

COFRIN NATURE PARK INVASIVE VINE AND GRASS MAINTENANCE

WORKING GROUP:

Withlacoochee Region Invasive Plant Working Group

CONTACT INFORMATION:

Geoffrey Parks
City of Gainesville
Nature Operations Division
Station 66, P. O. Box 490
Gainesville, Florida 32602
Phone (352) 334-2227
Cell (352) 316-4992
Fax (352) 334-2234
Email parksgr@ci.gainesville.fl.us

METHOD OF CONTROL:

Contractual.

PROJECT GOALS:

The primary goal of this project is to control populations of Cat's claw vine, Skunkvine, Japanese honeysuckle, and cogongrass found within the City of Gainesville's Cofrin Nature Park.

The secondary goal of this project is to prevent the further spread of these species into diverse, healthy conservation areas downstream. This property is connected via Beville Creek to properties in the Hogtown Creek Greenway that make up over 1200 acres of protected natural areas. Control of invasive species in Cofrin Nature Park, which lies upstream from the largest protected areas in the Greenway, plays an important role in the overall health of the system.

ACREAGE TO BE TREATED:

9 acres.

SCOPE OF WORK

PROJECT LOCATION:

Cofrin Nature Park is located at 4800 NW 8th Avenue in Section 34, Township 9S, Range 19E, in Gainesville, Alachua County, Florida. The property is bordered by residential development on two sides, a church to the east, and NW 8th Avenue to the south. Beville Heights Creek bisects the project area, entering the property near the northwest corner and exiting at the south boundary. The location of the project site is shown in Map 1.

Cofrin Nature Park is jointly owned by the City of Gainesville and Alachua County. The City of Gainesville's Nature Operations Division manages Cofrin Nature Park to protect and restore the natural communities, to maintain the water quality of the Hogtown Creek watershed, and to provide natural-resource-based recreation.

PROJECT DESCRIPTION:

Cofrin Nature Park is approximately 30 acres and contains Seepage Stream and Upland Mixed Forest communities as defined by the Florida Natural Areas Inventory (FNAI, 1990). Areas of degraded pinelands also exist on the property. Control of invasive species on the property is necessary for both protection of existing high-quality natural communities and successful restoration of disturbed areas.

Cofrin Nature Park was acquired in December 2003 with funds from Alachua County Forever, the Florida Communities Trust, the City of Gainesville, and a charitable donation by the previous property owner. Protecting the natural features of the site is a stated priority of all of the agencies involved with the acquisition and ownership of the property.

