100% GOPHER TORTOISE SURVEY
COMPLETION REPORT

3804 SUNRISE BLVD, FORT PIERCE, FL – 11.34 ACRES
SAINT LUCIE COUNTY
PARCEL ID: 2433-123-0001-000-1
SECTION 33, TOWNSHIP 35 SOUTH AND RANGE 40 EAST

Prepared for:

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Permit No.: GTA-13-00002D

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INTRODUCTION

An upland habitat survey for gopher tortoise (*Gopherus polyphemus*) was conducted on the approximately 11.34-acre property located on 3804 Sunrise Blvd, Fort Pierce, Florida (see Figure 1). The survey included review of 100% of potential gopher tortoise habitat within the subject property.

The objectives of the survey were to document gopher tortoise burrows within the construction footprint of the property to confirm presence/absence, document the status and location of gopher tortoise burrows, and approximate the number of tortoises that would need relocation. The results of the survey determine the subsequent actions required to develop the subject property.

This Survey Report provides a summary of the survey activities conducted, including methods used and areas surveyed. Survey activities were executed according to the burrow survey methodology from the Florida Fish and Wildlife Conservation Commission (FWC) Gopher Tortoise Permitting Guidelines, April 2008, Revised April 2023, Appendix 4 Methods for Burrow Surveys on Development (Donor) and Recipient Sites, 100% Burrow Survey Protocol. Survey activities were conducted on January 25 and the morning January 26, 2024. The information contained herein is based on the findings from the field survey.

SITE LOCATION AND DESCRIPTION

The ±11.34-acre property is located in White City, a census-designated place (CDP) in Saint Lucie County within Section 33, Township 35 South and Range 40 East. The subject property is along the east side of Sunrise Blvd. The Saint Lucie County Property Appraiser lists the Property Parcel ID as 2433-123-0001-000-1. The Future Land Use designation is residential.

The vegetative component of the subject property is predominantly exotic vegetation, shrub brushland, cabbage palms and scattered hardwoods. An isolated waterbody is present within the north west corner and a water filled ditch runs along the southern boundary of the subject property. The Florida Cooperative Land Cover (CLC) System developed by the Florida Fish and Wildlife Conservation Commission (FWC) classifies the land cover as 1821 – Low Structure Density and 18332 – Fallow Orchards. The predominant land cover classification is Fallow Orchards (1832). Figure 2 provides the CLC map for the subject property.

The vegetative community was characterized in the field as a degraded mixed upland community consisting of shallow ridge and furrows with a sparse canopy and dense shrub stratum. The ridge and furrow landform is a result of the historic orchard land use. The canopy stratum consists primarily of cabbage palm (*Sabal palmetto*), and laurel oak (*Quercus laurifolia*). The shrub stratum consisted of dense ceaserweed (*Urena lobata*), Jack-in-the-bush (*Chromolaena odorata*), Brazillian pepper (*Schinus terebinthifolia*), and shoebutton ardisia (*Ardisia elliptica*). Ground cover stratum was generally limited due to the dense canopy, shrub and vine cover. Limited areas with herbaceous vegetative cover were observed providing suitable forage for gopher tortoises.

The Natural Resources Conservation Service (NRCS) Web Soil Survey lists five soil types within the subject property. Table 1 provides a summary of the soil types present within the subject property. Figure 3 provides the NRCS Web Soil Survey graphically for the subject property. A brief description of each soils type follows.

Table 1. Web Soil Survey Summary

Map Unit Symbol	Map Unit Name	Acres	Percent of property
2	Ankona and Farmton sands	2.6	23.2%
4	Arents, 0 to 5 percent slopes	1.3	11.8%
43	Susanna and Wauchula sands	3.6	32.3%
44	Tantile and Pomona sands	1.5	13.2%
55	Winder loamy sand	2.2	19.5%
Totals for Area of Interest		**11.1**	**100.0%**

Ankona and Farmton sands is poorly drained soil found in flatwoods on marine terraces. The seasonal high-water table is at a depth of 6 to 18 inches. The gopher tortoise burrowing suitability is rated as "less suited". Less Suited rating states that these soils have characteristics that may limit establishment, maintenance, or use of the site by gopher tortoise. Colonization and population densities may be below average or restricted in the area due to the limiting factors even though all of the other species habitat requirements are met (USDA, 2024).

Arents are Somewhat poorly drained sandy soils found on rises in marine terraces. Depth to water is 18 to 36 inches. This soils type is listed as not rated in the Web Soil Survey gopher tortoise burrowing suitability.

Susanna and Wauchula sands are poorly drained soil found in flatwoods on marine terraces. The seasonal high-water table is at a depth of 6 to 18 inches. The gopher tortoise burrowing suitability is rated as "unsuitable". These soils have characteristics that may limit establishment, maintenance, or use of the site by gopher tortoise. Areas of included soils with better drainage may provide suitable soil properties in some locations (USDA, 2024).

