

**Watermelon Pond
Rapid Ecological Project Assessment
Alachua County Forever**

Draft Date: January 27, 2003
Matrix Score: 7.47 of 9.44
Size: 4,525
Number of parcels: 58
Number of owners: 46
Number of buildings: 32

Location and Description:

The 4,525 acre Watermelon Pond Project (WAT) is located in southwestern Alachua County, adjacent to the Gilchrist and Levy County lines, Map 1. The majority of the project falls within unincorporated Alachua County, with the exception of 730 acres that lie in the City of Newberry. The following parcels are already on the Alachua County Forever (ACF) Active Acquisition list: Gladman-02707-000-000; Howell-02711-006-006; Ashton-02711-006-003, 02711-006-011, 02711-006-008; Warny-02711-003-000, 02711-003-000; Elliot-07211-006-010; and Brennan-02711-002-000, Map 2. These parcels were placed on the list by the Alachua County Board of County Commissioners after being recommended by the Land Conservation Board (LCB). The Beltz Parcels (02711-005-000, 02711-006-007) were placed on the Eligibility Pool by the LCB but were not forwarded to the Priority Pool.

The Alachua County Forever Watermelon Pond Project (WAT) partially overlaps the existing Watermelon Pond Florida Forever Land Acquisition project. Acquisition of the WAT project will help fill in gaps in the existing state ownership and improve the manageability of the area, Map 3. The Watermelon Pond Florida Forever Project is on the 2003 Florida Forever "Group A Project" list, as a full fee acquisition. This means the Florida Forever Program will pay for the entire cost of the acquisition of parcels lying within the project boundaries. The Gladman and Howell parcels were included in the original Florida Forever Watermelon Pond project. The Florida Forever Acquisition and Restoration Council (ARC) modified the Watermelon Pond Project Boundary in February 2003 to include the Brennan, Warny, Elliot and Ashton parcels. Because the boundary modification was approved, the state will pay the entire cost of the acquisition of the above parcels too.

The WAT project overlaps most of the Watermelon Pond project from the Alachua County Ecological Inventory Project (KBN Study), KBN 1996. The Watermelon Pond Site was ranked 15th of 47 sites ranked in the county and categorized as slightly above average. The purpose of the KBN Study was to identify, inventory, map, describe, and evaluate the most significant natural biological communities, both upland and wetland, that remain in private ownership in Alachua County and make recommendations for protection these natural resources, KBN 1996.

The KBN Study summarized the Watermelon Pond project by stating that, "This natural area has two main features. The first is Watermelon Pond, which is a sandhill lake with a highly variable water level and irregular outline. The variable water table produces a wide area of herbaceous vegetation around the open water areas due to periodic prolonged flooding alternating with long periods of dry conditions and occasional fire. On the upper side of the prairie vegetation is an irregular band of oak forest.

The second key feature is the sandhill habitat on the uplands away from the lake. This longleaf pine (*Pinus palustris*), turkey oak (*Quercus laevis*), wire grass (*Aristida beyrichianan*) plant community supports a characteristic set of animal species including gopher tortoises (*Gopherus polyphemus*), red-

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headed woodpeckers (*Melanerpes erythrocephalus*), bob-white quail (*Colinus virginianus*), and Sherman's fox squirrels (*Sciurus niger shermani*)", KBN 1996.

Protecting Water Resources:

The WAT project is located on the Brooksville Ridge in the unconfined aquifer zone of Alachua County. This is an area where the Floridan Aquifer System is overlain by highly permeable, generally thin, undifferentiated sands. It is a low flat area of high aquifer recharge that allows pollutants direct access to the aquifer, Macesich 1988. The St. Johns River Water Management District's Aquifer Recharge Map for Alachua County shows that the WAT site lies in an area of high aquifer recharge; 12 inches or more per year. "This area is on the western edge of the Brooksville Ridge, which is a ridge of infertile sand deposited as beach sand dunes when this was the western edge of Florida. There may be a weak confining layer between the surface and the Floridan Aquifer in this area. The combination of sandy soil and a weak or intermittent confining layer results in no surface drainage systems and eventual percolation into the Florida Aquifer of all rainfall," KBN 1996. Approximately 31% of the WAT project is wetlands, contains hydric soils, or falls within the FEMA 100 or 500 year flood hazard zone.

Protecting Natural Communities and Landscapes:

Natural Communities

Sandhill
Xeric Hammock
Mesic Flatwoods
Prairie Hammock
Sinkhole pond
Basin Marsh
Wet Prairie
Sandhill Lake

Other

Rough Pasture
Improved Pasture

The above list of natural communities is from the KBN Study, KBN 1996, and field inspections performed by ACF staff in association with the preparation of the Project Ranking Reports for the Gladman, Howell and Section 11 Watermelon Pond ownerships. The ecological quality of the project area is extremely variable throughout its extent, ranging from excellent to poor. The Watermelon Pond area contains some of the best remaining sandhill sites in Alachua County, KBN 1996. The Ashton Biological Preserve and the surrounding areas under their management are very well managed and highly diverse, while other tracts will require intensive resource management activities to restore them.

