



**Persimmon Ridge Preserve
18881 Persimmon Ridge Road
Alva, Florida 33920**



**Land Stewardship Plan
2013-2023**

SECOND DRAFT



Prepared by Land Stewardship Staff

Lee County Department of Parks and Recreation

Approved by the Lee County Board of County Commissioners on: (date)

Acknowledgements

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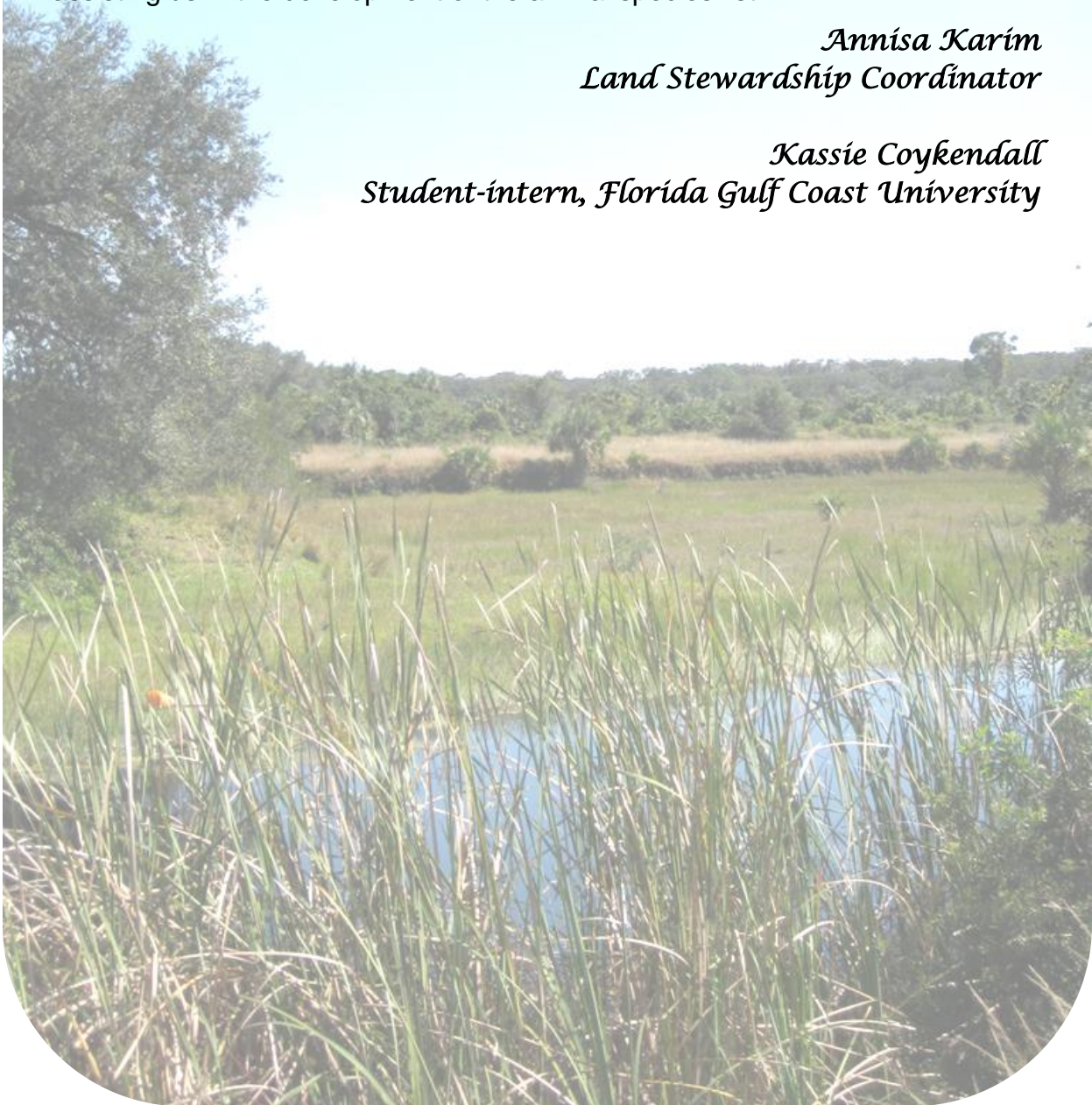


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List of Acronyms

| | |
|------------|---|
| C20/20 | Lee County Conservation 20/20 Lands Program |
| CISMA | Cooperative Invasive Management Area |
| FDACS | Florida Department of Agriculture and Consumer Services |
| FDEP | Florida Department of Environmental Protection |
| FFS | Florida Forest Service (formerly Division of Forestry) |
| FLEEPC | Florida Exotic Pest Plant Council |
| FNAI | Florida Natural Areas Inventory |
| FS | Florida Statutes |
| FWC | Florida Fish and Wildlife Conservation Commission |
| IRC | Institute for Regional Conservation |
| LCDCD | Lee County Department of Community Development |
| LCDNR | Lee County Division of Natural Resources |
| LCPR | Lee County Department of Parks and Recreation |
| LSOM | Land Stewardship Operations Manual |
| NRCS | Natural Resources Conservation Service |
| NWI | National Wetlands Inventory |
| PRP | Persimmon Ridge Preserve |
| SFWMD | South Florida Water Management District |
| USACOE | United States Army Corps of Engineers |
| USDA | United States Department of Agriculture |
| USFWS | United States Fish and Wildlife Service |

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SECOND DRAFT

Vision Statement

It is the vision of the Lee County Department of Parks and Recreation, including its Land Stewardship staff, to restore and maintain the natural function of Persimmon Ridge Preserve. Stewardship activities aim to restore disturbed portions of the Preserve to stable and productive systems that contribute to the biological diversity of the entire site. The artificial ponds will be maintained to provide aquatic-system “islands” within this terrestrial Preserve.

Persimmon Ridge Preserve will be managed to the standards of the Land Stewardship section (as defined in the Land Stewardship Operations Manual) of the Lee County Department of Parks and Recreation as staffing and budgetary needs are met.



I. EXECUTIVE SUMMARY

The purpose of this land stewardship plan is to provide all the information needed to appropriately restore and maintain the natural resources of Persimmon Ridge Preserve taking staffing and budgetary resources (and limitations) into consideration. This is the first land stewardship plan written for the Preserve. Once approved by the Lee County Board of County Commissioners, this document will serve as a management guideline for the Preserve for the next ten years (2013 – 2023).

Persimmon Ridge Preserve (PRP) is a 40-acre parcel in Alva, Florida directly northwest of Daniels Preserve at Spanish Creek (a Conservation 20/20 Program Preserve). The PRP is located in northeastern Lee County within Section 15, Township 43 South, and Range 27 East.

Historically, short-term mining activities occurred on the property resulting in a highly disturbed parcel containing borrow ponds (excavated pits) and fill (spoil) being discarded in various areas throughout the property. The four plant communities found on PRP today include xeric hammock, improved pasture, wet prairie and artificial pond. Only two of these communities are considered “natural” by the Florida Natural Areas Inventory. Soils data indicate that three of the four mapped soils found within the Preserve are non-hydric and make-up approximately 98.5% of the site. If deemed appropriate, portions of PRP may be used as water storage areas, depending first on the land stewardship goals and then on those of the Lee County Division of Natural Resources.

The overarching stewardship goals for this Preserve are natural resource protection and restoration. These goals may be achieved through exotic plant control, protecting and restoring water resources, prescribed fire applied in appropriate intervals, wildlife monitoring, roller-chopping (where appropriate) and trash removal. The achievement of these goals is based largely on the availability of staff and funding for the site. Land stewardship staff will pursue grant opportunities for management activities as they become available. Safeguarding and enhancing the environmental integrity and biological diversity of the site will be the guiding principle for the stewardship and operation of this Preserve.

There is currently no dedicated funding in the budget of the Lee County Department of Parks and Recreation to manage this preserve. The lack of financial and personnel resources greatly limits the potential for nature-based recreation and infrastructure to be supported at PRP. Large scale recreational facilities or multi-use trail systems are not necessary as there are preserves and parks in close proximity to PRP that provide opportunities for hiking, mountain biking, camping, fishing and equestrian use; these preserves and parks have Board-approved stewardship (management) plans in place and the infrastructure to support these offerings.

II. INTRODUCTION

The PRP is a 40-acre parcel in Alva, Florida directly northwest of Daniels Preserve at Spanish Creek (a Conservation 20/20 Program Preserve). The PRP is located in northeastern Lee County within Section 15, Township 43 South, and Range 27 East.

A review of historic aerials suggests that PRP was comprised of a palmetto prairie community dominated by grasses and low shrubs and devoid of large numbers of mature trees. Subsequently, short-term mining activities took place within the property resulting in a highly disturbed parcel containing borrow ponds (excavated pits) and fill (spoil) being discarded in various areas throughout the property.

The four plant communities found within PRP include xeric hammock (44.48%), improved pasture (39.25%), wet prairie (12.19%) and artificial pond (4.11%). Only two of these communities are considered “natural” by the Florida Natural Areas Inventory (FNAI). Native species of plants observed within the Preserve include sand live oak (*Quercus geminata*), live oak (*Q. virginiana*), Chapman's oak (*Q. chapmanii*), laurel oak (*Q. laurifolia*), myrtle oak (*Q. myrtifolia*), saw palmetto (*Serenoa repens*), cabbage palm (*Sabal palmetto*), flattop goldenrod (*Euthamia minor*), muhly grass (*Muhlenbergia capillaris*), southern red cedar (*Juniperus silicicola*), spikerush (*Eleocharis* sp.) and cattail (*Typha* sp.). The site is also heavily infested with invasive, exotic plants such as Brazilian pepper (*Schinus terebinthifolia*), air potato (*Dioscorea bulbifera*), rosary pea (*Abrus prectorius*), Caesar's weed (*Urena lobata*), smutgrass (*Sporobolus indicus*) and natalgrass (*Melinis repens*).

The PRP was a gopher tortoise (*Gopherus polyphemus*) relocation site from the early 1990's through 2004. Past land stewardship activities, including prescribed burns and the treatment of exotic plants, have focused on maintaining habitat requirements for these reptiles. Future stewardship activities will continue to focus on maintaining appropriate habitat for gopher tortoises and restoring the site as much as staffing and budgetary constraints will allow. These stewardship activities include exotic plant control, protecting and restoring water resources, prescribed fire applied in appropriate intervals, wildlife monitoring, roller-chopping (where appropriate) and trash removal.

There is currently no dedicated funding in the budget of the Lee County Department of Parks and Recreation (LCPR) to manage this preserve. Due to financial limitations and the proximity of PRP to other preserves and parks managed by LCPR, public access will not be considered on PRP at this time. Large scale recreational facilities or multi-use trail systems are not necessary as there are preserves and parks in close proximity to PRP that provide opportunities for hiking, mountain biking, camping, fishing and equestrian use; these preserves and parks have Board-approved stewardship (management) plans in place and the infrastructure to support these offerings.

III. LOCATION AND SITE DESCRIPTION

The PRP is a 40-acre parcel located at 18881 Persimmon Ridge Road, Alva, Florida in northeastern Lee County (Figure 1). It lies within Section 15, Township 43 South, and Range 27 East (STRAP # 15-43-27-00-00002.0000). The Preserve is bordered on the north by a privately owned citrus grove; privately owned agricultural lands are found to the west and south. Persimmon Ridge Road runs in a north/south direction along the eastern border of the Preserve. The PRP is directly northwest of Daniels Preserve at Spanish Creek, which is managed by the Lee County Conservation 20/20 Lands Program (C20/20).

The Preserve is a highly disturbed parcel. Borrow pits were dug and some of the excavated material (fill, large rocks and shell) was piled in various locations throughout the site resulting in the Preserve's rising and falling topography. Today, a majority of PRP consists of xeric hammock, followed by improved pastures, wet prairies and impoundments/ artificial ponds. An aerial view (Figure 2) of the Preserve clearly shows the locations of these excavated areas and the surrounding hammocks. Over 98% of the mapped soils are non-hydric. More detailed information about the site may be found in the Natural Resources section of this plan.

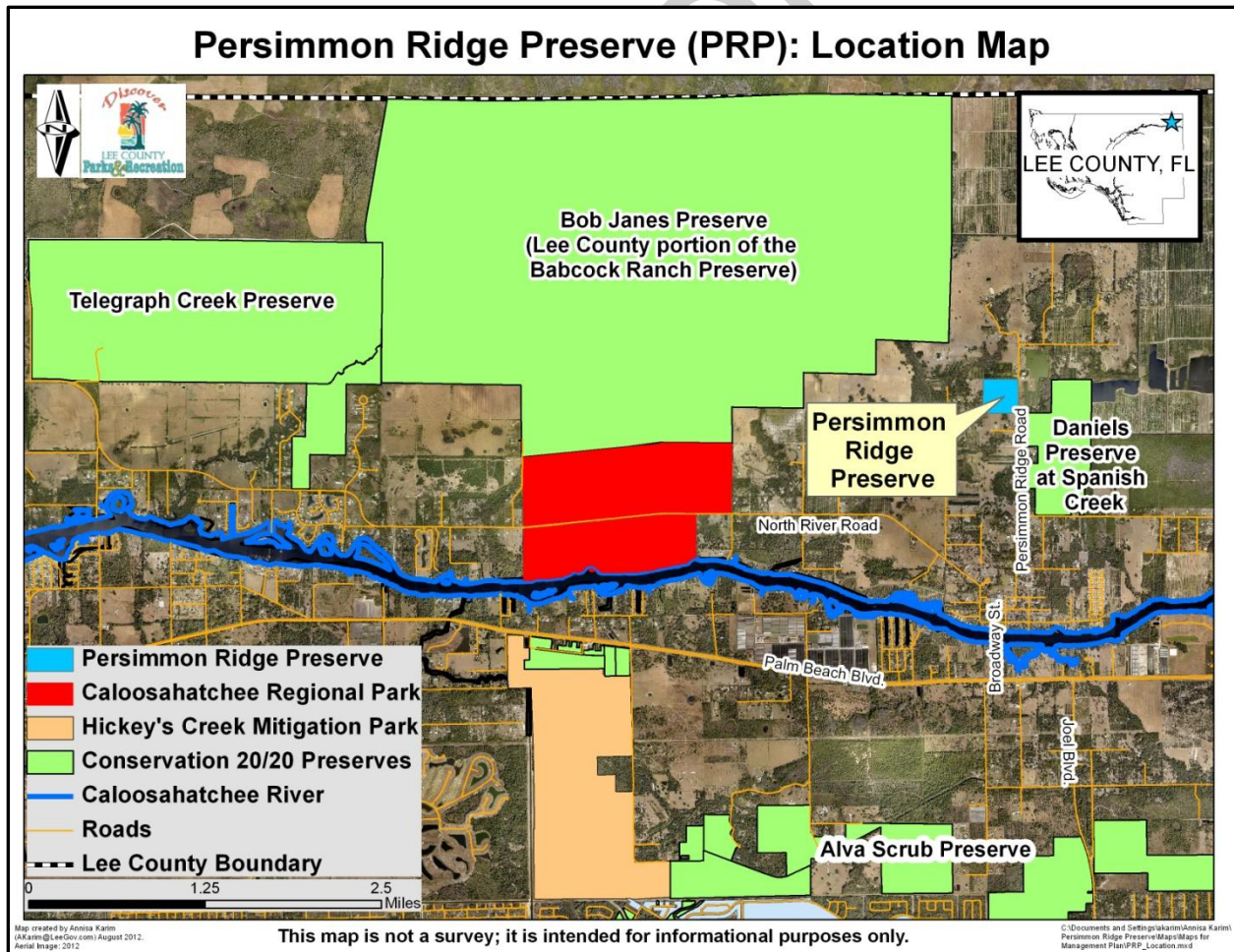


Figure 1: PRP and Other Conservation Lands in Northeastern Lee County, FL.



Figure 2: Aerial Map of PRP (2012).

IV. NATURAL RESOURCES DESCRIPTION

A. Physical Resources

i. Climate

General information on the climate of southwest Florida may be found in the Land Stewardship Operations Manual's (LSOM) Land Stewardship Plan Development and Supplemental Information section.

ii. Geology

Specific information on geologic features such as physiographic regions, formations and maps may be found in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

iii. Topography

The topographical features of an area identify the "shape" of the land as determined by major natural or man-made components. Historically, PRP was likely a fairly flat parcel dominated by shrubs and grasses. This almost treeless landscape was highly altered (disturbed) by short-term mining activities. Borrow ponds (excavated pits) were created and fill (spoil) was discarded in various areas on the property resulting in a highly irregular landscape (Figure 3). A specified history of the land alteration is presented in the Land Use History section of this plan.