Tantile and Pomona sands are poorly drained soil found in flatwoods on marine terraces. The seasonal high-water table is at a depth of 6 to 18 inches. The gopher tortoise burrowing suitability is rated as "unsuitable" (USDA, 2024).

Winder loamy sand is poorly drained soil found in flats on marine terraces. The seasonal high-water table is at a depth of 12 to 18 inches. The gopher tortoise burrowing suitability is rated as "less suited" (USDA, 2024).

METHODS

The survey activities were completed by an FWC gopher tortoise agent and performed in accordance with those specified in Appendix 4 of the FWC Guidelines. Equipment utilized during the survey included a camera, Trimble DGPS unit, and a handheld datalogger running Solo Field mapping software.

The pedestrian survey was conducted by walking pre-determined transects in an approximate east-west orientation at 50-foot spacing across 100 percent of the subject property (see Figure 4). Apparent burrow activity status (active, inactive, or abandoned), size (juvenile <5 in.; subadult 5-8 in.; adult >8 in.), GPS coordinates, and photographs were recorded for each burrow encountered along each transect. Burrows that were not clearly made by a tortoise were not recorded.

RESULTS/DISCUSSION

The 100 % pedestrian survey of the project area resulted in no potentially occupied burrows. Multiple burrows from other burrowing fauna (i.e., armadillo *[Dasypus novemcinctus*]) were noted during the survey. Figure 4 provides the survey design graphically.

An apparent high-water table and dense vegetative cover provides poor quality gopher tortoise habitat throughout the majority of the subject property. Ponding, saturated soils, and organic soils were observed throughout the property. Optimal forage species (i.e., asgrasses and forbes) were generally absent due to the dense canopy and shrub, and cover. Additionally, approximately 50 percent of the soil types on the property are classified as "unsuitable" while the other 50 percent are listed as "less suited".

In Florida, gopher tortoises are categorized as Threatened on the Endangered Species List and are therefore protected by state law, Chapter 68A - 27.003, FL Administrative Code. An FWC relocation permit is required prior to any disturbance to a burrow or handling of a tortoise. Please note that ground disturbances within 25 feet in any direction from the burrow is prohibited until a relocation permit has been obtained and the tortoise has been relocated to either and offsite recipient site or a suitable onsite relocation area. The findings of this survey are valid for a period of ninety days. A resurvey must be completed prior to construction activities that will occur beyond the ninety-day period.

REFERENCES

Florida Fish and Wildlife Conservation Commission Gopher Tortoise Permitting Guidelines. Revised April 2023. 133 pp.

U.S. Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey. Accessed 1/25/2024.