The WAT project is adjacent to some of the parcels acquired by the state as part of the Florida Forever Watermelon Pond Project, Map2. These parcels are managed by the Florida Division of Forestry as part of Goethe State Forest. There are no ACF projects connected to the WAT project.

Approximately 80% of the WAT project site is within the Florida Ecological Greenways Network (FEGN) priority 5 Paynes Prairie-Goethe project.

The Florida Ecological Greenways Network is a decision support model to help identify the best opportunities to protect ecological connectivity statewide. It was developed by the University of Florida for the Florida Department of Environmental Protection. GIS data on land use and significant ecological areas were integrated in a process that identified a statewide Ecological Greenways Network containing all of the largest areas of ecological and natural resource significance and the landscape linkages necessary to link these areas together in one functional statewide network, Hoctor et al. 2002.

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Approximately 5% of the WAT site falls within a Wading Bird Strategic Habitat Conservation Area. Strategic Habitat Conservation Areas were developed by the Florida Fish and Wildlife Conservation Commission (FFWCC). They are private lands containing habitats critical to the continued survival of populations of inadequately protected plants and animals, Cox et al. 2000. These lands are essential to providing some of state's rarest animals, plants, and natural communities with the land base necessary to sustain populations into the future, Cox et al. 1994.

Approximately 90% of the site is in the Florida Natural Areas Inventory (FNAI) Habitat Conservation Priorities. FNAI's Habitat Conservation Priorities prioritize places on the landscape that would protect both the greatest number of rare species and those species with the greatest conservation need, Florida Natural Areas Inventory, June 2001.

About 34% of the WAT project is delineated as sandhill and pine flatwoods Under-represented Natural Communities. Under-represented Natural Communities are those natural community types that were inadequately represented on conservation lands in Florida. A natural community is considered to be inadequately represented if less than 15% of the original extent of that community is currently found on existing conservation lands. Under-represented natural communities include, seepage slope, upland hardwood forest, pine rockland, tropical hardwood hammock, sandhill, scrub, upland glades, and pine flatwoods. This data was developed by the Office of Environmental Services, Florida Department of Environmental Protection and FNAI, FNAI, December 2001.

Protecting Plant and Animal Species:

Common Name	Endemic/ Large Home-Range	Fed/State Status	FCREPA/FNAI Designation	Observed
Amphibians				
Eastern Tiger Salamander	-/-	-/-	SU/S3	SM
Flatwoods Salamander	-/-	T/-	R/S2S3	A
Gopher Frog	-/-	-/SSC	T/S3	SM,A,K
Striped Newt	-/-	-/-	R/S2S3	SM,A
Reptiles				
American Alligator	-/-	T/SSC	-/S4	SM,A
Eastern Diamondback Rattlesnake	-/-	-/-	-/S3	SM
Eastern Indigo Snake	-/-	T/T	SSC/S3	SM,A,N,K
Florida Crowned Snake	X/-	-/-	-/-	SM
Florida Pine Snake	-/-	-/SSC	SU/S3	SM,A,K
Gopher Tortoise	-/-	-/SSC	T/S3	F,A,K
Peninsula Mole Skink	-/-	-/-	-/-	SM
Short-tailed Snake	X/-	-/T	T/S3	SM,A,K
Spotted Turtle	-/-	-/-	R/S3?	SM
Birds				
Black Rail	-/-	-/-	R/S2	SM
Cooper's Hawk	-/-	-/-	SSC/S3	A
Florida Burrowing Owl	-/-	-/SSC	SSC/S3	A
Florida Sandhill Crane	X/L	-/T	T/S2S3	F,A
Great Egret	-/-	-/-	SSC/S4	SM
Least Bittern	-/-	-/-	SSC/S4	SM
Little Blue Heron	-/-	-/SSC	SSC/S4	SM,A
Osprey	-/-	-/-	T/S3S4	SM
Mottled Duck	-/-	-/-	-/-	F
Snowy Egret	-/-	-/SSC	SSC/S3	A
Southeastern American Kestrel	-/-	-/T	T/S3	F,A,K
Southern Bald Eagle	-/L	T/T	T/S3	F,A,K,S
Swallow-tailed Kite	-/L	-/-	T/S2	A
White Ibis	-/-	-/SSC	SSC/S4	SM,A
Wild Turkey	-/L			F

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Wood Stork	-/-	E/E	E/S2	SM,A
Mammals				
Bobcat	-/L	-/-	-/-	F
Florida Black Bear	X/L	-/T	T/S2	F,A
Florida Mouse	X/-	-/SSC	T/S3	SM,A,N
River Otter	-/-	-/-	-/-	SM
Northern Yellow Bat	-/-	-/-	SU/-	SM
Sherman's Fox Squirrel	-/-	-/SSC	T/S3	F,A,N,K

X= Endemic, L=species with large home ranges according to the Closing the Gaps in Florida's Wildlife Habitat System, S= observed by Alachua Co. EPD staff and/or an LCB subcommittee member, SM= documented on the Species Models maps created by the Florida Fish and Wildlife Conservation Commission, F= Focal species used for the most detailed analyses in the Closing the Gaps in Florida's Wildlife Habitat Conservation System, Florida Game and Fresh Water Fish Commission, 1994, N= Florida Natural Areas Inventory Element Occurrence, P= potential for species based on habitat types, K=documented in the Alachua County Ecological Inventory Project, A=Ashton , Ashton & Associates, Inc. 2001.

