

**Environmental Site Evaluation
City of Gainesville
Jurecko Property (Hogtown Creek Headwaters Additions)
May, 2009**

Introduction

This property, consisting of parcels 07901-000-000 and 07902-001-000, is approximately 10.5 acres located on NW 19th St., across the road from the City of Gainesville's Hogtown Creek Headwaters Nature Park. The owner of this property contacted Alachua County Forever with an interest in selling the property, and County staff have contacted Nature Operations about the possibility of partnering in a joint purchase. On April 27 and May 7, 2009, Nature Operations staff visited the site to evaluate the natural resources.

Natural Communities

This property contains a diversity of natural communities and features.

Mesic flatwoods—Mesic flatwoods on the site show no signs of fire, but are nonetheless in relatively good condition. The overstory consists of mature longleaf and slash pines, with significant encroachment of water oak. The midstory consists of saw palmetto, which is dense over much of the flatwoods area. Gallberry, huckleberry, shiny blueberry, and rusty lyonia are also scattered throughout. The herbaceous layer is mostly absent, with only a few areas containing vanillaleaf or maidencane. The palmetto layer is relatively low (~4 feet) and relatively easy to traverse for a long-unburned site.

Upland pine forest—The southern portion of the property, where the most recent homesite was located, appears to have once been upland pine forest. Remaining canopy trees include southern red oak, mockernut hickory, and sand live oak, although longleaf pine and native herbaceous species are lacking.

Seepage stream—Hogtown Creek and two small seepage tributaries pass through the site. Hogtown Creek already has relatively steep banks by the time it passes onto the property. The banks appear to be relatively stable, although there is some evidence of erosion and smothering. The tributaries appear to be intermittent and relatively healthy.

Blackwater stream—The intermittent stream passing through the southern parcel best resembles a blackwater stream, and reportedly originates in a cypress swamp off the property. At the time of the site visits, isolated pools were present but the stream was not actively flowing.

Basin swamp—The low area at the base of the slope north of the former homesite hydrologically resembles a basin swamp, although it has some characteristics of a baygall as well due to its position at the base of slopes to the north and south. This community appears to be flooded or saturated most of the time, with a continuous ground layer of ferns, lizardstail, and sedges. The midstory is relatively open, and there is a mature canopy of various deciduous and evergreen hydrophytic species. The blackwater stream passes through this community.

Seepage slope—This community occurs on slopes below the flatwoods. Likely once a shrub-dominated community, the canopy now consists mostly of water oak and sweetgum, with an understory of shrubs including Pinxter azalea, large sweet gallberry, *Leucothoe racemosa*, and rusty lyonia. Cinnamon fern dominates the groundcover.

Slope forest—The slopes above the creek in the northern part of the property have a diverse canopy including red maple, pignut hickory, basswood, sweetgum, and water oak. Midstory consists of a variety of shrubs and vines including Walter's viburnum, Pinxter azalea, saw and bluestem palmetto, and devil's walkingstick. Various graminoids and other herbaceous plants are also present.

Spring—Along the bank of Hogtown Creek is what appears to be a small spring. At the time of inspection, this spring was producing a steady flow despite the recent lack of rain. This spring likely supplies water from a surficial aquifer.

Inspection of historical aerial photos going back to as early as 1937 indicates that the site has not been intensively farmed or cleared during the intervening period.

Two state-listed threatened plant species (Southern lady fern, *Athyrium filix-femina*, and anglepod, *Matelea gonocarpus*) and several species listed as commercially exploited (cinnamon fern, royal fern, Pinxter azalea) occur on the property. Other listed or rare plant and animal species are possible on the property, although systematic surveys were not conducted.

Surrounding Land Use and Connectivity

The property is bordered by low-density residential development to the northeast, across Hogtown Creek. To the east, NW 19th St., a gated privately-maintained road, divides the property from the City's Hogtown Creek Headwaters Nature Park. Across NW 45th Ave to the south is single-family residential development, and to the southwest and west are single family residential and a series of stormwater treatment ponds associated with single-family development. An existing single-track trail connects from NW 19th St. on the eastern boundary of the property to the Sorrento development at the property's northwestern corner.

Management Considerations

Most of the uplands on this site are remnant mesic flatwoods in moderately good condition, which grade into a diverse seepage community on the slopes above the creeks. Returning fire to this complex of communities would greatly benefit both the flatwoods and the slope communities, as well as reducing fire danger for the residents adjoining the flatwoods. Midstory fuels are not terribly overgrown, so prescribed fire could be introduced relatively easily. However, care would need to be taken to limit the risk to remaining longleaf pine trees from burning the accumulated duff.

As is typical for unmanaged natural areas, invasive non-native plants are becoming established at the Jurecko property. However, infestations are relatively limited at present. *Ardisia crenata* and Japanese honeysuckle are scattered through the slope

community, and occasional silktree mimosas are found at the edges of the flatwoods. The most significant populations of invasive plants are in the southern-most wetlands, where air potato and *Tradescantia fluminensis* appear to be spreading into the community from the south and west.

The former homesite on the southern parcel could benefit from some restoration. Removal of the paved driveway and foundations could benefit the wetland down slope by reducing runoff and erosion. Several undesirable plant species associated with the former residence are also present in this area, and could spread into the adjacent natural areas if not controlled.

There is evidence, in the form of roofing materials, concrete blocks, and other refuse, that one or more homesites were formerly present in the flatwoods area. A substantial dump pile, mostly of glass bottles and estimated to be 5' high and perhaps 20' across, was found near the northernmost seepage tributary. The age and origins of this pile are not known. Whether the dump pile and home sites are historic or could be potential sources of contamination is not known.

Because of the small size and wet nature of the property, recreational opportunities would be somewhat limited. However, protection of the area would protect the existing trail as a pedestrian and bicycle route between 53rd Ave. (via Sorrento) and NW 45th Ave.

Conclusions and Recommendations

This property contains numerous resources worthy of conservation. The fact that it protects not only Hogtown Creek but three tributaries, a spring, and some seepage wetlands, indicates that protecting this area could help in efforts to maintain the health of the creek system. In addition, although the flatwoods are fire-suppressed, examples of flatwoods grading into intact seepage communities are rare in the Gainesville area and would make this a unique addition to the City's Nature Parks. Finally, due to the topography and hydrological diversity of the property, the plant diversity is quite high for such a small site.