

Memo

To: Lynn Kelley, FDOT District 4

From: Diane K. Kloetzer, Janus Research

Date: 02/17/2016

Re: Desktop Analysis of Three Potential Pond sites for Midway Road from Glades Cut Off Road to Selvitz Road, St. Lucie County, Florida (Financial Project ID: 231440-3-22-01; ETDM No. 14177)

At the request of the Florida Department of Transportation (FDOT), District 4 Janus Research conducted a desktop analysis of potential pond site locations for Midway Road/CR 712 from Glades Cut Off Road to Selvitz Road, St. Lucie County, Florida (Figure 1). The study area consists of three potential pond sites. The project corridor was surveyed during the *Cultural Resource Assessment Survey of Midway Road/County Road 712 Project Development and Environment (PD&E) Study from Glades Cut Off Road to Selvitz Road, St. Lucie County, Florida* (Janus Research 2016).

The proposed pond sites are located in Section 1 of Township 36 South, Range 39 East and Section 6 of Township 36 South, Range 40 East on the Fort Pierce NW (1949 Photorevised [PR] 1983) and Fort Pierce SW (1953 PR 1983) United States Geological Survey (USGS) quadrangle maps.

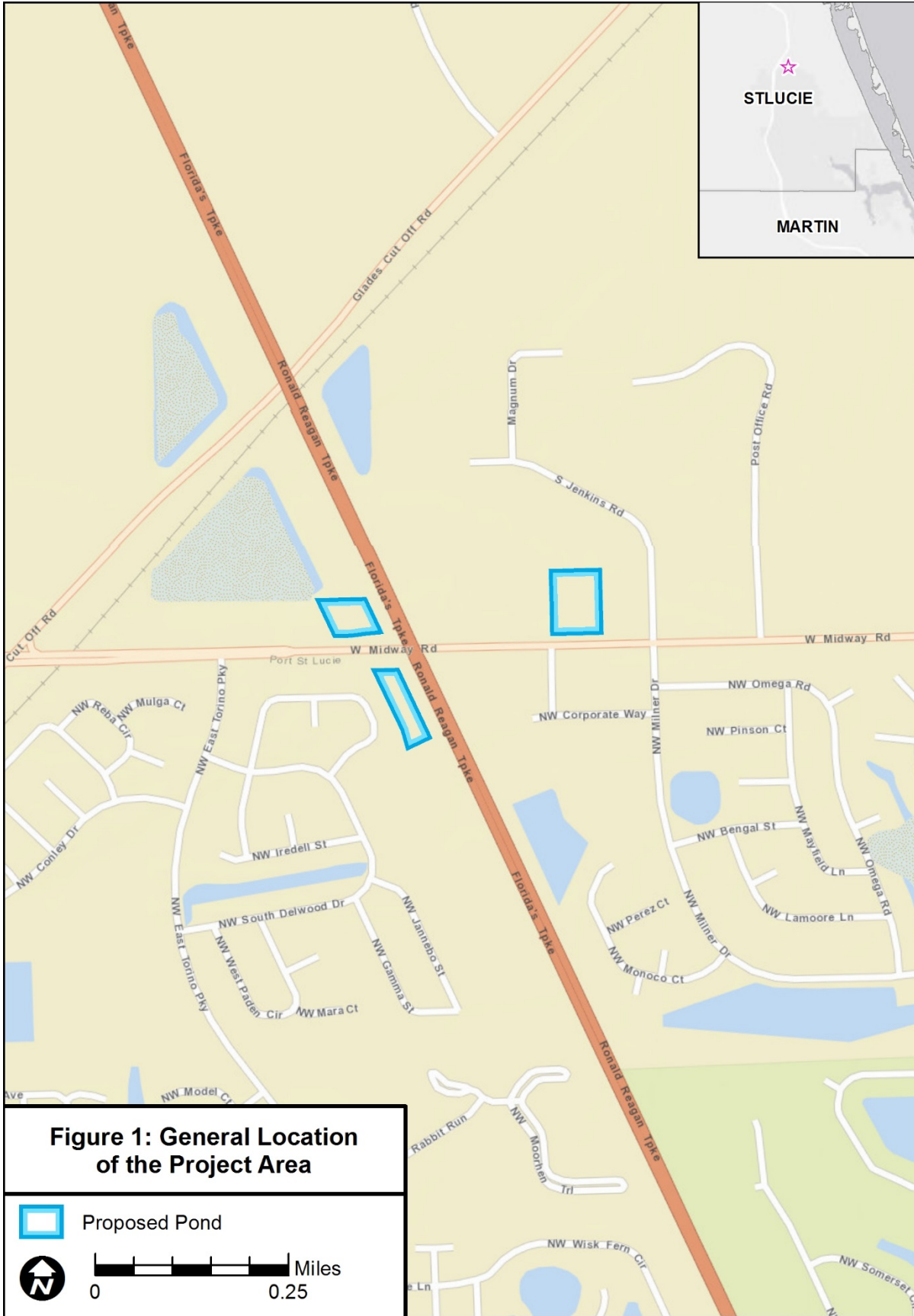
The purpose of this pond siting analysis was to determine the location of any previously recorded cultural resources within or adjacent to the proposed pond sites and to determine archaeological site probability for each of the pond locations.

