

Conservation Area Management Plan for the
Village at Lake Kanapaha
Alachua County, Florida

Prepared for

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January 2007
06-5882-01

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Village at Lake Kanapaha Conservation Area Management Plan

Preface

The following document was developed by Water & Air Research, Inc. for use by the developers of the Village at Lake Kanapaha in Alachua County, Florida. Copy and use of the Management Plan or its portions without authorization are prohibited.

1.0 Introduction

The Village at Lake Kanapaha consists of 29.75 acres abutting Lake Kanapaha (see vicinity map on master plan set cover sheet). Eighty-eight single family detached units are proposed within the site's boundaries at a density of 2.96 units/acre. Proposed land uses and acreages are shown on the master site plan (see master plan set). Primary access to the development is from Archer Road with a secondary access along 47th Street. Stormwater management facilities planned for the site include four retention basins. On-site wetlands are associated with Lake Kanapaha and consist of a narrow band of freshwater marsh along the approximately 600-foot margin of Lake Kanapaha that abuts the property.

The Conservation Management Area (CMA) is located along the western portion of the development in the same area where the site abuts Lake Kanapaha (Figure 1). The 5.1 acre CMA consists of a steep bluff vegetated with a dense hardwood forest. The CMA is situated on the east-central portion of a freshwater marsh and wetland transitional area associated with Lake Kanapaha's westernmost edge. The slope of the bluff is approximately 10% and consists of Millhopper sand.

2.0 Goals and Objectives

- Protect and maintain existing native vegetation.
- Reduce, and where possible, eliminate existing exotic, invasive vegetation.
- Prevent new introductions of invasive exotic plant species.
- Protect resident and transient native wildlife species, especially endangered and threatened species that may use the site.
- Protect endangered and threatened plant species that occur on-site through good site planning and appropriate management.
- Minimize threat of destructive wildfire to the hardwood community in CMA and to residents within the development.
- Protect wetlands and adjacent waters.
- Provide environmental education opportunities for the residents.

3.0 Proposed Uses

Proposed uses within the CMA include nature trails (mulched walking paths or elevated walkways), an observation deck, low intensity passive recreational activities, scientific and educational activities, and construction and maintenance of fencing. The nature trails are for pedestrian use only. No bicycles or motorized vehicles are allowed on the trails. Exceptions include the use of ATVs when necessary to conduct management activities (herbicide application for invasive exotic vegetation, etc.).

4.0 Prohibited Activities

The following is a list of prohibited activities in the CMA:

- Construction or placement of buildings, roads, signs, billboards, or other advertising, utilities, or other structures on or above the ground (except as noted in Section 3.0).
- Dumping or placing of soil or other substance or material as landfill or dumping or placing of trash, waste, or unsightly or offensive materials including yard/landscape waste.
- Removal or destruction of native trees, shrubs, or other vegetation.
- Excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such a manner as to affect the surface.
- Surface use except for purposes that permit the land or water area to remain predominantly in its natural condition.
- Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation.
- Acts or uses detrimental to such retention of land or water areas.
- Acts or uses detrimental to the preservation of the structural integrity or physical appearance of sites or properties of historical, architectural, archaeological, or cultural significance.
- Wastewater and stormwater discharges are generally prohibited unless specific criteria listed in Section 406.101 of the Alachua County Unified Land Development Code are satisfied.

5.0 Management Activities

5.1 Protection During Construction

The edge of the CMA will be delineated prior to any clearing activities in the vicinity using a combination of signs and temporary construction fencing. The signs will indicate that clearing beyond the posted limits is prohibited. The area will be protected from runoff, sedimentation, and erosion from adjacent construction areas by suitable best management practices.

5.2 Field Markers and Signage

Following construction, field fence or other suitable fencing material will be erected to prevent access except from designated access points. Areas where fencing is not required include the wetland boundary of Lake Kanapaha (western edge of CMA) and identified pedestrian trail access points as shown on the master site plan and Figure 2. The fencing and signage will be maintained by the developer or the property owners association.

Signs will be placed every 50 feet along the boundary identifying the area as "Conservation Management Area." Signs will be required along the western boundary, but may be offset from the actual boundary to areas that may provide good visual impact for pedestrians accessing this area. In addition, signs will be posted at the two entrances of the CMA listing prohibited activities. See Figure 2 for approximate locations of required signs. Other educational signs may be erected in the CMA.

5.3 Vegetation Management

Mowing, tree-cutting, and clearing of native vegetation within the CMA are prohibited.

