

# COLCLOUGH POND CITY NATURE PARK INVASIVE NON-NATIVE PLANT CONTROL PROJECT

## SCOPE OF WORK

### **WORKING GROUP:**

Withlacoochee Region Upland Invasive Exotic Plant Working Group

### **CONTACT INFORMATION:**

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## **METHOD OF CONTROL**

In house

## **PROJECT GOALS**

The primary goal of this project is to control emerging populations of coral ardisia (*Ardisia crenata*), air potato (*Dioscorea bulbifera*), Chinese tallow (*Sapium sebiferum*), glossy privet (*Ligustrum lucidum*), Chinese privet (*Ligustrum sinense*), mimosa silk tree (*Albizia julibrissin*), camphor tree (*Cinnamomum camphora*), sword fern (*Nephrolepis cordifolia*), golden rain tree (*Koelreuteria elegans*), Japanese honeysuckle (*Lonicera japonica*), found within

the Colclough Pond project site described below. All of these species are included in the Florida Exotic Pest Plant Council's Category I and Category II lists.

The secondary goal of this project is to prevent the spread of these species to other surrounding conservation lands such as Payne's Prairie State Preserve and Bivens Arm Nature Park. A tertiary goal of the project is to limit re-introduction from neighboring private property through public education strategies.

### **PROJECT LOCATION**

Colclough Pond Nature Park is owned by City of Gainesville and managed by the Recreation and Parks Department, Nature Operations Division. The park is located east of South Main Street near SW 23<sup>rd</sup> Place in Gainesville Florida and is located in Section 17, Township 10S, Range 20E(Attachment 1).

The City property is contiguous with the Colclough Pond Audubon Sanctuary. The sanctuary borders the City property to the north and east (Attachment 3). The sanctuary is owned by Audubon and is managed by the Alachua County Chapter of the Audubon Society.

### **PROJECT DESCRIPTION**

Colclough Pond Nature Park is approximately 5 acres of upland mixed forest surrounding a portion of one of the City's only examples of clastic upland lake.

Implementation of this project will assist in the long-term restoration and protection of these natural communities.

Colclough Pond Nature Park contains infestations of the following target species at various densities. Where applicable, control sites for the following species are indicated on the project map (Attachment 2).

<b><u>Species</u></b>	<b><u>Control Site, Size and Cover</u></b>
<b>air potato</b> Dioscorea bulbifera	<b>Control Site # 1</b> 1.5 acres, at 90% cover
<b>sword fern</b> Nephrolepis cordifolia	<b>Control Site # 2</b> 0.10 acres at 100 % cover
<b>Caesar's weed</b> Urena lobata	<b>Control Site # 2</b> scattered within 0.10 acre at 25%

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The following species occur scattered throughout the total area of the project site (4 acres) at the specified coverage.

<b>glossy privet</b> <i>Ligustrum lucidum</i>	20% cover
<b>Camphor</b> <i>Cinnamomum camphora</i>	15% cover
<b>Chinese tallow</b> <i>Sapium sebiferum</i>	5% cover
<b>Chinese privet</b> <i>Ligustrum sinense</i>	1% cover
<b>golden rain tree</b> <i>Koelreuteria elegans</i>	2% cover
<b>mimosa silktree</b> <i>Albizia julibrissin</i>	10% cover
<b>Chinaberry</b> <i>Melia azedarach</i>	1% cover
<b>Japanese honeysuckle</b> <i>Lonicera japonica</i>	2% cover
<b>heavenly bamboo</b> <i>Nandina domestica</i>	2% cover
<b>coral ardesia</b> <i>Ardesia crenata</i>	25% cover

## WORK SPECIFICATIONS

- Work performance will consist of furnishing all labor, equipment, and supplies (including herbicide and adjuvant), and performing all operations for controlling exotic plants listed under Project Goals and areas described in Project Description or delineated in Project Map(s). Every effort to avoid damage to all native plants and animals. The Site Manager is responsible for the control and or removal of all invasive non-native plants on site.
- Labor will be performed by four full time and one part-time Nature Operations staff members assigned to this project for the time period specified in the Project Time Frame. The Site Manager will be responsible for inspecting quality of work as well as insuring all control areas are treated.

