

**COPPERHEAD
INDIGENOUS PRESERVE AND
GOPHER TORTOISE MANAGEMENT PLAN**

September 2006
Revised October 2006
Revised November 2006

INTRODUCTION

The following outlines the Lee County Indigenous Preserve and Gopher Tortoise Management Plan for Copperhead (Project) located in Section 6, Township 45 South, Range 27 East, Lee County. A total of 6.71± acres of indigenous uplands will be enhanced and preserved on-site. Upland preserve areas include pine flatwoods and cabbage palm. The pine flatwoods in Indigenous Preserve Nos. 9 and 10 will be managed for gopher tortoises.

METHOD AND FREQUENCY OF PRUNING AND TRIMMING

Exotic removal is scheduled to begin after all applicable permits and approvals have been attained. After the initial removal of exotics, semi-annual inspections of the mitigation area will occur for the first two years. During these inspections, the mitigation area will be traversed by a qualified ecologist. Locations of nuisance and/or exotic species will be identified for immediate treatment with an appropriate herbicide. Any additional potential problems will also be noted and corrective actions taken. Once exotic/nuisance species levels have been reduced to acceptable limits (i.e., less than five percent cover), inspections of the mitigation areas will be conducted annually. Maintenance of native vegetations may be conducted by mowing with a bush-hog. Bush-hogging may be conducted in pine flatwood and palmetto prairie habitats every three to six years. Prior to any preserve maintenance, the Division of Environmental Sciences (DES) will be notified.

METHODS TO REMOVE AND CONTROL ALL EXOTICS AND NUISANCE PLANTS

No exotics will be stockpiled on the preserves. All prohibited invasive exotics will be removed from the site (Table 1). Exotics to be removed include, but are not limited to, melaleuca (*Melaleuca quinquenervia*) and Brazilian pepper (*Schinus terebinthifolius*) (Table 1). Exotics are required to be removed from the preserve areas before the initial Certificate of Compliance request. Access to the indigenous preserves will be through the existing developed areas and golf course. Exotics will be removed by hand. Hand removal will be either felling of exotic trees, hand removal, and herbicide treatment of the stumps; or hand pulling.

DOS 2006-00122

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Table 1. Prohibited Invasive Exotics

Common name	Scientific name
Air potato	<i>Dioscorea alata</i>
Australian pines	All <i>Casuarina</i> species
Bishopwood	<i>Bischofia javanic</i>
Brazilian pepper	<i>Schinus terebinthifolius</i>
Carrotwood	<i>Cupaniopsis anacardioides</i>
Chinese tallow	<i>Sapium sebiferum</i>
Cork tree	<i>Thespesia populnea</i>
Cuban laurel fig	<i>Ficus microcarpa</i>
Downy rose myrtle	<i>Rhodomyrtus tomentosus</i>
Earleaf acacia	<i>Acacia auriculiformis</i>
Japanese climbing fern	<i>Lygodium japonicum</i>
Java plum	<i>Syzygium cumini</i>
Melaleuca	<i>Melaleuca quinquenervia</i>
Murray red gum	<i>Eucalyptus camaldulensis</i>
Old world climbing fern	<i>Lygodium micorphyllum</i>
Rose apple	<i>Syzygium jambos</i>
Rosewood	<i>Dalbergia sissoo</i>
Tropical soda apple	<i>Solanum viarum</i>
Wedelia	<i>Wedelia trilobata</i>
Weeping fig	<i>Ficus benjamina</i>
Woman’s tongue	<i>Albizia lebbeck</i>

DEBRIS REMOVAL

All debris will be hand removed from within the on-site preserves.

PROTECTED SPECIES MANAGEMENT PLAN CONDITIONS

Gopher Tortoise Management Plan

Passarella and Associates, Inc. (PAI) conducted a Lee County protected species survey (PSS) at Copperhead on May 2, 2006. The survey was conducted to meet Lee County Land Development

Code (LDC) Chapter 10, Article III, Division 8 (Protection of Habitat) standards. The PSS identified six active and two inactive gopher tortoise (*Gopherus polyphemus*) burrows within the development boundary. A Florida Land Use, Cover and Forms Classification (FLUCFCS) map with the gopher tortoise burrow locations is attached as Figure 1.

The following descriptions and recommended activities comprise the management plan for the gopher tortoise. The plan is being provided to address the requirements of Lee County LDC Section 10-474.

The applicant proposes to move all the tortoises within the development boundary to Indigenous Preserve Nos. 9 and 10 (Figure 2). The applicant has obtained an Incidental Take Permit (Permit No. LEE-63) from the Florida Fish and Wildlife Conservation Commission. Relocation is being conducted as a condition of the Lee County Development Order (DO). Groundtruthing of preserve vegetation was conducted on August 22, 2006 by PAI. Management for gopher tortoises will occur in areas mapped as Pine Flatwoods, Disturbed (FLUCFCS Code 4119 E1). A description of the habitat types within Indigenous Preserve Nos. 9 and 10 is as follows:

Pine Flatwoods, Disturbed (0 – 24% Exotics) (FLUCFCS Code 4119 E1)

This upland plant community has a canopy of slash pine (*Pinus elliottii*) and cabbage palm (*Sabal palmetto*). The sub-canopy contains slash pine, cabbage palm, scattered winged sumac (*Rhus copallinum*), and beautyberry (*Callicarpa americana*). The ground cover includes winged sumac, beautyberry, saw palmetto (*Serenoa repens*), rusty lyonia (*Lyonia ferruginea*), saltbush (*Baccharis halimifolia*), ragweed (*Ambrosia artemisiifolia*), lantana (*Lantana camara*), gallberry (*Ilex glabra*), caesarweed (*Urena lobata*), and natalgrass (*Rhynchelytrum repens*).