Allowable exceptions include:

- Clearing and tree-cutting necessary to install and maintain perimeter fencing.
- Clearing, mowing, and tree-cutting necessary to create and maintain a clear zone of flammable materials along pedestrian trails to serve as a fire break.
- Clearing, treating, or removal of any exotic, invasive plant species using best management practices. Invasive exotic plant species are those identified by the Florida Exotic Plant Pest Council as Category I or II plants.
- Catastrophic loss of vegetation or tree canopy resulting from climatic conditions (high winds) or disease that results in unacceptably high fuel loads in the CMA.

Monitoring for invasive exotic species is essential in CMA. A regular monitoring and control program for invasive exotic species will be established. A baseline survey will be conducted immediately after the delineation of the CMA. Regular monitoring will be conducted quarterly during the growing season thereafter (Spring, Summer, and Fall). Based on the results of the survey, control/treatment of identified invasive exotic plants will be conducted as soon as practical. Monitoring will consist of pedestrian surveys every 10 yards across the entire CMA with visual estimates of invasive exotic plant cover made for each species along each pedestrian transect. Results from the monitoring will include a list of invasive species found, location, and estimate of cover or infestation of the invasive plant. Based on the results of the survey, control/treatment of identified invasive exotic plants will be conducted as soon as practical. The management goals include reduction of cover of invasive exotic species over baseline conditions and elimination of future introductions. If invasive exotic plant cover exceeds 20% during the baseline monitoring event, then a 50% reduction should be accomplished within one year, and each subsequent year until no more than five percent cover of exotics is attained. Best management practices and recommendations for appropriate treatment of invasive plants will be followed. If herbicide application in or near the wetland boundary is required, an applicator certified to work in wetlands will conduct the work.

A small population of the state endangered Godfrey's privet (*Forestiera godfreyi*) occurs within the CMA. Measures within this Management Plan are generally adequate to protect the species. However, the population should be identified by knowledgeable resource personnel prior to installation of fencing, boardwalks, etc., within the CMA to minimize potential adverse impacts to the population. If herbicide treatment for invasive exotic plants is required in the vicinity of the population, extra care should be taken to avoid any overspray or adverse impact to the plants.

Use of invasive exotic species in the landscaping of the common areas in the development or on individual lots is prohibited. A deed restriction will reflect this provision.

5.4 Wildlife Protection

Wildlife protection in suburban areas involves conservation of existing natural resources, exclusion of human disturbance during critical times, and protection of wildlife from predation by domestic pets. Some wild animals that cause problems in suburban areas include feral animals, exotic animals, and nuisance wildlife. Feral animals are those domestic animals that are allowed to run wild, obtain their own food, and breed without restriction. Feral animals found typically in suburban settings include dogs and cats. Domestic cats in particular are fearsome predators of wildlife including birds and

nestlings, small mammals, and small reptiles. Exotic animals that become naturalized in an area can endanger resident, native wildlife by direct predation or competition for food, nesting, or breeding habitat. Some exotic animals are so common that their control is impractical (such as Cuban anole, European starling) while others are relatively rare (boa constrictor, ferret) and such introductions can be prevented. Nuisance animals are native wildlife that either become habituated to humans or frequent areas used by humans (in turn stealing food or spreading garbage from garbage containers).

The following are measures enacted to protect resident and transient wildlife:

- Free-roaming domestic pets are prohibited and such provision will be incorporated as a restrictive covenant.
- Free-roaming pets and feral animals will be managed. Alachua County Animal Control will be called to capture free-roaming pets and feral animals.
- Feeding of wildlife within the CMA is prohibited.
- Trails will be closed during the nesting season and other critical times if nesting of wading birds or other protected birds are identified within the Conservation/Natural Area or along the adjacent shore of Lake Kanapaha. Other restrictions consistent with Florida Fish and Wildlife Conservation Commission's recommendations may be enacted as required by circumstances.
- Collection of dead limbs and firewood or cutting of dead trees within the CMA is prohibited.
- Release of exotic or native wildlife in the CMA is prohibited except by permit from the Florida Fish and Wildlife Conservation Commission.
- Wildlife resistant garbage cans will be placed only near the entrance to the CMA and will be maintained regularly.
- Pets in the CMA must be leashed at all times.

Some wildlife species are rare to an area because of loss of habitat or rarity of habitat; low natural reproduction; or human disturbance. Some of these wildlife species are given special protected status by the State of Florida or federal government to help ensure their long term survival. Protected species are classified as endangered, threatened, or species of special concern based on their relative rarity. Some wildlife with this special "protected" status that may use the CMA, especially along Lake Kanapaha, include wading birds or birds of prey such as woodstork, little blue heron, white ibis, and bald eagle among others. These species will be protected from human disturbance and violators found harassing or disturbing wildlife will be reported to the Florida Fish and Wildlife Conservation Commission (1-800-404-3922) or to the Alachua County Sheriff's Department. During certain times of the year, nesting of protected birds may require closure of pedestrian trails to protect wildlife during this vulnerable period. If such sensitive activities are known, restriction of public access is necessary. Other restrictions consistent with the Florida Fish and Wildlife Conservation Commission may be enacted as required by circumstances.

