



**CULTURAL RESOURCE DESKTOP ANALYSIS FOR  
10 POND LOCATIONS ASSOCIATED WITH THE  
NEPTUNE ROAD (CR 525) FROM PARTIN SETTLEMENT ROAD TO US 192 PROJECT,  
OSCEOLA COUNTY, FLORIDA**

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**CLIENT:** Kimley-Horn and Associates, Inc.  
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In August 2019, SEARCH completed a Cultural Resource Desktop Analysis in support of 10 pond locations associated with the proposed improvements to Neptune Road (County Road [CR] 525) in Osceola County, Florida (**Figure 1**). The Osceola County Board of Commissioners is proposing to construct 10 preferred retention ponds along Neptune Road from Partin Settlement Road to US 192 in Osceola County, Florida. The total project area includes approximately 41.4 acres. For the purposes of this desktop analysis, the project study area was defined as the pond footprint, plus a 100-foot (30.5-meter) buffer (**Figure 2**).

SEARCH has been tasked by Kimley-Horn and Associates, Inc., with evaluating the pond locations for the purpose of identifying cultural resource potential and previously recorded historic properties that are listed, or may be eligible for listing, in the National Register of Historic Places (NRHP). The Florida Master Site File (FMSF) Geographic Information System (GIS) database, updated July 2019, was reviewed for any previous surveys or previously recorded resources. Archaeological site probability was evaluated based on various environmental conditions demonstrated to be reliable indicators for past human occupation, including topography, soil drainage, distance to water, and prior disturbance. In addition, historic topographic maps and aerial photographs, as well as the Osceola County Property Appraiser's GIS databases, were reviewed to determine if parcels containing structures constructed prior to 1975 are located in the vicinity of the study area.

## **ENVIRONMENT**

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### **Location and Modern Conditions**

The Neptune Road Ponds Study Area is located in Section 25 of Township 25 South, Range 29 East; Sections 30, 31, and 32 of Township 25 South, Range 30 East; and Sections 4 and 5 of Township 26 South, Range 30 East in northwestern Osceola County. All 10 ponds are located along an intermittently developed stretch of Neptune Road between Kissimmee and St. Cloud.