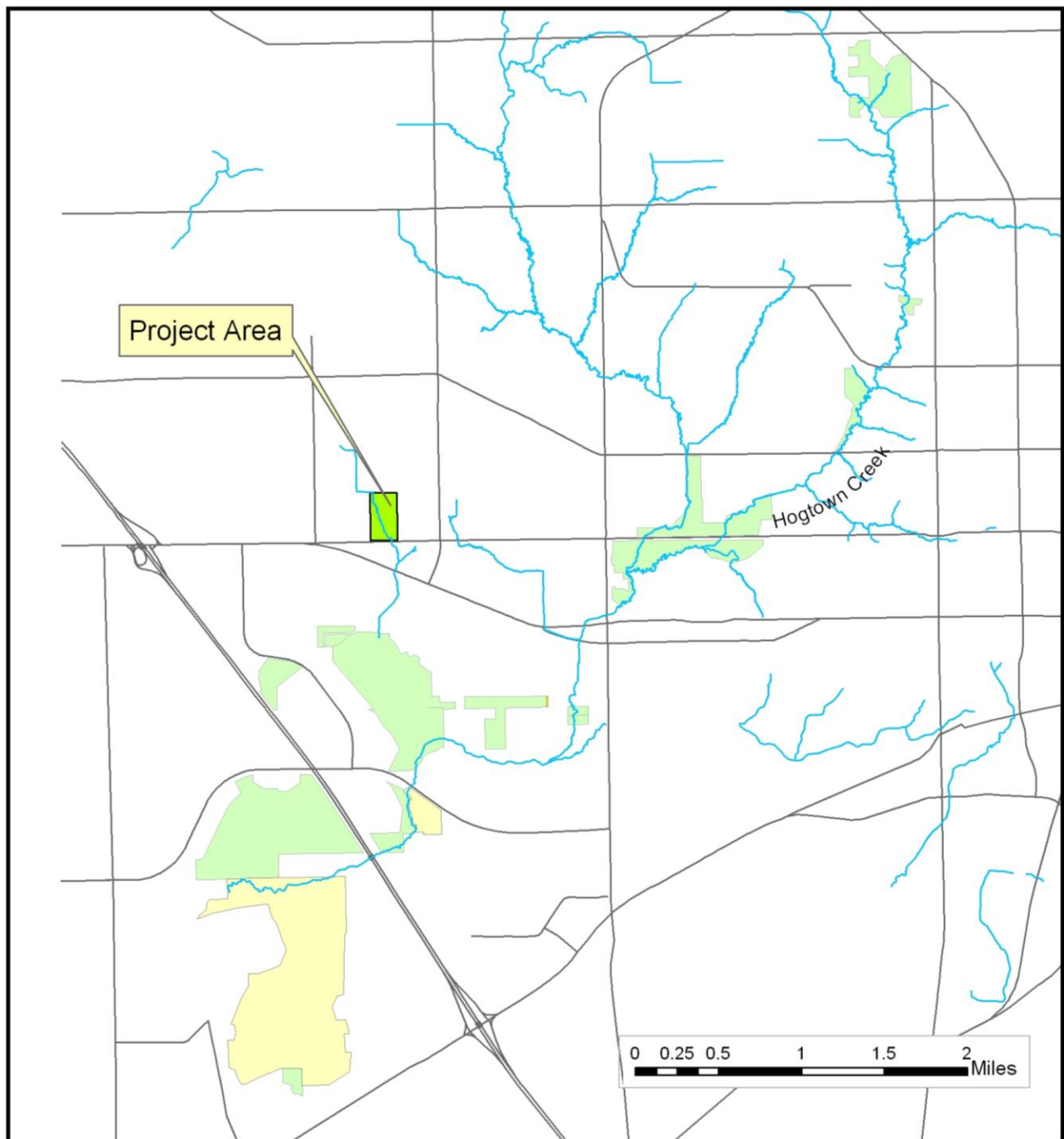
Cat's claw vine and skunkvine are still relatively localized in the Gainesville area. Control of these species at Cofrin Nature Park will reduce the risk that these species spread to colonize the more extensive and intact natural areas that lie downstream.

The highest densities of invasive plants at Cofrin Nature Park occur in the southern portion of the property. Control Sites for this project are listed below, and are shown in Map 2.

WORK SPECIFICATIONS:

The contractor will treat Cat's claw vine, Japanese honeysuckle, skunkvine, cogongrass, and Japanese climbing fern in the entire treatment area shown in Map 2. The City of Gainesville will provide all herbicides and adjuvants; the contractor will be responsible for all labor, supplies, and equipment.