The KBN study noted two rare plants coontie and rusty buckthorn, and FNAI lists Piedmont joint grass in its element occurrence data for the WAT site.

The Watermelon Pond area was historically very good habitat for Sherman Fox Squirrels, however due to fire suppression and the cutting of longleaf pines it now ranges from good to poor habitat. It should be noted that much of the area could be restored to very good habitat with proper management. The key to maintaining a viable population of fox squirrels and other wildlife in the Watermelon Pond area is connecting the existing areas in public ownership through additional acquisitions or easements and implementing an active resource management program that includes prescribed burning (personal communication John Wooding). There are large gopher tortoise populations on portions of the site.

Exotic plants found on the project site include centipede grass, and mimosa. Sand pines are also invading portions of the site. While sand pines are native, they are not native to this site, KBN 1996.

The FFWCC 2001 data shows one bald eagle nest on the WAT site.

Approximately 33% of the site is within Regional Biodiversity Hotspots. The purpose of the Regional Biodiversity Hot Spots maps, developed by FFWCC, is to "convey more detailed information on the known locations of as many components of biological diversity as possible, regardless of whether or not they fall within proposed Strategic Habitat Conservation Areas, to help meet the need for conservation information at regional and local levels", Cox et al. 1994.

Achieving Social and Human Values:

About 70% of the WAT is a Priority 1-4 Natural Resource-based Recreation Area, Knight, et al. 2000, and about 80% is within the Florida Ecological Greenways Network. The Natural Resource-based Recreation map was developed by FNAI in collaboration with DEP, FFWCC and DOF. The recreation potential of a site depends on available road access, presence of a water body or beach, proximity to urban areas, and size of the site. "These criteria were applied to Potential Natural Areas delineated by FNAI using aerial photography and revised using the 1995 Water Management District land cover data. Sites were ranked by recreation potential." Knight, et al. 2000.

The WAT site encompasses the Alachua County portion of the Florida Forever Watermelon Pond Acquisition Project. Acquisition of this area would further land acquisition goals on a state level.

The site will serve as an urban defining greenbelt for the City of Newberry and perhaps Archer in the future.

Portions of the site will provide excellent opportunities for wildlife and nature viewing, as well as fishing, hiking and nature study. Other portions of the site are not likely to be amenable to public use.

Management Issues:

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The property manager for the Watermelon Pond Florida Forever Project is the Florida Division of Forestry; therefore any of the properties purchased through the original Florida Forever Watermelon Pond Project will be managed by FDOF as part of Goethe State Forest. Florida Forever staff has agreed to oversee the conservation easements in the Section 11 boundary.

The key to restoration and management in the WAT area is prescribed burning. “The whole area could easily be restored to excellent habitat condition given a commitment to prescribed burning. The area is well away from population centers and major highways, so that prescribed burning could be done safely. The clear-cut areas of sandhill habitat still have intact populations of ground cover plants, and could easily be planted to longleaf pine and managed with fire. The prairie areas would also benefit from prescribed burning. The only drawback is the small size of the sandhill, which is big enough to be viable for some species, but not for others”, KBN 1996.

Economic & Acquisition:

There are 58 parcels, 46 ownerships and 32 buildings listed in the Alachua County Property Appraisers (ACPA) data base for the 4,525 acre WAT Project. The ACPA’s 2002 Just Value (land value) for the entire project is \$4,634,800 or \$1,024/ acre. The ACPA’s total value (Just, Miscellaneous and Building) for the project area is \$5,826,000 or \$1,288/ acre. These figures are for comparative purposes between nominated properties, and are not necessarily an accurate reflection of the true cost of the property if acquired by the Alachua County Forever Program.

The zoning and future land use is agriculture in both the unincorporated area and in the City of the Newberry.

Approximately 2,989 acres of the WAT project are on the Florida Forever acquisition List, including the 250 acres in Section 11, Township 11, Range 17 that were approved by the state as a boundary modification to the Florida Forever Project. The Florida Forever Project is on the 2003 Florida Forever “Group A Project” list, as a full fee acquisition. This means that the Florida Forever Program will pay for the entire cost of the acquisition. Group A Projects are the highest priority acquisition projects and are so designated because they make the greatest contributions toward achieving the Florida Forever goals and measures, and the Florida Forever criteria.

All parcels lying within the Florida Forever project boundary should be considered keystone parcels. The Gladman (02707-000-000), Howell (02711-006-006), Ashton (02711-006-003, 02711-006-011, 02711-006-008), Warny (711-003-000, 02711-003-000), Elliot (07211-006-010), and Brennan (02711-002-000) parcels are already on the Alachua County Forever (ACF) Active Acquisition List. These parcels were placed on the list by the Alachua County Board of County Commissioners after being recommended by the Land Conservation Board (LCB). The Beltz Parcels (02711-005-000, 02711-006-007) were placed on the eligibility pool by the LCB but were not forwarded to the priority pool.