Methods

An archaeological and historical literature and background information search pertinent to the proposed pond site locations was conducted in order to determine the types, chronological placement, and location patterning of cultural resources within the pond site locations. This included a search of the Florida Master Site File (FMSF)¹, historic maps, county and local site inventories, books and journal articles, and unpublished CRM reports. In addition, land use history and environmental variables known to be associated with prehistoric and historic sites were reviewed.

The study area for archaeological resources was the proposed pond footprints and an area measuring 150 feet adjacent to the pond footprints in order to identify any previously recorded sites directly adjacent to the pond site locations.

¹ The FMSF serves as an archive and repository of information about Florida's recorded cultural resources. It represents an inventory of resources for which available information exists and describes their condition at a particular point of time. Because the inventory of resources is not all-inclusive on a statewide basis, gaps in data may exist. The FMSF is an important planning tool that assists in identifying potential cultural resources issues and resources that may warrant further investigation and protection. It can be used as a guide but should not be used to determine the Division of Historical Resources'/State Historic Preservation Office's (FDHR/SHPO) official position about the significance of a resource.



The study area for historic resources was the footprint of the pond sites and adjacent parcels up to 200 feet.

Background research methods included a search of the FMSF to identify cultural resources that are listed, eligible, or potentially eligible for listing in the *National Register of Historic Places* (National Register) and resources with potential or confirmed human remains.

A review of the General Land Office (GLO) historic plat maps and historic aerial photographs was also conducted in order to establish the pre-development environment and land use history of the proposed pond sites, as well as to identify any potential historic resources within the pond sites.

Background Research

Florida Master Site File

The work of previous investigators was reviewed in order to gather information about the types of precolumbian and early historic period sites that could be expected to occur within the pond siting alternatives. A search of pertinent literature and records was conducted to determine the locations of previously recorded National Register-listed, eligible, and potentially eligible resources within proposed pond sites, as well as any archaeological and historical assessments of other tracts of land within 200 feet.

The FMSF search identified one previously conducted cultural resource survey within or adjacent to the proposed ponds. FMSF Survey No. 9684, *St. Lucie County Historic Resources Survey* (Janus Research 2003) is a county-wide historic resources survey of the unincorporated areas of St. Lucie County. The study area has not been subject to a comprehensive cultural resource survey.

Archaeological Sites

No previously recorded archaeological sites were identified within the study area.

Historic Structures

No previously recorded historic structures were identified within the study area.

Historic Cemeteries

No previously recorded historic cemeteries were identified within the study area.

Historic Resource Groups

No previously recorded historic resource groups were identified within the study area.