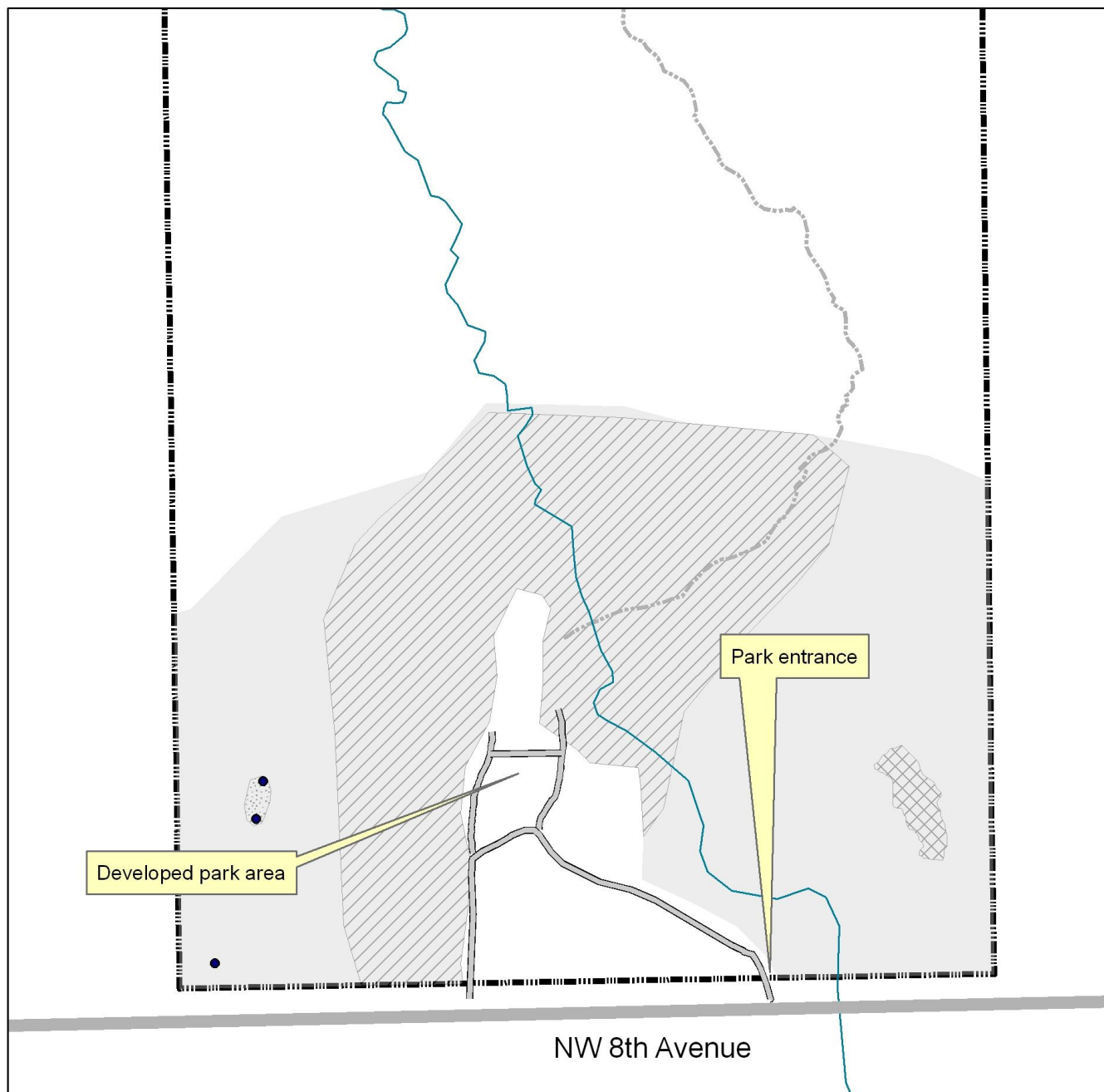
Cat's claw plants are scattered at a relatively low density (0-10% cover) throughout the 9-acre treatment area shown on the map. Higher densities of Cat's claw, including numerous vines that have reached the tree canopy, are found in an approximately 4-acre area shown on map 2. Japanese honeysuckle is found as isolated plants with some dense



**Cofrin Nature Park Invasive Vine and Grass Maintenance
Map 1: General Project Location**

- Cofrin Nature Park
- Creeks
- Conservation Land (City)
- Conservation Land (Non-City)





Cofrin Nature Park Invasive Vine and Grass Maintenance Map 2

 Treatment Area

 Highest Cat's Claw Density

 Skunkvine

 Cogongrass

 Park Boundary

 Driveways

 Beville Heights Creek

 Trail

180 90 0 180 Feet



patches scattered throughout the treatment area. Skunkvine and Cogongrass occur at low density and are mostly localized to the polygons shown in Map 2.