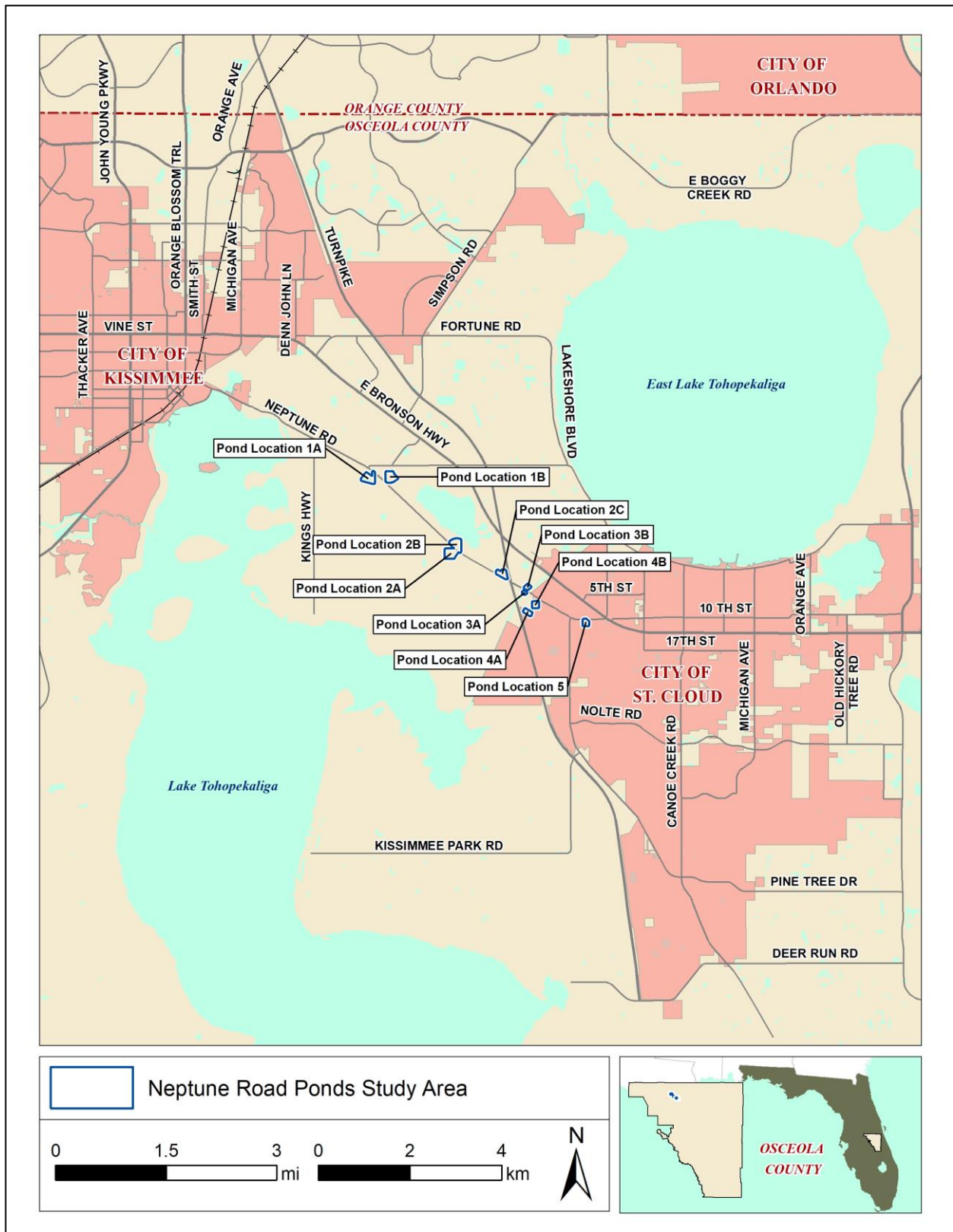


Figure 1. Location of the Neptune Road Ponds Study Area in Osceola County, Florida.



Figure 2. Location of the Neptune Road Ponds Study Area in Osceola County, Florida.

Ponds 1A, 2A, 3A, 4A, 4B, and 5 are located along the south side of Neptune Road, and Ponds 1B, 2B, 2C, and 3B are located on the north side of Neptune Road.

All proposed ponds are located in the Kissimmee Valley subdistrict, a part of the larger Eastern Flatwoods physiographic province (Brooks 1981). This area is characterized by seasonally flooded lowlands of river swamps and grassland prairies largely underlain by silty sand; elevations are generally higher than 50 feet (15.2 meters). The area also contains several freshwater ponds and small lakes, as well as man-made canals. Elevation in the study area ranges from 57-67 feet (17.4-20.4 meters) above mean sea level (amsl). Soil drainage within the Neptune Road Ponds Study Area ranges from poorly drained (PD) to very poorly drained (VPD) (**Figure 3; Table 1**). Areas of VPD soils within the study area typically coincide with existing ponds, small lakes, and canals.

**Table 1. Soil Conditions within Neptune Road Ponds Study Area.**

Pond Name	Size (acres)	Soil Drainage	Soil Type
1A	6.57	PD; VPD	Basinger and Placid fine sand
1B	7.67	PD; VPD	Immokalee and Basinger fine sand
2A	8.62	PD; VPD	Basinger, Immokalee, and Placid fine sand
2B	7.7	PD	Myakka and Immokalee fine sand
2C	3.7	PD	Myakka and Immokalee fine sand
3A	0.32	PD	Immokalee fine sand
3B	1.0	PD	Immokalee fine sand
4A	1.48	PD	Myakka and Wauchula fine sand
4B	2.33	VPD	Delray loamy fine sand
5	1.97	VPD	Placid fine sand

## BACKGROUND RESEARCH

### Florida Master Site File Review

Review of the FMSF database found that seven of the 10 (Ponds 2A, 2C, 3A, 3B, 4A, 4B, and 5) proposed ponds have been subjected to at least partial previous archaeological testing during five previous cultural resource surveys (**Figure 4; Table 2**).

**Table 2. Previously Conducted Cultural Resource Surveys in Neptune Road Ponds Study Area.**

FMSF No.	Title	Year	Reference
89	<i>An Archaeological and Historical Survey of the 201 Facilities Plan Project, Kissimmee, St. Cloud, Osceola County.</i>	1977	Johnston's Engineers
4383	<i>Phase I Cultural Resources Investigation of the Proposed 30 Inch O.D. Mainline Loop South Portion in the Florida Has Transmission Company Phase II Expansion Project</i>	1993	R. Christopher Goodwin and Associates, Inc.
9230	<i>Cultural Resources Assessment Survey of Florida's Turnpike Mainline PD&amp;E Study from US 192 to SR 50 (Clermont), Orange and Osceola Counties</i>	2003	Janus Research
11039	<i>Cultural Resources Survey Butler Ridge-Partin #2. Osceola County, Florida</i>	2004	SouthArc, Inc.
11041	<i>Cultural Resources Survey Partin Estate, Osceola County, Florida</i>	2004	SouthArc, Inc.