Historic Linear Resources

The FMSF search identified three previously recorded linear resources within the study area (Table 1; Figure 2). The portions of Midway Road (8SL1657) and Canal 103 (8SL1809) to the east of the Florida's Turnpike have been determined ineligible for listing in the National Register by the SHPO. The portions of Midway Road (8SL1657) and Canal 103 (8SL1809) to the west of the Florida's Turnpike and the Florida's Turnpike (8SL1789) were considered National Register-ineligible in the CRAS survey (Janus Research 2016). As of January 2016, the three resources have not been further evaluated by the SHPO.

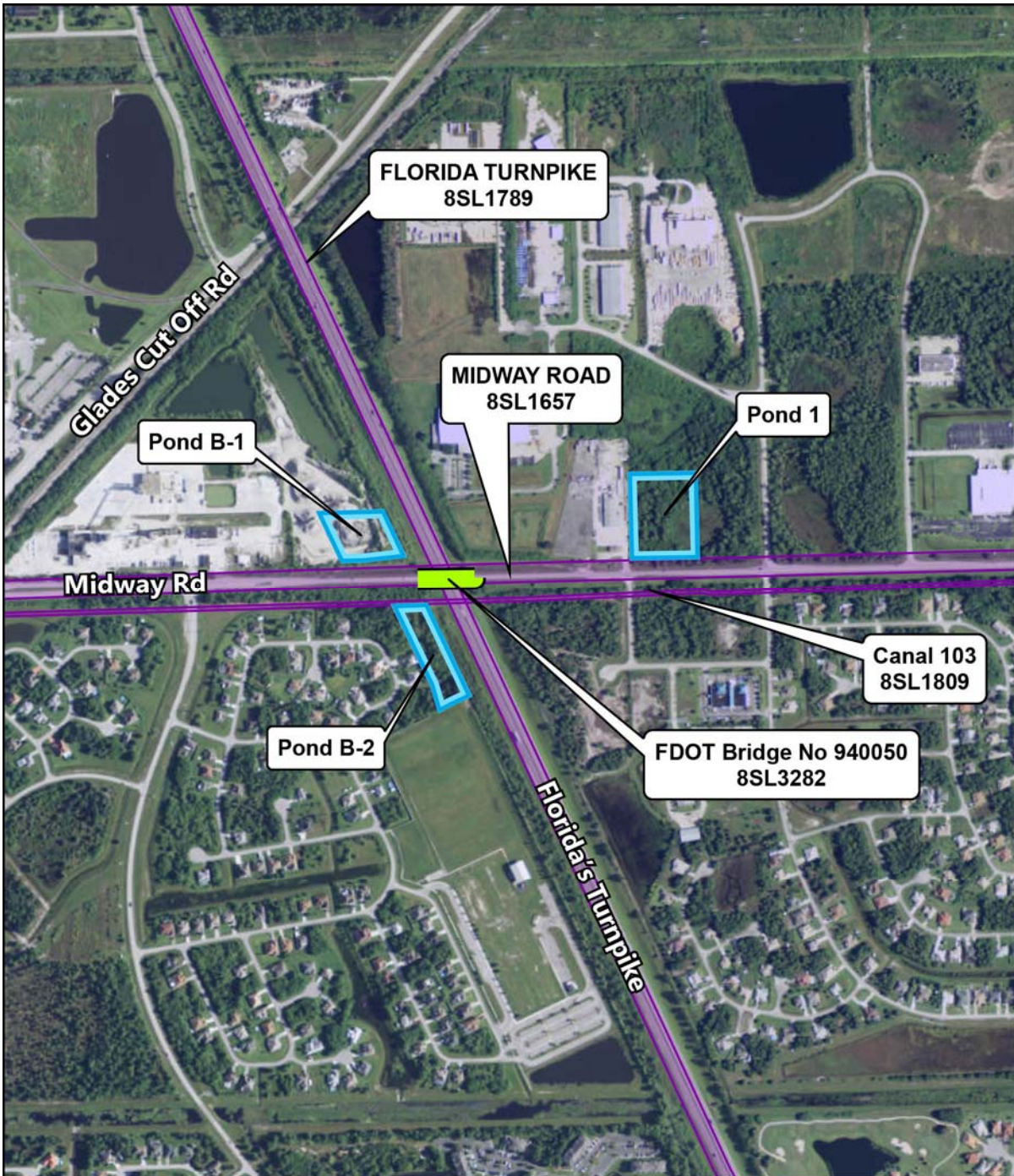


Figure 2: Previously Recorded Historic Resources

*Midway Road Ponds from Glades Cut Off Road to Selviz Road
(FP ID. 231440-3-22-01)*