Treatments are to be done according to the following specifications:

- All cat's claw vines extending above head-high will be cut at chest-height (poodle-cut) and allowed to regrow for 60 days prior to herbicide treatment.
- Following cutting and regrowth, all cat's claw vines attached to tree trunks shall be foliar sprayed with 5% Roundup Pro (or equivalent) in water.
- All other cat's claw is to be treated with a foliar spray of 1½% Garlon 4 (or equivalent) with surfactant in water.
- Japanese honeysuckle, Japanese climbing fern, skunkvine, and cogongrass are to be treated with 2% Roundup Pro or equivalent as a foliar spray.
- Any treatments of plants growing over or adjacent to standing or flowing water will use an herbicide formulation labeled for use in wetland sites, with appropriate surfactant.
- All herbicide applications are to be done with low-pressure equipment to minimize drift and non-target damage.
- Treated plants will be left onsite.
- Contractor shall make all reasonable efforts to avoid overspray or drift that would damage native species onsite.

All access to the site, including vehicles to be used, is subject to approval by the City of Gainesville. City staff reserves the right to be onsite during contractor operations and to inspect equipment, chemicals, and applicator personnel.

OTHER REQUIREMENTS AND PROVISIONS:

Access to the site is via the main park gate on NW 8^h Ave.

City staff will identify and mark areas where listed plant species are known to occur, and will treat and/or remove invasive plants from these areas prior to contractor treatments.

Coral honeysuckle, a native species of *Lonicera*, also occurs in the project site, and could be confused with *Lonicera japonica*. This species differs from Japanese honeysuckle in having hairless stems, less pointed leaves that have inconspicuous veins, and red (not whitish) flowers. Contractors are to take precautions to avoid this species wherever possible.

To assure that damage to native vines is minimized, City Nature Operations staff will assist contractors with identification of these species and will closely monitor the project.

When treating vegetation adjacent to trails, the contractor will be responsible for placing signs at the entrances to those trails notifying the public that treatments are taking place.

PROJECT TIME FRAME:

One complete treatment of the project area shall be done between August and November 2010. Contractor will also be responsible for a complete retreatment of the project area between April and June 2011.

FUNDING INFORMATION:

Budget forms, including estimated contractor costs and in-kind and matching funds, are attached below.

Upland Invasive Exotic Plant Control Program			
Budget Justification Worksheet			
Cofrin Nature Park Invasive Vine and Grass Maintenance			
Federal Employer Identification (FEID):			#59-6000.32
Will project be in-house or contracted?			Contracted
Matching Funds			
N/A			
Total matching funds from project sponsor:			\$ 0
In-kind Contributions			
Category	Total	Rate (\$/hr/day)	
Supervisor hours	8	26.00	208
Crew hours (Volunteers)	40	10.00	400
Garlon 4	15	53.00	795
Glyphosate	15	30.00	450
surfactant	1	25.00	25
Total in-kind value from project sponsor:			\$ 1,878
Total matching and in-kind dollars:			\$ 1,878
Total funds requested from FWC:			\$ 11,000
TOTAL COST OF PROJECT:			\$ 12,878
Notes/Explanations			
Explain any special equipment needs (such as a Brontosaurus) or costs, or other (from above). Also note, if entire cost is to be funded by DEP, why no matching or in-kind contributions are available.			

PROPOSAL INFORMATION

CONSERVATION LAND QUALIFICATION:

The permanent preservation and management of this property for conservation and passive recreation is ensured by several existing legal agreements. This property was acquired with a grant from the Florida Communities Trust using Florida Forever funds. Under the Grant Award Agreement between the City of Gainesville and the State of Florida, the land is only to be “managed for the conservation, protection, and enhancement of natural resources and for public outdoor recreation and education that is compatible with the conservation, protection, and enhancement of the site.”

The intergovernmental agreement between the City of Gainesville and Alachua County tasks the City with the management of the property in accordance with the property’s management plan, which states that the property “will be managed only for the conservation, protection and enhancement of natural resources and for public outdoor recreation that is compatible with the conservation, protection and enhancement of the site” and that the City will “monitor and control invasive non-native plants in perpetuity”.