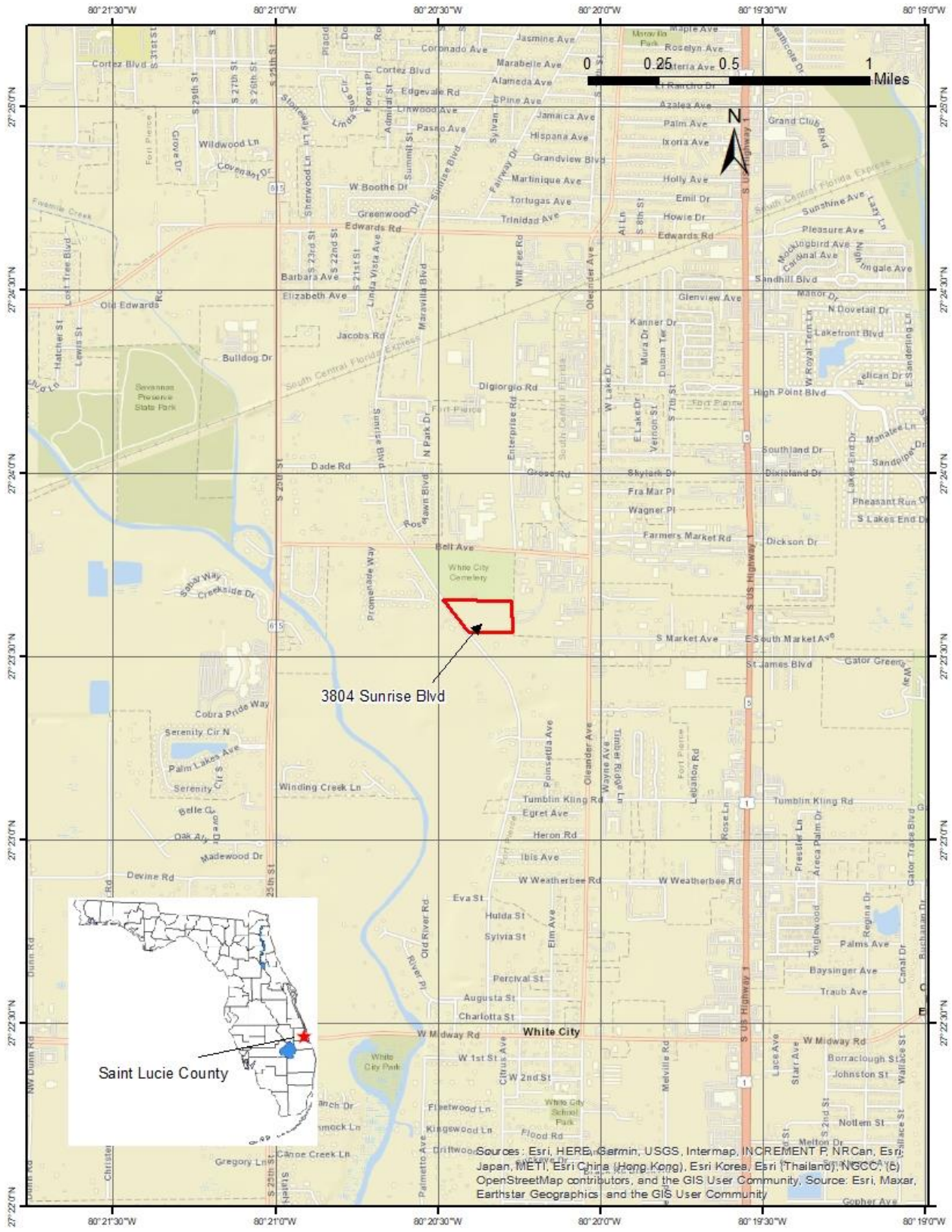

Figure 1. Project Location Map

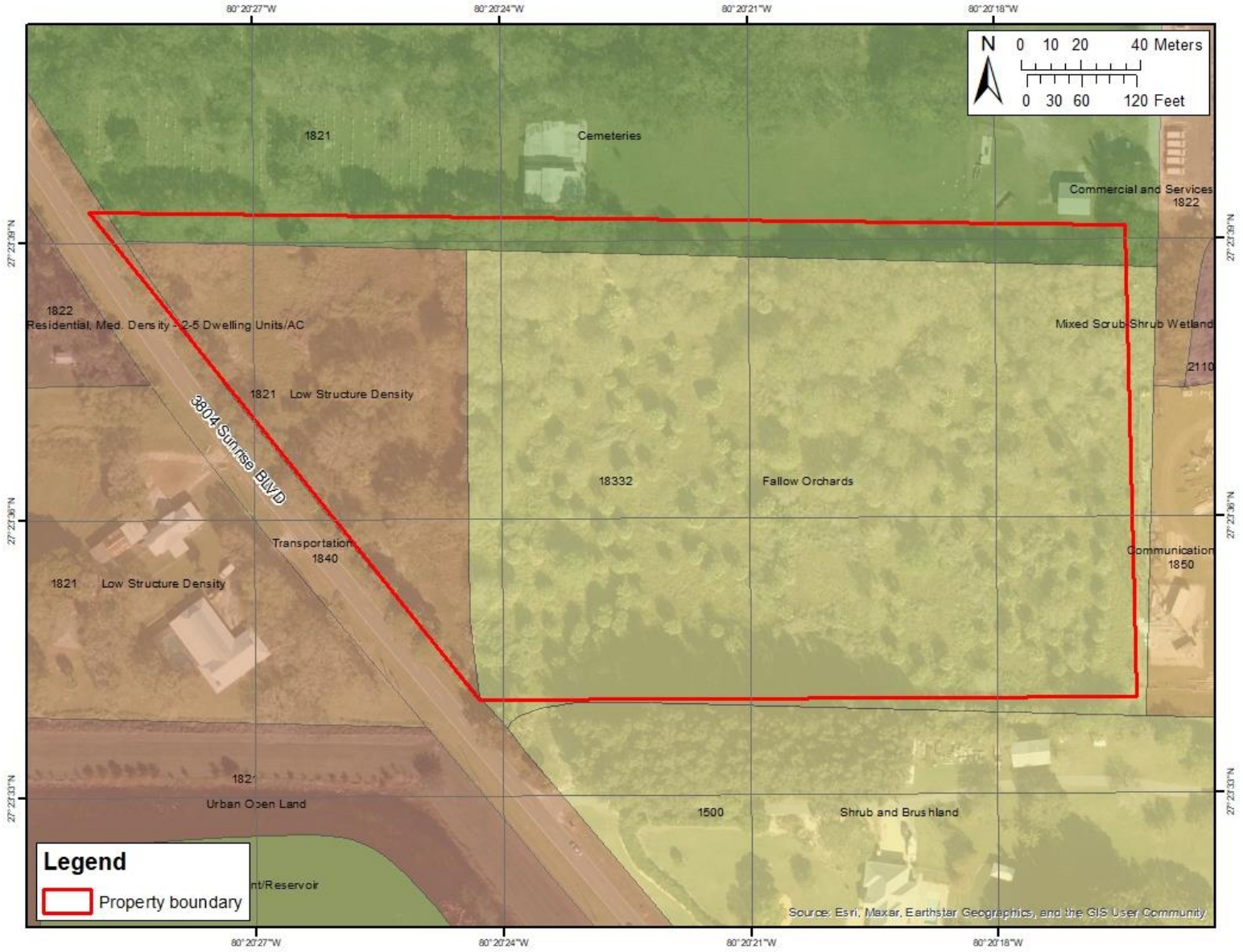