The Florida Fish and Wildlife Conservation Commission's "Wildlife Viewing Information" is provided for reference in Appendix A.

5.5 Wildfire Mitigation

Fire occurring at the wrong time, place, and intensity is a wildfire. The use of prescribed fire to reduce fuel (heavy accumulations of underbrush and groundcover) under certain

selected conditions can significantly reduce the risk of wildfire. In the Lake Kanapaha development, those areas adjacent to the CMA are more at risk to potential wildfire. The CMA on the development is not a vegetation community normally maintained by prescribed fire. As such, the hardwood hammock vegetation community has many characteristics that minimize the likelihood of wildfire; however, extreme conditions could result in some wildfire threat. To minimize the threat of wildfire moving into the development from the Lake Kanapaha marsh community during dry/drought conditions, fire fuel breaks will be established along the toe of the slope in the CMA. These fire fuel breaks will double as portions of a pedestrian trail. The fire break/ trail will be constructed so that it is 10-foot wide and is delineated by either bare ground or non-combustible mulch. Flammable materials will regularly be removed from the trails to maintain the integrity of the fire break at least three times per year or monthly during extreme drought periods.

Homeowners adjacent to the CMA can also choose fire resistant building materials and landscaping to minimize the risks associated with wildfire. The Department of Forestry produces information on firewise practices (see references below).

5.6 Archaeological Resources

Historical and archaeological resources are common in Alachua County. All archaeological resources on the Village at Lake Kanapaha site, including the CMA, are protected. Digging, looting of artifacts, and soil disturbance within the CMA are prohibited. Persons observed looting or vandalizing archaeological resources in the development will be reported to the Alachua County Sheriff's Department.

Allowable exceptions to land surface disturbance prohibitions in the CMA include:

- Fence, fencepost, and signage installation.
- Installation of boardwalks or other trail improvements.
- Hand digging necessary to remove exotic/invasive plants.

If in the conduct of the above-mentioned authorized activities, artifacts are uncovered, work will cease and the site evaluated by a cultural resource specialist.

Protection of archaeological resources within the steep bluff area is dependent upon stabilization of the bluff and soils. The bluff area will be inspected for evidence of erosion or other soil disturbing activities three times each year. If erosion is evident, necessary best management practices will be implemented to stabilize the problem area.

5.7 Five-Year Monitoring and Maintenance Plan Schedule Performance Standards and Costs

Table 1 outlines tasks required by this Management Plan; Table 2 is an estimate of associated costs.

6.0 Management Plan Revisions and Contingency Plans

Revisions to this Management Plan require approval by the County. If the developer or the property owners association fails to meet the conditions of this Plan, the County can arrange for the conduct of necessary management activities at the expense of the

developer or property owners association. As part of the Development Agreement between the developer and the County, the developer will agree to maintain the CMA and its associated land management responsibilities as outlined in this plan. In addition, the developer and the County will outline penalties for non-performance. The developer will prepare duly recorded Covenants and Restrictions requiring homeowners to comply with this plan and payment of associated land management costs. Once the developer turns over the responsibility of the CMA to the property owners association, compliance with the plan becomes the responsibility of the property owners association. The County can enforce non-compliance by the property owners association through the assessment of liens on individual properties.

7.0 Permanent Protection, Ownership, and Conservation Plan Implementation Responsibility

The CMA will be placed in a conservation easement to protect the resources in perpetuity. It is the responsibility of the developer to meet the conditions outlined in this development plan until the property owners assume responsibility for the CMA as well as other common features within the development.

8.0 References

Florida Department of Community Affairs and Florida Department of Agriculture and Consumer Services. 2004. Wildfire Mitigation in Florida: Land Use Planning Strategies and Best Development Practices. Division of Community Planning, Florida Department of Community Affairs, Tallahassee, Florida.

Florida Department of State, Division of Historic Resources. 2000. Best Management Practices: An Owners Guide to Protecting Archeological Sites, Bureau of Archeological Research, Tallahassee, Florida.