The site is listed as conservation land by FNAI.

In 2009, both Gainesville and Alachua County residents voted to establish a Registry of Protected Public Lands, which would require that sale or significant change in use of public lands on the Registries could only take place with the consent of the voters. Both Alachua County and the City of Gainesville are including Cofrin Nature Park in their first round of properties to be added to their Registries; this designation is expected in the current fiscal year.

The mission of the Nature Operations Division’s land management section, which manages the park, is “to manage, protect, and restore where feasible, native natural communities and diversity in all nature parks and City owned environmentally sensitive lands and to provide opportunities for passive recreation where compatible with the above listed goals.” The City’s Comprehensive Plan calls for the conservation of environmentally significant natural communities, protection of listed plant and animal species, and the removal of invasive exotic species.

ABILITY TO MAINTAIN SITE AFTER INITIAL TREATMENT:

The City of Gainesville’s Nature Operations Division has two full time Habitat Naturalists who are responsible for invasive plant control in the City’s nature parks. Both are licensed pest control applicators. Environmental maintenance staff, volunteers, and TNC’s Northeast Florida Resource Management Team also can assist with invasive plant control when available. Retreatment of previous BIPM/IPMS project areas, and treatment of category 1 vines and grasses, are among the City’s highest priorities for invasive plant management. City staff will ensure that the treatment area continues to receive follow-up

treatments in the future. Funding for these treatments will come from the Nature Operations Division's operating budget.

RESTORATION PLAN FOR NATIVE PLANTS:

Although the property is heavily impacted by invasive plants, there is still a diverse assemblage of native species. Natural regeneration of canopy, midstory, and groundcover species should occur on its own from onsite seed sources. However, the city will monitor the site post-treatment and if augmentation of native vegetation is needed, a plan for enhancement planting will be made.

LISTED SPECIES OR NATURAL COMMUNITIES

Southern Lady Fern, *Athyrium filix-femina* (Threatened-DACS), is found on the property. Additionally *Matelea gonocarpus* (Threatened-DACS) also occurs on the project site. These listed species are particularly threatened by Cat's claw and Japanese honeysuckle, which are both spreading north towards the areas where they occur. Seepage streams, which are found in the treatment area, are classified as S2 by FNAI.

PUBLIC EDUCATION PROGRAM

The City of Gainesville recognizes the power of public education to reduce the threats from invasive exotic plants. Because nearby residential neighborhoods, apartment complexes, and businesses are significant sources of invasive plants in natural areas, the City of Gainesville is committed to continuing to educate people about how their landscaping decisions affect natural areas.

For the past 11 years, the city has coordinated the Great Air Potato Roundup, consistently one of the largest volunteer/educational events relating to invasive species in the southeast. Through these efforts we have reached literally thousands of citizens and formed bonds with groups throughout the community from the boy scouts to University of Florida researchers to other government agencies. Due to budgetary circumstances, it has not been determined whether the City will continue to coordinate the air potato roundup as it has in the past. However, because of the deep involvement of the community and the event's long history, each year—before the event is even publicized—groups approach the Nature Operations Division, either to participate in the Roundup, or for advice on removing air potato. It is clear that even if the Roundup does not continue as a formal event, many groups who have participated year after year will continue to conduct cleanups in their own neighborhoods or to volunteer to clean up air potato in City properties. The City expects to continue to provide supplies and support to these groups, and will continue to act as a clearinghouse for information about identifying and controlling invasive plants in the community.

The City of Gainesville is an official partner in the Alachua County Cisma (formerly the Alachua County Cogongrass Initiative). City staff have contributed to the Cisma's main initiatives, by participating in cogongrass mapping efforts and providing materials for the website.

The City of Gainesville continues to expand the Nature Operations Division's community volunteer and education program, and employs a full-time volunteer coordinator. Through the volunteer program, the division offers regular opportunities for invasive exotic plant removal, tree planting and ecosystem restoration, and litter cleanups in City nature parks. Several such workdays take place each year, including in Cofrin Nature Park.