Cabbage Palm, Disturbed (0 – 24% Exotics) (FLUCFCS Code 4289 E1)

This upland plant community has a canopy of cabbage palm, slash pine, and scattered laurel oak (*Quercus laurifolia*). The sub-canopy contains cabbage palm and Brazilian pepper (*Schinus terebinthifolius*). The ground cover includes saw palmetto, beautyberry, winged sumac, caesarweed, muscadine grape (*Vitis rotundifolia*), spermacoce (*Spermacoce verticillata*), and beggar-ticks (*Bidens alba* var. *radiata*).

The indigenous preserves will be prepared for the relocated tortoises by installing a hard-wire fence in a manner that will prevent their movement onto other sites. The fencing will be buried approximately 18 to 24 inches deep at a 90 degree angle, with the lower portion being buried parallel to the surface to prevent tortoises from burrowing under the fencing. The fence will be removed after completion of construction activity.

The active and inactive gopher tortoise burrows within the proposed development area will be excavated, and gopher tortoises and their commensals immediately relocated to the indigenous preserves. A qualified biologist will supervise the excavation activities.

Prior to the on-site gopher tortoise relocation, all exotics within the designated preserve area will be hand removed. Maintenance of exotic vegetation within the gopher tortoise preserve will be conducted in perpetuity.

Prescribed burning is an available management technique that may be permitted, as applicable, within the preservation areas. The feasibility of conducting prescribed burns will take into consideration the ability to obtain local and state authorizations; ability to create adequate firebreaks at the burn site; impacts to listed wildlife species; cost as compared to management techniques that do not require fire; and liability of conducting prescribed burns in proximity to existing roadways and developed areas.

Prescribed burning may only be conducted by a certified prescribed burn manager and in accordance with the applicable rules and regulations of the Division of Forestry. The use of prescribed burning may necessitate the creation of adequate firebreaks resulting in removal of native vegetation within the preserve areas. The removal of native vegetation in the preserve areas for the purpose of creating firebreaks is permitted.

Those areas within Indigenous Preserve Nos. 9 and 10 that require restoration plantings will be replanted per the Restoration and Planting Plan previously approved by Rob Irving (Appendix A).

EDUCATIONAL MATERIALS AND SIGNAGE

An educational brochure has been prepared for the Homeowners Association documents to help protect the preserve areas and wildlife that may use the preserve (Appendix B).

MONITORING REPORTS

Photographic documentation of Indigenous Preserve Nos. 9 and 10 are attached as Appendix C. Photographs and a narrative description of preserve conditions will be submitted to DES staff prior to DO approval, and will be submitted to staff after project construction and before Certificate of Compliance approval. The post construction report will include a brief description of mitigation and maintenance work performed. Reports will also include a brief description of anticipated mitigation and maintenance work to be conducted over the next year. The results of quantitative vegetation monitoring conducted in the enhanced wetlands and upland buffers, as well as a list of observed wildlife species, will also be included.

APPENDIX A

RESTORATION AND PLANTING PLAN

COPPERHEAD
RESTORATION PLANTING PLAN
LEE COUNTY DEVELOPMENT ORDER NO. DOS991203400D

Revised August 2006

INTRODUCTION

The following restoration planting plan has been prepared to address the Lee County official notice of denial for Certificate of Compliance for landscaping/environmental requirements, dated March 1, 2006 for Copperhead Golf Community. The notice of denial was issued for the mowing, trimming, and removal of understory vegetation in the indigenous preserves; inadequate vegetation in the littoral zone of ponds 3, 8, and 9; and exotic vegetation present in the indigenous preserves.

RESTORATION PLANTINGS FOR INDIGENOUS PRESERVES

Restoration plantings will be installed in those areas where the understory vegetation was cleared, including indigenous preserve numbers 2 through 11 and a 0.27± acre pine flatwood area north of Conservation Wetland No. 2 (CW-2) (Exhibit A). Restoration plantings will include native shrub and ground cover species that typically occur within the existing on-site indigenous preserves (Table 1). Restoration plantings will be a minimum container size of one gallon excluding grasses, which may be two inch liner. Shrub and ground cover plantings will be planted on three foot centers. The estimated number of ground cover plantings by preserve is found in Table 2. The number of plants by preserve number and habitat type is found in Exhibit B.

Table 1. Supplemental Planting List for Copperhead

Common Name	Scientific Name	Minimum Container Size	Density (On Center)
Shrub ¹			
Rusty lyonia	<i>Lyonia ferruginea</i>	1 gal.	3 ft.
Gallberry	<i>Ilex glabra</i>	1 gal.	3 ft.
Wax-myrtle	<i>Myrica cerifera</i>	1 gal.	3 ft.
Saffron plum	<i>Sideroxylon celastrinum</i>	1 gal.	3 ft.
Myrsine	<i>Rapanea punctata</i>	1 gal.	3 ft.
Winged sumac	<i>Rhus copallinum</i>	1 gal.	3 ft.
Beautyberry	<i>Callicarpa americana</i>	1 gal.	3 ft.
Saw palmetto	<i>Serenoa repens</i>	1 gal.	3 ft.

¹ A minimum of three species will be utilized with relative proportions characteristic of those in existing indigenous vegetation on the property. No one species may constitute more than 50 percent of the plantings.