Florida Wildlife Conservation Commission. 2006. Wildlife Viewing Information myfwc.com/viewing/info/printinfo

www.fleppc.org (Florida Exotic Plant Pest Council).

www.firewise.org.

www.fl-dof.com (Florida Department of Forestry)

Figures

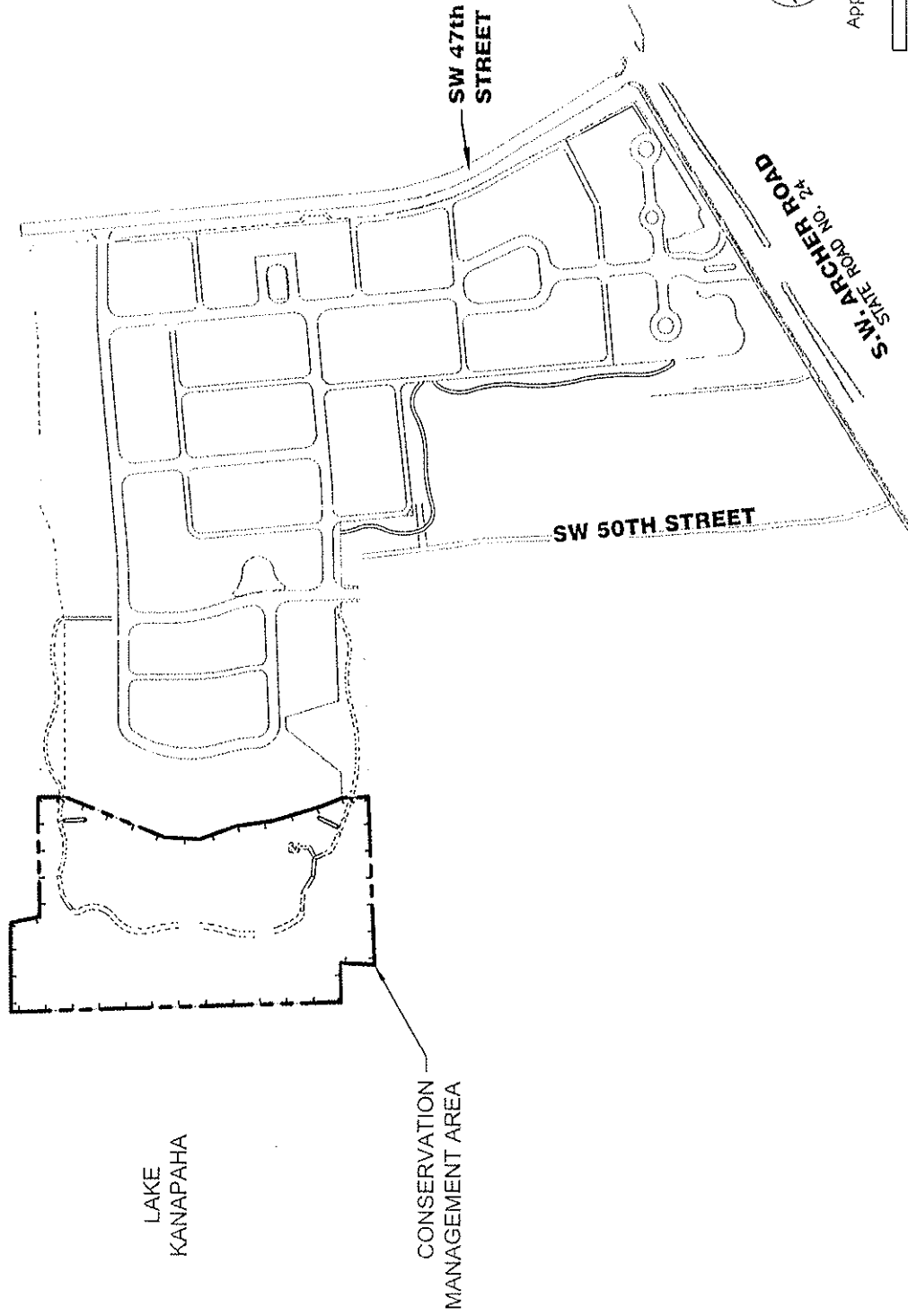


FIGURE 1.
LOCATION OF CONSERVATION MANAGEMENT AREA
WITHIN VILLAGE AT LAKE KANAPAHA
ALACHUA COUNTY, FLORIDA

Source: Zomic Design, 2006; Water & Air Research, Inc., 2006.