Figure 2. Cooperative Land Cover Map

Figure 3. Soils Map

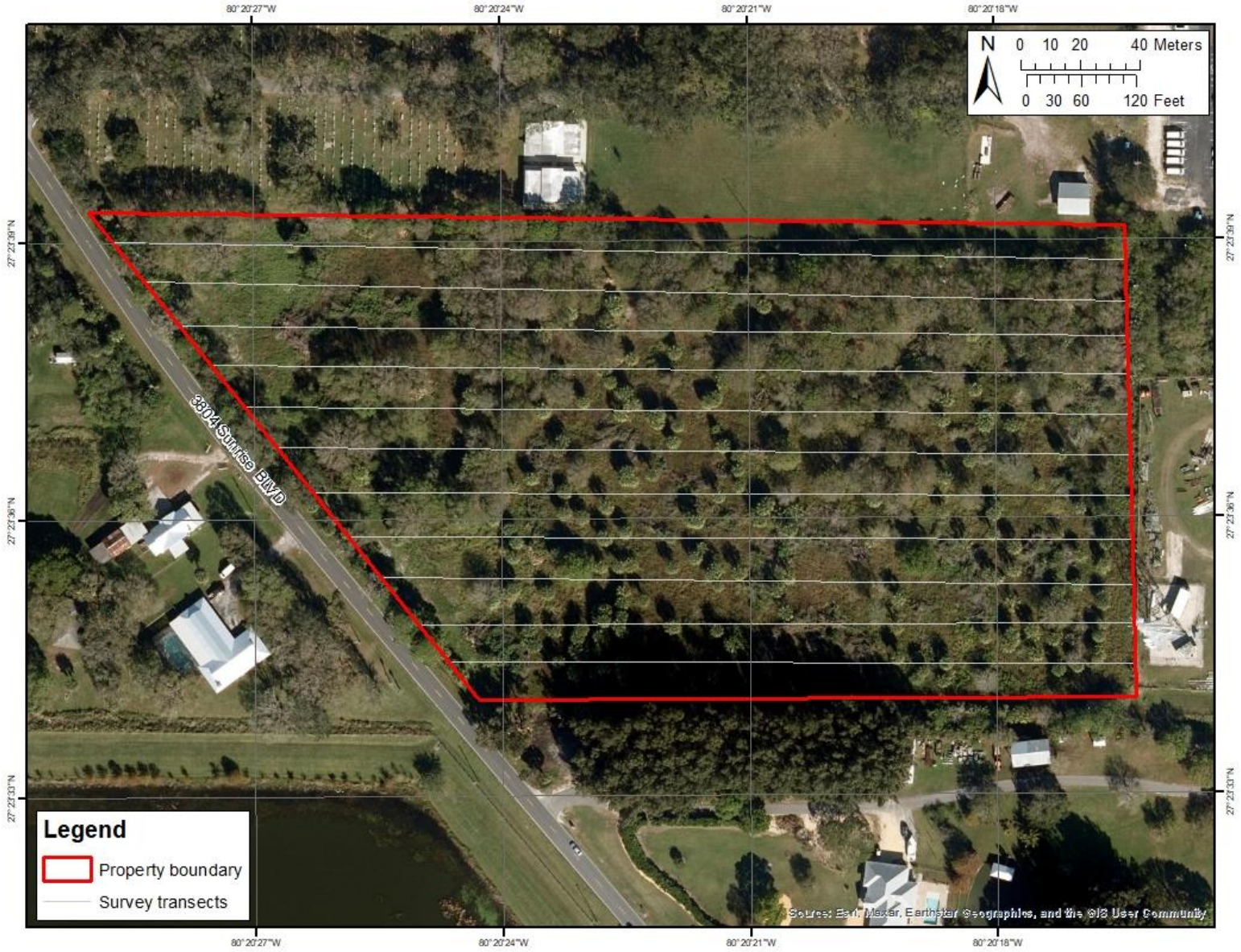

Figure 4. Gopher Tortoise Survey Map