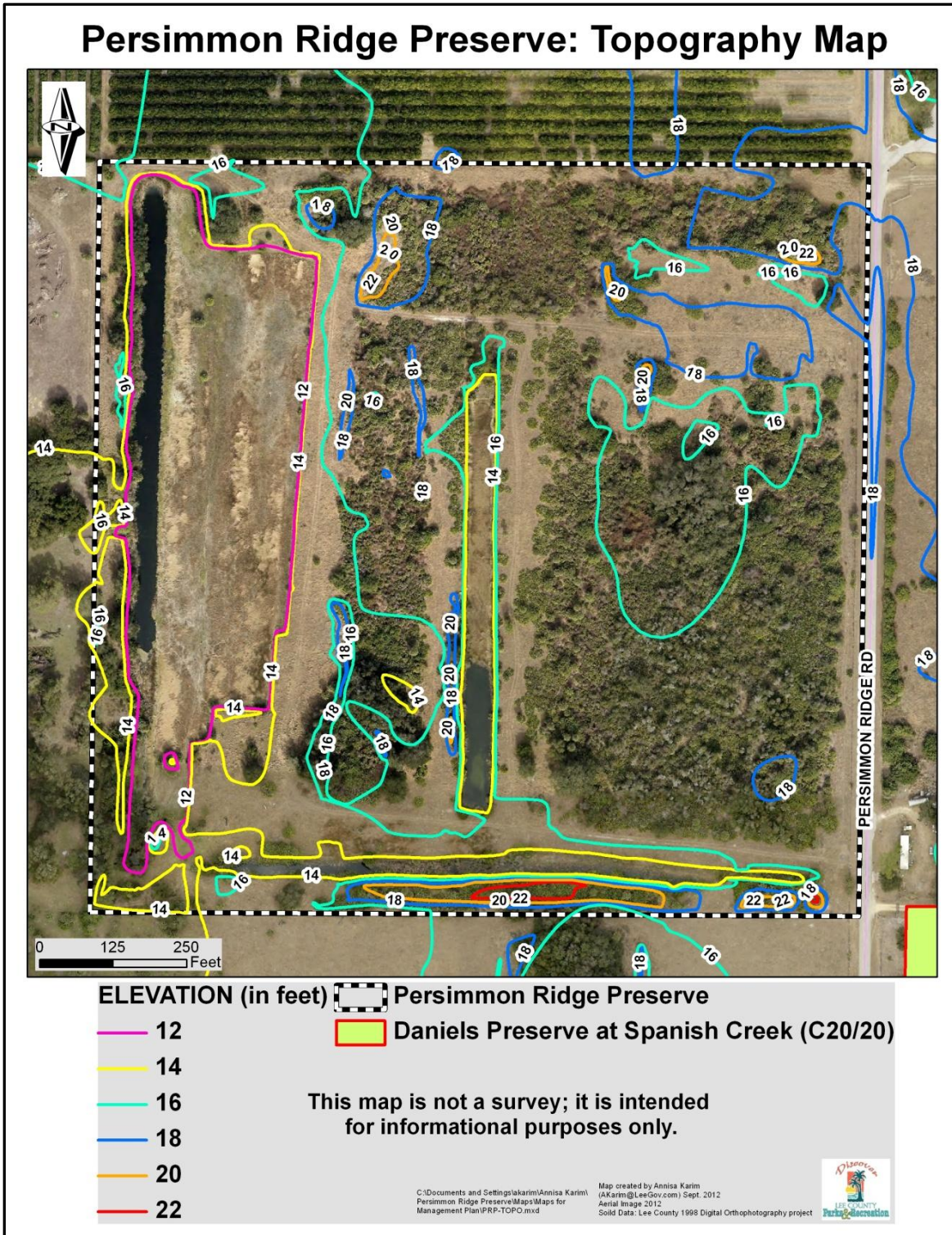


Figure 3: Topography Map.

iv. Soils

Soils and their properties determine which plant communities they can support. The objective of soil mapping is to separate the landscape into landforms or landform segments that have similar use and management requirements (not to delineate pure map unit components). The U. S. Department of Agriculture (via the Natural Resources Conservation Service) and the South Florida Water Management District (SFWMD) report four different soil types at PRP (Table 1, Figure 4). In decreasing order of abundance, these soils are: Matlacha Gravelly Fine Sand (43.79%), Cocoa Fine Sand (38.64%), Wabasso Sand (16.04%) and Hallandale Fine Sand (1.53%).

Table 1 provides the approximate acreages and percentages of PRP that each of these soils cover, whether each soil is considered hydric or not and each soil's general drainage class. Because of slight errors associated with the mapping of soils and interpretations within the ArcGIS program, the acreages and percentages provided are close approximations and communicate valuable information for stewardship and operations personnel. Soils data indicate that three of the four soils found within PRP are non-hydric and make-up approximately 98.5% of the site. Non-hydric soils are those that, in un-drained conditions, are not saturated or ponded; they do not develop anaerobic conditions that favor the growth of "wetland" plants.

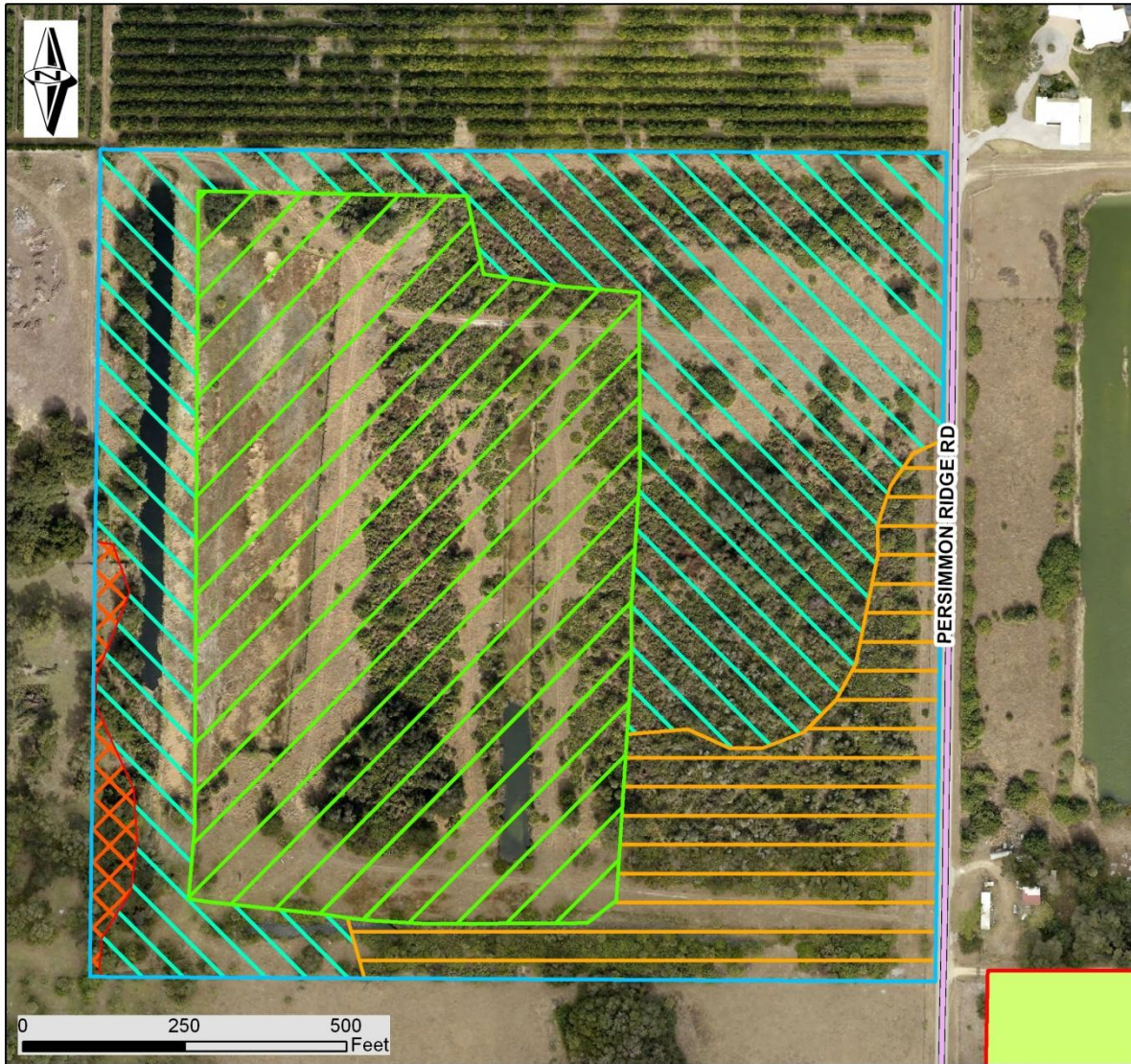
Table 1: Coverage, Hydric Designation and Drainage Class of Soils.

| Soil Type | Acres* | % of PRP* | Hydric | Drainage Class |
|-----------------------------|--------|-----------|--------|-------------------------|
| Matlacha Gravelly Fine Sand | 17.52 | 43.79 | No | Somewhat Poorly Drained |
| Cocoa Fine Sand | 15.46 | 38.64 | No | Moderately Well Drained |
| Wabasso Sand | 6.41 | 16.04 | No | Poorly Drained |
| Hallandale Fine Sand | 0.61 | 1.53 | Yes | Poorly Drained |

* These numbers are approximations.

In addition to the types of soil found in an area, environmental variables such as climate, topography and hydrologic factors influence the types of plant communities found there. Further information on soils is located in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

Persimmon Ridge Preserve (PRP): Soils Map



- Persimmon Ridge Preserve
- Daniels Preserve at Spanish Creek (C20/20)
- Roads
- USDA/ NRCS Soils Data 2010
- MATLACHA GRAVELLY FINE SAND
- COCOA FINE SAND
- WABASSO SAND
- HALLANDALE FINE SAND

| Soil Type | Acres* | % of PRP | Hydric |
|-----------------------------|--------|----------|--------|
| Matlacha Gravelly Fine Sand | 17.52 | 43.79 | No |
| Cocoa Fine Sand | 15.46 | 38.64 | No |
| Wabasso Sand | 6.41 | 16.04 | No |
| Hallandale Fine Sand | 0.61 | 1.53 | Yes |

* These numbers are approximations.

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This map is not a survey; it is intended for informational purposes only.

Map created by Annisa Karim
 (AKarim@LeeGov.com) August 2012
 Aerial Image 2012
 Soil Data: USDA/ NRCS



Figure 4: Soils Map for PRP (USDA Data: 2010).

v. Hydrologic Components and Watershed

A watershed is a region draining into a specific body of water. Topography, geology, soils, biological communities and anthropogenic alterations to a landscape influence the rate and way in which water flows and/ or drains through a landscape. The SFWMD delineates watersheds within its boundaries. This agency further delineates basins within each of these watersheds. The Caloosahatchee River Watershed contains six (6) drainage basins. The PRP lies within the West Caloosahatchee Basin of the Caloosahatchee River Watershed. The Lee County Division of Natural Resources (LCDNR) divides Lee County into 48 different watersheds. These watersheds are based on a more refined scale compared to SFWMD's designations because LCDNR's area of monitoring and restoration is much smaller. According to LCDNR data, PRP lies within the Cypress Creek Watershed which covers 19.6 square miles (Figure 5). Portions of PRP may be used as water storage areas depending first on the goals of land stewardship and then LCDNR.

In 1974, the United States Fish and Wildlife Service (USFWS) directed its office of Biological Services to conduct an inventory of the nation's wetlands. This National Wetlands Inventory (NWI) became operational in 1977. Wetlands were identified on the photography by vegetation, visible hydrology and geography, and subsequently classified in general accordance with the Classification of Wetlands and Deep Water Habitats of the United States (Cowardin et al. 1979). Federal agencies, state agencies, local agencies, academic institutions and private industry use this information for management, research, policy development, education and planning activities. Palustrine wetlands are often called swamps, marshes, potholes, bogs, or fens. These systems are all non-tidal wetlands dominated by trees, shrubs, persistent emergent aquatic plants, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5%.

The NWI identifies one palustrine wetland within PRP (Figure 6). This fresh water emergent wetland is located in the center of PRP; the northern 65% (approximate) is dominated by a dense mat of spikerush. Additionally, PRP contains man-made hydrological features that will be described in the Natural Plant Communities Section of this document.

General information on hydrologic components and watershed is located in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

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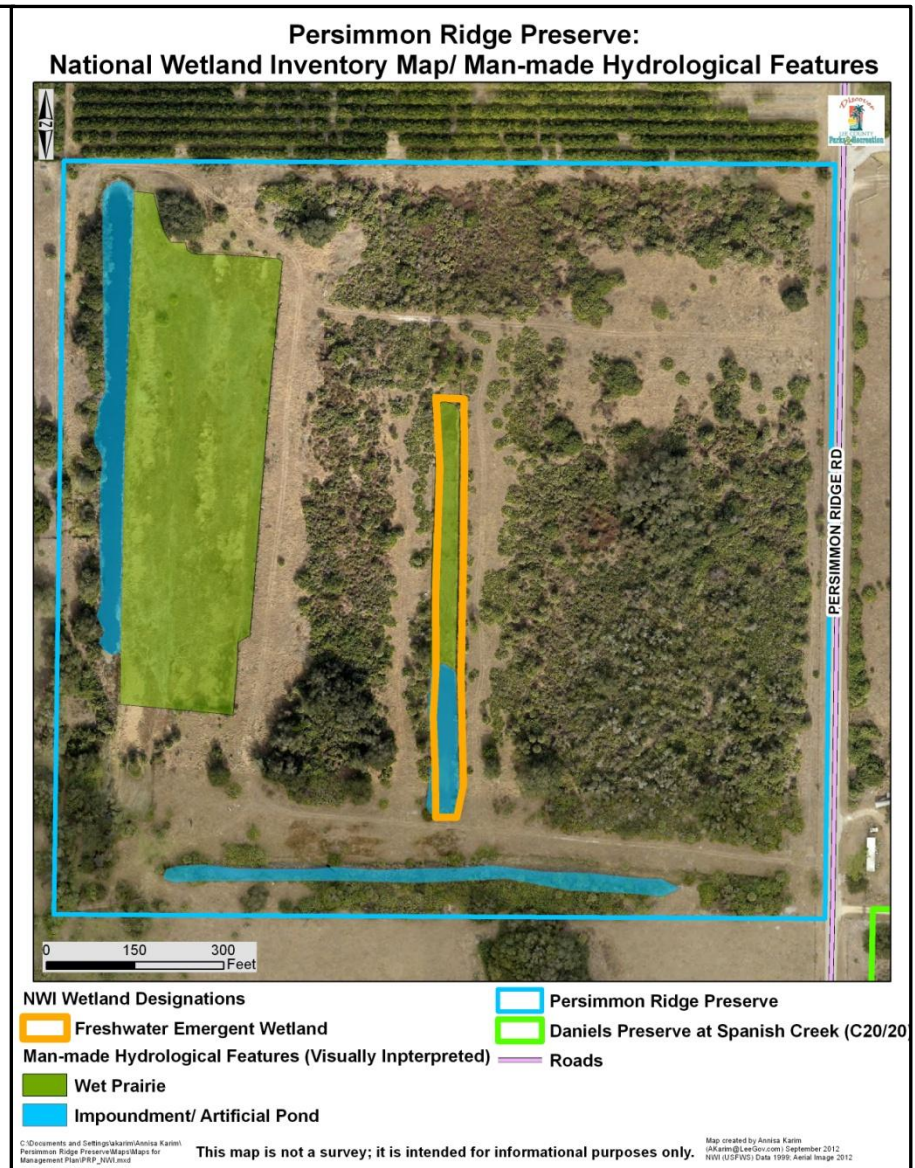
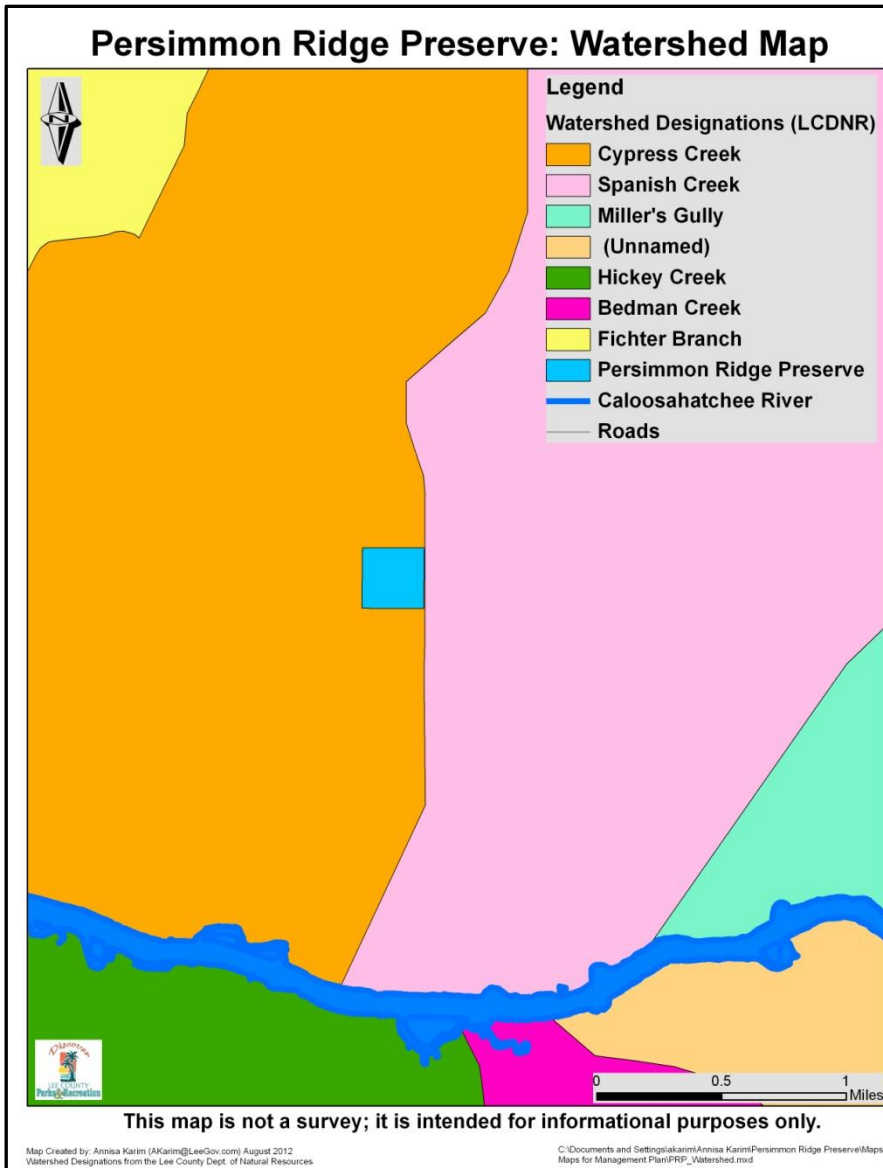