Table 1. (Continued)

Common Name	Scientific Name	Minimum Container Size	Density (On Center)
Shiny blueberry	<i>Vaccinium myrsinites</i>	1 gal.	3 ft.
Pawpaw	<i>Asimina reticulata</i>	1 gal.	3 ft.
Wiregrass	<i>Aristida stricta</i>	2 in. liner	3 ft.
Lovegrass	<i>Eragrostis spectabilis</i>	2 in. liner	3 ft.
Muhly grass	<i>Muhlenbergia capillaris</i>	2 in. liner	3 ft.

¹ A minimum of three species will be utilized with relative proportions characteristic of those in existing indigenous vegetation on the property. No one species may constitute more than 50 percent of the plantings.

Table 2. Estimated Number of Ground Cover Plantings by Preserve

Preserve No.	Total Acres of Preserve	Acres To Be Replanted	Number of Plants (3 foot centers) ¹
1	0.30	N/A	N/A
2	0.36	0.36	2,906
3	0.16	0.11	889
4	0.28	0.28	1,355
5	0.15	0.08	387
6	0.57	0.25	1,938
7	0.49	0.27	2,087
8	1.34	0.37	2,985
9	0.37	0.19	1,142
10	1.91	0.47	3,298
11	0.68	0.68	5,264
CW-2	0.27	0.27	2,607
Lake No.	Linear Feet of Shoreline	Number of Plants (Planted in Clusters)	
3	1,206	1,206	
8	1,789	1,789	
9	1,606	1,606	

¹Estimated number of plantings may be field-adjusted depending on existing native ground cover at time of planting. Number of plants includes 3:1 ratio for all two inch container groundcover.

LITTORAL PLANTINGS

Additional native wetland herbaceous plants will be supplemented to correct deficiencies in Stormwater Ponds 3, 8, and 9 (Table 3). The number of plants in each pond will meet one plant per linear foot of lake shoreline as measured at the control elevation water level. Pond 8 is utilized as an aqua range and the shoreline is under frequent disturbance, thus plantings will be restricted to the south and west shoreline of Pond 8 (see attached aerial depicting location). Plants will be installed in clusters around the lake perimeter with preference to inlet and outlet areas. At least four species will be planted in each lake. Native wetland trees or shrubs may be substituted for up to 25 percent of the total number of herbaceous plants required. One tree (minimum four foot height; three gallon container size at planting) or two shrub (minimum 24 inch height; three-gallon container size at planting) may be substituted for ten herbaceous plants, per the Lee County Land Development Code.

Table 3. Littoral Planting List for Copperhead

Common Name	Scientific Name	Minimum Container Size
Pickerelweed	<i>Pontederia cordata</i>	2 in.
Arrowhead	<i>Sagittaria lancifolia</i>	2 in.
Bulrush	<i>Scirpus</i> sp.	2 in.
Knotted spikerush	<i>Eleocharis interstincta</i>	2 in.
Maidencane	<i>Panicum hemitomon</i>	2 in.
Canna	<i>Canna flaccida</i>	2 in.

EXOTIC AND DEBRIS REMOVAL

Invasive exotic vegetation and landscape debris piles will be hand-removed from the preserve unless other means are field-approved by Lee County Division of Environmental Sciences staff. Invasive exotic vegetation includes, but is not limited to, Brazilian pepper (*Schinus terebinthifolius*), melaleuca (*Melaleuca quinquenervia*), lantana (*Lantana camara*), tropical soda apple (*Solanum viarum*), earleaf acacia (*Acacia auriculiformis*), and caesarweed (*Urena lobata*). The hand removal of exotic and nuisance vegetation will include one or more of the following methods: (1) cut exotics within 12 inches of ground elevation, hand-remove cut vegetation, and treat remaining stump with approved herbicide; (2) girdle standing exotic trees with diameter at breast height (DBH) greater than four inches and apply approved herbicide to cambium; (3) foliar application of approved herbicide to saplings and herbaceous exotics; (4) foliar application of approved herbicide or hand pulling of exotic seedlings. The indigenous preserve areas shall be free from exotic vegetation immediately following a maintenance activity. Between maintenance activities, the indigenous preserve areas should consist of no more than five percent of total coverage of exotic and nuisance vegetation. Exotic and nuisance vegetation species are identified as those species listed by the Exotic Pest Plant Council at the time of development order issuance.



LEGEND:

- LITTORAL PLANTING AREAS (TYP.)
- GROUND COVER PLANTING AREAS

INDIGENOUS

AREA	
NUMBER	ACREAGE
1	0.30 Ac.±
2	0.36 Ac.±
3	0.16 Ac.±
4	0.28 Ac.±
5	0.15 Ac.±
6	0.57 Ac.±
7	0.49 Ac.±
8	1.34 Ac.±
9	0.37 Ac.±
10	1.91 Ac.±
11	0.68 Ac.±
TOTAL	6.61 Ac.±

NOTES:

AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE LEE COUNTY PROPERTY APPRAISER'S OFFICE WITH A FLIGHT DATE OF JANUARY 2005.

PROPERTY BOUNDARY AND SITE PLAN FROM BANKS ENGINEERING DRAWING No. 3142.DWG DATED APRIL 20, 2006.

LITTORAL AND GROUND COVER PLANTINGS TO BE FIELD ADJUSTED AS NEEDED PER APPROVED RESTORATION PLAN.