In addition to the land management staff, the City of Gainesville's Nature Operations Division includes an environmental programming section, consisting of 3 full time and 4 part-time staff responsible for providing environmental programs and special events for all ages. Several of these programs include non-native invasive species as a focus.

In conjunction with the Florida Native Plant Society and the Friends of Nature Parks, City Nature Operations staff work to organize and staff two native plant sales annually. Each of these sales attracts 300-500 people, drawing customers from a wide geographic area. At the sales, informational booths provide information about invasive plants and advice on landscaping with natives.

REGIONAL CRITERIA ISSUES

- 1.** Matching funds directly applied to this project are not available. However, in-kind contributions will be made by the City of Gainesville, including providing herbicide for the project and allocating staff and volunteers to remove cat's claw from developed portions of the park that are not included in the proposal.
- 2.** Species targeted under this proposal are all FLEPPC Category 1 vines or grasses.
- 3.** This project will benefit southern lady fern (*Athyrium filix-femina*), as well as *Matelea gonocarpus*, which are state-listed plants found at the project site. Both occur along the slopes above Beville Creek directly adjacent to the treatment area and will be directly impacted if the cat's claw vine continues to spread north. The project will also improve the health of the vegetation buffers of the Seepage Stream (S2) that occurs onsite.
- 4.** Although the property is heavily impacted by invasive plants, there is still a diverse assemblage of native species, even in areas where previous treatments have occurred. In all, nearly 200 plant taxa have been documented in the park. Natural regeneration of canopy, midstory, and groundcover species should occur on its own from persisting plants or onsite seed sources. However, the city will monitor the site post-treatment and if augmentation of native vegetation is needed, a plan for enhancement planting will be made.
- 5.** See "Public Education Program", above.
- 6.** Two of the main targets of this project, skunk vine and cat's claw, are potentially very harmful plants that are still localized in their occurrence in the Gainesville area.

Treatments such as those in this proposal can keep these species localized and help prevent them from growing to be widespread problem vines like Air Potato currently is.

7. The city of Gainesville has long been committed to controlling invasive plants in the 23 nature parks under its management. Invasive plants in virtually all of these properties are currently under some level of maintenance control following years of previous treatments. Due to the current economic circumstances, the City's staffing and budget available for herbicide treatments are somewhat lower than in past years. Funding for this project therefore has the additional benefit of freeing up our limited resources so that we can ensure that follow-up treatments of these high-priority species can continue in all of our parks. Thus, the impact of this project extends well beyond the project boundaries.

The natural communities in Cofrin Nature Park are naturally regenerating and have high species diversity. Although this property is relatively small, it is large relative to the undeveloped areas in urban Gainesville and is used by a wide variety of wildlife species, so maintaining the health of the natural communities is integral to preserving a reservoir of biodiversity within the urban landscape. Preserving native species in close proximity to people so that they can experience it is critically important: it provides people with a connection to nature, fostering an environmental ethic and better environmental stewardship for the future.

Finally, although it is not directly connected to other conservation lands, hundreds of acres of conservation land making up the Hogtown Creek Greenway lie downstream from the project site. Invasive plants have been aggressively treated in these downstream conservation areas over the past several years, and at present, the properties downstream are free of Cat's claw and skunkvine, two of the main target species of this project.

Retreatment of category I vines at this property will be an integral component of the City's strategy in combating invasive plants in the region and will help fulfill the IPMS program's current main goal of keeping category I vines, grasses, and ferns at maintenance levels.

8. This property was the site of a BIPM-funded project in 2004. In addition, the City has done extensive initial and follow-up treatments on invasive plants throughout the park using in-house funds and labor. Many woody invasive species have declined significantly, and the density of Category I vines and grasses has been reduced. City staff, with assistance of volunteers and the Northeast Florida Resource Management Team, expects to continue annual follow-up activities on this site after contractor treatment, with funding from the City of Gainesville's general fund. Although assistance from FWC always makes our resources go further, it is not expected to be the primary source of funds or labor to maintain this site over the long term.