- Proposed Pond
- Previously Recorded Linear Resource
- Previously Identified Historic Bridge

Feet
 0 500 1,000

TABLE 1: PREVIOUSLY RECORDED HISTORIC RESOURCES WITHIN THE STUDY AREA				
Site #	Site Name	Date	Style	National Register Status
8SL1657	Midway Road	c. 1890	Historic road segment	Portions considered and determined National Register–ineligible within APE
8SL1789	Florida’s Turnpike	c. 1957	Historic road Segment	Portion considered National Register–ineligible within APE
8SL1809	Canal 103	c. 1920	Historic canal segment	Portion considered National Register–ineligible within APE

Historic Districts

No previously recorded historic districts were identified within the study area.

Historic Bridges

One historic bridge, FDOT Bridge No. 940050 (8SL3282), was identified within the study area (Figure 2). FDOT Bridge No. 940050 (8SL3282) was identified during the CRAS of the project corridor (Janus Research 2016) and is considered ineligible for listing in the National Register. As of January 2016, the resource has not been evaluated by SHPO.

Historic Parcels

A search of the St. Lucie County Property Appraiser data identified no parcels within or adjacent to the proposed pond sites that have a historic build date during or before 1968.

Environmental Setting

A review of the General Land Office (GLO) historic plat maps (Florida Department of Environmental Protection [FDEP] 1853a, 1853b) and surveyor’s field notes (FDEP 1845, 1853c, 1853d) was conducted to examine past environmental conditions within the vicinity of the archeological APE. The historic surveyor’s notes describe the project area as 2rd rate pineland. No hammocks are illustrated or described in the vicinity of the project area.

The historic plat maps and surveyor’s notes were also reviewed for evidence of other early settlement. There are no military forts, roads, encampments, battlefields, homesteads, or historic Native American villages or trails depicted on the plat maps in the vicinity of the proposed pond sites alternatives.

A review of aerial photograph from 1944 (University of Florida, George A. Smathers Libraries 2014) was conducted to examine land use during the mid-1900s. In 1944, Midway Road and Canal 103 were present. The study area was undeveloped with only a few scattered trees. Ponds were located just to the east of proposed Pond B-2 and in the southeastern portion of Pond 1. No hammocks are visible within the study area.

The *Soil Survey of St. Lucie County Area, Florida* (USDA 1980) was reviewed to help determine the predevelopment environment, assess the level of modification, and identify natural features within the project corridor indicative of increased archaeological site potential. The project area is located within the Nettles-Ankona-Pepper soil association (USDA 1980:7–8). These soils are poorly drained and found on broad flatwoods interspersed with depressional areas and sloughs. The characteristics of the soils present in the study area are described in Table 2.

TABLE 2: SOIL CHARACTERISTICS WITHIN THE PROJECT APE		
Drainage Characteristics	Soil Type	Environmental Association
Poorly Drained	Nettles sand	This soil is found on broad flatwoods. Natural vegetation includes south Florida slash pine, cabbage palm, saw palmetto, wax myrtle, inkberry, fetterbush, bluestems, and threeawns.
	Wabasso sand	This soil is found on flatwoods. Natural vegetation consists of longleaf or slash pine, cabbage palm, saw palmetto, running oak, inkberry, fetterbush, bluestems, and threeawns.

USDA 1980: 29–30, 43–44

Archaeological Probability

The site file search and literature review contributed to the determination of the archaeological site potential for the study area. Typically, four environmental factors are employed in predicting site locations: soil type (soil drainage), distance to fresh (potable) water, distance to hardwood hammocks, and topography.

