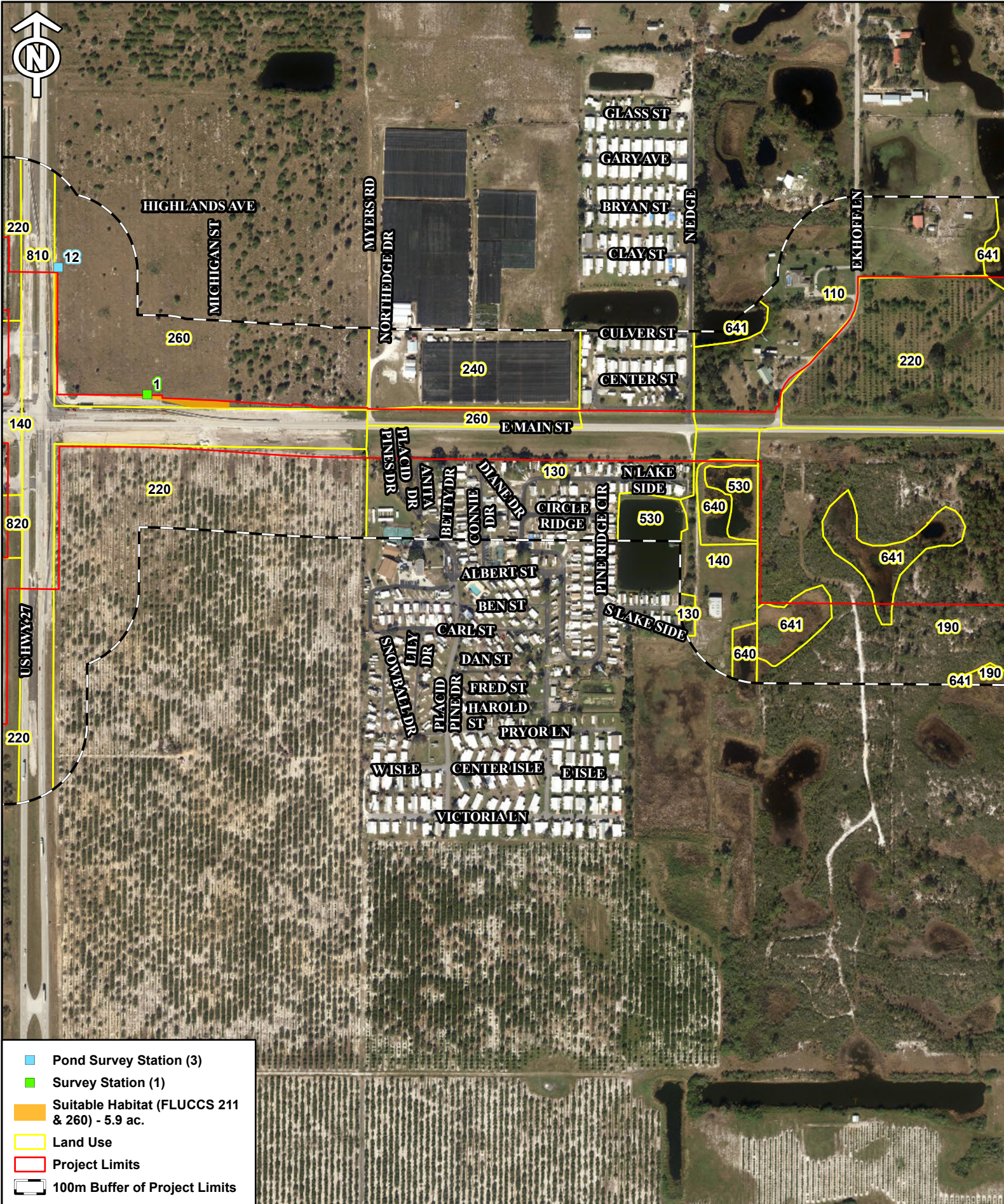
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 FLORIDA GRASSHOPPER SPARROW
 SURVEY STATION MAP 6 of 11