Figure 5: Watershed Map.

Figure 6: NWI Map/ Man-Made Hydrological Features.

B. Biological Resources

i. Ecosystem Function

Ecosystem services such as the protection of water resources, flood control, maintenance of nutrient cycles, preservation of biological diversity, carbon sequestration, and the availability of recreational lands are imperative for the well-being of the citizens of Lee County and may be achieved through the preservation and appropriate stewardship of natural areas.

Lee County's preserves and some of its parks contain a diversity of plant communities that provide habitat for numerous plant and animal species. The majority of these preserves and parks are not islands of habitat; rather, they are pieces of a larger conservation effort striving to create or maintain healthy and viable ecosystems. Ecosystem function information is located in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

ii. Natural Plant Communities

The term "plant community" refers to the suite of floristic (plant) species that form the natural (i.e., native) vegetation of any place. In addition to anthropogenic influences, the combination of factors such as geologic, topographic and hydrologic assemblages, underlying soils and climate determine the types of plants found in an area. These plants, in turn, determine the animal species that may be found there.

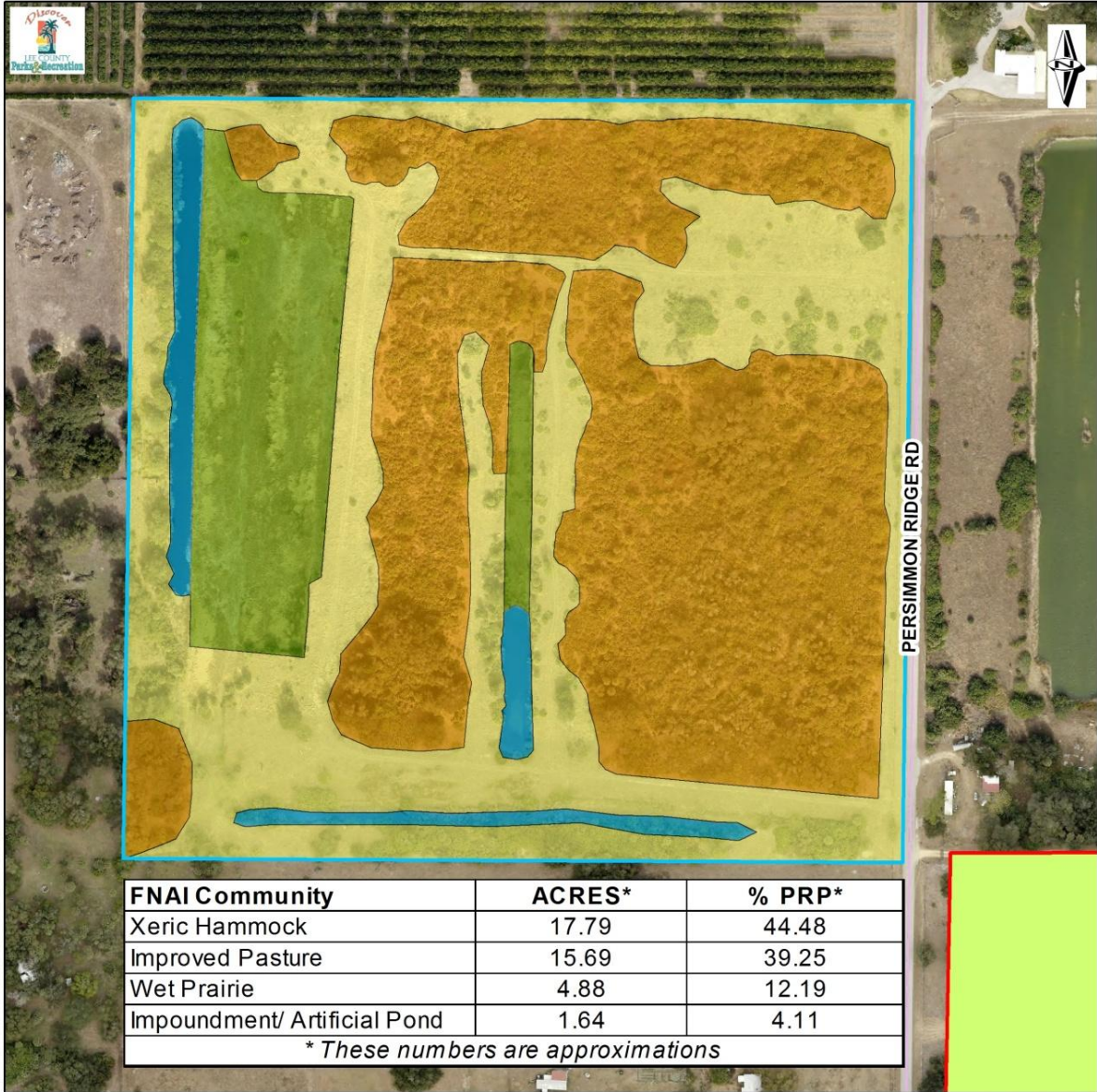
The PRP is comprised of four plant communities. These communities were visually interpreted and mapped by Land Stewardship staff and then classified according to FNAI's Natural Community Guide. The plant communities include: xeric hammock, improved pasture, wet prairie and artificial pond (Figure 7). All are defined below along with the acreage and percentage of cover. A complete list of plant species found on the Preserve is located in Appendix A.

The FNAI developed a system of ranking "natural" communities on a state-wide and global scale. Ranking numbers indicate how secure or imperiled a community is within these two scales. Of the four plant communities found within PRP, two are considered "natural" and defined by FNAI's *Guide to the Natural Communities of Florida*. The FNAI recognizes that not all communities and landscapes in Florida are in natural condition. These altered communities do not fit into FNAI's Natural Community Classification and therefore the remaining two plant communities are briefly described but not ranked by FNAI.

Definitions of FNAI's Global (G) element ranks pertinent to PRP:

G2= Imperiled globally because of rarity (6-20 occurrences or very little remaining area, e.g., <10,000 acres) or because of some factor(s) making it very vulnerable to extinction throughout its range.

Persimmon Ridge Preserve: Land Use/ Land Cover Map



Florida Natural Areas Inventory (FNAI)

Plant Communities (Visually Interpreted)

- Xeric Hammock
- Improved Pasture
- Wet Prairie
- Impoundment/ Artificial Pond

Persimmon Ridge Preserve

Roads

Daniels Preserve at Spanish Creek (C20/20)

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 Persimmon Ridge Preserve\Maps\Maps for
 Management Plan\PRP-FNAI

This map is not a survey; it is intended for informational purposes only.

Map created by Annisa Karim
 (AKarim@LeeGov.com) Sept. 2012
 Aerial Image 2012

Figure 7: Plant Community Map Based on FNAI Designations (FNAI, 2010).

G3= Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range of because of others factor(s) making it vulnerable to extinction throughout its range, 21 to 100 occurrences.

Definitions of FNAI's State (S) element ranks pertinent to PRP:

S2= Imperiled in state because of rarity (6-20 occurrences or little remaining area) or because of some factor(s) making it very vulnerable to extinction throughout it range.

S3 = Rare or uncommon in state (on the order of 21 to 100 occurrences).

Table 2 lists these plant communities in order of decreasing abundance. Due to rounding values, total acreages may not equal the true acreage of the communities found on PRP. These numbers are approximations only.

Table 2: FNAI Community Designations Listed by Decreasing Coverage.

| FNAI Community | ACRES* | % PRP* |
|------------------------------|---------------|---------------|
| Xeric Hammock | 17.79 | 44.48 |
| Improved Pasture | 15.69 | 39.25 |
| Wet Prairie | 4.88 | 12.19 |
| Impoundment/ Artificial Pond | 1.64 | 4.11 |

** These numbers are approximations*

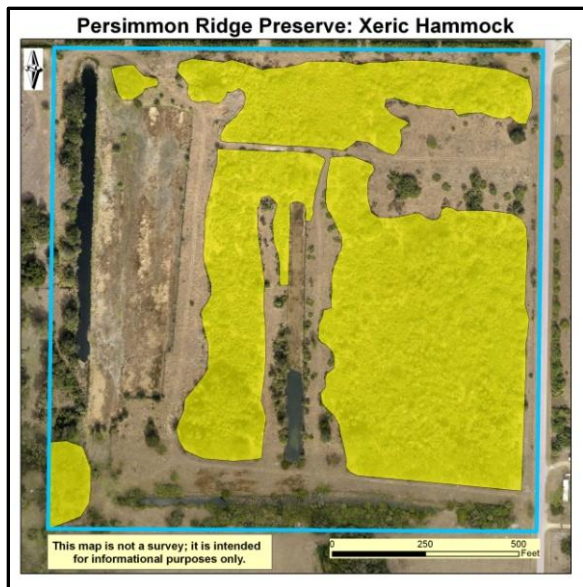
Plant community descriptions and further information is located in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

Xeric Hammock (FNAI Global and State Rank: G3/S3): 17.79-acres; 44.48% of PRP

Xeric hammocks are characterized as either a scrubby, dense, low canopy forests with little understory other than palmetto, or multi-storied forests of tall trees with open or closed canopies. Several gradations between these extremes exist.

Under natural conditions, scrub and sandhill communities mature into xeric hammocks (especially in the absence of periodic fires). These hammocks are considered to be in an advanced "successional stage" of the plant community from which they developed. The variation in vegetation structure is predominantly due to the original community from which it developed. In all cases, however, the soils consist primarily of deep, excessively-drained sands that were derived from old dune systems. The scarcity of herbs and the relatively incombustible oak litter preclude most fires from reaching the interiors of this plant community. When wildfires are able to enter these hammocks, it is nearly always catastrophic and xeric hammocks may revert into another community type.

Xeric hammocks generally develop on sites that have been protected from fire for 30 or more years. These hammocks are often associated with and grade into scrub, sandhill, upland mixed forest or slope forest communities. The species compositions of xeric hammocks are often similar to prairie hammocks and maritime hammocks. Xeric hammocks are considered the climax community on sandy uplands. They generally occur as isolated patches that rarely cover extensive areas. Mature examples are rare, and scrub derived types have always been scarce. Xeric hammocks are, by and large, located on high ground and often contain large trees; these characteristics have made this plant community a target of development statewide – especially in coastal areas. Remaining tracts of xeric hammock require protection from catastrophic fire and development.



The xeric hammock community covers approximately 44.48% of PRP and is generally located in the central and eastern portion of the Preserve (see image to the left). Three relatively large hammocks and 2 small hammocks make up this plant community on the Preserve. The edges of these hammocks are bordered by a thick infestation of Brazilian pepper. Other exotics within these hammocks include air potato, rosary pea and Caesar's weed.

The xeric hammocks within PRP are varied. Some may be considered open canopied forests while others are mostly closed canopied forests dominated by sand live oak, Chapman's oak, laurel oak and live oak. Unlike other xeric hammocks, the hammocks on PRP lack an emergent canopy of pine. Common understory plants within these hammocks include saw palmetto, myrtle oak, rusty staggerbush (*Lyonia ferruginea*) and American beautyberry (*Callicarpa americana*). Common persimmon (*Diospyros virginiana*) also occurs in small numbers. The herbaceous layer is somewhat sparse and contains some scattered wiregrass (*Aristida stricta* var. *beyrichiana*). Muscadine (*Vitis rotundifolia*) and earleaf greenbrier (*Smilax auriculata*) are common vines. The epiphytes Spanish moss (*Tillandsia usneoides*) and ballmoss (*T. recurvata*) occur sporadically.

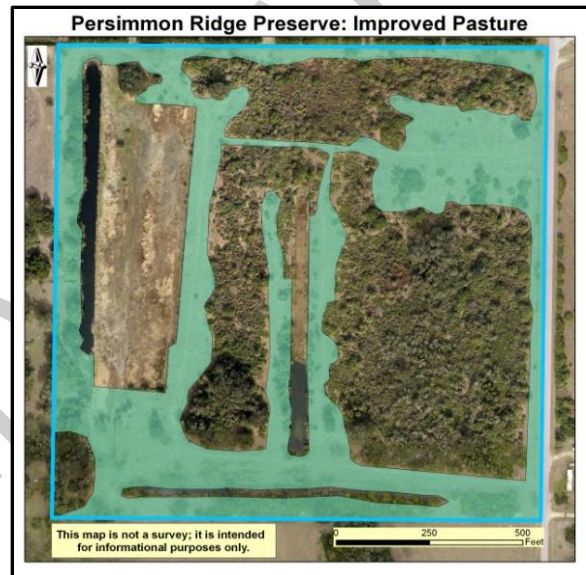
As mentioned previously, this is a highly disturbed site. Large rocks also line the edges of the hammocks within PRP, especially the eastern edge of the largest hammock within the Preserve.

The main stewardship goal for these xeric hammocks is to reduce and control the number and coverage of exotic, invasive plants. This goal will be deemed a success when all exotics are reduced to a 5% maintenance level. Prescribed fire and brush reduction are also planned. The achievement of these goals is based largely on the availability of staff and funding for the site.

Improved Pasture (FNAI considers this an altered habitat and therefore does not provide Global or State Ranking for this community): 15.69 acres and 39.25% of Preserve

Improved pastures are not considered native plant communities. These altered landscapes have been cleared of their natural vegetation and are dominated by planted, non-native and domesticated forage species. Generally, they also undergo common agricultural practices such as mowing, grazing, burning and fertilizing (Agro-Ecology Grazing Issues Working Group, 2009). While these are not optimal communities, they do provide benefits to some species of wildlife, particularly when wetlands and other native communities are present. More than 400 species of birds have been documented in Florida, many of which utilize habitats found on rangeland (such as improved pastures) during part or all of the year (Main et al. 2000).