REVISIONS	DESIGNED BY	DATE	HORIZONTAL SCALE
	A.W.	6/21/06	N.T.S.
	CHECKED BY	DATE	VERTICAL SCALE
	A.W.	6/21/06	N/A
	DRAWN BY	DATE	SEC./TWP./RNG.
	D.B.	6/21/06	6/45/27, 1/45/26

PASSARELLA and ASSOCIATES, INC.
Consulting Ecologists
9110 College Pointe Court, Fort Myers, Florida 33919

COPPERHEAD
AERIAL WITH INDIGENOUS VEGETATION PRESERVES AND PLANTING PLAN

DRAWING No.:
05EHB1475
SHEET No.:
EXHIBIT A

Exhibit B. Estimated Number of Plants by Preserve (P) Number and Habitat Type for Copperhead

Plants	P-1 Pine	P-2 Pine	P-3 ¹ Pine	P-4 Cabbage	P-5 Pine/Cabbage	P-6 Pine	P-7 Pine/Cabbage	P-8 Pine	P-9 Pine/Cabbage	P-10 Pine	P-10 Cabbage	P-11 Pine/Cabbage	CW-2 Pine
Shrub ²													
Rusty lyonia	N/A	116	37			85						141	146
Gallberry	N/A	116	37			85				227		141	146
Wax-myrtle	N/A	116	37	271	48	85	91	199	92			141	145
Saffron plum	N/A			271	48		91		92		56	141	
Myrsine	N/A			271	49		91		92		56	141	
Winged sumac	N/A	116	37			85	91	199		113		141	75
Beautyberry	N/A	116		271	49	85	91	199	91	114	56	141	
Saw Palmetto	N/A	580	148	271	193	424	462	199	368	113	169	987	145
Ground Cover ²													
Shiny blueberry	N/A												
Pawpaw	N/A												
Wiregrass ³	N/A	582	197			363	390	730	136	798		1,097	650
Lovegrass ³	N/A	582	197			363	390	730	136	798		1,097	650
Muhly grass ³	N/A	582	199			363	390	729	135	798		1,096	650
Estimated Totals	N/A	2,906	889	1,355	387	1,938	2,087	2,985	1,142	2,961	337	5,264	2,607

¹ The open canopy north side of Preserve No. 3 may be planted with mature cabbage palms relocated from developed areas. If cabbage palms are relocated to this area, then gallberry and rusty lyonia will be replaced by saffron plum and myrsine in cabbage habitat.

² A minimum of three species will be utilized with relative proportions characteristic of those in existing indigenous vegetation on the property. No one species may constitute more than 50 percent of the plantings. Estimated number of plants may be field-adjusted depending on existing ground cover at time of planting.

³ Grass plantings are two inch liner container-size material. Numbers reflect a 3:1 increase in grass planting.

APPENDIX B

HOMEOWNERS ASSOCIATION EDUCATIONAL BROCHURE

Living with Nature

Copperhead Golf and Country Club has been designed to incorporate wetland and upland nature preserves. The preserves are environmentally sensitive and provide habitat for wildlife, including song birds, wading birds, reptiles, amphibians, and small mammals. Upland preserves also provide habitat and protection for gopher tortoises, which are a protected species. The gopher tortoise is a land animal, not an aquatic turtle, and should not be placed in any lake. Please do not allow your dogs to “play” with the gopher tortoises. Dogs can easily kill this protected species.

Please help keep the preserve areas free of trash and debris. The preserve areas are not to be disturbed by dredging, filling, land clearing, trimming, planting, or construction related activities. Maintenance to control exotic vegetation in the preserve will be conducted by trained professionals. Maintenance may include the use of prescribed burning conducted by a certified prescribed burn manager. Prescribed burning will maximize the natural health of the preserve and minimize any threat that wildfire may pose to adjacent homes and property.

Please Do Not Feed Wildlife

Supplemental feeding encourages wildlife to become dependent on handouts that are not a part of their natural diets. Juvenile animals become used to depending on humans and may never develop normal foraging behavior. In addition, food left out might also attract disease-carrying rats and other pests.

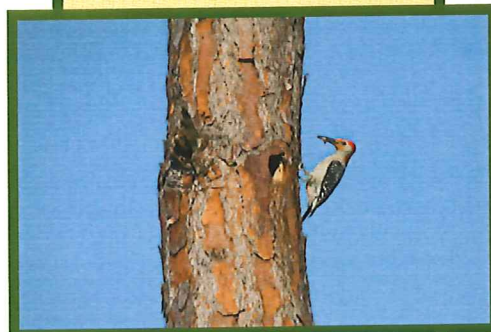
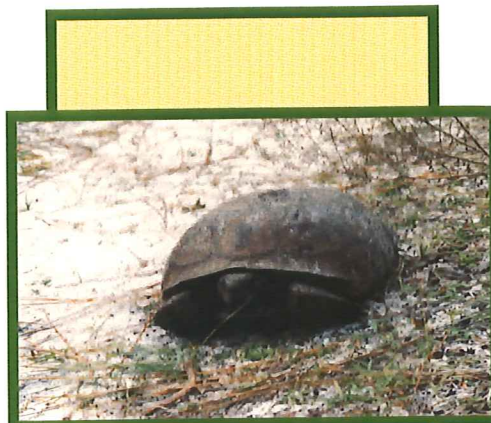
Human foods are usually nutritionally inadequate for wildlife and can lead to health problems. Wild animals being fed may congregate in unnaturally high numbers, increasing the chances of disease transmission. Wildlife may lose their fear of humans and pets, leading to unfortunate encounters later with aggressive individuals beyond your back yard.