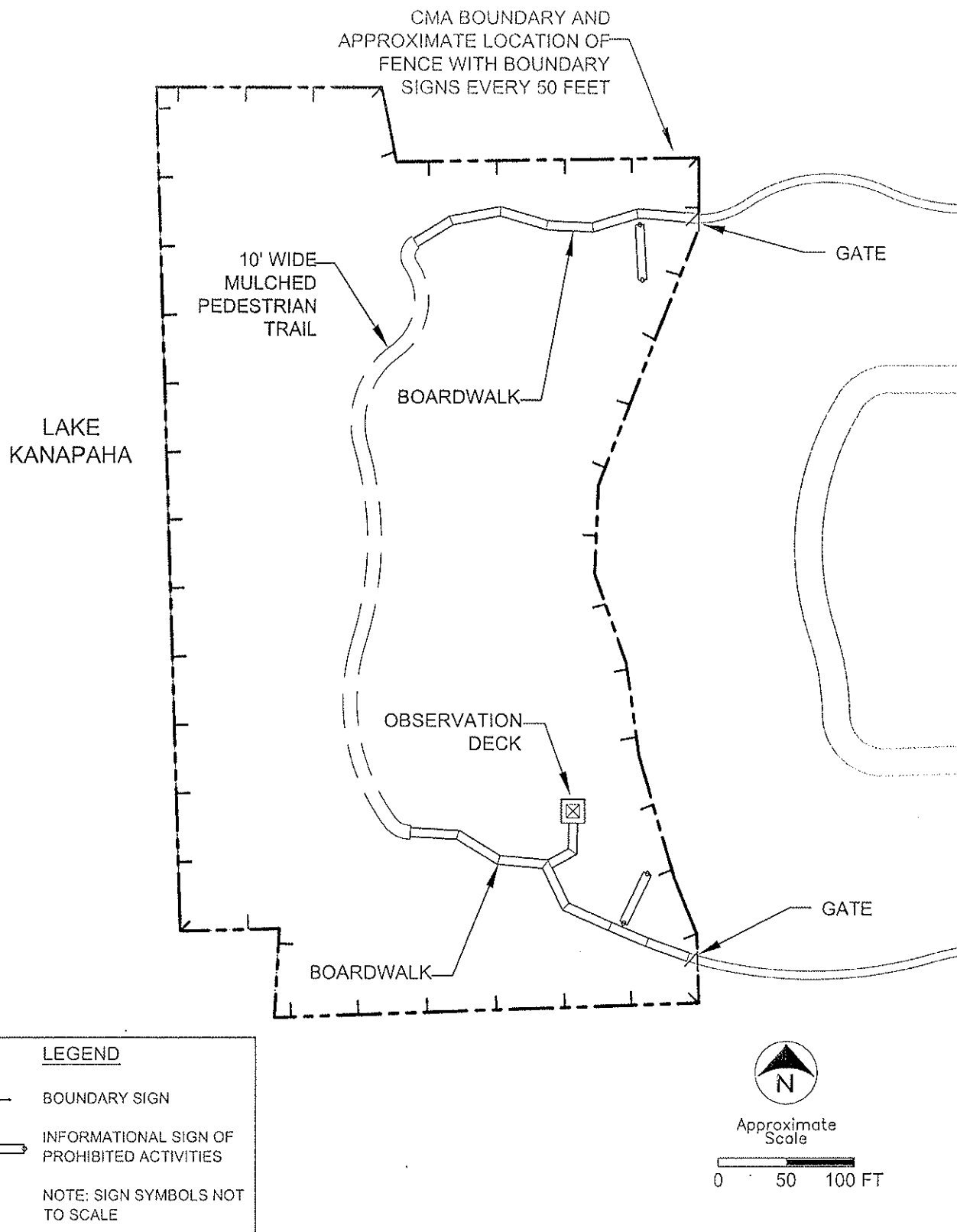


FIGURE 2.
VILLAGE AT LAKE KANAPAHA CONSERVATION MANAGEMENT AREA FEATURES
ALACHUA COUNTY, FLORIDA

Source: Zornia Design, 2006; Water & Air Research, Inc., 2006.



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Tables

Activity	Kanapaha Conservation Management Area											
	Pre Dev.		During Dev. Yr. 1		Yr. 2		Yr. 3		Yr. 4		Yr. 5	
		X	Sprg	Fall	Sprg	Fall	Sprg	Fall	Sprg	Fall	Sprg	Fall
Baseline Invasive Exotic Plant Species Survey												
Field Siting of Improvements	X											
Quarterly Invasive Exotic Plant Species Survey/Erosion Inspection			X	X	X	X	X	X	X	X	X	X
Quarterly Invasive Exotic Plant Species Treatment, if required			X	X	X	X	X	X	X	X	X	X
Quarterly Clearing of Fire Break			X	X	X	X	X	X	X	X	X	X
Monthly Clearing of Fire Break, if needed			X	X	X	X	X	X	X	X	X	X
Inspection for Nesting Colonial Birds			X									