Herbicide applications will be made as follows:

- Low volume basal herbicide applications with Garlon 4 in JLB Oil plus Improved (or equivalent vegetable oil carrier) shall be used where listed in the following chart. A red or blue dye will be used to make identification of treated stems easier. Basal applications for each treated plant will begin at a height not less than 6 times the plant's basal diameter, but not exceeding 18 inches. Herbicide will be applied according to label requirements using a low-pressure spray to minimize spatter, drift, and non-target damage. Vegetation will be left to decompose on site.

- Foliar applications will be made at close range(not more than a meter) using a cone nozzle and low pressure spray to minimize drift, spatter, and non-target damage. Vegetation will be left to decompose on site.

### Control Techniques by Target Plant

Species	Herbicide	Rate	Treatment method	Adjuvants
<b>camphor</b> <i>Cinnamomum camphora</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	red/blue dye
<b>Chinese tallow</b> <i>Sapium sebiferum</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	red/blue dye
<b>glossy privet</b> <i>Ligustrum lucidum</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	red/blue dye
<b>Chinese privet</b> <i>Ligustrum sinense</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	red/blue dye
<b>coral ardisia</b> <i>Ardisia crenata</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	red/blue dye
<b>golden rain tree</b> <i>Koelreuteria elegans</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	red/blue dye
<b>mimosa silktree</b> <i>Albizzia julibrissin</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	red/blue dye
<b>Chinaberry</b> <i>Melia azedarach</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	red/blue dye
<b>air potato***</b> <i>Dioscorea bulbifera</i> 1 <sup>st</sup> treatment	Round Up Pro	3%	foliar	Quest
<b>air potato***</b> <i>Dioscorea bulbifera</i> 2nd treatment	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	red/blue dye

<b>sword fern</b> <i>Nephrolepis cordifolia</i>	Round Up Pro	2%	foliar	Quest
<b>Japanese honeysuckle</b> <i>Lonicera japonica</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	Red/blue dye
<b>Caesar's weed</b> <i>Urena lobata</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	Red/blue dye
<b>Heavenly bamboo</b> <i>(Nandina domestica)</i>	Garlon-4 in JBL or equiv oil carrier	15 %	basal bark	Red/blue dye

**\*\*\* Two treatments of Air Potato will constitute initial treatment.**

### **OTHER REQUIREMENTS AND PROVISIONS:**

The project will entail initial treatment and one re-treatment of control areas described under Project Description or delineated in Project Map and will conclude with the Site Manager providing a written notification to the Project Manager.

### **PROJECT TIME FRAME**

All treatments will occur no sooner than June 2002 and will be completed by November 1, 2002.

The first treatment of Air Potato will occur in June 2002 and the second treatment of air potato will occur no sooner than 45 days after initial treatment, and no later than November 1' 2002.

### **FUNDING INFORMATION**

Detailed funding information is included in the Budget Worksheet, the Justification Form, and the 2002 Great Air Potato Roundup Budget. Matching funds total \$20,486. In-kind contributions by the City of Gainesville total \$13,554. DEP requested funds total \$2,421 (approximate cost for in-house labor and chemicals). DEP requested funds are based on previous contractual services provided through DEP funding. Total cost of the project is \$36,461.

## **PROPOSAL INFORMATION**

### **CONSERVATION LAND QUALIFICATION**

The City owned Colclough Pond Nature Park is listed in the Florida Natural Areas Inventory's 2001 edition of Florida Conservation Lands as the Conant property. The property is zoned conservation and managed for the long-term restoration and protection of their natural communities.

## **ABILITY TO MAINTAIN SITE AFTER INITIAL TREATMENT**

The City of Gainesville has seven employees responsible for invasive exotic plant control, follow up treatments, long-term maintenance, and restoration at Colclough Pond and other City Nature Parks.