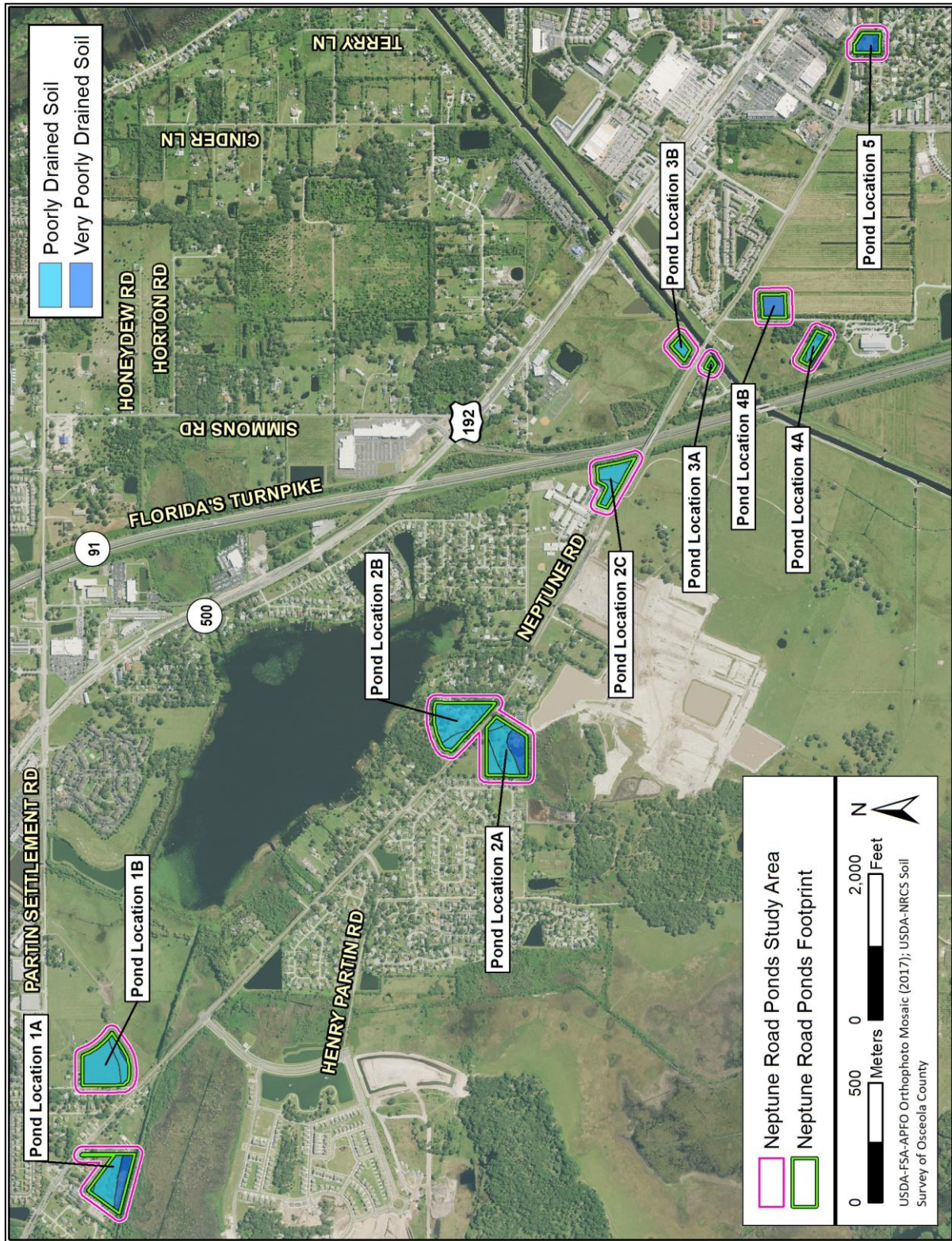


Figure 3. Soil drainage within the Neptune Road Ponds Study Area.