Approximately 39.25% of PRP is covered by improved pastures. As indicated by the map on the right, they surround the xeric hammocks, wet prairies and artificial ponds on PRP. Historic aerials of the property show that, in all likelihood, the location of the current improved pastures (or a large portion of them) were used as internal roads during the mining activities that took place on-site. Hard-packed road beds are present on-site; they are vegetated with pasture grasses. Many of these pastures are also dotted with large boulders.



Native plants such as flattop goldenrod, muhly grass, American beautyberry, southern red cedar, laurel oak, and cabbage palm are scattered among these pastures. Exotic species such as smutgrass, natalgrass, crowsfoot (*Dactyloctenium aegyptium*) and bahiagrass (*Paspalum notatum*) dominate this community. Cogongrass (*Imperata cylindrica*) is also present especially in areas where the old road beds degrade into small depressions.

A cattle lease exists on the property. The presence of large, grazing herbivores does provide some exotic plant control, especially on the edges of the pasture where Brazilian pepper dominates.

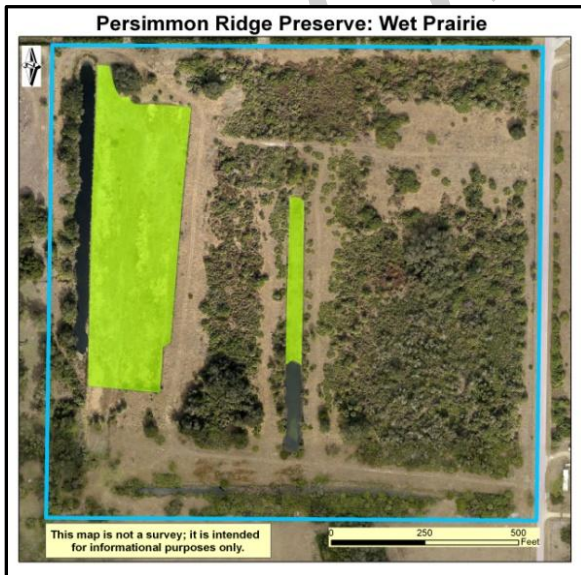
The main stewardship goal for these improved pastures is to control coverage of cogongrass to a 5% maintenance level. The achievement of this goal is based largely on the availability of staff and funding for the site. Restoring improved pastures to native plant communities is extremely expensive. If funding is obtained, complete restoration will be planned.

Wet Prairie (FNAI Global and State Rank: G2/S2): 4.88 acres and 12.19% of the Preserve

Generally, wet prairies are characterized by treeless (or almost treeless) landscapes with sparse to dense herbaceous ground cover. Wet prairies occur on low, relatively flat, poorly drained soils (i.e., these soils stay saturated for long periods of time). Soils that underlie these prairies typically consist of sands often with substantial clay or organic components. Hydrologic components and the frequency of fire are thought to be the most important abiotic (physical) factors that influence the development of these communities.

Wet prairies are seasonally inundated (saturated/flooded) with water from 50 to 100 days each year and burn every 2 to 4 years. Wax myrtle (*Myrica cerifera*) quickly invades and will dominate wet prairies that experience longer fire intervals. Commonly, wet prairies have a much shorter hydroperiod than other herbaceous wetlands and are subject to regular and prolonged desiccation (dehydration) during the dry season due to their flat topography. These communities are closely associated with and often grade into wet flatwoods, depression marshes, mesic flatwoods and dry prairies. Wet prairies are vulnerable to hydrological and fire regime alterations, overgrazing, and soil disturbances by off-road vehicles. Recovery from disturbances is often poor and slow.

The areas described as “wet prairies” on PRP are a result of land disturbances over half a century ago. These systems did not develop naturally, rather they developed because of the depth of water and condition of the substrate after mining activities took place. Consequently, these communities are not consistent with all of the characteristics associated with natural wet prairies as described above. The portions of the “wet prairies” on PRP adjacent to the improved pastures on site contain steep banks, some of which are over 8 feet in height.



Approximately 12.19% of PRP is comprised of wet prairies. A small portion is located in the center of the Preserve as part of a borrow pit. The larger section is in the western part of the Preserve next to the borrow pit that lines the western border. Spikerush is the dominating species for both areas, creating the prairie image. Portions of the central prairie (see map on left) are bordered by dense clumps of cattail. Coastalplain willow (*Salix caroliniana*) is invading this system. The larger prairie to the west is dotted with cabbage palms in the driest portions.

The main stewardship goal for these wet prairies is to control coverage of exotic, invasive plants to a 5% maintenance level. The achievement of this goal is based largely on the availability of staff and funding for the site. Restoring the wet prairies on-site is expensive. Additionally, these areas do provide some wildlife value in an otherwise predominantly upland system. If funding is obtained, the goal will be to create sloped banks to allow wildlife to use these areas more productively.

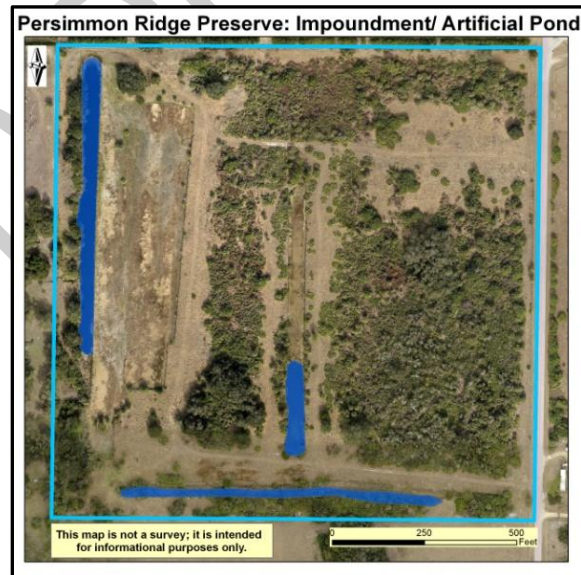
Impoundment/ Artificial Pond (FNAI considers this an altered habitat and therefore does not provide Global or State Ranking for this community): 1.64 acres and 4.11% of the Preserve

Artificial ponds are also described as watershed impoundments, water retention ponds, cattle ponds or borrow pits.

Similar to the wet prairies on PRP, the artificial ponds are a result of land disturbances that occurred over half a century ago. They are characterized as such because of the depth of water and condition of the substrate after mining activities took place.

Artificial ponds cover approximately 1.64% of the Preserve. The banks of these impoundments are steep and contain invasive, exotic plants such as Brazilian pepper. The eastern edge of the westernmost pond gradually slopes upwards into the wet prairie. The southern impoundment running in an east/west direction contains a large number of exotics on its southern bank including a heavy infestation of Brazilian pepper and giant reed (*Arunda donax*).

While these are not natural communities per se, PRP's pond areas have developed into aquatic habitats for fish, frogs, turtles, and wading birds. Therefore, stewardship does not include changing, filling or altering these areas. Instead, the focus will be to remove and control the invasive, exotic plants to a 5% maintenance level. The achievement of this goal is based largely on the availability of staff and funding for the site. If deemed appropriate, portions of this community may be used as water storage areas, depending first on the land stewardship goals and then on those of the Lee County Division of Natural Resources.



iii. Fauna

The animal species detected within PRP are, in part, a result of the Preserve's location in a rural portion of the county and the various plant communities found within its boundary. Appendix B has the complete list of vertebrates recorded to date within the Preserve (records based on observations by qualified staff).

The PRP is mostly xeric hammock. This plant community provides habitat for migratory and resident birds, mammals and reptiles. The wet prairies and ponds provide an aquatic environment for wading birds and some terrestrial animals that may pass through or reside on the Preserve. Freshwater fish have become prominent in the ponds, providing a food source for larger predators.

Additional general information about fauna on all preserves can be found in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

iv. Designated Species

Although all native plant and animal species found within PRP have some protection due to the preservation of this property, certain species need additional attention. For stewardship purposes, all plants and animals listed by the USFWS, the Florida Fish and Wildlife Conservation Commission (FWC) and the Florida Department of Agriculture and Consumer Services (FDACS) will be given special consideration.

Typically, designated (i.e., those listed as endemic, rare, threatened, endangered, special concern, imperiled, critically imperiled) species will benefit from proper stewardship of the biological communities within which they occur. However, some species may require additional measures to ensure their protection. Practices likely to benefit the native flora and fauna within PRP include exotic plant control, feral and exotic animal control, protecting and restoring water resources, prescribed fire applied in appropriate intervals, wildlife monitoring, roller-chopping (where appropriate) and trash removal. The enforcement of Preserve rules including: no littering, no motorized vehicles and no collection of ANY natural or cultural resources (e.g., plants, animals, shells, artifacts, etc.) will also benefit the native plants and animals.

Listed Plant Species: The Florida State Statute titled "Preservation of native flora of Florida" (Statute 581.185) provides the following definitions:

- ④ Endangered plants means species of plants native to the state that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the federal Endangered Species Act of 1973, as amended, Pub. L. No. 93-205 (87 Stat. 884).

- Threatened plants means species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered.

There are four plant species at PRP that are listed by the FDACS (2003): Three as endangered and one as threatened (Table 3). A list of all plant species documented within PRP may be found in Appendix A.

Table 3: Listed, Plant Species Documented Within PRP (FDACS 2003)

| Scientific Name | Common Name(s) | FDACS* |
|-------------------------------|--------------------|--------|
| <i>Ophioglossum palmatum</i> | Hand fern | E |
| <i>Tillandsia fasciculata</i> | Cardinal air plant | E |
| <i>Tillandsia utriculata</i> | Giant wild pine | E |
| <i>Myrcianthes fragrans</i> | Simpson's stopper | T |

*Florida Dept. of Agriculture and Consumer Services Designations
E = Endangered, T = Threatened

The USFWS and FWC maintain records of listed species on the federal and state level respectively. The designation “threatened” (likely to become endangered within the foreseeable future throughout all or a significant portion of its range) are utilized by both agencies. FWC includes a third designation, “species of special concern”, to denote a species which has not yet been listed as a threatened species but should be given special attention due to unusually vital or essential ecological niche filled by these species, past population numbers or general vulnerability.

Of the vertebrates observed at PRP, the USFWS recognizes one (1) as federally threatened. As of October 2012, FWC recognized four (4) listed species at PRP (Table 4). A list of all vertebrate species documented within PRP may be found in Appendix B.

Table 4: Listed Vertebrate Species Documented Within PRP (FWC 2012).

| Scientific Name | Common Name | Protection Status (2012) |
|--|-------------------------------|--------------------------|
| <i>Polyborus plancus audubonii</i> (<i>Caracara cheriway</i>) | Audubon's Crested Caracara | FT |
| <i>Gopherus polyphemus</i> | Gopher Tortoise | ST |
| <i>Egretta caerulea</i> | Little Blue Heron | SSC |
| <i>Eudocimus albus</i> | White Ibis | SSC |

Protection Status (based on FWC list October 2012): FT = Federally-designated Threatened; ST = State-designated Threatened; SSC = State Species of Special Concern



The PRP was a relocation site for gopher tortoises in the early 1990's through 2004 (see Land Use History section of this document). Gopher tortoises are currently listed by the FWC as a threatened species. In southwest Florida, habitat destruction, degradation and fragmentation are the primary reasons for the decline of this species. In addition to the shelter they provide, gopher tortoises are dependent upon the burrows they excavate for protection against fire, predators and climate extremes. These burrows have also been documented as important habitat for over 300 invertebrate and 60 vertebrate species (Diemer et al. 1989). Several of these species are considered "commensal" species, or species that depend intimately upon tortoise burrows in some parts of the tortoises range.

There are a variety of designated animal and plant species found in the Preserve. For stewardship purposes, all plants listed by FDACS and all animals listed by the USFWS and FWC will be given special consideration. Additional natural history on these species and stewardship measures to protect them can be found in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

v. Biological Diversity

Biological diversity (also called biodiversity) is "the variety of life and all the processes that keep life functioning" (Keystone Center 1991). Biodiversity includes 1] the variety of different species (plants, animals, microbes, etc.), 2] the genes they contain, and 3] the structural diversity in ecosystems. The wealth of biodiversity supports ecological processes that are essential to maintain ecosystems. Healthy and functioning ecosystems provide optimal habitat for the plants and animals that depend on them and provide ecosystem services such as the protection of water resources, appropriate flood control, the proper maintenance of nutrient cycles and carbon sequestration.

Many different types of mammals, birds, reptiles and insects visit or reside in PRP. They all depend on the diversity of the plants and the fresh water systems that the Preserve offers. The large oaks are inhabited by song birds and frogs, and the waters are utilized by the wading birds and fish. Land stewardship activities such as exotic plant and animal control and prescribed fire applied in appropriate intervals will help to maintain the diversity seen on the Preserve. If funding becomes available, contouring the steep banks of the borrow pits to more natural gradients will increase the potential for diversity.

General information on biological diversity and measures used to help promote biological diversity is located in the Land Stewardship Operations Manual's (LSOM).

C. Cultural Resources

i. Archaeological Features

The PRP is not located within any archeological sensitive areas. General information on archaeological features in Lee County is located in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

ii. Land Use History

Little is known about the activities that took place on PRP before the county acquired the property. Aerials from 1944 and 1958 (Figures 8 and 9) suggest very little use of the site but changes to the surrounding lands are evident. The 1966 aerial image (Figure 10) shows the extent of internal roads and land clearing work during the mining activities.

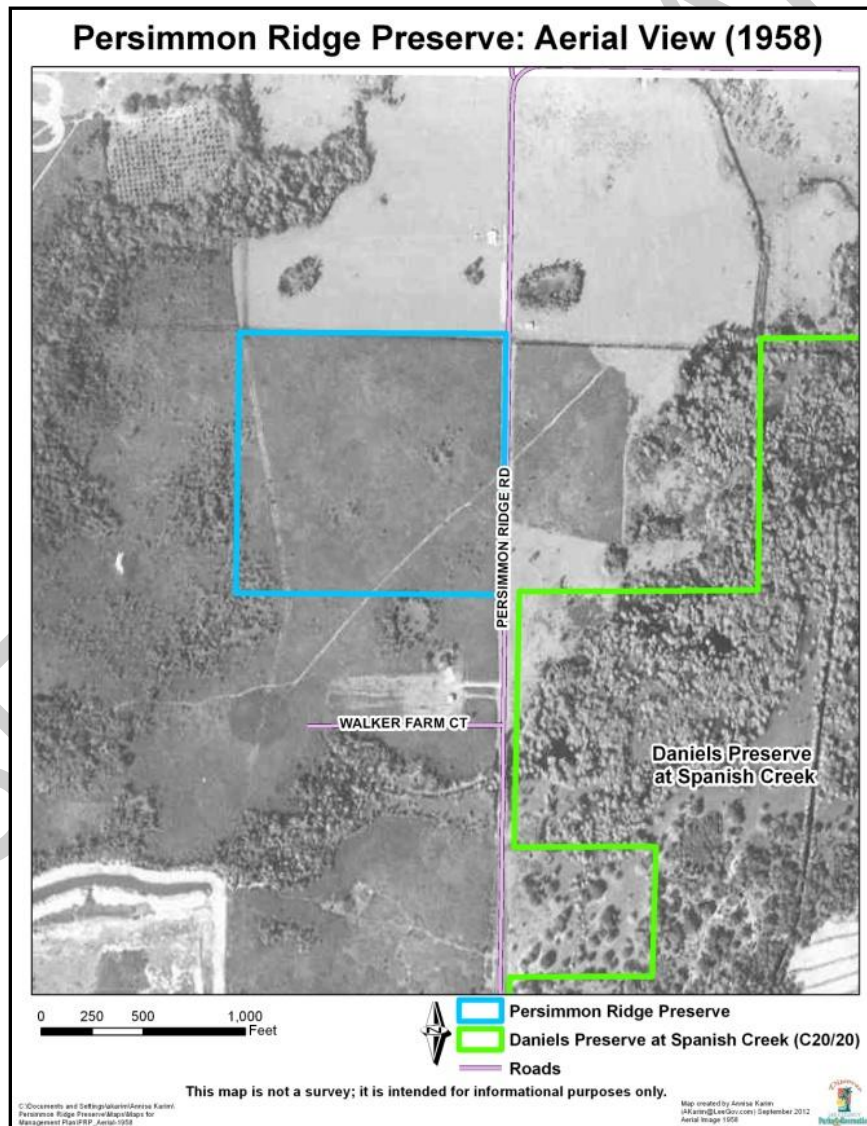


Figure 8: 1944 Aerial View of PRP.