## **RESTORATION PLAN FOR NATIVE PLANTS**

Natural regeneration is anticipated to occur on the Colclough Pond property. The project site contains significant patches of native vegetation of moderate diversity and recovery potential for the site is thought to be high.

## **LISTED SPECIES OR NATURAL COMMUNITIES**

Tricolored heron (*Egretta tricolor*), Little blue heron (*Egretta caerulea*), and American alligator (*Alligator mississippiensis*) all species of special concern in Florida and FNAI ranked S4, utilize the clastic upland lake and upland mixed forest on the project site. Clastic upland lake is FNAI ranked as S2. Upland mixed forest is ranked S4. The quality of these natural communities will be improved by the removal of invasive non-native species.

## **PUBLIC EDUCATION PROGRAM**

The City of Gainesville recognizes the extraordinary value of public education concerning invasive exotic plants. Education plays a crucial role in the management of urban public conservation lands. An educated public is one of the most effective and powerful tools for a land manager. Residential neighborhoods, apartment complexes, and businesses adjacent to the Colclough Pond project site are significant sources of invasive exotic plants.

City of Gainesville will work with Alachua Audubon Society to develop a program to address immediately adjacent landowners of the project site that are contributing invasive seed sources. The program will include identifying adjacent landowners with the highest sources of invasive non-native plants, distributing educational literature to these adjacent landowners, and working closely with willing landowners on removal options. City of Gainesville will develop an updated invasive plant brochure targeting the homeowner, and featuring landscaping substitutions for commercially available FLEPPC listed species. City of Gainesville will work toward establishing an initial meeting between all local interested agencies to have a brainstorming session over the development of a local invasive plant removal incentive program for private landowners.

In addition, the City of Gainesville is committed to continuing its general public education campaign throughout the City to help people understand how landscaping decisions they make at home can affect the natural communities in their parks. The campaign will continue to achieve this objective through the following established avenues.