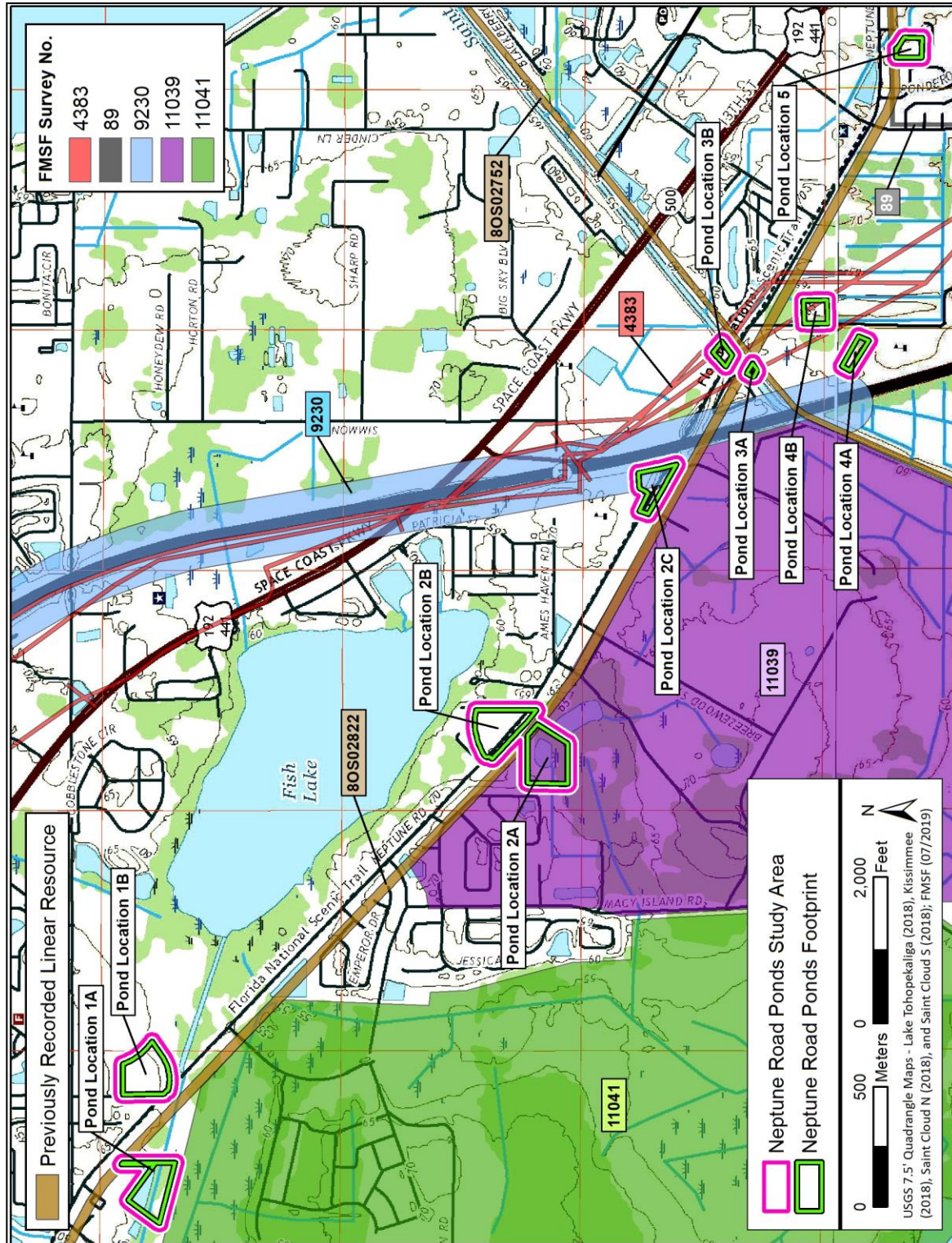


Figure 4. Previously conducted cultural resource surveys and previously recorded cultural resources in the Neptune Road Ponds Study Area.

FMSF Survey No. 89 crosses over a small portion of the northern footprint of Pond 5. The survey was conducted by Johnston's Engineers in 1997 and consisted of an archaeological and historic buildings survey of a waste treatment and line system. The survey consisted of "walked out" areas (Johnston's Engineers: 1977:7), likely pedestrian survey, followed up with hand coring judgmentally. Four previously recorded sites and two new archaeological sites were identified. The field methods employed in this survey are inadequate for current archaeological testing.