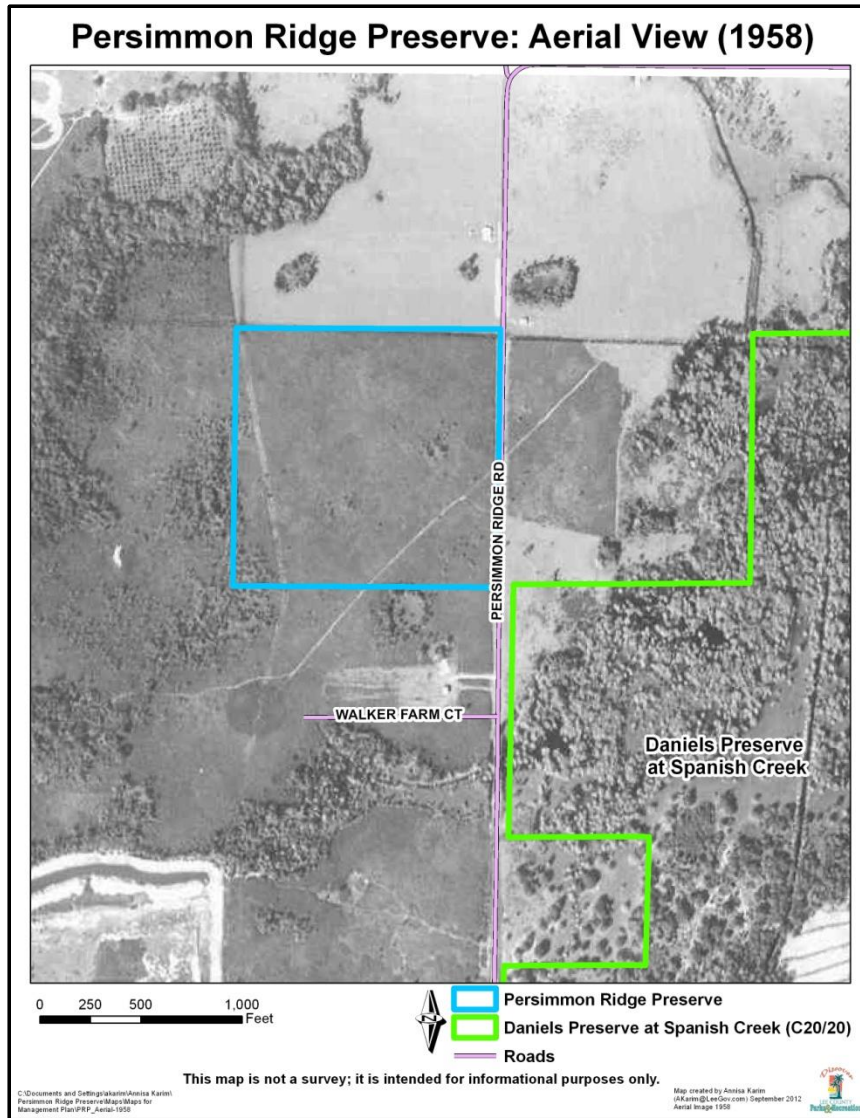


Figure 9: 1958 Aerial View of PRP.

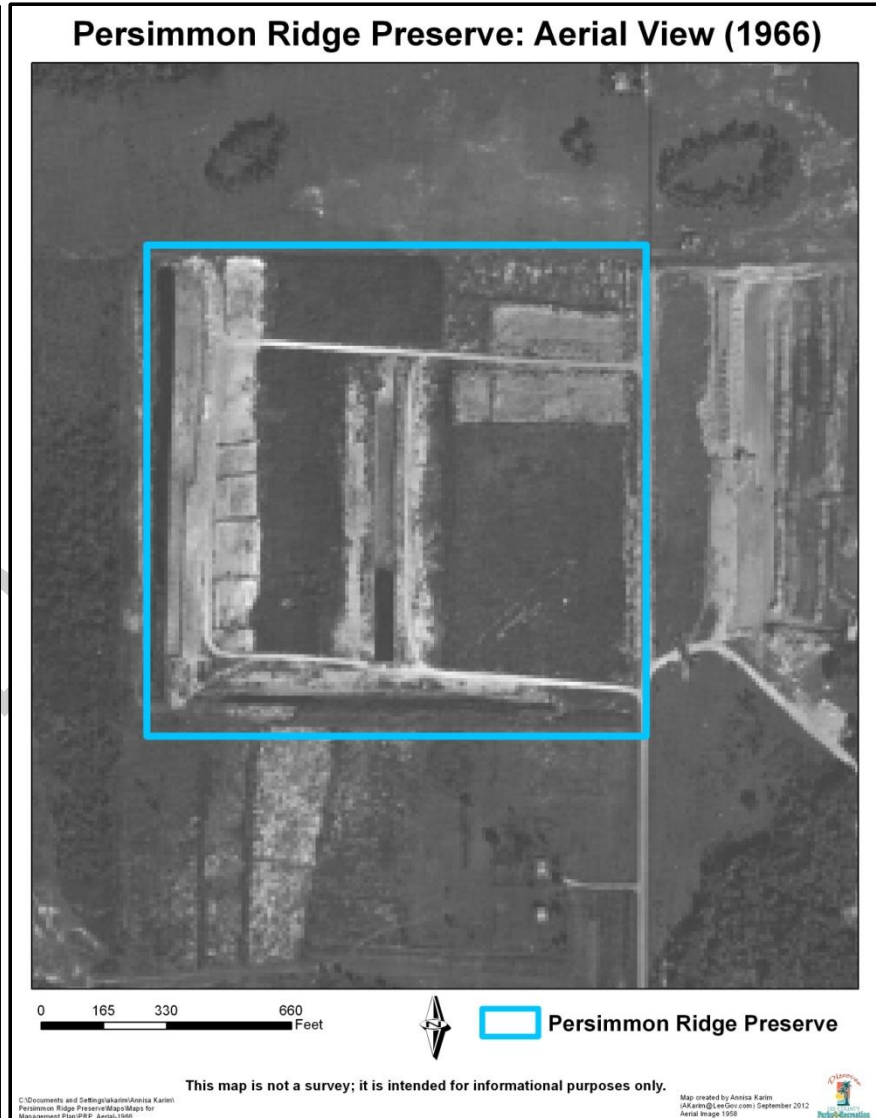


Figure 10: 1966 Aerial View of PRP.

Both the 1944 and 1958 aerial views of the Preserve indicate that PRP was likely comprised of a palmetto prairie community dominated by grasses and low shrubs and devoid of large numbers of mature trees.

The Preserve was purchased on the 14th of November, 1961 by Lee County for \$16,000. It is unclear when the short-term mining activities took place on the property; presumably, Lee County purchased the property to obtain fill and spoil material needed for road building projects. These activities resulted in a highly disturbed parcel containing borrow ponds (excavated pits) and discarded fill (spoil). The parcel was then placed in the LCPR inventory and used as a gopher tortoise relocation site.

Tortoises were relocated to the site multiple times in the 1990's, with surveys indicating the population and burrows within the Preserve. Prescribed fires, also, have been conducted on the site to manage the areas intended for the tortoises.

Provided is a timeline of management activities conducted on the site from the time of acquisition to the most recent activity recorded:

| | |
|---------------|--|
| Dec. 18, 1991 | Prescribed burn |
| April 1993 | 18 gopher tortoises relocated. 42 burrows found prior to relocation, and 25 tortoises found on-site. |
| July 1993 | 24 burrows found on-site. |
| June 1, 1998 | PRP was accepted by the Large Animal Division of the Animal Disaster Preparedness and Response Effort of Lee County to use the land for large animal habitation. |
| April 2000 | 39 active and inactive burrows found on-site |
| February 2003 | 29 tortoises found within the site. |
| July 1, 2003 | Prescribed burn, Xeric Hammock on SE portion of Preserve. |
| February 2004 | 18 tortoises relocated. 25 tortoises found in the site |
| March 2004 | Survey of tortoises indicated: 14 active burrows, 12 inactive burrows, 2 abandoned burrows, 7 starter burrows, and 7 newly dug. |
| Dec. 22, 2005 | Prescribed burn |

iii. Public Interest

A public meeting to discuss this land stewardship plan will be held at the Riverdale Branch Library (2421 Buckingham Road, Fort Myers, Florida 33905) on January 22, 2013 at 6:00 PM. All comments provided will become part of the public record and will be included in this plan (Appendix C).

Information concerning PRP may be found at: <http://www.conservation2020.org/Pages/Isreservedetails.aspx?IspreserveID=1>. Staff may mail newsletters to adjacent landowners and neighbors when stewardship activities are scheduled to occur.

V. FACTORS INFLUENCING MANAGEMENT

A. Natural Trends and Disturbances

Natural trends and disturbances can include hurricanes, flooding, wildfires, occasional freezes, and the pattern of wet and dry seasons. Implementation of the Management Action Plan will take all of these factors and their influence on projects at the preserve into consideration. General information on natural trends and disturbances influencing native communities and stewardship is located in the LSOM's Land Stewardship Plan Development and Supplemental Information section.

B. Internal Influences

In addition to the borrow pits and wet prairie areas, a cattle lease exists on the Preserve (Figure 11). The presence of large, grazing herbivores does provide some exotic control, especially on the edges of the pasture where Brazilian pepper dominates.

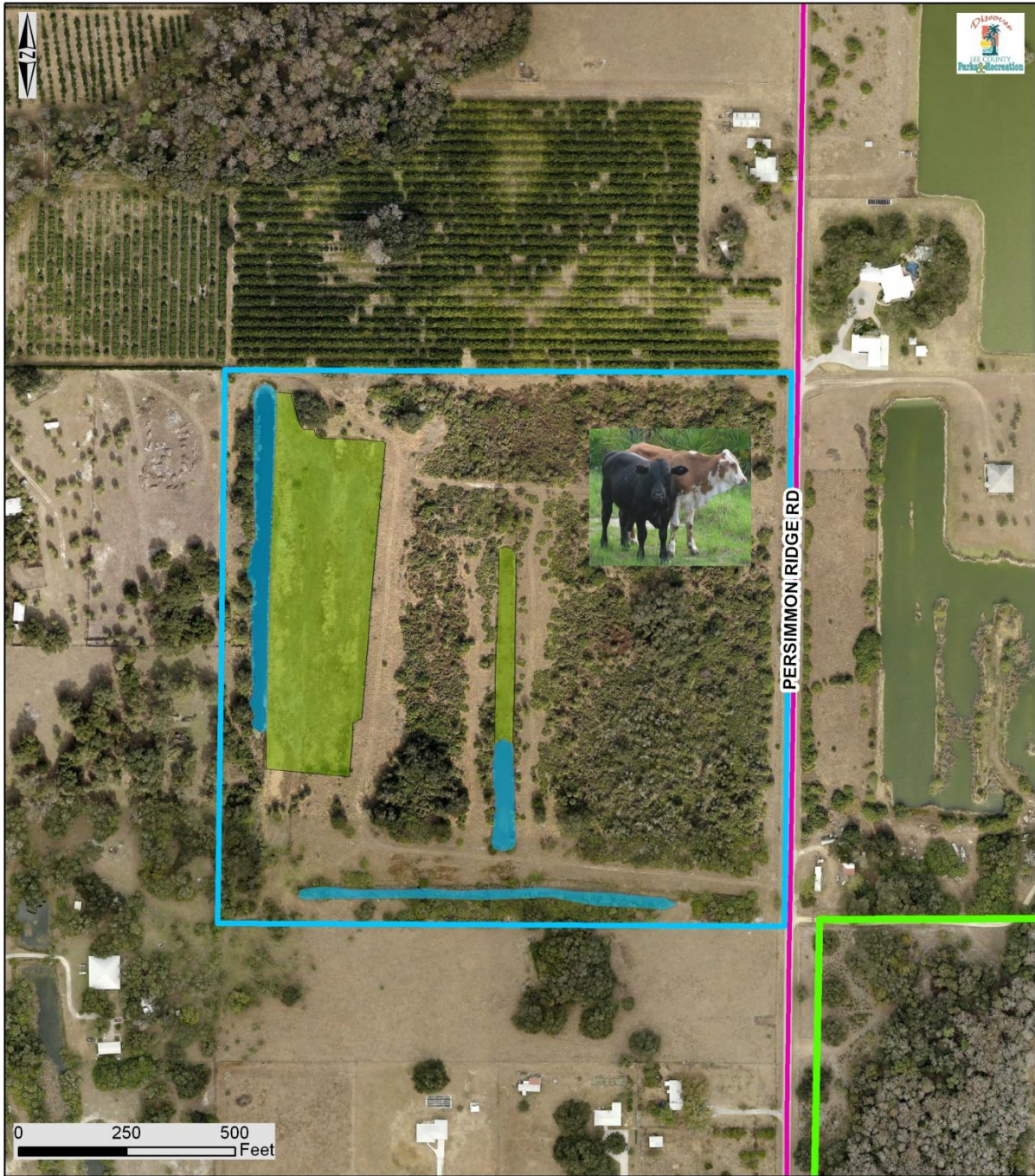
As previously mentioned, the land was greatly altered through borrow digging which created large mounds of rock and shell (berms) and an uneven landscape. Thus, exotics began to grow rapidly and compete with the natural systems that inhabited the area.

C. External Influences

The biggest external factor is Persimmon Ridge Road that runs parallel to the eastern border of the Preserve (Figure 11). This road is primarily for residential traffic. Surrounding agricultural lands, including the citrus grove to the north, may have potential impacts on the Preserve. Water that would have entered the Preserve through natural flow patterns (a generally north to south direction of flow) have been altered by land uses to the north and the road to the east.

Staff will attempt to contact the owners of surrounding lands and develop a rapport with them and with neighborhood associations to open dialogue on management activities.

Persimmon Ridge Preserve: Internal and External Influences.



- | | |
|---|--|
| Internal Influences | Roads (Extrenal Influence) |
| Wet Prairie | Persimmon Ridge Preserve |
| Impoundment/ Artificial Pond | Daniels Preserve at Spanish Creek (C20/20) |

C:\Documents and Settings\akarim\Annisa Karim\ Persimmon Ridge Preserve\Maps\Maps for Management Plan\PRP_Internal-External

This map is not a survey; it is intended for informational purposes only.

Map created by Annisa Karim (AKarim@LeeGov.com) November 2012 NWI (USFWS) Data 1999; Aerial Image 2012

Figure 11: PRP Internal and External Influences.

D. Legal Obligations and Constraints

i. Permitting

Land stewardship activities at the Preserve may involve obtaining permits from regulatory agencies. Any proposed hydrologic improvements to the site may require obtaining permits from the Florida Department of Environmental Protection (FDEP), the U.S. Army Corps of Engineers (USACOE) and SFWMD. Hydrological and/or habitat restoration projects requiring heavy equipment or tree removal will require notification to the Lee County Department of Community Development (LCDCD). Burn authorization from the Florida Forest Service (FFS) is required for all prescribed burns conducted on the Preserve.

ii. Other Legal Constraints

There currently is a cattle lease on PRP. A copy of the lease is located in Appendix D.

iii. Relationship to Other Plans

The Lee Plan, Lee County's comprehensive plan, is written to depict Lee County as it will appear in the year 2020. Several themes have been identified as having "great importance as Lee County approaches the planning horizon" (LCDCD 2010). These themes are:

- The growth patterns of the county will continue to be dictated by the Future Land Use map.
- The continued protection of the county's natural resource base.
- The diversification of the county's traditional economic base.
- The expansion of cultural, educational and recreational opportunities.
- A significant expansion in the county's physical and social infrastructure.

The entire Lee Plan can be found on the internet at:

<http://www3.leegov.com/dcd/Leeplan/Leeplan.pdf> . The sections of the Lee Plan which may pertain to Preserves areas have been identified in the LSOM.

E. Management Constraints

The core constraints on management of this Preserve are funding and staffing. Obtaining funds through grants and other financial sources will need to be explored and obtained.

Land Stewardship staff is not aware of any future road construction, utility expansion, easements, or encroachments at this time.