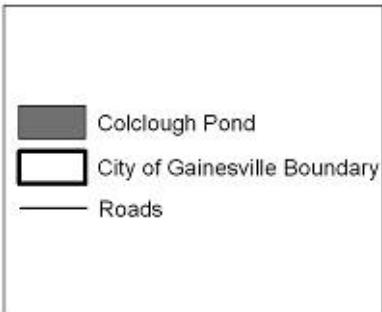
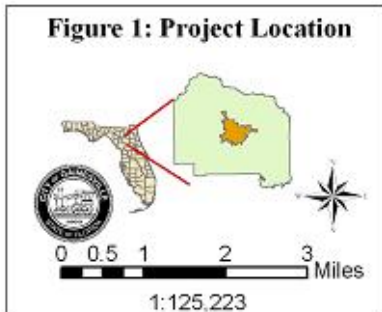
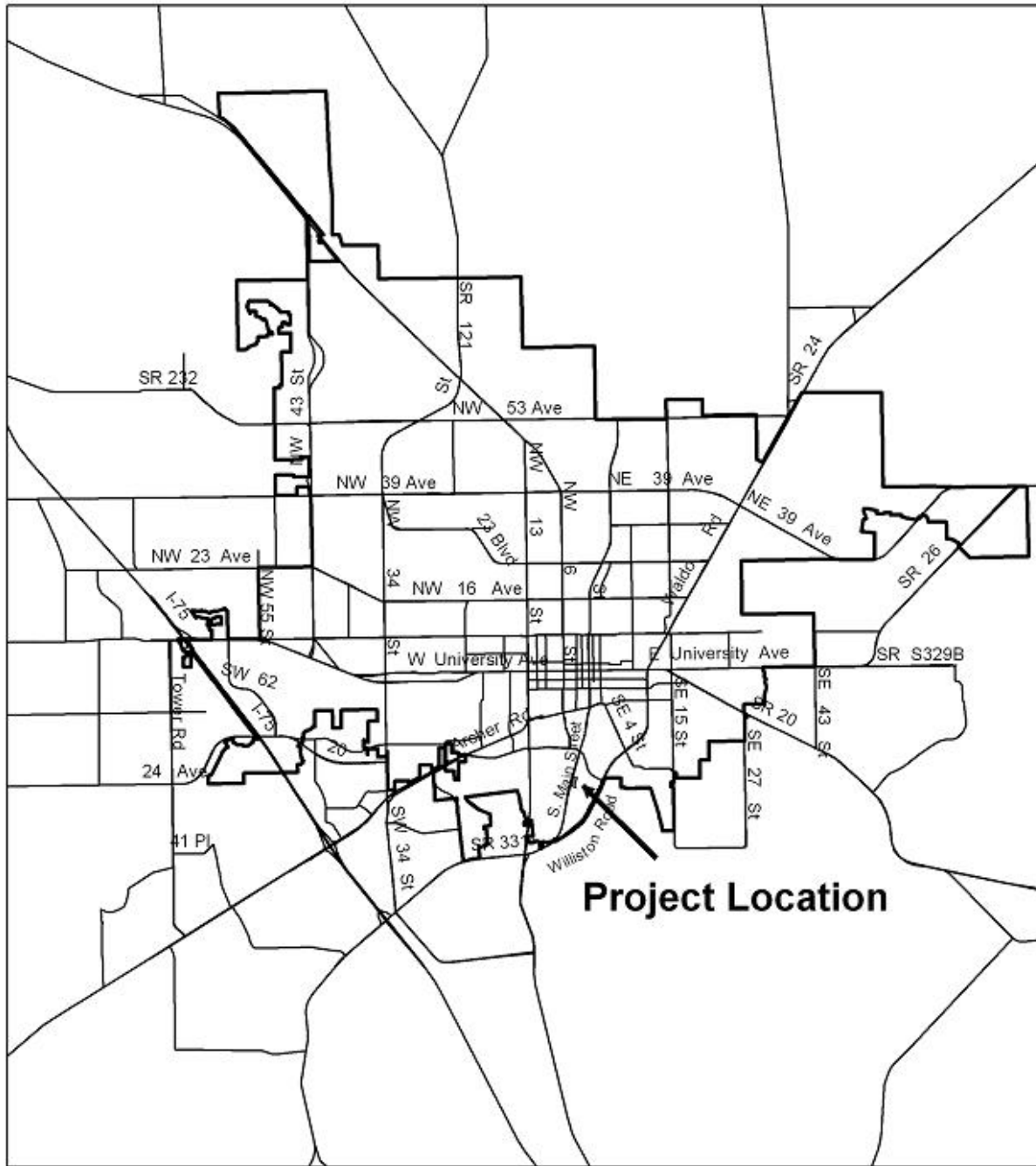
- Nature Operations organized the Third Annual Great Air Potato Roundup on February 2, 2002. Approximately 850 volunteers worked on removing invasive plants at 21 nature park and creek connection sites around the City of Gainesville. This year the event was expanded to include the removal of other invasive plants in addition to air potato such as *Ardesia crenata*, *Tradescantia flumensis*, and *Hedera helix*). The event is a large cooperative educational awareness festival focusing attention on the impacts of invasive exotic plants in Gainesville's Natural Areas. At their work site, volunteers receive

instruction and a short presentation from site leaders knowledgeable of Florida's natural communities and invasive exotic plant ecology. After the hands on experience of removing invasive species from their nature parks, volunteers gather for the celebration festival where other educational opportunities are afforded. Educational displays and guest speakers expand the focus of the event to other species and issues related to exotic plant and animal invasions. The educational message reaches beyond those who actually participant in the event. Radio, newsletter, newspaper, T-shirt advertising, sponsor solicitation, television news media and word-of-mouth from participants in the event are all mediums through which the Gainesville community may receive exposure to invasive exotic issues (Attachment 5 ). Every year during the week preceding the Round Up, The Mayor of the City of Gainesville makes a proclamation before the City Commission designating it Invasive Plant Awareness Week.