Table 2: Estimated Annual Land Management Costs Associated with the Village at Lake Kanapaha Conservation Management Area						
Land Management Task	Year 1	Year 2	Year 3	Year 4	Year 5	
	hours					
Baseline Invasive Exotic Plant Species Survey	4					
Field Siting of Improvements	4					
Quarterly Invasive Exotic Plant Species Survey/Erosion Inspection X 3	8	8	8	8	8	
Quarterly Invasive Exotic Plant Species Treatment, if required (estimate)	40	16	16	8	8	
Quarterly Clearing of Fire Break X 3	6	6	6	6	6	
Monthly Clearing of Fire Break, if needed (X 3)	6	6	6	6	6	
Inspection for Nesting Colonial Birds	1	1	1	1	1	
Annual Letter Report to County	4	4	4	4	4	
Total Estimated Labor Hours	73	41	41	33	33	
Labor Costs (@\$55/hr)	\$4,015	\$2,255	\$2,255	\$1,815	\$1,815	
Other Costs (transportation, equipment rental, chemicals)	\$750	\$350	\$350	\$250	\$250	
Total Estimated Costs	\$4,765	\$2,605	\$2,605	\$2,065	\$2,065	

Appendix A



Florida Fish and Wildlife Conservation Commission

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Wildlife Viewing Information

(Index)

Before You Go

Do you already have a target list of animals you hope to see? Is there a particular habitat that interests you? Maybe you enjoy coastal areas and the chance to see shorebirds or dolphins, or fresh water marshes with their alligators and wading birds.

The key to successful wildlife viewing is to look in the right places. Every animal has basic needs that include food, water and cover and every habitat meets these needs in different ways. Some animals are quite picky in their selection of a home area. Gopher tortoises prefer dry, sandy areas; limpkins live primarily along river swamps and freshwater marshes. Use the [Species Spotlight](#) to help you locate the sites where you'll have a good chance of finding your target species. If you know what part of the state you'll be visiting, pick out viewing locations on the map and go to the site description to see what animals are found there.

In addition to habitat preferences, animals also have seasons when they are most viewable. Scarlet tanagers only pass through Florida during spring and fall migration, but summer tanagers nest here in the summer. Robins and common loons spend the winter months in Florida, while blue jays and cardinals live here year-round. Many state and national parks provide checklists that list species commonly seen during particular seasons. Time of day also influences animal movements. Though dawn and dusk are active times for many animals, owls, flying squirrels and bats are most active at night.

You may only see a few animals on a single visit to a site, but repeated visits to the same site during different seasons will increase your chances of viewing the resident and migratory species associated with it.

Bird Disturbance: It's a Matter of Survival

We appreciate the beautiful sight of hundreds of birds taking wing as we walk a beach or cruise by an island in our boat or personal watercraft. But repeated disturbances inadvertently threaten the survival of our feathered friends.

Here's why:

The Sandpipers

During the spring and fall migrations, millions of shorebirds make their way to Florida. A number of these birds stop at points along our coastline and remain throughout the winter. Many more simply stop over for some food and a brief rest before continuing their travels. These birds may have flown hundreds of miles before reaching Florida. Exhausted and hungry, they land on our shores pushed to the very limit of their physical abilities. The simple act of flushing them off their feeding and resting grounds burns up their reserves of energy. Weakened and vulnerable shorebirds with a reduced ability to

feed may not complete their journey.

Herons, Egrets, and their Kin

Of the 14 kinds of water birds (like herons, egrets and pelicans) in Florida, only 4 are flourishing. Most of these "colonial" birds nest in large, multi-species groups. When wading birds are frightened off their nests, they may knock their eggs or young out of the nest or leave them exposed to temperature extremes and predators. If disturbed frequently, adults will abandon their nests altogether and often times the entire nesting colony may fail.

Beach-nesting Birds

Many species of Florida's water birds nest right on the beach. The eggs and young are exposed and vulnerable. This group of ground-nesting birds includes gulls, terns, black skimmers, plovers, willets and oystercatchers. They have adapted to the rugged coastal environment of temperature extremes, hurricanes, high winds and coastal flooding. Barrier islands and sandbars are favored nesting sites because they afford protection from land predators; human disturbance and domestic animals are another matter.

Many places that once were isolated are now teeming with boat and beach enthusiasts (and their pets). When birds are flushed off their nests, eggs and young are exposed to the intense sun, cold of night, aerial predators like crows and gulls, or marauding dogs. On a hot summer afternoon, temperatures at ground level can rise to well over 100 degrees, and unprotected eggs of beach-nesting birds are virtually invisible on the ground and young chicks freeze in fear in a prone position when danger approaches; it's easy for unknowing pedestrians to crush the eggs or kill young birds accidentally.