Coordinating with adjacent landowners and surrounding agricultural businesses will be an important part in management of the Preserve; neighbors will be considered and informed of any prescribed fires and/or large management practices that may be considered disruptive.

F. Public Access and Resource-Based Recreation

Due to financial limitations and the proximity of PRP to other preserves (Daniels Preserve at Spanish Creek, Telegraph Creek Preserve) and parks (Caloosahatchee Regional Park, Hickey's Creek Mitigation Park) managed by LCPR (Figure 1), public access is not being proposed for PRP at this time. These other preserves and parks provide opportunities for hiking, mountain biking, camping, fishing and equestrian use; these preserves and parks have Board-approved stewardship (management) plans in place and the infrastructure to support these offerings.

While PRP is not part of the C20/20 Program, the public access categories developed by C20/20 provide a good foundation to utilize when discussing the public options for PRP. The Preserve would operate similarly to a C20/20 Category 4 Preserve (i.e., Resource Protection and Restoration Preserve). This category does not provide regular public access into the Preserve.

- There will be no facilities or marked trails.
- Staff present for site inspections and at other times as necessary for the proper management of the Preserve.
- If there is public interest, staff may provide guided field trips where there are no safety concerns and it is compatible with protecting the animal and plant communities found on the specific Preserve.

Resource-based recreational opportunities were explored and are presented in Appendix E of this plan; due to financial limitations, they are not suitable and/or feasible at this time.

G. Acquisition

This 40-acre land parcel (STRAP# STRAP # 15-43-27-00-00002.0000) was acquired by the county on the 14th of November, 1961 for \$16,000.00 (Appendix F). It is unclear when the short-term mining activities took place on the property; presumably, Lee County purchased the property to obtain fill and spoil material needed for road building projects. These activities resulted in a highly disturbed parcel containing borrow ponds (excavated pits) and discarded fill (spoil). The parcel was then placed in the LCPR inventory and used as a gopher tortoise relocation site. The Preserve is currently zoned as AG-2 (Agriculture) and its Future Land Use Designation is Conservation Lands Uplands (Figure 12).

After the approval of this land stewardship plan, staff will pursue changing the zoning to Environmentally Critical.

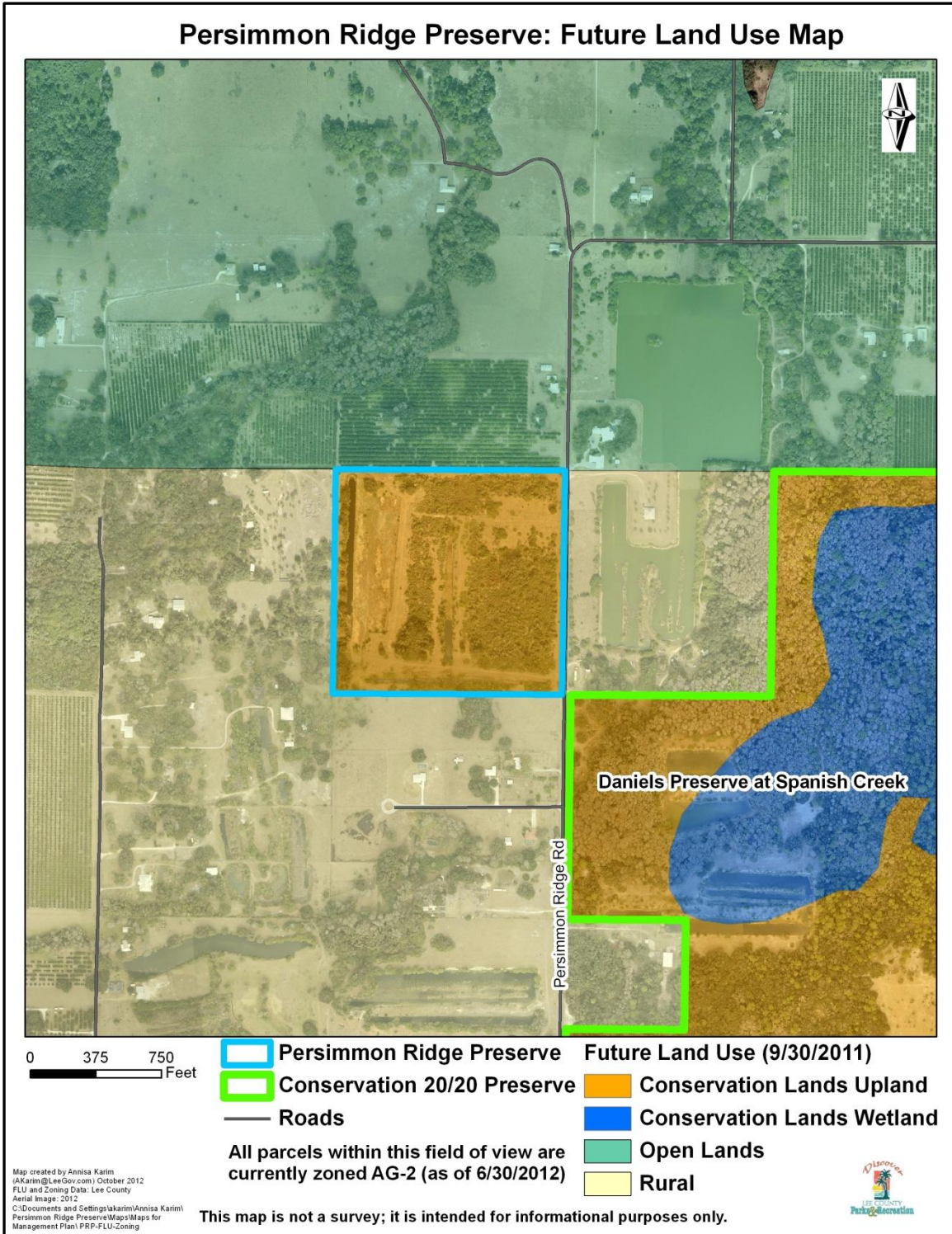


Figure 12: Future Land Use Map

VI. MANAGEMENT ACTION PLAN

A. Management Unit Descriptions

Due to the size of the parcel it will not be separated into management units. Management activities will be referenced to the plant communities on the Preserve. A map of those communities is located in the plant communities section of this plan (Figure 7).

B. Goals and Strategies

The long-term goals for PRP follow, but funding is currently not available to conduct all of these activities. Grants and/or monies budgeted to mitigate public infrastructure projects may be used to supplement the budget to meet our goals in a timely manner. The primary management objective will be the control of invasive, exotic plants (Category I and II species as defined by the Florida Exotic Pest Plant Council) and brining the Preserve back to a natural fire regime.

Natural Resource Management

- Exotic plant control and maintenance
- Exotic animal control
- Prescribed fire management
- Monitor and protect listed species
- Brush/fuel reduction

Overall Protection

- Install firebreaks
- Maintain Boundary signs
- Assess cattle lease
- Change Zoning designation

VII. PROJECTED TIMETABLE FOR IMPLEMENTATION

Table 5: Projected Timetable for Implementation

| Management Activity** | January (2013-2023) | April (2013-2023) | July (2013-2023) | October (2013-2023) |
|------------------------------|--------------------------------|------------------------------|-----------------------------|--------------------------------|
| Exotic Plant Control | x | x | x | x |
| Prescribed fire | x | | | |
| Mowing and/or trail trimming | x | x | x | x |

**The management activities above will occur quarterly as indicated from 2013-2023 based on staffing and funding resources. Stewardship activities are projected to remain consistent every year for the next ten years.

VIII. FINANCIAL CONSIDERATIONS

There is no dedicated funding in the LCPR budget to manage this preserve. Funding sources will be researched and applications for appropriate grants will be made. Examples include the FWC Bureau of Invasive Plant Management for exotic plant control projects, and sources that provide assistance for gopher tortoise habitat maintenance/restoration.

LCPR staff is involved in the local (Southwest Florida) Cooperative Invasive Management Area (CISMA) and may be able to acquire assistance from the CISMA. The goal of the SWFL CISMA is “to reduce the impact of or eliminate invasive, non-native plants and non-native animals by combining programs and resources to address invasive species on a landscape level to achieve common goals and objectives.”

Projected costs for resource management and protection of PRP are presented in Appendix G.

SECOND DRAFT

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SECOND DRAFT

X. APPENDICES

APPENDIX A: Floristic Species Documented Within PRP.

Scientific names in accord with Wunderlin and Hansen 2008 (see key at end of list).

| | Scientific Name | Common Name(s) | Status | FLEEPC | FDACS | IRC | FNAI |
|--------------------------------|---------------------------------|----------------------|--------|--------|-------|-----|------|
| FERNS | | | | | | | |
| Family: Blechnaceae | | | | | | | |
| | <i>Blechnum serrulatum</i> | Swamp fern | native | | | S | |
| Family: Ophioglossaceae | | | | | | | |
| | <i>Ophioglossum palmatum</i> | Hand fern | native | | E | I | G4S2 |
| Family: Polypodiaceae | | | | | | | |
| | <i>Phlebodium aureum</i> | Golden polypody | native | | | S | |
| | <i>Polypodium polypodioides</i> | Resurrection fern | native | | | S | |
| Family: Pteridaceae | | | | | | | |
| | <i>Pteris</i> sp. | Brake fern | exotic | | | | |
| GYMNOSPERMS | | | | | | | |
| Family: Cupressaceae | | | | | | | |
| | <i>Juniperus silicicola</i> | Southern red cedar* | native | | | S | |
| Family: Pinaceae | | | | | | | |
| | <i>Pinus elliotii</i> | Slash pine | native | | | S | |
| | <i>Pinus palustris</i> | Longleaf pine* | native | | | S | |
| MONOCOTS | | | | | | | |
| Family: Alismataceae | | | | | | | |
| | <i>Sagittaria lancifolia</i> | Bulltongue arrowhead | native | | | | |
| | <i>Sagittaria latifolia</i> | Broadleaf arrowhead | native | | | | |
| Family: Araceae | | | | | | | |
| | <i>Pistia stratiotes</i> | water-lettuce | exotic | I | | | |
| Family: Arecaceae | | | | | | | |
| | <i>Sabal palmetto</i> | Cabbage palm | native | | | S | |
| | <i>Serenoa repens</i> | Saw palmetto | native | | | S | |

APPENDIX A: Floristic Species Documented Within PRP (continued).

Scientific names in accord with Wunderlin and Hansen 2008 (see key at end of list).

| | Scientific Name | Common Name(s) | Status | FLEEPC | FDACS | IRC | FNAI |
|------------------------------|---|------------------------------|--------|--------|-------|-----|------|
| MONOCOTS (continued) | | | | | | | |
| Family: Bromeliaceae | | | | | | | |
| | <i>Tillandsia fasciculata</i> | Cardinal air plant | native | | E | S | |
| | <i>Tillandsia recurvata</i> | Ballmoss | native | | | | |
| | <i>Tillandsia setacea</i> | Wild pine, S. Needleleaf | native | | | S | |
| | <i>Tillandsia usneoides</i> | Spanish moss | native | | | S | |
| | <i>Tillandsia utriculata</i> | Giant wild pine | native | | E | S | |
| Family: Cyperaceae | | | | | | | |
| | <i>Eleocharis</i> sp. | Spikerush | native | | | | |
| | <i>Rhynchospora colorata</i> | Starrush Whitetop | native | | | R | |
| | <i>Rhynchospora latifolia</i> | Giant whitetop | native | | | | |
| Family: Dioscoreaceae | | | | | | | |
| | <i>Dioscorea bulbifera</i> | Air-potato | exotic | I | | | |
| Family: Poaceae | | | | | | | |
| | <i>Andropogon virginicus</i> | Chalky bluestem | native | | | R | |
| | <i>Aristida stricta</i> var. <i>beyrichiana</i> | Wiregrass | native | | | | |
| | <i>Arunda donax</i> | Giant reed | exotic | | | | |
| | <i>Cynodon dactylon</i> | Burmudagrass | exotic | | | | |
| | <i>Dactyloctenium aegyptium</i> | Durban crowfootgrass | exotic | II | | | |
| | <i>Imperata cylindrica</i> | Cogongrass | exotic | I | | | |
| | <i>Muhlenbergia capillaris</i> | Hairawn muhly or Muhly grass | native | | | | |
| | <i>Oplismenus hirtellus</i> | Woodsgrass | native | II | | AS | |
| | <i>Panicum maximum</i> | Guineagrass | exotic | II | | | |
| | <i>Panicum repens</i> | Torpedograss | exotic | I | | | |
| | <i>Paspalum conjugatum</i> | Sour paspalum, Hilograss | native | | | S | |

APPENDIX A: Floristic Species Documented Within PRP (continued).

Scientific names in accord with Wunderlin and Hansen 2008 (see key at end of list).

| Scientific Name | Common Name(s) | Status | FLEEPC | FDACS | IRC | FNAI |
|------------------------------------|--------------------|--------|--------|-------|-----|------|
| MONOCOTS (continued) | | | | | | |
| Family: Poaceae (continued) | | | | | | |
| <i>Paspalum notatum</i> | Bahiagrass | exotic | | | | |
| <i>Rhynchelytrum repens</i> | Rose natalgrass | exotic | I | | | |
| <i>Sporobolus indicus</i> | Smutgrass | exotic | | | | |
| <i>Tripsacum dactyloides</i> | Eastern gamagrass | native | | | R | |
| Family: Typhaceae | | | | | | |
| <i>Typhasp.</i> | Cattail | native | | | | |
| DICOTS | | | | | | |
| Family: Aceraceae | | | | | | |
| <i>Acer rubrum</i> | Red maple | native | | | | |
| Family: Anacardiaceae | | | | | | |
| <i>Rhus copallinum</i> | Winged sumac | native | | | S | |
| <i>Schinus terebinthifolius</i> | Brazilian pepper | exotic | I | | | |
| <i>Toxicodendron radicans</i> | Poison ivy | native | | | | |
| Family: Annonaceae | | | | | | |
| <i>Annona glabra</i> | Pond apple | native | | | S | |
| <i>Asimina reticulata</i> | Netted pawpaw | native | | | S | |
| Family: Amaranthaceae | | | | | | |
| <i>Atriplex pentandra</i> | Crested saltbush | native | | | | |
| Family: Apiaceae | | | | | | |
| <i>Cicuta maculata</i> | Water hemlock | native | | | I | |
| Family: Apocynaceae | | | | | | |
| <i>Asclepias lanceolata</i> | Fewflower milkweed | native | | | | |
| Family: Aquifoliaceae | | | | | | |
| <i>Ilex cassine</i> | Dahoon | native | | | S | |

APPENDIX A: Floristic Species Documented Within PRP (continued).

Scientific names in accord with Wunderlin and Hansen 2008 (see key at end of list).

| | Scientific Name | Common Name(s) | Status | FLEEPC | FDACS | IRC | FNAI |
|--|----------------------------------|----------------------------|--------|--------|-------|-----|------|
| DICOTS (continued) | | | | | | | |
| Family: Aquifoliaceae (continued) | | | | | | | |
| | <i>Ilex glabra</i> | Gallberry | native | | | S | |
| Family: Asteraceae | | | | | | | |
| | <i>Ambrosia artemisifolia</i> | Common ragweed | native | | | S | |
| | <i>Aster carolinianus</i> | Climbing aster | native | | | | |
| | <i>Baccharis halimifolia</i> | Saltbush, Groundsel tree | native | | | S | |
| | <i>Bidens alba</i> | Beggarticks | native | | | S | |
| | <i>Eclipta prostrata</i> | False daisy | native | | | | |
| | <i>Emilia fosbergii</i> | Florida tasselflower | exotic | | | | |
| | <i>Erechtites hieracifolius</i> | Fireweed | native | | | | |
| | <i>Erigeron quercifolius</i> | Oakleaf fleabane | native | | | | |
| | <i>Eupatorium capillifolium</i> | Dogfennel | native | | | S | |
| | <i>Eupatorium serotinum</i> | Lateflowering thoroughwort | native | | | R | |
| | <i>Euthamia minor</i> | Flattopped goldenrod | native | | | | |
| | <i>Flaveria linearis</i> | Narrowleaf Yellowtop | native | | | | |
| | <i>Mikania scandens</i> | Climbing hempvine | native | | | S | |
| | <i>Pluchea rosea</i> | Rosy camphorweed | native | | | | |
| | <i>Pterocaulon pycnostachyum</i> | Blackroot | native | | | S | |
| | <i>Rudbeckia hirta</i> | Blackeyed Susan | native | | | R | |
| | <i>Sphagneticola trilobata</i> | Creeping oxeye, wedelia | exotic | II | | | |
| Family: Bignoniaceae | | | | | | | |
| | <i>Campis radicans</i> | Trumpet creeper | native | | | CI | |
| Family: Caprifoliaceae | | | | | | | |
| | <i>Sambucus canadensis</i> | Elderberry | native | | | | |
| | <i>Viburnum obovatum</i> | Walter's viburnum | native | | | I | |

APPENDIX A: Floristic Species Documented Within PRP (continued).