Numerous researchers have successfully used drainage characteristics of soil in the formulation of site location predictive models. In general, archaeological sites are associated with better drained soils. Although wet areas can contain abundant wildlife and plant resources, they make poorer habitation areas when better-drained locations are available. Modern drainage and development have changed the historical drainage patterns and overall environment of the project corridor and surrounding area during the past century. As previously mentioned, the soils in the project APE are poorly drained (Table 2).

Fresh water is obviously an important resource, as the need for water is universal. This variable would have been of greater importance during the Paleoindian and Early Archaic periods (12,000–5000 BC) when the perched water system was more restricted. Access to water during these early periods would have been from sinkholes and aquifer-fed rivers. In precolumbian times, wetland ponds were located within Pond 1 and adjacent to Pond B-2.

The study area is located in the Eastern Valley. The terrain is relatively flat with an elevation between 15 and 20 feet above sea level.

With the easy availability of water, a greater importance would have been placed on the resources, increased elevation, and other benefits provided by hardwood hammocks. The presence of hammock vegetation serves as a reliable indicator of site location in Florida, and the use of hammocks during the precontact and historic periods is well documented. No hammocks were identified on the 19th century plat maps and surveyor's notes or the 1944 aerial photograph.

Based on these factors, the proposed Pond 1, Pond B-1, and Pond B-2 have low archaeological site potential.

Summary

This research of the three proposed pond sites did not identify any previously recorded archaeological sites within or adjacent to the proposed pond sites. The proposed ponds are located in areas with poorly drained soils indicative of the past pine flatwoods environment. The three proposed pond locations have low archaeological site potential.

Three previously recorded linear resources and a previously identified historic bridge were identified within the historic resources study area. The historic bridge (FDOT Bridge No. 940050 (8SL3282) was identified during the CRAS of the Midway Road corridor (Janus Research 2016) and is considered ineligible for listing in the National Register. The three linear resources, Midway Road (8SL1657), Florida's Turnpike (8SL1789), and Canal 103 (8SL1809), are previously recorded and portions within the study area were previously determined ineligible for listing in the National Register by the SHPO. The portions of the three resources which have not been previously determined ineligible were considered ineligible for listing in the National Register during the CRAS survey (Janus Research 2016). As of January 2016, the four historic resources have not been evaluated by the SHPO. No historic parcels or unrecorded historic resources were identified within the study area.

References

Florida Department of Environmental Protection (FDEP)

- 1845b Surveyor's Notes for Township 36 South, Range 40 East. Electronic document, http://labins.org/survey_data/landrecords/landrecords.cfm, accessed September 29, 2014.
- 1853a Plat Map for Township 36 South, Range 39 East. Division of State Lands, Board of Trustees Land Document System. Electronic document, <http://tlhdslweb.dep.state.fl.us/>, accessed September 29, 2014.
- 1853b Plat Map for Township 36 South, Range 40 East. Division of State Lands, Board of Trustees Land Document System. Electronic document, <http://tlhdslweb.dep.state.fl.us/>, accessed September 29, 2014.
- 1853c Surveyor's Notes for Township 36 South, Range 39 East. Electronic document, http://labins.org/survey_data/landrecords/landrecords.cfm, accessed September 29, 2014.
- 1853d Surveyor's Notes for Township 36 South, Range 40 East. Electronic document, http://labins.org/survey_data/landrecords/landrecords.cfm, accessed September 29, 2014.

Janus Research

- 2016 Cultural Resource Assessment Survey Midway Road/County Road 712 Project Development and Environment (PD&E) Study from Glades Cut Off Road to Selvitz Road, St. Lucie County, Florida. Manuscript on file, Florida Department of Transportation, District 4, Fort Lauderdale.

United States Department of Agriculture (USDA)

- 1980 *Soil Survey of the St. Lucie County Area, Florida*. United States Department of Agriculture/Natural Resources Conservation Service.

University of Florida, George A. Smathers Libraries

- 2014 Aerial Photography: Florida Collection. University of Florida Digital Collections. Electronic documents, <http://ufdc.ufl.edu/aerials>, accessed September 29, 2014.