Other:

There is one archeological site within the WAT project noted on the Florida Master Site File by the Florida Division of Historical Resources. This is a prehistoric site where a log boat was found. Both historical and archaeological artifacts were observed in the WAT area by Staff. Evidence of a turpentine still from the turn of the century is present on the Elliot property, and a Pinellas point, indicating Native American use of the area from A.D. 1250 to 1600 was found in a dry area of Watermelon Pond.

Literature Citations:

Ashton, Ashton & Associates, Inc. 2001. Draft-Report on the biodiversity and Management Plan for the Ashton Biological Preserve-Finca de la Tortuga, 2001. Gainesville, Florida.

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Florida Natural Areas Inventory. June 2001. Florida Forever Conservation Needs Assessment Technical Report

Hector, T.S., J. Teisinger, M.G. Carr., P.C, Zwick. 2002. Identification of Critical Linkages Within the Florida Ecological Greenways Network. Final Report. Office of Greenways and Trails, Florida Department of Environmental Protection. Tallahassee, FL.

Knight, G., A. Knight, and J. Oetting. 2000. Florida Forever Conservation Needs Assessment Summary Report to the Florida Forever Advisory Council. Florida Natural Areas Inventory.

KBN, A Golder Associates Company. 1996. Alachua County Ecological Inventory Project. Prepared for Alachua County Department of Growth Management, Gainesville, Florida.

Macesich, M. 1988. Geologic Interpretation of the Aquifer Pollution Potential in Alachua County, Florida, Open File Report - 21. Florida Geologic Survey, Tallahassee, Florida.

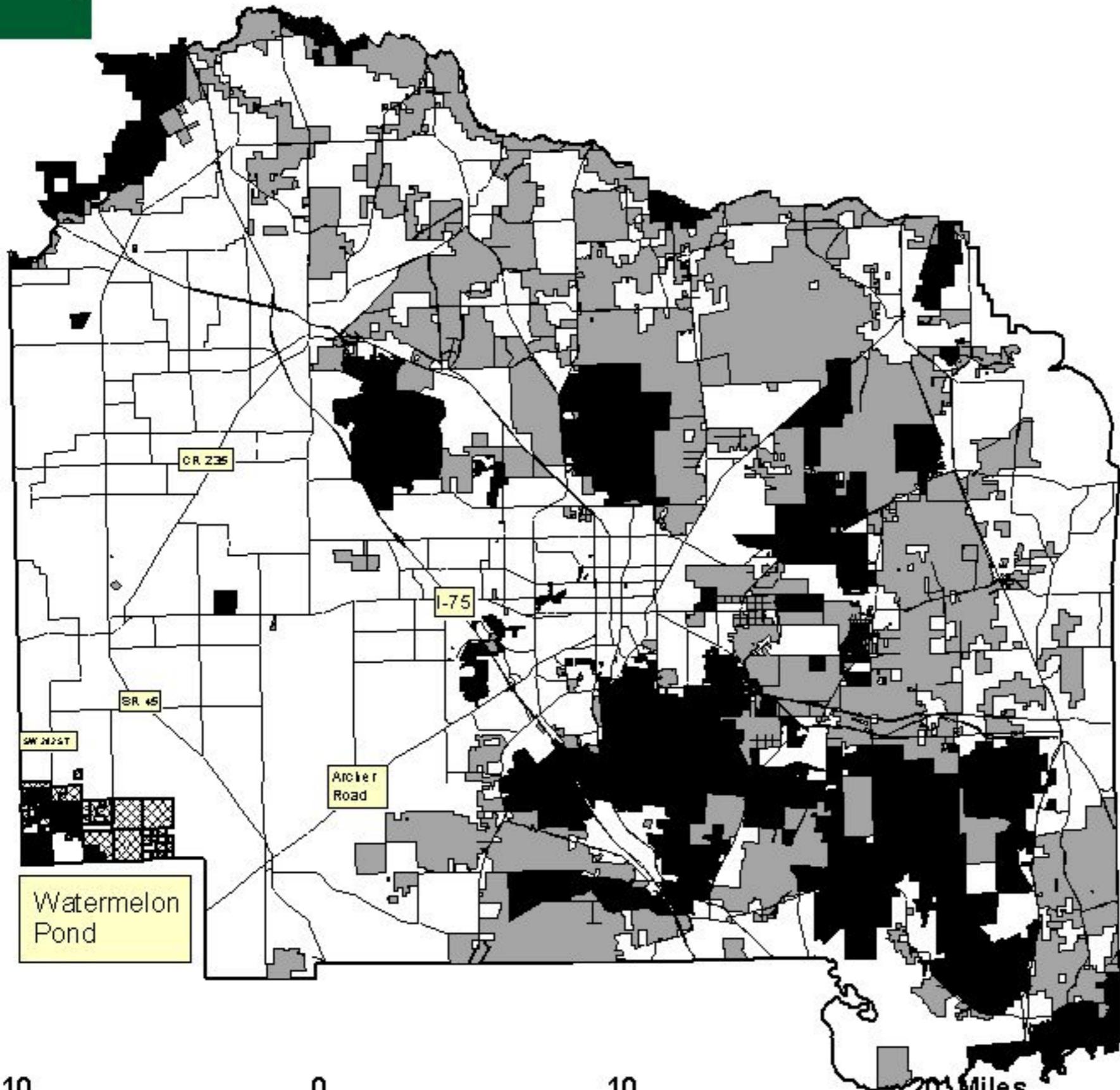
Florida Natural Areas Inventory. December 2001. Florida Forever Conservation Needs Assessment Version 1.1 Supplement to the technical Report June 2001. Tallahassee, Florida.