- The Fourth Annual Great Air Potato Roundup is scheduled for February 2003, and will be funded by in-kind contributions and matching funds from the City of Gainesville and local sponsors.
- An educational tabletop exhibit (6 feet by 3 feet) describing City Nature Parks, their natural communities and invasive exotic plant species threatening these natural communities is displayed at numerous city events and community festivals and functions throughout the year. The exhibit was displayed or is scheduled to be displayed at the following events this year: The Great Air Potato Roundup, Farm and Forest Festival, Morningside Nature Center Native Plant Sales, the City of Gainesville Recycling Fair and the Lake Santa Fe Clean up/Lake Fest in Melrose.
- The City of Gainesville is working to establish Nature Operations Division's community volunteer and education program. The program encourages residents to participate in invasive exotic plant removal workdays, tree planting and ecosystem restoration workdays, and litter cleanup workdays in City Nature Parks. Volunteers are recognized by the City of Gainesville's Nature Centers Commission (NCC) with "Star Volunteer" Awards in the following categories: Green Business Award, which recognizes business that have, in the judgment of the Nature Centers Commission, done the best job of; removing Exotic Pest Plant Council Category I & II species from the business property, establishing native plant species on the property or providing habitat for native wildlife; and "Outstanding Volunteer" awards recognizing individuals that log the greatest number of volunteer hours toward the preservation and management of Gainesville's natural areas. Two individuals will be recognized this year for their efforts in invasive plant control. One individual is an adjacent landowner to a City park who has been removing *Ligustrum sinense* from Loblolly Woods Nature Park for over a year, and the other individual is a volunteer who participated in the 2<sup>nd</sup> Air Potato Round Up who took the educational message from the day home to his friends and family and has been organizing his own "air potato round ups" in his neighborhood ever since.
- A series of naturalist-led walks through City nature parks, held every spring and fall, also provide other opportunities for educating the public about invasive exotic plants.

## **REGIONAL CRITERIA ISSUES**

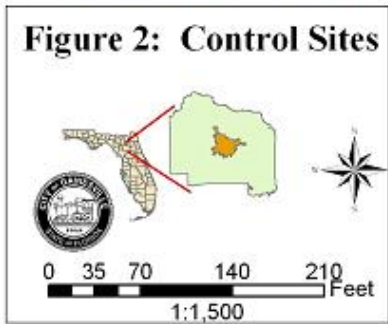
The Colclough Pond project site contains one of the three Regional Priority one (WRIP) species, Chinese tallow (*Sapium sebiferum*), and is geographically located within a cluster of City nature parks, Conservation lands, potential acquisition projects, and a State Preserve. These include Bivens Arm Nature Park, Bivens Branch (a past Florida Communities Trust project proposal), City owned conservation lands, Audubon Sanctuary, the Sweetwater Branch project, Boulware Springs Park, and Paynes Prairie State Preserve (Attachment 3). Control of invasive non-native plants at the Colclough Pond project site will reduce the spread of these plants to these adjacent natural areas. Initial treatment of Bivens Arm Nature Park and Boulware Springs Park was recently accomplished through the DEP Upland Invasive Plant Management Program. Invasive plant control maintenance of these parks will be enhanced by the treatment of the nearby Colclough Pond site.