How You Can Help

When enjoying the water, remember that while you are there to recreate, other creatures' survival may depend on your behavior. Due to the high speed, maneuverability, sound, and ability to navigate in shallow waters, jet skis have an especially disrupting effect on many species of wildlife. Please follow these simple rules to minimize impacts on wildlife:

1. When you see a concentration of birds, either on the shore or in the trees, **PLEASE, keep your distance**. A good "rule of thumb" is to stay at least 500 feet away. Minimizing disturbance to concentrations of birds is the key to conserving them.
2. **PLEASE do not intentionally force birds to fly**. If you see birds on a beach, island, or sandbar, walk or steer around them. Again, avoiding disturbance to them is the best approach.
3. **PLEASE avoid running your boat or jet ski close to shore**, except to idle to or from a destination point. Because habitat destruction has resulted in an ever-decreasing amount of shoreline available to wildlife, almost all mangrove islands, beaches, mud flats, and other shallow water and shoreline habitats are important to feeding, resting and nesting birds.
4. Birds like herons, egrets and pelicans generally nest in the same places from year to year. Be on the lookout for large concentrations of birds (especially large white birds) in trees growing in the water or on islands, especially during the spring or summer months. Get to know where nesting colonies are located in your area. **PLEASE avoid these colonies of birds during the nesting season**.

5. **PLEASE keep pets leashed** when visiting the shore and never approach a bird colony accompanied by your dog. One loose dog can destroy a colony of ground-nesting birds in a matter of minutes.

6. **PLEASE spread the word.** If you see others disturbing wildlife, politely let them know about the effects of their actions. Many people do not realize that their actions may be harmful to wildlife. If you see someone intentionally and maliciously disturbing a bird colony, contact the Florida Fish and Wildlife Conservation Commission at 1-888-404-FWCC (3922)

7. **PLEASE support posting efforts.** Some places are posted with sign warning that the area supports a bird colony and advising people to avoid that area during the nesting season. Honor these closed areas and encourage others to do the same.

Learn to Detect Animal Sign

Many wild animals especially mammals are difficult to see in the field. Often they are active at night or at dawn and dusk and avoid humans. They do leave evidence of their presence and clues to their behavior behind in tracks, scat (feces), scrapes, scratches and other sign. Several excellent guides are available on reading animal sign including James Halfpenny and Elizabeth Biesiot, *A Field Guide to Animal Tracking in North America*; Olaus J. Murie, *A Field Guide to Animal Tracks*; Paul Rezendes, *Tracking and the Art of Seeing*.

What to Take

Close up views of wildlife are especially rewarding and binoculars and telephoto lenses allow good viewing with minimal disturbance to the animal. The most important feature of a decent pair of binoculars is its ability to magnify and 'gather' light. All binoculars are described by a pair of numbers, such as "7 x 35" or "8 x 40," etc. The first number refers to magnification. A "7 x 35" pair of glasses will make objects appear as if they are seven times as close as they actually are. Pick binoculars that are at least seven power. Binoculars with very high power (over nine-power) are sometimes difficult to hold steady. The second number describes the diameter of the large lens that faces the animal. A larger number indicates that more light can enter the lens, giving you a brighter image in dim light.

Field guides are an essential part of wildlife identification. Field guides can be very general, such as "Birds of North America" or "A Field Guide to the Birds East of the Rockies" or they may focus just on a particular type of bird, such as "Seabirds" or focus on a particular state or region. In addition to field guides on birds, you'll find guides to butterflies, reptiles and amphibians, fishes, shells, and even animal tracks. Coupled with a list of species commonly observed (often available for the asking at many parks and refuges), a good field guide will help you narrow the list of species you may encounter at a site and also provide you with more in-depth life history information.

You may want to keep a flashlight handy for viewing the eyeshine of animals at night. Eyeshine is light that is reflected off of a mirror-like layer in the back of the animal's eye. If you go out at night, hold a flashlight to your forehead and look down the beam of light. You may see the bright yellow eyeshine of a raccoon or the greenish reflection from a frog.

Visitors to the outdoors should always consider their need for year-round protection

from the Florida sun and mosquitoes, flies, ticks and chiggers. Summer heat and humidity are especially taxing on the uninitiated. Always carry along a hat, water, insect repellent and polarized sunglasses. The latter will reduce the glare from water surfaces and enhance the viewing of manatees, fish and other aquatic animals. Preparation is especially important for visits to sites that lack restrooms, water fountains and other basic visitor amenities.

When You Arrive

Since wild animals generally flee when people approach a viewing area, here are a few ways you can encourage them to move in closer. If an on-site blind is available, climb in and wait for wildlife to settle back down – with time, they'll resume their normal activities around you. Your car and surrounding trees and vegetation can also function as a blind. Or you can sit quietly next to a tree trunk and wait patiently. When possible, move about on your own, rather than with a group. Refrain from moving in so close that you inadvertently disrupt feeding, resting and nesting routines. Always maintain a safe distance from dangerous wildlife.