Ponds 3A, 3B, and 4B are all partially intersected by FMSF Survey No. 4383 (see **Figure 4**). This survey was conducted by R Christopher Goodwin and Associates, Inc., in 1993. Fieldwork consisted of pedestrian survey and systematic shovel testing in transects within a 15-meter (50 foot) wide corridor at 20-meter (66-foot), 30-meter (98-foot), and 50-meter (164-foot) intervals based on assigned probability. Three new sites were discovered during the survey but were determined to be ineligible for listing on the NRHP by the State Historic Preservation Officer (SHPO). These three sites are all outside the existing study area. The limited scope of testing is not sufficient coverage for the three ponds within the boundaries of FMSF Survey No. 4383.

Ponds 2C and 4A are partially intersected by FMSF Survey No. 9230 (see **Figure 4**). This survey was conducted by Janus Research in 2003. Fieldwork included 319 shovel tests excavated at 25-meter (82-foot) intervals in high probability areas and 100-meter (328-foot) intervals in moderate probability areas. The survey yielded three newly recorded archaeological sites, one archaeological occurrence, and three newly recorded historic structures. Of the seven cultural resources, one was recommended eligible for NRHP listing while the other six were determined not eligible. All of these resources are in Orange County and outside the current scope of work. The archaeological testing conducted within Ponds 2C and 4A does not provide sufficient coverage.

Pond 2A is partially intersected by FMSF Survey No. 11039 (see **Figure 4**). This survey was conducted by SouthArc, Inc., in 2004. Fieldwork consisted of shovel testing by varied intervals of 25 meters (82 feet), 50 meters (164 feet), or judgmentally based on probability. The survey yielded one previously recorded archaeological site, two newly recorded archaeological sites, and one new historic structure. Only three shovel tests were excavated where Pond 2A is planned. The archaeological testing conducted within Pond 2A does not provide sufficient coverage.

Pond 1A is partially intersected by FMSF Survey No. 11041 (see **Figure 4**). This survey was conducted by South Arc, Inc., in 2004. Fieldwork consisted of shovel testing by varied intervals of 25 meters (82 feet) and 50 meters (164 feet) based on probability. Only two shovel tests yielded a single artifact each. Three historic-aged structures were recorded and each was determined ineligible for NRHP listing by SHPO. The archaeological testing conducted within Pond 1A does not provide sufficient coverage.

The FMSF database also indicates that two previously recorded linear resources intersect portions of the current study area. Resource 8OS02752, the St. Cloud Canal, is an agricultural

canal that intersects the eastern boundary of Pond 3A along the south side of Neptune Road (see **Figure 4**). The St. Cloud Canal was determined to be eligible for listing on the NRHP by the SHPO on April 24, 2014. Resource 8OS02822, the St. Cloud and Sugar Belt Railway, is an abandoned Post Reconstruction (1880-1987) railroad that originally connected Kissimmee to Narcoosee, Florida (see **Figure 4**). This resource intersects a portion of the pond study area for Ponds 1A, 2A, 2B, 3A, and 5. The St. Cloud and Sugar Belt Railway was determined to be ineligible for listing on the NRHP by the SHPO. No other archaeological sites or historic resources have been recorded within the Neptune Road Ponds Study Area.

## Unrecorded Architectural Resources

In addition to the FMSF, the Osceola County Property Appraiser’s database was reviewed to identify parcels containing unrecorded structures of historic age (i.e., structures with an Actual Year Built date earlier than 1975). This search identified seven parcels within the current study area with an Actual Year Built date earlier than 1975 (**Figure 5; Table 3**).

**Table 3. Unrecorded Architectural Resources within the Neptune Road Ponds Study Area.**

Parcel ID	Address	Year Built	Associated Pond
042630090000010110	407 Chestnut Street	1971	5
042630090000010120	409 Chestnut Street	1971	5
2525294140000M0130	1194 Stroupe Road	1925	1B
2525294140000M0180	1172 Stroupe Road	1973	1B
2525294140000M0240	1150 Stroupe Road	1973	1B
312530399000010270	2453 Neptune Road	1952	2B
322530000004200000	1501 G and H Drive	1961	2B

## Archaeological Site Potential

The potential for prehistoric sites to be identified within the Neptune Road Ponds Study Area was assessed based on an examination of environmental variables (soil drainage, access to streams, wetlands, and marine resources, relative elevation), as well as the results of previously conducted surveys. Due to the poorly drained and very poorly drained soils within the study area, the probability for unrecorded prehistoric sites within the study area is considered low.