So, how can you discourage wild animals from making your house their fast food stop?

- ☐ Do not leave food out for animals.
- ☐ Do not feed animals by hand or try to lure them into your house.
- ☐ Keep garbage cans tightly shut.
- ☐ Rinse cans and bottles before you store them for recycling.
- ☐ Keep your compost pile fenced from animals, or use a closed compost container.
- ☐ Feed your pets indoors, or bring in their bowls at night.

Injured Wildlife

If you see injured wildlife, you can contact the Clinic for the Rehabilitation of Wildlife, Inc. (CROW) at (239) 472-3644 or info@crowclinic.org. The primary mission of CROW is the rescue, care, rehabilitation and eventual release back to the wild of sick, injured, and orphaned native wildlife.



APPENDIX C

PHOTOGRAPHS OF INDIGENOUS PRESERVE NOS. 9 AND 10



Photo Station 1 looking east into Indigenous Preserve 10, August 22, 2006



Photo Station 2 looking east into Indigenous Preserve 10, August 22, 2006



Photo Station 3 looking north into Indigenous Preserve 10, August 22, 2006



Photo Station 4 looking northwest into Indigenous Preserve 10, August 22, 2006



Photo Station 5 looking south into Indigenous Preserve 10, August 22, 2006



Photo Station 6 looking southwest into Indigenous Preserve 10, August 22, 2006



Photo Station 7 looking southwest into Indigenous Preserve 9, August 22, 2006



Photo Station 8 looking southwest into Indigenous Preserve 9, August 22, 2006



Photo Station 9 looking north into Indigenous Preserve 9, August 22, 2006

EXHIBIT B

PHOTOGRAPHS OF INDIGENOUS PRESERVE NOS. 9 AND 10



Photo Station 1 looking east into Indigenous Preserve 10, August 22, 2006



Photo Station 2 looking east into Indigenous Preserve 10, August 22, 2006



Photo Station 3 looking north into Indigenous Preserve 10, August 22, 2006

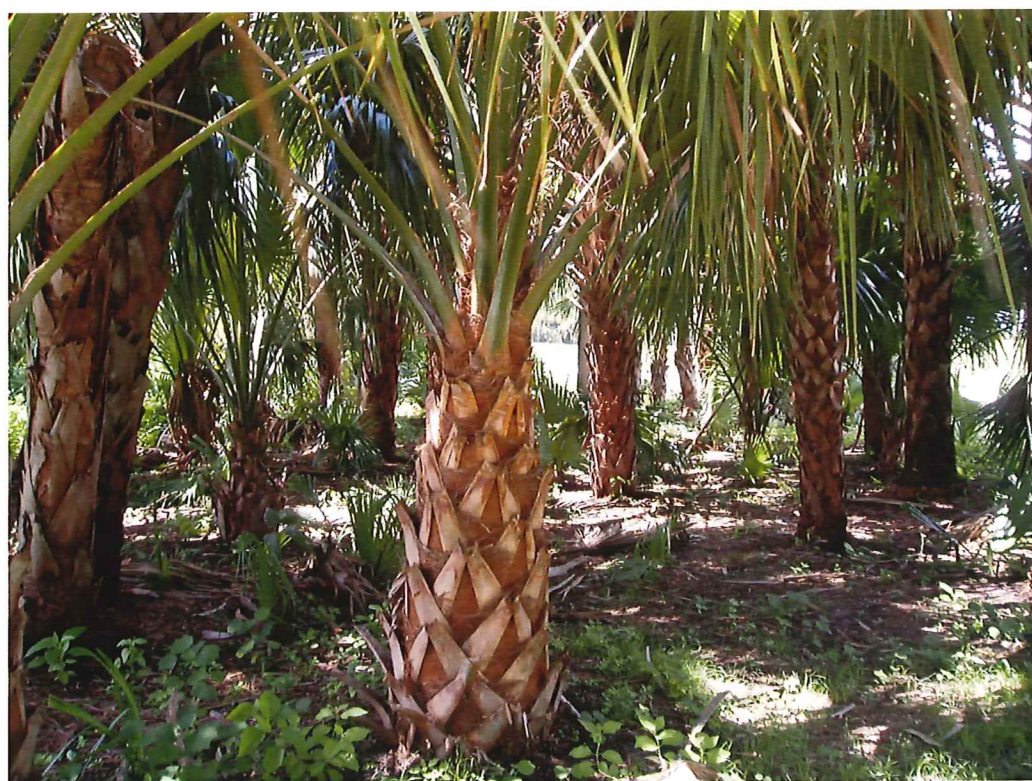


Photo Station 4 looking northwest into Indigenous Preserve 10, August 22, 2006



Photo Station 5 looking south into Indigenous Preserve 10, August 22, 2006



Photo Station 6 looking southwest into Indigenous Preserve 10, August 22, 2006



Photo Station 7 looking southwest into Indigenous Preserve 9, August 22, 2006



Photo Station 8 looking southwest into Indigenous Preserve 9, August 22, 2006



Photo Station 9 looking north into Indigenous Preserve 9, August 22, 2006

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



JAMES L. "JAMIE" ADAMS, JR.
Bushnell

BARBARA C. BARSH
Jacksonville

QUINTON L. HEDGEPEETH, DDS
Miami

05EH81475
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ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLER, Assistant Executive Director

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, DIRECTOR
(850)488-6661 TDD (850)488-9542
FAX (850)922-5679

April 11, 2000

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NOV 15 2005

PASSARELLA AND
ASSOCIATES, INC.