Watermelon Pond Draft date: January 28, 2003

CATEGORY	Criterion	WEIGHTING	Enter Criteria Value Based on Site Inspection	Average Criteria Score	Average Criteria Score Multiplied by Relative Importance
(I-1) PROTECTION OF WATER RESOURCES	A. Whether the property has geologic/hydrologic conditions that would easily enable contamination of vulnerable aquifers that have value as drinking water sources;		5		
	B. Whether the property serves an important groundwater recharge function;		5		
	C. Whether the property contains or has direct connections to lakes, creeks, rivers, springs, sinkholes, or wetlands for which conservation of the property will protect or improve surface water quality;		4		
	D. Whether the property serves an important flood management function.		3		
(I-2) PROTECTION OF NATURAL COMMUNITIES AND LANDSCAPES	A. Whether the property contains a diversity of natural communities;		3		
	B. Whether the natural communities present on the property are rare;		3		
	C. Whether there is ecological quality in the communities present on the property;		3		
	D. Whether the property is functionally connected to other natural communities;		3		
	E. Whether the property is adjacent to properties that are in public ownership or have other environmental protections such as conservation easements;		4		
	F. Whether the property is large enough to contribute substantially to conservation efforts;		5		
	G. Whether the property contains important, Florida-specific geologic features such as caves or springs;		2		
	H. Whether the property is relatively free from internal fragmentation from roads, power lines, and other features that create barriers and edge effects.		3		
(I-3) PROTECTION OF PLANT AND ANIMAL SPECIES	A. Whether the property serves as documented or potential habitat for rare, threatened, or endangered species or species of special concern;		5		
	B. Whether the property serves as documented or potential habitat for species with large home ranges;		5		
	C. Whether the property contains plants or animals that are endemic or near-endemic to Florida or Alachua County;		5		
	D. Whether the property serves as a special wildlife migration or aggregation site for activities such as breeding, roosting, colonial nesting, or over-wintering;		3		
	E. Whether the property offers high vegetation quality and species diversity;		3		
	F. Whether the property has low incidence of non-native invasive species.		3		
(I-4) SOCIAL AND HUMAN VALUES	A. Whether the property offers opportunities for compatible resource-based recreation, if appropriate;		5		
	B. Whether the property contributes to urban green space, provides a municipal defining greenbelt, provides scenic vistas, or has other value from an urban and regional planning perspective.		5		
	AVERAGE FOR ENVIRONMENTAL AND HUMAN VALUES			3.85	
	RELATIVE IMPORTANCE OF THIS CRITERIA SET IN THE OVERALL SCORE	1.3333			5.13
(II-1) MANAGEMENT ISSUES	A. Whether it will be practical to manage the property to protect its environmental, social and other values (examples include controlled burning, exotics removal, maintaining hydro-period, and so on);		4		
	B. Whether this management can be completed in a cost-effective manner.		5		
(II-2) ECONOMIC AND ACQUISITION ISSUES	A. Whether there is potential for purchasing the property with matching funds from municipal, state, federal, or private contributions;		5		
	B. Whether the overall resource values justifies the potential cost of acquisition;		4		
	C. Whether there is imminent threat of losing the environmental, social or other values of the property through development and/or lack of sufficient legislative protections (this requires analysis of current land use, zoning, owner intent, location and		3		
	D. Whether there is an opportunity to protect the environmental, social or other values of the property through an economically attractive less-than-fee mechanism such as a conservation easement.		0		
	AVERAGE FOR ACQUISITION AND MANAGEMENT VALUES			3.50	
	RELATIVE IMPORTANCE OF THIS CRITERIA SET IN THE OVERALL SCORE	0.6667			2.33
	TOTAL SCORE				7.47



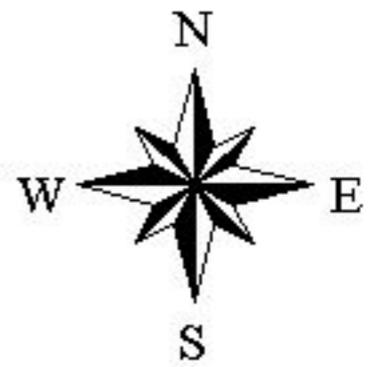
Watermelon Pond - Map 1

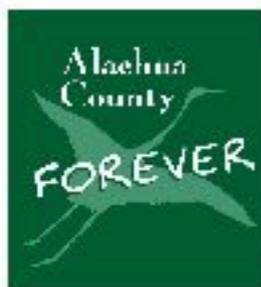


- Watermelon Pond
- Alachua County Forever Projects
- Roads
- Conservation Lands
- Alachua County