Scientific names in accord with Wunderlin and Hansen 2008 (see key at end of list).

| Scientific Name | Common Name(s) | Status | FLEEPC | FDACS | IRC | FNAI |
|---------------------------------|-----------------------|--------|--------|-------|-----|------|
| DICOTS (continued) | | | | | | |
| Family: Chrysobalanaceae | | | | | | |
| <i>Licania michauxii</i> | Gopher apple | native | | | | |
| Family: Cucurbitaceae | | | | | | |
| <i>Momordica charantia</i> | Balsampear | exotic | | | | |
| Family: Ebenaceae | | | | | | |
| <i>Diospyros virginiana</i> | common persimmon | native | | | R | |
| Family: Ericaceae | | | | | | |
| <i>Befaria racemosa</i> | Tarflower | native | | | R | |
| <i>Lyonia ferruginea</i> | Rusty staggerbush | native | | | PE | |
| <i>Lyonia lucida</i> | Fetterbush | native | | | S | |
| <i>Vaccinium corymbosum</i> | Highbush blueberry | native | | | CI | |
| <i>Vaccinium myrsinites</i> | Shiny blueberry | native | | | S | |
| <i>Vaccinium arboreum</i> | Sparkleberry | native | | | | |
| Family: Euphorbiaceae | | | | | | |
| <i>Chamaesyce hyssopifolia</i> | Hyssopleaf sandmat | native | | | | |
| <i>Cnidocolus stimulosus</i> | Tread-softly | native | | | | |
| <i>Poinsettia cyathophora</i> | Paintedleaf | native | | | | |
| Family: Fabaceae | | | | | | |
| <i>Abrus prectorius</i> | Rosary pea | exotic | I | | | |
| <i>Apios americana</i> | Groundnut | native | | | R | |
| <i>Centrosema virginianum</i> | Spurred butterfly pea | native | | | S | |
| <i>Crotalaria spectabilis</i> | Showy Rattlebox | exotc | | | | |
| <i>Erythrina herbacea</i> | Coralbean | native | | | S | |
| <i>Macroptilium lathyroides</i> | Wild bushbean | exotic | | | | |
| <i>Sesbania emerus</i> | Danglepod | native | | | | |

APPENDIX A: Floristic Species Documented Within PRP (continued).

Scientific names in accord with Wunderlin and Hansen 2008 (see key at end of list).

| | Scientific Name | Common Name(s) | Status | FLEEPC | FDACS | IRC | FNAI |
|-------------------------------------|--------------------------------|---------------------------|--------|--------|-------|-----|------|
| DICOTS (continued) | | | | | | | |
| Family: Fabaceae (continued) | | | | | | | |
| | <i>Sesbania punicea</i> | Rattlebox | exotic | II | | | |
| | <i>Vigna luteola</i> | Hairy pod cowpea | native | | | | |
| Family: Fagaceae | | | | | | | |
| | <i>Quercus chapmanii</i> | Chapman's oak | native | | | S | |
| | <i>Quercus geminata</i> | Sand live oak | native | | | S | |
| | <i>Quercus laurifolia</i> | Laurel oak | native | | | S | |
| | <i>Quercus myrtifolia</i> | Myrtle oak | native | | | S | |
| | <i>Quercus nigra</i> | Water oak | native | | | | |
| | <i>Quercus pumila</i> | Running oak | native | | | R | |
| | <i>Quercus virginiana</i> | Live oak | native | | | S | |
| Family: Hamamelidaceae | | | | | | | |
| | <i>Liquidambar styraciflua</i> | Sweetgum* | native | | | | |
| Family: Juglandaceae | | | | | | | |
| | <i>Carya aquatica</i> | Water hickory | native | | | I | |
| Family: Lauraceae | | | | | | | |
| | <i>Persea borbonia</i> | Red bay | native | | | | |
| Family: Malvaceae | | | | | | | |
| | <i>Kosteletzya pentacarpos</i> | Virginia Saltmarsh mallow | native | | | | |
| | <i>Urena lobata</i> | Caesarweed | exotic | I | | | |
| Family: Moraceae | | | | | | | |
| | <i>Ficus aurea</i> | Strangler fig | native | | | S | |
| | <i>Morus rubra</i> | Red mulberry | native | | | R | |
| Family: Myricaceae | | | | | | | |
| | <i>Myrica cerifera</i> | Wax myrtle | native | | | S | |

APPENDIX A: Floristic Species Documented Within PRP (continued).

Scientific names in accord with Wunderlin and Hansen 2008 (see key at end of list).

| | Scientific Name | Common Name(s) | Status | FLEEPC | FDACS | IRC | FNAI |
|-----------------------------|----------------------------------|------------------------|--------|--------|-------|-----|------|
| DICOTS (continued) | | | | | | | |
| Family: Myrsinaceae | | | | | | | |
| | <i>Ardisia escallonioides</i> | Marlberry | native | | | S | |
| Family: Myrtaceae | | | | | | | |
| | <i>Eugenia axillaries</i> | White stopper | native | | | S | |
| | <i>Eugenia uniflora</i> | Surinam cherry | exotic | I | | | |
| | <i>Myrcianthes fragrans</i> | Simpson's stopper | native | | T | T | |
| | <i>Psidium guajava</i> | Guava | exotic | I | | | |
| Family: Olaceae | | | | | | | |
| | <i>Ximenia americana</i> | Hog plum | native | | | | |
| Family: Oleaceae | | | | | | | |
| | <i>Fraxinus caroliniana</i> | Carolina ash, Pop ash | native | | | R | |
| Family: Onagraceae | | | | | | | |
| | <i>Gaura angustifolia</i> | Southern beeblossom | native | | | | |
| | <i>Ludwigia octovalvis</i> | Mexican primrosewillow | native | | | | |
| Family: Phytolacceae | | | | | | | |
| | <i>Phytolacca americana</i> | American Pokeweed | native | | | S | |
| | <i>Rivina humilis</i> | Rouge plant | native | | | | |
| Family: Platanaceae | | | | | | | |
| | <i>Platanus occidentalis</i> | American Sycamore* | native | | | | |
| Family: Rosaceae | | | | | | | |
| | <i>Rubus sp.</i> | Blackberry | native | | | I | |
| Family: Rubiaceae | | | | | | | |
| | <i>Cephalanthus occidentalis</i> | Common buttonbush | native | | | | |
| | <i>Galium pilosum</i> | Hairy bedstraw | native | | | | |
| | <i>Psychotria nervosa</i> | Wild coffee | native | | | S | |

APPENDIX A: Floristic Species Documented Within PRP (continued).

Scientific names in accord with Wunderlin and Hansen 2008 (see key at end of list).

| Scientific Name | Common Name(s) | Status | FLEEPC | FDACS | IRC | FNAI |
|--------------------------------------|-----------------------|--------|--------|-------|-----|------|
| DICOTS (continued) | | | | | | |
| Family: Rubiaceae (continued) | | | | | | |
| <i>Psychotria sulzeri</i> | Shortleaf wild coffee | native | | | S | |
| Family: Rutaceae | | | | | | |
| <i>Zanthoxylum fagara</i> | Wild lime, Pricklyash | native | | | S | |
| Family: Salicaceae | | | | | | |
| <i>Salix caroliniana</i> | Coastalplain willow | native | | | S | |
| Family: Sapindaceae | | | | | | |
| <i>Cupaniopsis anacardioides</i> | Carrotwood | exotic | I | | | |
| Family: Scrophulariaceae | | | | | | |
| <i>Bacopa monnieri</i> | Herb-of-grace | native | | | S | |
| <i>Buchnera americana</i> | American blueheart | native | | | | |
| Family: Smilacaceae | | | | | | |
| <i>Smilax auriculata</i> | Earleaf greenbrier | native | | | | |
| <i>Smilax tamnoides</i> | Bristly greenbrier | native | | | I | |
| Family: Solanaceae | | | | | | |
| <i>Physalis angulata</i> L. | Cutleaf groundcherry | native | | | | |
| <i>Solanum diphyllum</i> | Twoleaf nightshade | exotic | II | | | |
| <i>Solanum viarum</i> | Tropical soda apple | exotic | I | | | |
| Family: Ulmaceae | | | | | | |
| <i>Celtis laevigata</i> | Sugarberry, Hackberry | native | | | AS | |
| Family: Verbanaceae | | | | | | |
| <i>Callicarpa americana</i> | American beautyberry | native | | | | |
| <i>Lantana camara</i> | Lantana | exotic | I | | | |
| <i>Verbena scabra</i> | Harsh vervain | native | | | | |

APPENDIX A: Floristic Species Documented Within PRP (continued).

Scientific names in accord with Wunderlin and Hansen 2008 (see key at end of list).

| Scientific Name | Common Name(s) | Status | FLEEPC | FDACS | IRC | FNAI |
|------------------------------------|-------------------------|--------|--------|-------|-----|------|
| DICOTS (continued) | | | | | | |
| Family: Vitaceae | | | | | | |
| <i>Ampelopsis arborea</i> | Peppergrape, Peppervine | native | | | S | |
| <i>Cissus verticillata</i> | Possum grape | native | | | S | |
| <i>Parthenocissus quinquefolia</i> | Virginia creeper | native | | | S | |
| <i>Vitis cinerea var.floridana</i> | Florida grape | native | | | S | |
| <i>Vitis rotundifolia</i> | Muscadine | native | | | S | |
| Famiy: Zamiaceae | | | | | | |
| <i>Zamia pumila</i> | Coontie | native | | | | |

Key

FLEPPC (Florida Exotic Pest Plant Council) Status (2011)

I = species that are invading and disrupting native plant communities
 II = species that have shown a potential to disrupt native plant communities

FDACS (2003) Designations

E = Endangered
 T = Threatened
 CE = Commercially Exploited

IRC (Institute for Regional Conservation) Designations

CI = Critically Imperiled
 I = Imperiled
 R = Rare
 S = Secure
 PE = Possibly Extirpated
 AS = Apparently Secure

FNAI (Florida Natural Areas Inventory) Designations

G= Global Status
 T= Threatened
 CE= Commercially Exploited
 or because of extreme vulnerability to extinction due to some natural or man-made factor.
 2= Imperiled because of rarity (6 to 20 occurrences or less than 3000 individuals)
 or because of vulnerability to extinction due to some natural or man-made factor.
 3= Either very rare and local throughout its range (21-200 occurrences or less than 10,000 individuals)
 or found locally in a restricted range or vulnerable to extinction from other factors.
 4= Apparently secure

* Planted – not indigenous to site prior to planting

APPENDIX B: Vertebrate Species Documented Within PRP.

See Key at end of list.

| Order | Family | Subfamily | Scientific Name | Common Name | Protection Status (2012) |
|-------------------|-------------------|-------------------|--------------------------------------|----------------------|--------------------------|
| Fish | | | | | |
| Perciformes | Centrarchidae | | <i>Micropterus salmoides</i> | Largemouth Bass | |
| | | | <i>Lepomis macrochirus</i> | Bluegill | |
| Amphibians | | | | | |
| Anura | Hylidae | | <i>Acris crepitans</i> | cricket frog | |
| | | | <i>Hyla cinerea</i> | green treefrog | |
| | Ranidae | | <i>Lithobates grylio</i> | pig frog | |
| Reptiles | | | | | |
| Testudine | | | <i>Gopherus polyphemus</i> | Gopher Tortoise | ST |
| | | | <i>Pseudemys</i> sp. | Cooter | |
| Squamata | | | <i>Anolis sagrei</i> | Cuban Brown Anole* | |
| | | | <i>Anolis carolinensis seminoles</i> | Green Anole | |
| | Colubridae | | <i>Coluber constrictor priapus</i> | southern black racer | |
| Birds | | | | | |
| Pelecaniformes | Ardeidae | | <i>Ardea herodias</i> | Great Blue Heron | |
| | | | <i>Egretta caerulea</i> | Little Blue Heron | SSC |
| | | | <i>Bubulcus ibis</i> | Cattle Egret | |
| | Threskiornithidae | Threskiornithinae | <i>Eudocimus albus</i> | White Ibis | SSC |

APPENDIX B: Vertebrate Species Documented Within PRP (continued).

See Key at end of list.

| Order | Family | Subfamily | Scientific Name | Common Name | Protection Status (2012) |
|--------------------------|--------------|---------------------------|---|----------------------------|--------------------------|
| Birds (continued) | | | | | |
| Accipitriformes | Cathartidae | | <i>Coragyps atrarus</i> | Black Vulture | |
| | Accipitridae | | <i>Buteo lineatus</i> | Red-shouldered Hawk | |
| | | | <i>Elanoides forficatus</i> | Swallow-tailed Kite | |
| Falconiformes | Falconidae | Caracarainae | <i>Polyborus plancus audubonii</i> (<i>Caracara cheriway</i>) | Audubon's Crested Caracara | FT |
| Columbiformes | Columbidae | | <i>Zenaida macroura</i> | Mourning Dove | |
| | | | <i>Columbina passerina</i> | Common Ground-Dove | |
| Piciformes | Picidae | Picinae | <i>Melanerpes carolinus</i> | Red-bellied Woodpecker | |
| | | | <i>Picoides pubescens</i> | Downy Woodpecker | |
| | | | <i>Dryocopus pileatus</i> | Pileated Woodpecker | |
| Passeriformes | Tyrannidae | Tyranninae | <i>Myiarchus crinitus</i> | Great Crested Flycatcher | |
| | Vireonidae | | <i>Vireo griseus</i> | White-eyed Vireo | |
| | Corvidae | | <i>Cyanocitta cristata</i> | Blue Jay | |
| | | | <i>Corvus brachyrhynchos</i> | American Crow | |
| | | | <i>Corvus ossifragus</i> | Fish Crow | |
| | Hirundinidae | Hirundininae | <i>Hirundo rustica</i> | Barn Swallow | |
| Paridae | | <i>Baeolophus bicolor</i> | Tufted Titmouse | | |

APPENDIX B: Vertebrate Species Documented Within PRP (continued).

See Key at end of list.

| Order | Family | Subfamily | Scientific Name | Common Name | Protection Status (2012) |
|------------------------------|----------------|-----------|---------------------------------|-------------------------|--------------------------|
| Birds (continued) | | | | | |
| Passeriformes (continued) | Troglodytidae | | <i>Thryothorus ludovicianus</i> | Carolina Wren | |
| | Poliophtilidae | | <i>Poliophtila caerulea</i> | Blue-gray Gnatcatcher | |
| | Mimidae | | <i>Dumetella carolinensis</i> | Gray Catbird | |
| | | | <i>Mimus polyglottos</i> | Northern Mockingbird | |
| | Parulidae | | <i>Dendroica dominica</i> | Yellow-throated Warbler | |
| | Cardinalidae | | <i>Cardinalis cardinalis</i> | Northern Cardinal | |
| | Icteridae | | <i>Quiscalus quiscula</i> | Common Grackle | |
| Suliformes | Anhingidae | | <i>Anhinga anhinga</i> | Anhinga | |

Key

* = Exotic Species. Protection Status (based on FWC list October 2012): FT = Federally-designated Threatened; ST = State-designated Threatened; SSC = State Species of Special Concern

APPENDIX C: Public Meeting Information and County Commission Minutes

A public meeting to discuss this land stewardship plan will be held at the Riverdale Branch Library (2421 Buckingham Road, Fort Myers, Florida 33905) on January 22, 2013 at 6:00 PM. All comments provided will become part of the public record and will be included in this plan.

Minutes from the public meeting and comments received will be placed here.

Minutes from the meeting of the Lee County Board of County Commissioner's approval of this plan will also be included here.

SECOND DRAFT

APPENDIX D: Current Cattle Lease.

LICENSE AGREEMENT FOR CATTLE GRAZING

This AGREEMENT made this 15th day of September, 2012, by and between LEE COUNTY, a political subdivision and charter county of the State of Florida, whose address is P.O. Box 398, Fort Myers, Florida 33902-0398, ("Licensor"); and _____, an individual, whose address is _____ ("Licensee").