Mr. Warren Isrealson
Progress Land Company, Inc.
6001 Egan Drive, Suite 100
Savage, MN 55378

RE: Gopher Tortoise Incidental Take Permit
LEE-63, Lee County

Dear Mr. Isrealson:

Enclosed is permit LEE-63 for the incidental taking of gopher tortoises, their eggs, and their burrows within the development boundaries specified. The application for this permit was complete as of March 28, 2000.

Please contact me or Mr. James Beever at (941)575-5765 if you have any questions regarding this permit.

Sincerely,


Bradley J. Hartman, Director
Office of Environmental Services

BJH/RDM
ENV 3-2/5
gtlee-63.ltr

cc: ~~Ms. Kimberly Schuchman, Boylan Environmental Consultants, Inc.~~

Mr. Mike Kemmerer, Division of Wildlife, Punta Gorda, FWC
Major Floyd Buckhalter, South Region, FWC
Lee County Planning Department
Mr. James Beever, OES, Punta Gorda, FWC
Ms. Angela Williams, Division of Wildlife, FWC

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NOV -9 2006

DOS2006-00122

**PERMIT FOR TAKING OF GOPHER TORTOISES AND
THEIR BURROWS**

Chapter 39-27.002(4) F.A.C.

STATE OF FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

Issuance Date: April 11, 2000

Permittee: Progress Land Company, Inc.

Permittee Address: 6001 Egan Drive, Ste. 100
Savage, Minnesota 55378
(Attn: Mr. Warren Isrealson)

Consultant: Ms. Kimberly Schlachta

Consultant Address: Boylan Environmental Consultants, Inc.
11000 Metro Parkway, Suite 4
Fort Myers, Florida 33912

Permit Number: LEE-63

Location of Affected Site: The 297.59 acre Copperhead (formerly known as Classic Hills) development site, including 116 acres of gopher tortoise habitat, situated south of 23rd Street SE, west of the Yellowtail Canal, and north of an unnamed tributary canal to Yellowtail Canal, within Section 6, Township 45S, Range 27E, in Lehigh Acres, Lee County (see attachments 1 and 2).

Permitted Action: The permittee or its agents are authorized to take gopher tortoises, their eggs and their burrows within its development boundaries where such taking is incidental to development activities. The criteria of Rule 39-27.002(4), F.A.C., have been satisfied and the taking, as conditioned below, will not be detrimental to the survival potential of the species.

Provisions/Conditions:

1. The permittee shall contribute to the acquisition of 10.875 acres of tortoise habitat by paying \$66,261.00 (\$6,093.00 X 10.875 acres) to the Land Acquisition Trust Fund, Southwest Florida account, of the Florida Fish and Wildlife Conservation Commission (FWC). **Payment should be sent to Florida Fish and Wildlife Conservation Commission, P.O. Box 6150, Tallahassee, Florida 32314-6150.**
2. This permit will not go into effect until the permittee has obtained a receipt from the FWC for the mitigation funds specified under condition #1. As described in the Notice of Rights Statement, issuance of this permit may be appealed by a concerned party within 21 days of the permittee's receipt of this notice. If a Petition for Administrative Hearing is timely filed within the prescribed time period, the permittee will be notified by the FWC. Upon such notification, the permittee shall cease all work authorized by this permit until the petition is resolved.
3. Receipt of payment must occur in a timely manner so that regional habitat conservation areas can be purchased. This payment shall be made within six months from the date of this notice. If payment is not received within the specified time period, this permit is subject to being voided.

4. This permit does not relieve the permittee from any other "taking" requirements by the U.S. Fish and Wildlife Service (USFWS) or the FWC as to other listed species, including bald eagles. Specifically, this permit does not authorize any destruction of scrub jays or scrub jay habitat. Consultation with the USFWS should be sought if this species is present.
5. The permittee or its approved agents are authorized to move tortoises, at their discretion, within the property boundaries to minimize taking. This permit does not authorize the permittee or its agents to possess or move tortoises off the contiguous ownership of the permittee nor to move tortoises into areas previously authorized as a relocation site by a FWC permit. A separate relocation permit from the FWC shall be required for those activities.
6. This permit does not authorize any taking of gopher tortoises beyond that which is a direct result of development activities or the on-site movement of animals addressed in condition #5. Any other form of taking or relocation will require a separate permit from the Executive Director.
7. This permit must be available for inspection at all times while engaged in the permitted activities.
8. This permit is transferrable to subsequent owners of the property.

Notice of Rights Statement: In accordance with Rules 28-5.111 and 28-6.008, F.A.C., and Section 120.60, F.S., any party may request a hearing on this matter pursuant to Section 120.57, F.S., by filing a completed Elections of Rights form (copy attached) by certified mail, return receipt requested, with the undersigned within twenty-one (21) days of receipt of this notice. If timely requested and a hearing is granted, the hearing will be conducted under the procedures established by Section 120.57, F.S. A party will be given the opportunity to be represented by counsel or other qualified representative, to take testimony, to call and cross-examine witnesses, and to have subpoenas issued on your behalf.