Historic maps and aerial photographs were examined in order to identify past land use in the vicinity of the Neptune Road Ponds Study Area. General Land Office (GLO) survey maps, created by government land surveyors during the nineteenth century as part of the surveying, platting, and sale of public lands, provide few details about this area. GLO maps of Florida Township 25 South, Range 29 East (GLO 1848); Township 25 South, Range 30 East (GLO 1849); and Township 26 South, Range 30 East (GLO 1844) illustrate only natural features within the vicinity of the study areas. Some small waterways and lakes are shown, but no lines of transportation or structures are evident. Some individual plots of land are indicated on the shores of Lake Tohopekaliga, but these are located outside of the current study area.



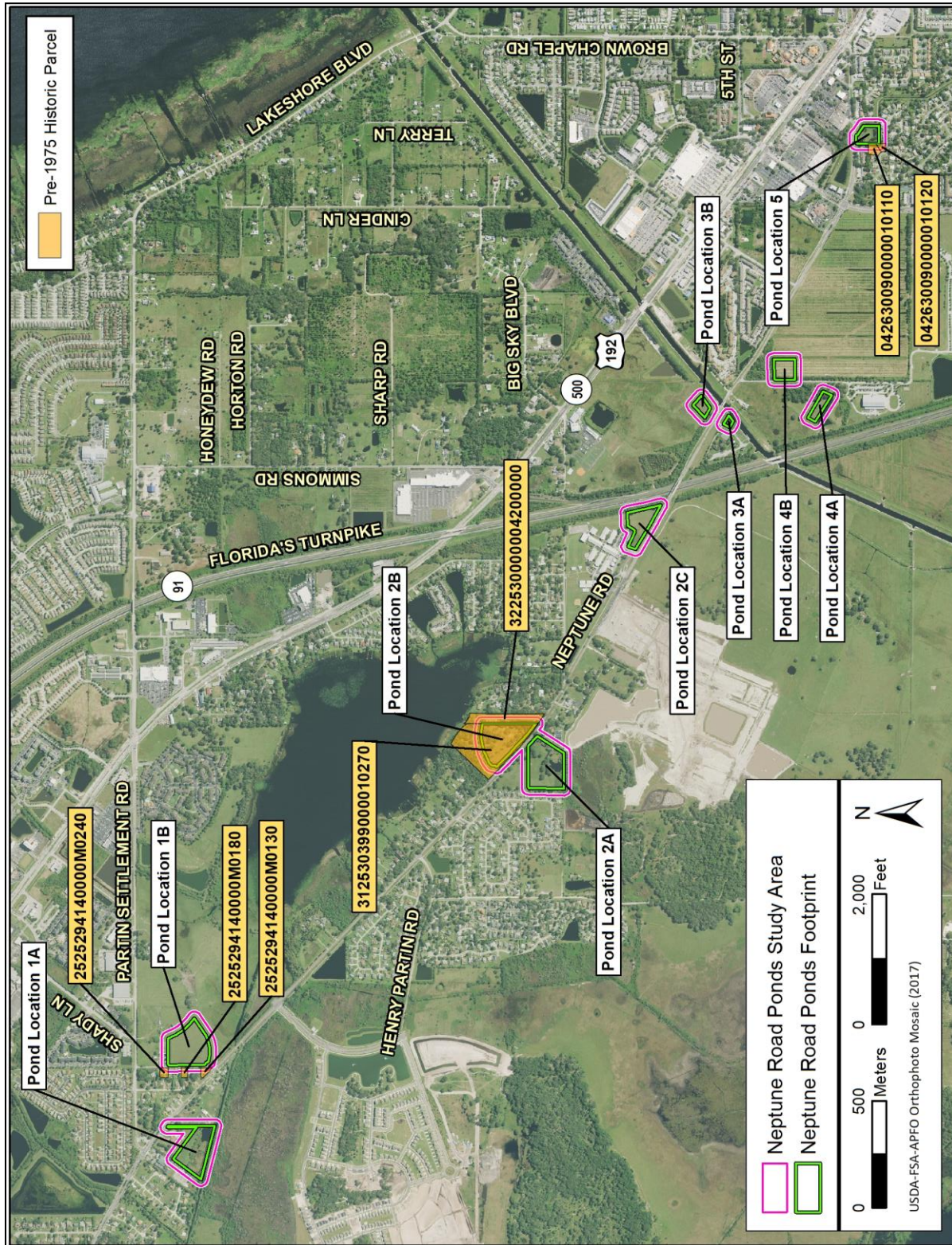


Figure 5. Location of historic parcels in the Neptune Road Ponds Study Area.