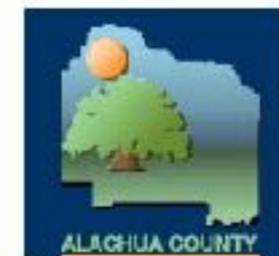
Watermelon Pond

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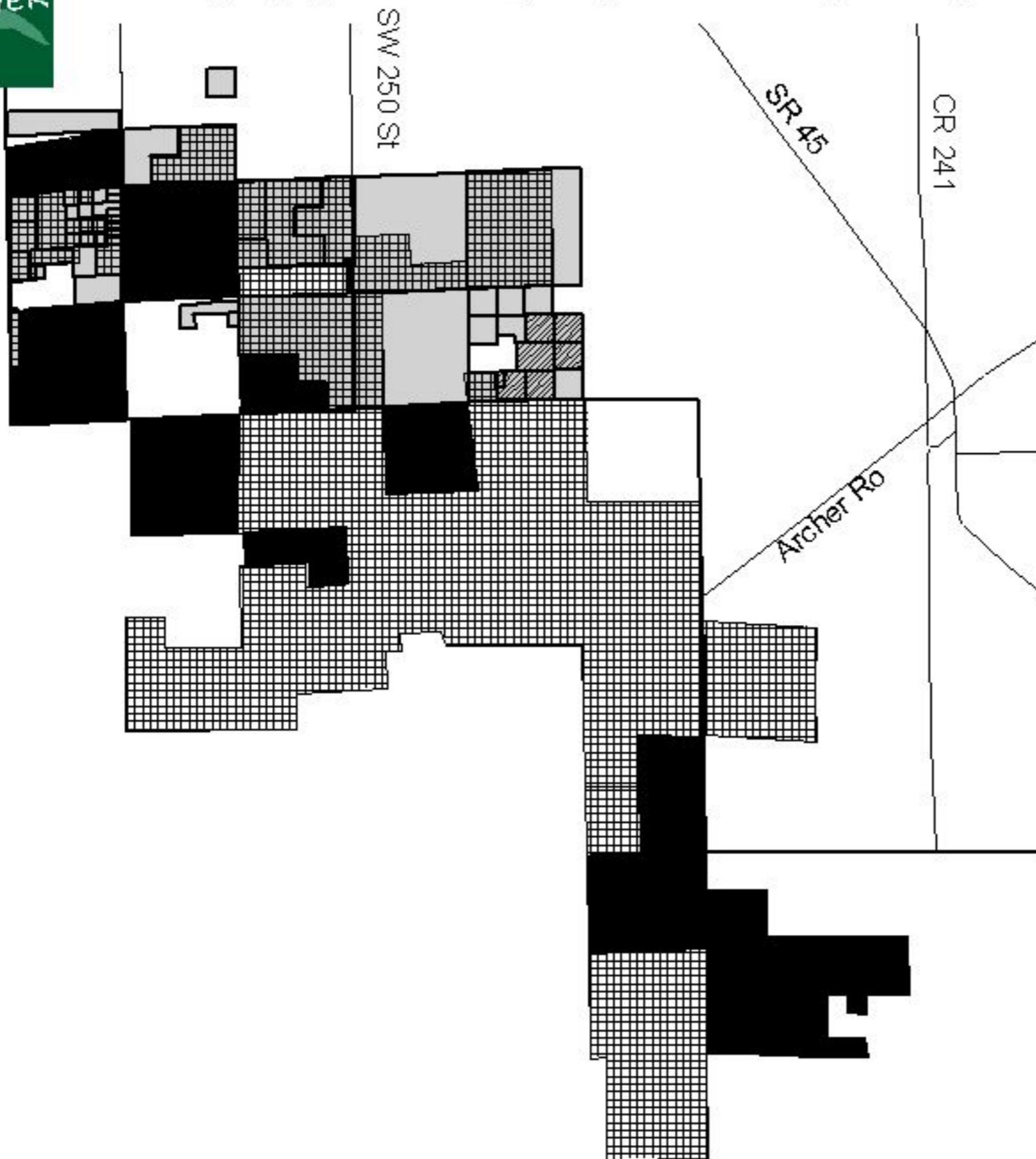
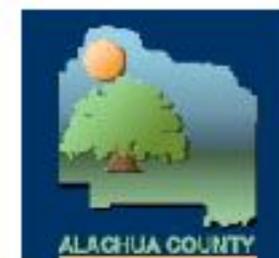