The City of Gainesville prepares and uses this information for its own purposes and this information may not be suitable for other purposes. This information is provided "as is". Further documentation of this data can be obtained by contacting:  
 Nature Operations Division  
 City of Gainesville, Station 66,  
 PO Box 490, Gainesville, FL  
 32602-0490, (352) 334-2231

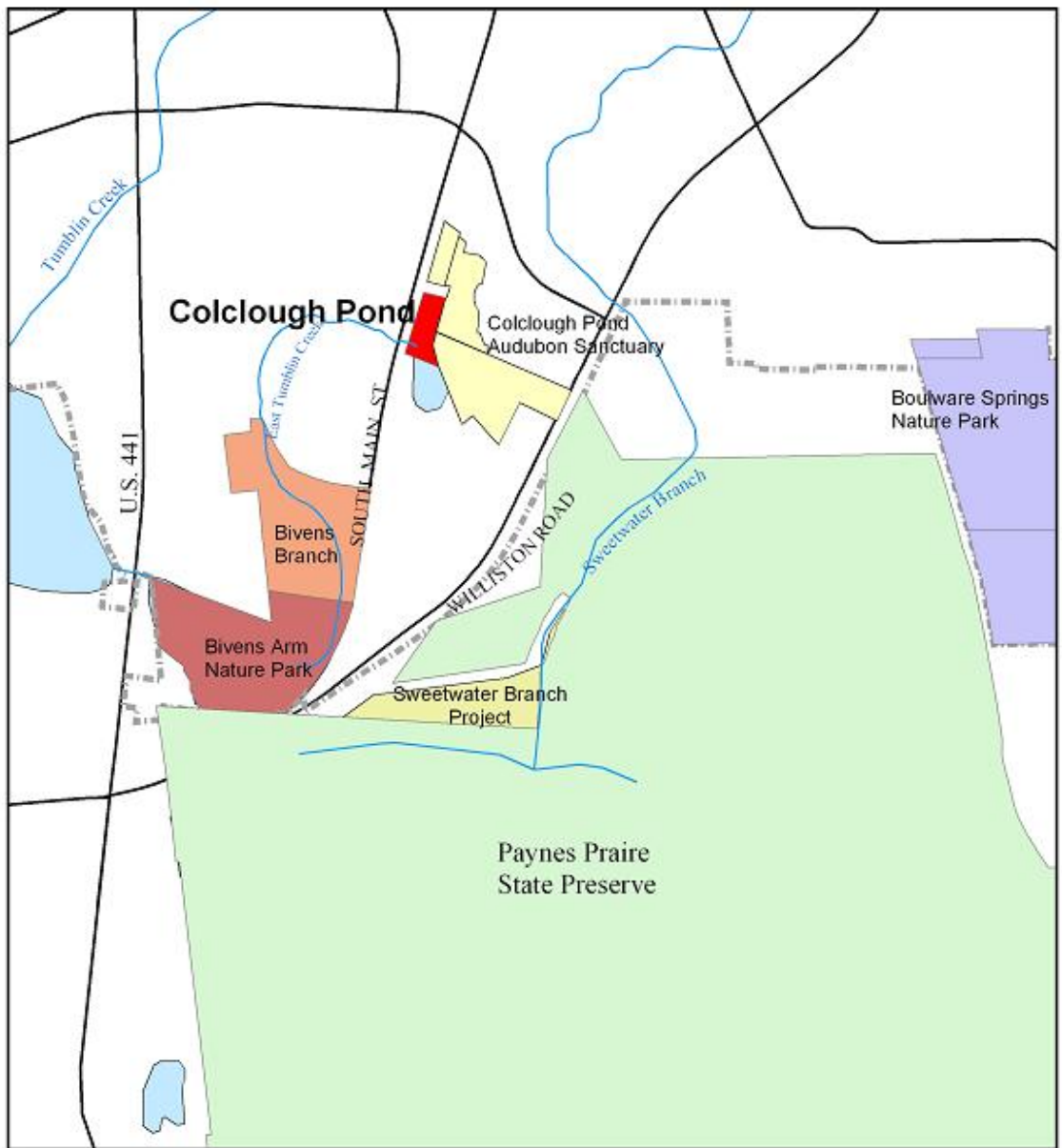


**Figure 2: Control Sites**



 Colclough Pond  
 Trails/Burms

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**Figure 3: Adjacent Conservation Lands**



- Colclough Pond
- Lakes
- City Boundary
- Streams

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