SR 70 FROM JEFFERSON AVENUE TO CR 29
FPID: 414506-1-22-01
FLORIDA GRASSHOPPER SPARROW
SURVEY STATION MAP 7 of 11

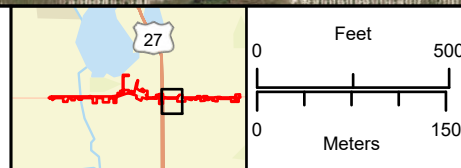


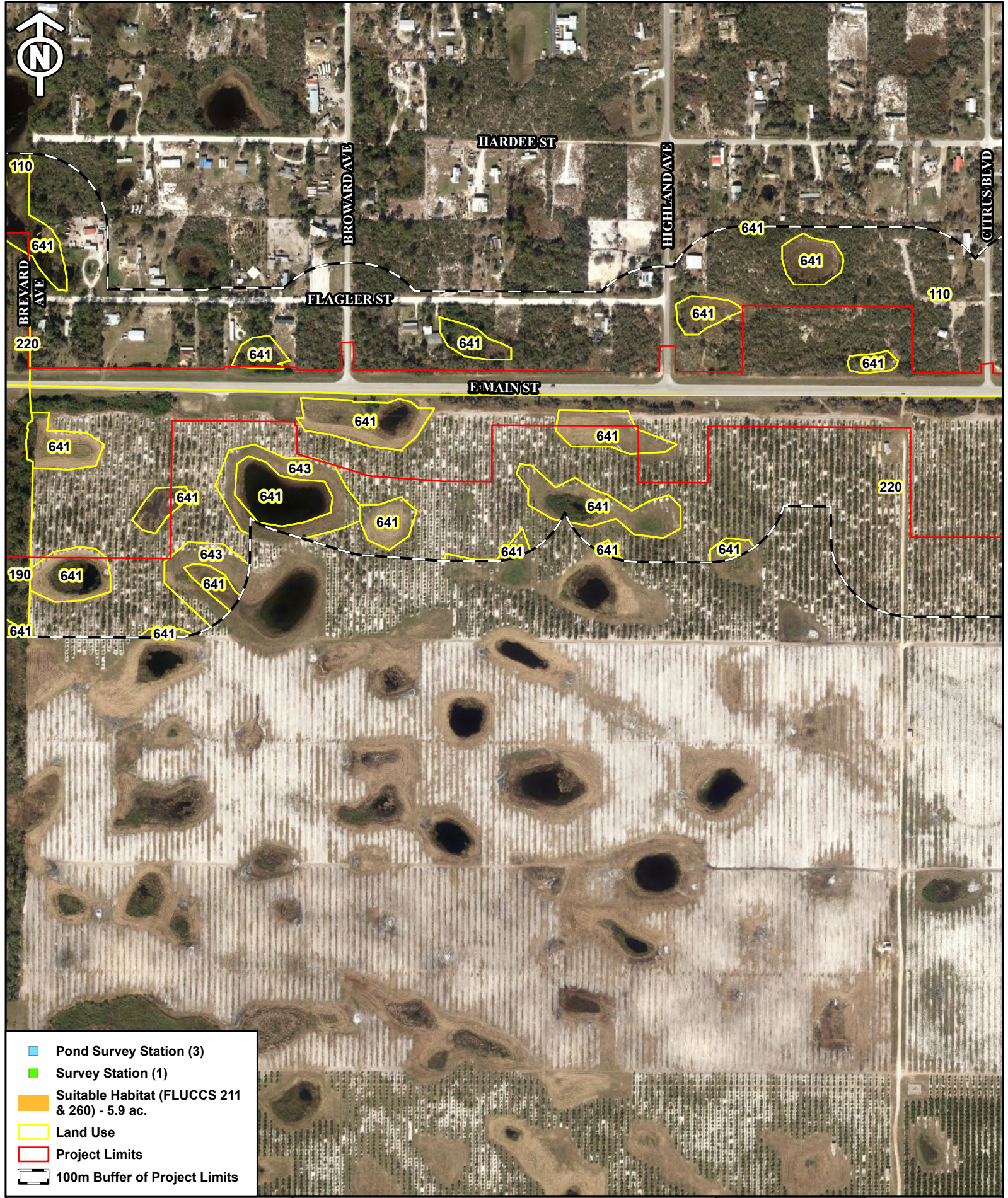


- Pond Survey Station (3)
- Survey Station (1)
- Suitable Habitat (FLUCCS 211 & 260) - 5.9 ac.
- Land Use
- Project Limits
- 100m Buffer of Project Limits



SR 70 FROM JEFFERSON AVENUE TO CR 29
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FLORIDA GRASSHOPPER SPARROW
SURVEY STATION MAP 8 of 11

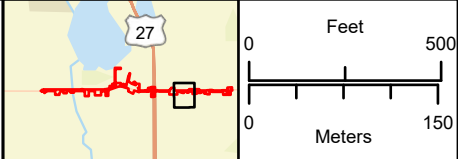




-  Pond Survey Station (3)
-  Survey Station (1)
-  Suitable Habitat (FLUCCS 211 & 260) - 5.9 ac.
-  Land Use
-  Project Limits
-  100m Buffer of Project Limits



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FLORIDA GRASSHOPPER SPARROW
SURVEY STATION MAP 9 of 11





HARDEE ST

BEARLEN

BEARD

FLAGLER ST

110

EMAIN ST

422

211

640

510

510

220

118

422

213

211

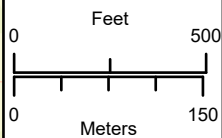
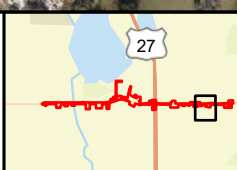
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INVERTED

-  Pond Survey Station (3)
-  Survey Station (1)
-  Suitable Habitat (FLUCCS 211 & 260) - 5.9 ac.
-  Land Use
-  Project Limits
-  100m Buffer of Project Limits



SR 70 FROM JEFFERSON AVENUE TO CR 29
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FLORIDA GRASSHOPPER SPARROW
SURVEY STATION MAP 10 of 11



Site Photographs

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Report: Florida Grasshopper Sparrow Survey Photo Document



Survey Station 1



Survey Station 10

Site Photographs

Project Name: SR 70 from Jefferson Avenue to CR 29

FPID: 414506-1-22-01

Report: Florida Grasshopper Sparrow Survey Photo Document



Survey Station 11



Survey Station 12