WHEREAS, Licensor is the owner of property situated in Lee County and depicted and described in attached Exhibit A; and

WHEREAS, Licensor, in consideration of the fees paid and the covenants and agreements set forth herein to be kept and performed by the Licensee, does hereby grant to the Licensee a license solely for the grazing of cattle on Licensor's lands as depicted/described in attached Exhibit B ("Licensed Property").

NOW, THEREFORE, in consideration of the covenants and conditions set forth below, the parties agree as follows:

1. Recitals. The above recitals are true and correct and incorporated herein as though fully set forth below.
2. License. Licensor hereby grants to Licensee a revocable, non-exclusive License to graze cattle on the property described in attached Exhibit B.
3. License Fee. Licensee agrees to pay Lee County \$40.00 per license term or portion thereof on September 15th of each year. Payment may be provided to the Land Stewardship Coordinator for appropriate processing.
4. Term. This License begins on the date it is fully executed and ends September 30. The term of this license may be extended for one additional year, ending September 30, provided Licensor agrees.
5. Revocation, Expiration, Termination or Cancellation. Licensor may revoke the License at any time with 30 days written notice to Licensee. Upon termination of the License, Licensee must remove all cattle and return the property to Licensor in as good or better condition that when it was first licensed.

The parties understand and agree that this License Agreement may be canceled upon 48 hours' written notice to the Licensee, if any of the Licensee's cattle are not kept within the confines of the Licensed Property as described on Exhibit B. Cattle may be transferred between adjacent or adjoining property, provided the properties are both the subject of a cattle license held by or involving Licensee, but the cattle must remain within the confines of the perimeter fencing.

APPENDIX D: Current Cattle Lease (continued).

6. Use of Licensed Property.
 - a. *Cattle grazing.* Licensee understands and agrees the licensed property may only be used for cattle grazing and no other purpose.
 - b. *Maximum number of cattle.* Licensee may not exceed 20 head of Cattle on the licensed property at any time.
 - c. *Land management activity.* Licensee must obtain written approval from the Land Stewardship Coordinator prior to performing any land clearing, controlled burns, fertilizing, exotic removal, chopping, chemical spraying, or other land management activities.
 - d. *Hog removal.* In order to preserve the licensed property and its use for cattle grazing, Licensee may trap and remove feral hogs, at Licensee's sole cost and expense, in a manner complying with state and local laws and regulations.
 - e. *Public Use.* Licensee has a non-exclusive right to use the Licensed Property. Licensee may not prevent the entry of members of the public on the Licensed Property for purposes of maintenance of the preserve areas/property and recreational enjoyment by hikers.
7. Fencing.
 - a. During the term of this License, Licensee must maintain all perimeter and interior fencing necessary to keep livestock within the licensed area as follows:
 1. Along all road frontage the fencing must be, at minimum, a 5 strand barbed wire fence.
 2. Along non-road frontage license boundaries the fencing must be, at minimum, a 4 strand barbed wire fence.
 3. The fencing must be maintained in good repair and must effectively prevent cattle from roaming beyond the boundaries of the Licensed Property at all times during the term of this license.
 - b. At the end of the license period stated in this Agreement, Licensee must turn over the Licensed Property with the fencing in good repair. In the event the fencing is not in good repair, Lee County may take one or more of the following actions: repair the fencing and send an invoice for the repair costs to Licensee; refuse to License County property to Licensee (including any

APPENDIX D: Current Cattle Lease (continued).

entity involving the Licensee) in the future; or, take any other action the County deems appropriate.

8. Survey monuments. All section corners, quarter corners, and other survey monuments lying in the premises will be properly flagged by the Licensor. Licensee agrees to bear any survey costs for resetting these monuments in the event they are disturbed by the Licensee in any way.

9. Indemnification. Licensee hereby indemnifies and releases the Licensor from any and all claims for damages to both persons and property as the result of the cattle grazing; and, holds Licensor harmless from all damages during the term of this Agreement to include all reasonable fees, costs and expenses incurred for litigation in any forum resulting from damage claimed by third parties as a result of the Licensee's use of the property described in Exhibit "B".

10. Insurance. Licensee must maintain Premises Liability Insurance coverage through the license term and provide proof of insurance to Lee County Parks and Recreation for the duration of the license. The policy must provide minimum limits of \$1,000,0000 (combined Single Limit of Bodily Injury and Property Damage). Lee County must be named as a Certificate Holder and Additional Insured on the insurance policy. (A copy of the insurance certificate is attached as Exhibit C.)

11. Personal property taxes. Licensee covenants and agrees to file an annual personal property tax return with the County of Lee, State of Florida, as required by law.

12. Assignment. This License is not assignable to any other party.

13. Notices. The contact information for the parties is as follows:

Lee County, Licensor
Director of Parks and Recreation
3410 Palm Beach Boulevard
Fort Myers, FL 33916
239-533-7275

14. Amendment. This is the entire agreement between the parties and may only be amended in a writing executed with the same formality.

15. Governing law. This Agreement will be construed in accordance with the laws of the state of Florida. Venue for any court proceedings is in Lee County.

APPENDIX D: Current Cattle Lease (continued).

16. Severability. In the event any portion or provisions of this License Agreement is deemed invalid, the remaining provisions will not be affected and will remain in full force and effect.

Witness: _____
Print Name: _____
Witness: _____
Print Name: _____

Licensee
By: _____

Witness: _____
Print Name: _____
Witness: _____
Print Name: _____

Lee County Parks and Recreation
By: _____
David W. Harner, II, Deputy Director

Approved as to form:
By: _____
Lee County's Attorney's Office

[The Board of County Commissioners delegated authority to the Director of Parks and Recreation to enter short term leases/licenses for cattle grazing on Conservation 2020 lands and other lands managed by Lee County pursuant to Bluesheet #19990807 adopted on August 17, 1999.]

APPENDIX D: Current Cattle Lease (continued).

EXHIBIT A

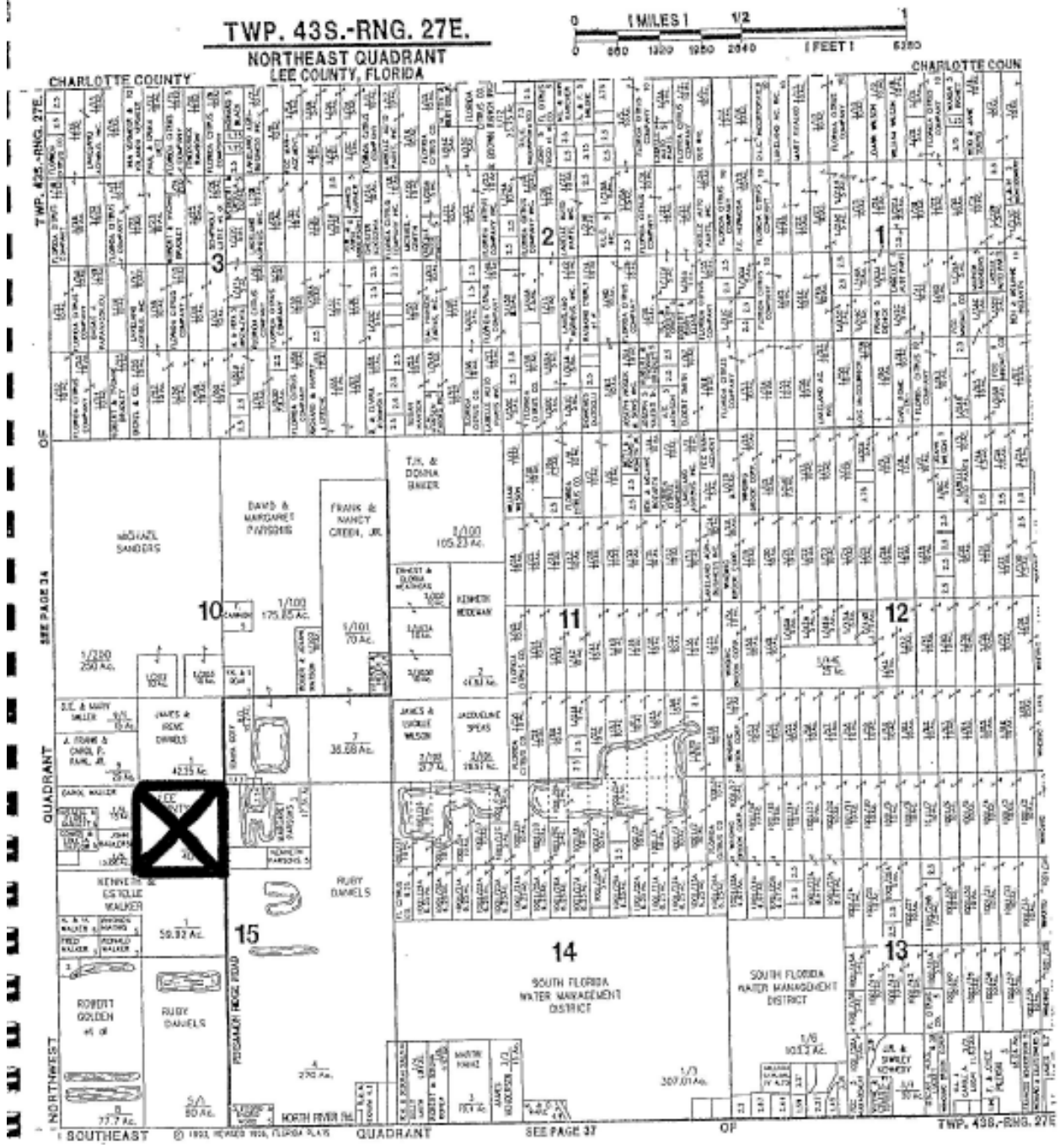
Nov 2020

The Northeast Quarter (NE 1/4) of the Northwest Quarter (NW 1/4) of Section 15, in Township 43 South, Range 27 East, as recorded in OR Book 97, page 112, of the Official Records of the Clerk of Courts in Lee County, Florida.

Exhibit B: Persimmon Ridge Preserve



APPENDIX D: Current Cattle Lease (continued).



APPENDIX E: Costs Associated with Options for Public Access and Resource-Based Recreation

There is no dedicated funding in the LCPR budget to manage this preserve. Due to financial limitations and the proximity (Figure 1) of PRP to other Preserves (Daniels Preserve at Spanish Creek, Telegraph Preserve) and parks (Caloosahatchee Regional Park, Hickey’s Creek Mitigation Park) managed by LCPR, public access is not being proposed for PRP at this time. Large scale recreational facilities or multi-use trail systems are not necessary as there are preserves and parks in close proximity to PRP that provide opportunities for hiking, mountain biking, camping, fishing and equestrian use; these preserves and parks have Board-approved stewardship (management) plans in place and the infrastructure to support these offerings.

The following options for public access and resource-based recreation were compiled using real-world numbers and current prices. These estimates do not include the costs associated with trail (service road) or fence maintenance as these would be captured as costs for resource management/protection (Appendix G):

| Annual and Ten-Year Public Access Options and Cost Estimates for PRP (October 2012- September 2022)^a | | | | | | | | | | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|
| Fiscal Year | 2012/2013 | 2013/2014 | 2014/2015 | 2015/2016 | 2016/2017 | 2017/2018 | 2018/2019 | 2019/2020 | 2020/2021 | 2021/2022 | Ten-Year Total |
| Amenities^b | | | | | | | | | | | |
| Small primitive parking area and trail head | \$7,500 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Public Access Gate | \$200 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$200 |
| Fishing Piers (2) | \$20,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$20,000 |
| Trash Cans (3) ^c | \$2,940 | \$840 | \$840 | \$840 | \$840 | \$840 | \$840 | \$840 | \$840 | \$840 | \$10,500 |
| Signs | \$2,500 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$2,500 |
| ^a All projected costs include labor and equipment needed (2012 estimates). Labor and equipment costs are based on 8-10 hours days. These numbers are subject to change due to any fluctuation in wages, fuel, and equipment costs. ^b Cost estimates for amenities are based on costs incurred on other County preserves. Amenities are not proposed at this time. Benches were not included as these would be installed as local, community groups (e.g., eagle scouts) proposed them. ^c Initial cost includes purchase and installation of wildlife proof trash cans (\$700 each) plus maintenance costs. Subsequent costs include yearly maintenance costs (estimates of staff time and materials used to maintain trash cans). | | | | | | | | | | | |

SECOND DRAFT

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APPENDIX F: Deed to PRP (continued)

State of Florida, } OFF. REC. 97 PAGE 113
 County of LEE

I HEREBY CERTIFY, That on this 14 day of November
 A. D. 1961, before me personally appeared HARRY A. FITZGERALD AND FANNIE
 FITZGERALD, his wife, and LEWIS FERNANDEZ and IRENE FERNANDEZ, his wife,
 to me known to be the persons described in and who executed the foregoing con-
 veyance to
 LEE COUNTY, a Political Subdivision of the State of Florida,
 and severally acknowledged
 the execution thereof to be their free act and deed for the uses and purposes
 therein mentioned.

WITNESS my signature and official seal at Fort Myers,
 in the County of Lee and State of Florida, the day and
 year last aforesaid.

My Commission Expires _____
 Notary Public

Lee M. Trayhorn
 Notary Public

STATE OF FLORIDA, COUNTY OF LEE
 FILED FOR RECORD
 This 14 Day of Nov 1961 Record in 97
 Book 97 Page 112 and Record Verified
 D. T. FARABLE By *Douglass*
 Clerk Circuit Court Deputy Clerk

has already (been)
INDEXED
INDEXED

TO

THE SIMPLE

Deed

ABSTRACT OF DESCRIPTION

Date

APPENDIX G: Projected Costs for Resource Management and Protection.

There is no dedicated funding in the LCPR budget to manage this preserve. Funding sources will be researched and applications for appropriate grants will be made.

| Annual and Ten-Year Resource Management and Protection Cost Estimates for PRP (October 2012- September 2022)^a | | | | | | | | | | | |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------------------|
| Fiscal Year | 2012/2013 | 2013/2014 | 2014/2015 | 2015/2016 | 2016/2017 | 2017/2018 | 2018/2019 | 2019/2020 | 2020/2021 | 2021/2022 | Ten-Year Total |
| Maintenance of Trails (Service Road) and Fences- No Cattle Lease^b | | | | | | | | | | | |
| Trail Mowing (in-house) | \$3,540 - \$5,460 | \$3,540 - \$5,460 | \$3,540 - \$5,460 | \$3,540 - \$5,460 | \$3,540 - \$5,460 | \$3,540 - \$5,460 | \$3,540 - \$5,460 | \$3,540 - \$5,460 | \$3,540 - \$5,460 | \$3,540 - \$5,460 | \$35,400 - \$54,600 |
| Trail Mowing (Contractor) | \$4,200 - \$4,800 | \$4,200 - \$4,800 | \$4,200 - \$4,800 | \$4,200 - \$4,800 | \$4,200 - \$4,800 | \$4,200 - \$4,800 | \$4,200 - \$4,800 | \$4,200 - \$4,800 | \$4,200 - \$4,800 | \$4,200 - \$4,800 | \$42,000 - \$48,000 |
| Fence Maintenance | \$200 | \$200 | \$200 | \$200 | \$200 | \$200 | \$200 | \$200 | \$200 | \$200 | \$2,000 |
| Resource Management/Protection^c | | | | | | | | | | | |
| Exotic Plant Control | \$1,050 | \$1,050 | \$1,050 | \$1,050 | \$1,050 | \$1,050 | \$1,050 | \$1,050 | \$1,050 | \$1,050 | \$10,500 |
| Prescribed Fire | \$0 | \$3,850 | \$0 | \$0 | \$0 | \$3,850 | \$0 | \$0 | \$0 | \$3,850 | \$11,550 |
| <p>^a All projected costs include labor and equipment needed (2012 estimates). Labor and equipment costs are based on 8-10 hours days. These numbers are subject to change due to any fluctuation in wages, fuel, and equipment costs.</p> <p>^b The cattle lease stipulates that the Lessee is responsible for mowing the parcel and maintaining the fence (approximately 5,200-ft); these numbers reflect a cost to the County if the cattle lease is removed (not proposed).</p> <p>^c Cost estimates for basic resource management and protection costs are based on costs incurred on other County preserves.</p> | | | | | | | | | | | |