A 1936 detailed map of St. Cloud depicts roads, structures, and the St. Cloud Canal in the vicinity of the study area. Neptune Road is illustrated with several structures lining both sides of the road along with several smaller roads intersecting Neptune Road (Florida State Road Department [FSRD] 1936). Additionally, a railroad line is depicted northwest-southeast and parallel to Neptune Road from Kissimmee to St. Cloud. The railroad is not identified on the map, but depicts the St. Cloud and Sugar Belt Railway (Resource 8OS02822).

Topographic maps from 1953 depict the Neptune Road Ponds Study Area as semi-developed with clusters of structures south and east of Fish Lake along the north side of the road corridor. Neptune Road is depicted as a major roadway and the Florida Turnpike bisects the study area (US Geological Survey [USGS] 1953a, 1953b). According to the topographic maps, there are structures near the footprints for Ponds 1A, 1B, 2A, 2B, and 5. The remaining pond footprints are depicted on the maps as agriculture land.

Based on this map review and the number of unrecorded historic-aged structures in the Osceola County Property Appraiser’s database, the Neptune Road Ponds Study Area has been assessed with a moderate to high probability for historic archaeological resources. Historic development in the study area dates back to the early twentieth century. The study area within the proposed footprints of Ponds 1A, 1B, 2A, 2B, and 5 have a high probability for historic archaeological resources, while the proposed footprints of Ponds 2C, 3A, 3B, 4A, and 4B have a moderate probability for historic archaeological resources.

## CULTURAL RESOURCES SUMMARY MATRIX

The findings of this desktop analysis relative to each of the pond locations are summarized in the cultural resource matrix below (**Table 4**).

**Table 4. Neptune Road Ponds Study Area Cultural Resource Matrix.**

Pond	Previously Surveyed?	Previously Recorded Resources?	Prehistoric Archaeological Probability	Historic Archaeological Probability
1A	Partially (FMSF Survey No. 11041; AR testing, AH; insufficient coverage)	8OS02822 intersects	Low	High
1B	No	None	Low	High
2A	Partially (FMSF Survey No. 11039; AR testing, AH; insufficient coverage)	8OS02822 intersects	Low	High
2B	No	8OS02822 intersects	Low	High
2C	Partially (FMSF Survey No. 9230; AR testing, AH; insufficient coverage)	None	Low	Moderate
3A	Partially (FMSF Survey No. 4383; AR testing, AH; insufficient coverage)	8OS02752 and 8OS02822 intersect	Low	Moderate
3B	Partially (FMSF Survey No. 4383; AR testing, AH; insufficient coverage)	None	Low	Moderate
4B	Partially (FMSF Survey No. 4383; AR testing, AH; insufficient coverage)	None	Low	Moderate

**Table 4. Neptune Road Ponds Study Area Cultural Resource Matrix.**

<b>Pond</b>	<b>Previously Surveyed?</b>	<b>Previously Recorded Resources?</b>	<b>Prehistoric Archaeological Probability</b>	<b>Historic Archaeological Probability</b>
4A	Partially (FMSF Survey No. 9230; AR testing, AH; insufficient coverage)	None	Low	Moderate
5	Partially (FMSF Survey No. 89; pedestrian survey; hand coring; insufficient methods)	8OS02822 intersects	Low	High

## **RECOMMENDATIONS AND CONCLUSIONS**

Once the finalized pond locations are selected, the project Area of Potential Effect (APE) should be refined and a Phase I cultural resource assessment survey (CRAS) should be conducted. Historic structures within the APE should be recorded and evaluated for NRHP eligibility. The pond footprints should also be subjected to subsurface testing according to probability for archaeological resources to determine if any prehistoric or historic archaeological sites are present. Given the lack of previous archaeological testing performed within the proposed pond locations, archaeological survey will include excavation within all selected pond alternatives. Depending on the funding and permitting requirements of the project, the resulting CRAS report should be submitted to the SHPO for review, comment, and concurrence.

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