Watermelon Pond - Map 2

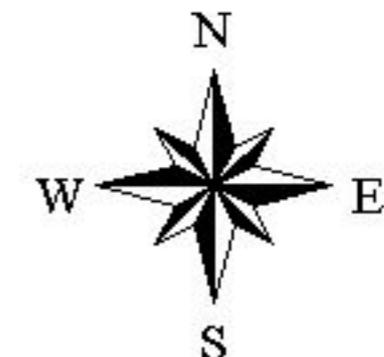




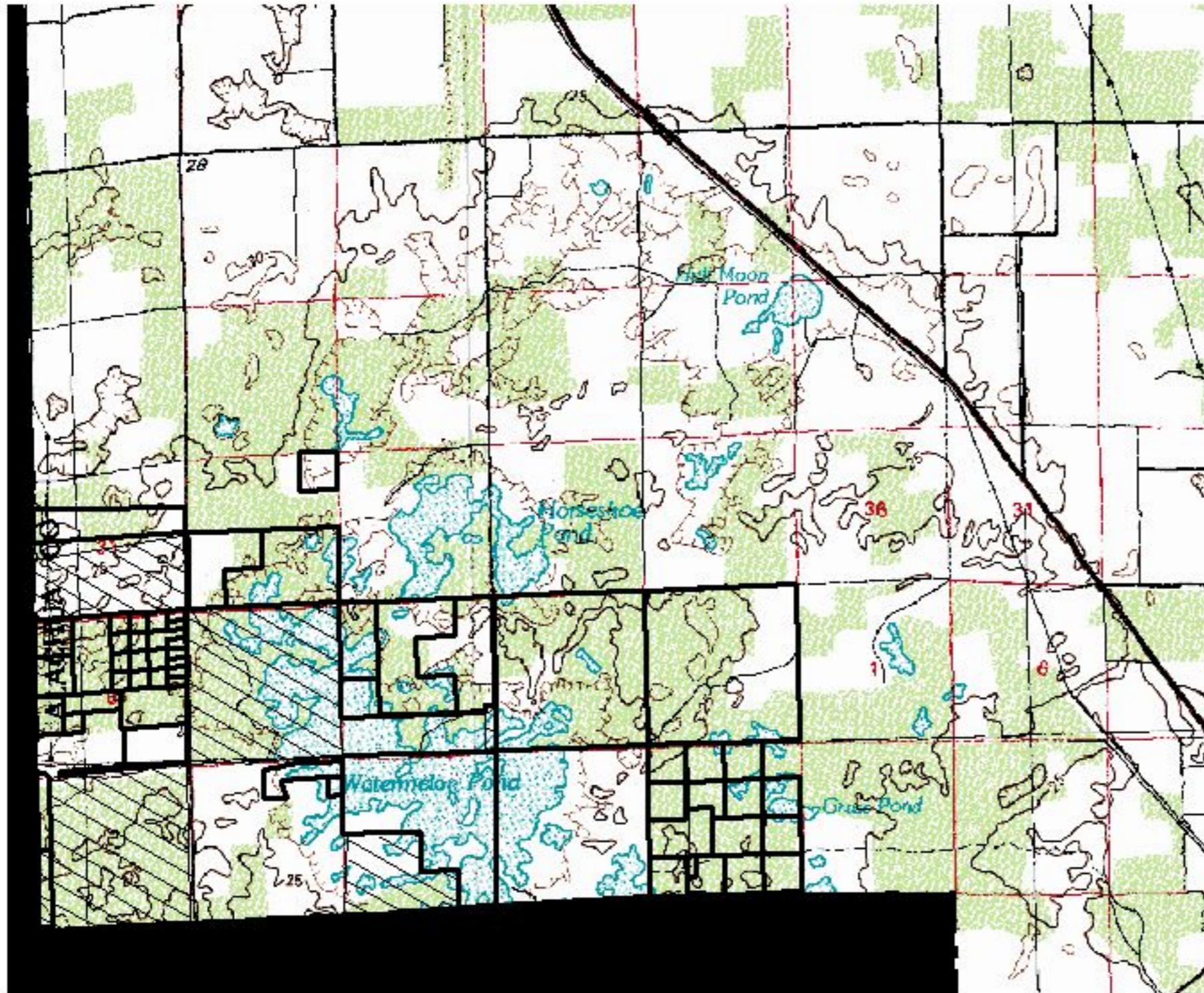
Watermelon Pond - Map 3



- Florida Forever Boundary
- Boundary Modification
- Watermelon Pond
- Conservation Lands
- Roads
- Alachua County