To attract birds, try making a repetitive "psssh" sound, which imitates scolding birds and squirrels. A variety of small birds will usually move in close to investigate the source of the disturbance. Since prolonged calling can distract a bird from feeding or caring for its young, use this method for short periods only.

Florida has thousands of lakes and miles of rivers and coastal shorelines to explore. A canoe or kayak is a perfect way to view wildlife in these watery habitats, since animals are more afraid of a human on foot than they are of a boat. Quiet travelers may see alligators sunning themselves on banks or other species such as wading birds, ducks, otters, manatees or dolphins. You'll startle fewer animals if you crouch low in the boat and drift with the current. Bring your own boat or rent one at the many concessions located throughout the state.

You can identify many animals just by listening to their distinctive voices. Owls are active at night and are stealthy fliers. You're much more likely to hear their hooting calls than to catch a glimpse of them. The same is true for many other bird species, and for frogs and insects as well. You can learn the calls of birds and Florida frogs from tapes and CDs available in some bookstores and libraries.

For other elusive animals, it can be fun to be an amateur sleuth and learn how to interpret the clues the animals leave behind. Around wetlands and rivers, you may notice a tree limb that has been chewed to a point by a beaver or an embankment with a well-worn trail leading down to the water – evidence that otters frequent the area. In sand or mud, look for tracks or crawl marks. Check for tufts of hair snagged on branches or briars. Even the shape and content of droppings can help identify an animal. Use all of your senses and you'll have a pretty good idea of which animals inhabit a particular area, what they eat and their movement patterns.

Ethics

It's rewarding to have close up views of animals, but it's easy for even the most responsible wildlife watchers to inadvertently put themselves, or the animals they seek, at risk. Keep the following tips in mind as you venture out into Florida's natural areas:

Every animal differs in how close it will allow you to approach before it pauses in its feeding, nesting or resting activities, or flees altogether. Such disturbances can be

disastrous for animals, especially the cumulative effect of frequent disruptions, a common occurrence at beaches, waterways and other busy wildlife viewing sites. When disturbed, an animal uses up valuable energy reserves that are no longer available for other uses, such as migrating, tending to young, mating or escaping predators. A fleeing parent may abandon a nest and risk exposing eggs or young to temperature extremes or predators.

How can you tell if you're too close? Look for the obvious: Has the animal stopped feeding? Is it looking at you? Does it appear aggressive or skittish? Did the animal begin to move away or fly into the air? Is it dive-bombing you or circling overhead? Do you see distraction displays such as a bird exhibiting a "broken wing?" These behaviors are all progressive signs of disturbance.

If you see any of these signs, move away immediately. When possible, use binoculars or zoom lenses to extend your view. If an adult animal allows you to approach, something's wrong. It may be sick, injured or aggressive. If you're suspicious, contact the local site manager.

Corals are extremely fragile colonies of soft-bodied animals. It is illegal to collect them and they are damaged by touch. Boats should use mooring buoys rather than anchors.

Respect private property boundaries, even if the animal you are following does not. Obey posted signs near nesting areas and stay on roads, trails and paths to minimize habitat disturbance.

Resist the temptation to feed wild animals. Fed animals may abandon their natural, healthy diet, become dependent on human food and lose their fear of humans. Such animals can become aggressive or dangerous or may risk crossing busy roads to venture close to human habitations. Report people who attract wild dolphins or sharks by feeding them. As of Jan 1, 2002, they're breaking the law. You can call our Wildlife Alert toll free number 1-888-404-FWCC

Young animals are rarely abandoned by their parents, so if you find one that looks helpless, there's a good chance that the parents are nearby, waiting until you leave before they return. The longer you stay, the longer the youngster must go without food and the greater the risk that it will be spotted by a predator.

Finally, your trip will be more successful if you keep your pets at home. They may frighten or harm the wildlife you are seeking and many sites prohibit them altogether. It is against Florida law for you or your pets to chase, harass or harm wildlife.

More Help

Join a tour. Many wildlife-viewing sites offer field trips or education programs that acquaint visitors with the animals and habitats located there. To observe sea turtles, for example, join a permitted public turtle walk during the nesting season (May - August). Organizations such as Audubon offer birding trips around the state. Check with the local chapters for schedule information or inquire about privately run tours offered by other groups.

Ask a professional. Most sites employ a biologist or manager who can direct you to productive viewing locations and can tell you what animals you're likely to see. Pick up animal checklists when possible and read recent entries in the site logbook if available. If you see something interesting, don't forget to record your sightings before you leave.

Check out the resources at libraries, bookstores, nature centers and on the Web. There are many excellent field guides, tapes and CDs available to help you fine-tune your identification skills. If you have access to a computer, you may want to visit an area's Web site before you travel and study its checklists and other descriptive materials.

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