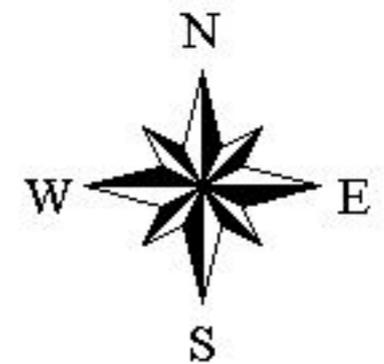


Watermelon Pond - Map 4

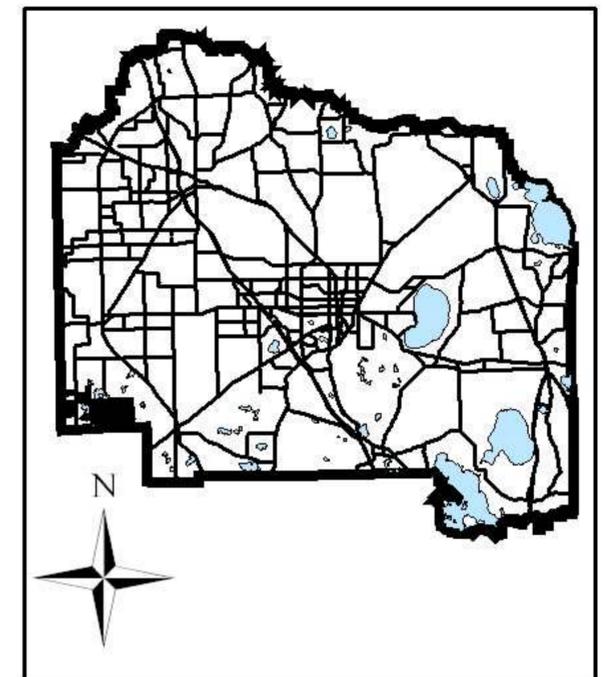
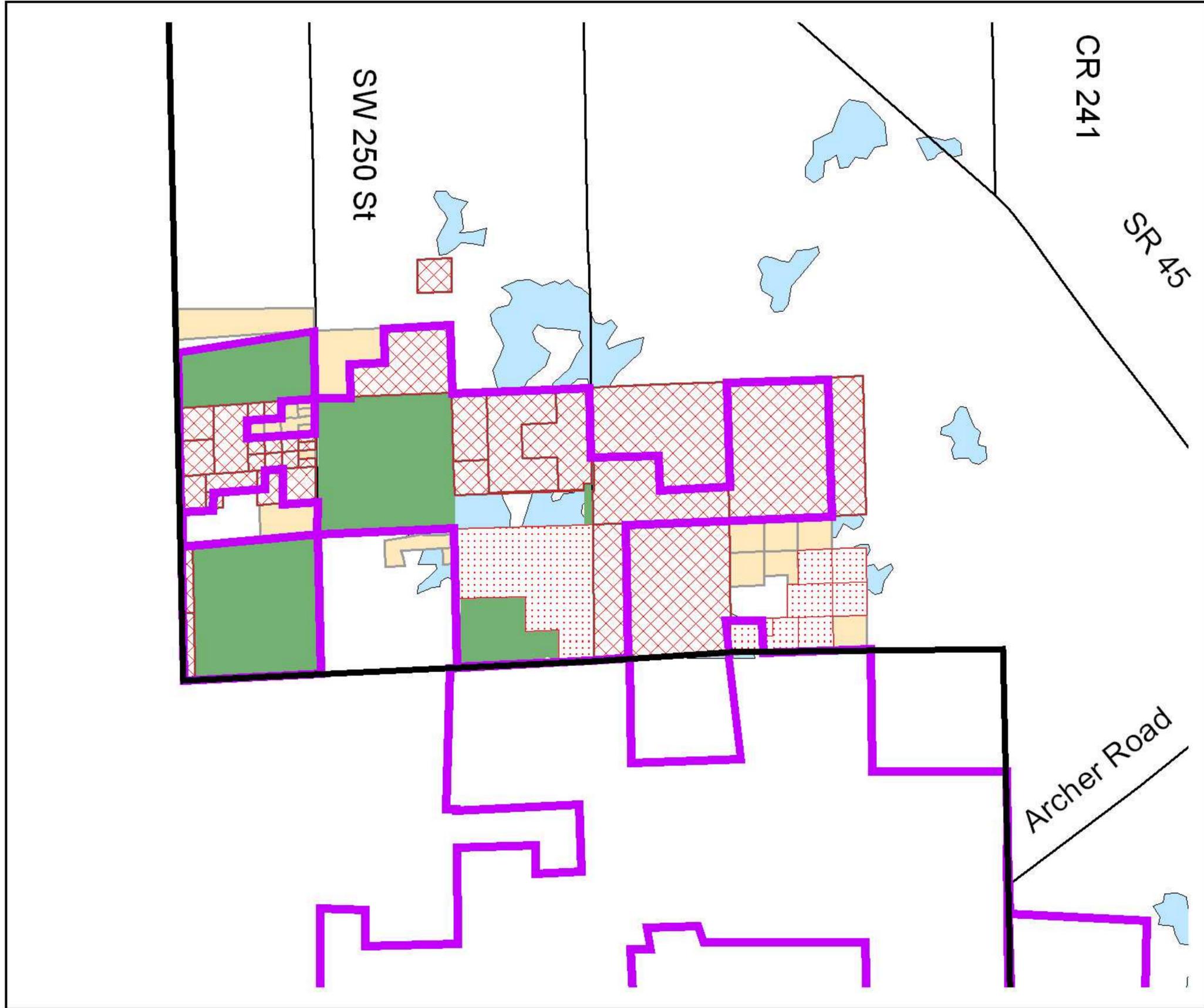


USGS
Topographic
Survey
Quadrangle

-  Watermelon Pond
-  Conservation Lands
-  Alachua County



Watermelon Pond - Keystone Parcels



1:70,685