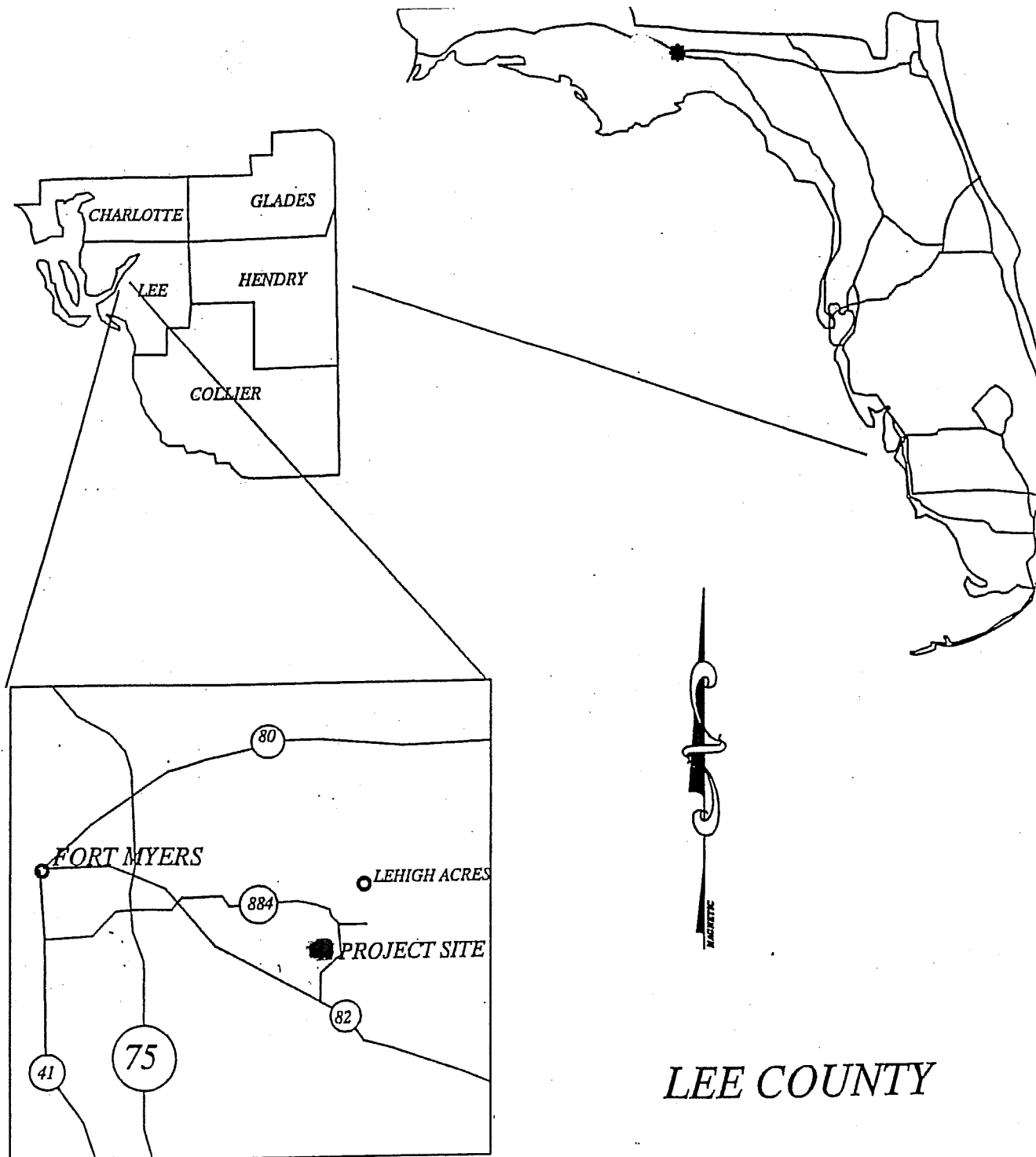
Allan L. Egbert, Ph.D.
Executive Director

By: Bradley J. Hartman

Attachments:

1. Location map
2. Project boundaries map
3. Elections of Rights form

JWB/jwb
ENV 3-2/5
gtlee-63

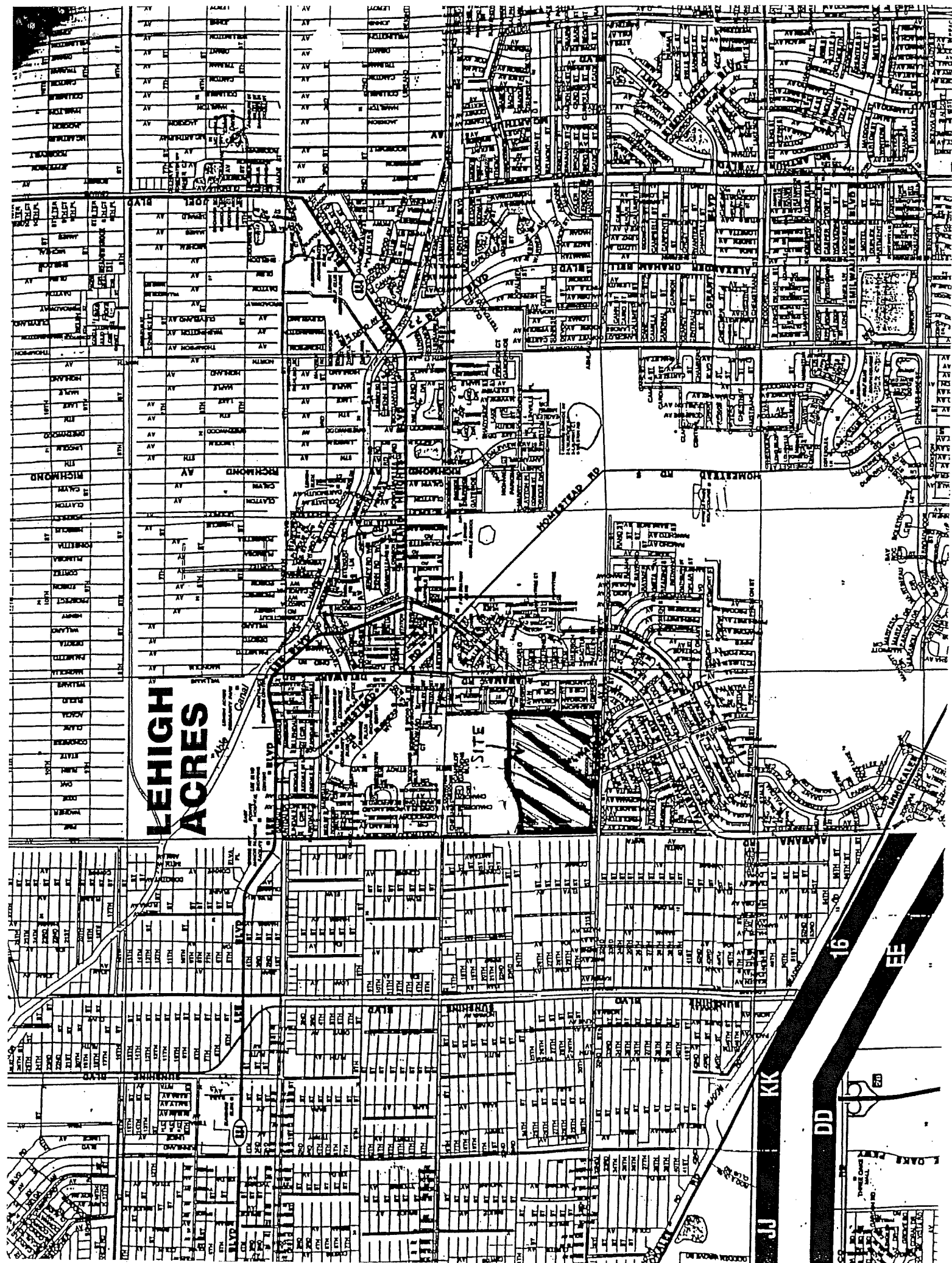


LEE COUNTY

SECTION 6
TOWNSHIP 46 SOUTH
RANGE 27 EAST

LATITUDE AND LONGITUDE

26 35' 30" N
81 39' 30" W



PERMIT # L 98-63

STATE OF FLORIDA
FISH AND WILDLIFE CONSERVATION COMMISSION

ELECTION OF RIGHTS

I have read the Explanation of Rights form and understand my options.

(You may select one of the options below and return with this form to the Florida Fish and Wildlife Conservation Commission (Commission) no later than twenty-one (21) days from the receipt of the Notice of Agency Action).

1. () I do not dispute the allegations of fact in the Notice of Agency Action but do wish to be accorded an informal hearing or proceeding, pursuant to Section 120.57(2), Florida Statutes, at which time I will be permitted to submit oral or written evidence in mitigation of the complaint to the agency head or his representative.
2. () I do dispute the allegations of fact contained in the Notice of Agency Action, submit an attached statement of all disputed allegations of fact, and request a formal hearing, pursuant to Section 120.57(1), Florida Statutes, before a hearing officer appointed by the Division of Administrative Hearings.
3. () I do not dispute the allegations of fact in the Notice of Agency Action and waive my right to object or to be heard.

I have read and understand the Election of Rights form and understand that I have the right to be represented by counsel at either the informal or formal hearing. I also

understand that I must attach a petition or written statement of the disputed issues of fact
to this request if I have requested a formal hearing.

Please sign and state your current address and telephone number:

Date	Signature
Attorney's name and address	Address

Please mail form to:

Office of the General Counsel
Florida Fish and Wildlife Conservation
Commission
620 South Meridian Street
Tallahassee, FL 32399-1600

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



JAMES L. "JAMIE" ADAMS, JR.
Bushnell

BARBARA C. BARSH
Jacksonville

QUINTON L. HEDGEPEETH, DDS
Miami

H.A. "HERKY" HUFFMAN
Deltona

DAVID K. MEEHAN
St. Petersburg

JULIE K. MORRIS
Sarasota

TONY MOSS
Miami

EDWIN P. ROBERTS, DC
Pensacola

JOHN D. ROOD
Jacksonville

ALLAN L. EGBERT, Ph.D., Executive Director
VICTOR J. HELLEN, Assistant Executive Director

OFFICE OF ENVIRONMENTAL SERVICES
BRADLEY J. HARTMAN, DIRECTOR
(850) 488-6661 TDD (850) 488-9542
FAX (850) 922-5679

GOPHER TORTOISE TAKE PERMIT RECEIPT

Chapter 39-37.002(4), FAC

PERMIT NUMBER: LEE-63
APPLICANT: Progress Land Company, Inc.
AMOUNT: \$66,261.00
DATE: May 24, 2000

THIS RECEIPT ACKNOWLEDGES THAT THE MONETARY
CONSIDERATION SPECIFIED IN THE ABOVE-REFERENCED PERMIT
HAS BEEN MET.

Richard D. McCann
RICHARD D. McCANN
(Biologist)

OR

TRACI WALLACE
(Executive Secretary)

cc: OES Field Office

APPLICATION NUMBER

010723-8

ADDL/REVISED SUBMITTAL

JAN 27 2003

FORT MYERS SERVICE CENTER

DEED OF CONSERVATION EASEMENT

THIS DEED OF CONSERVATION EASEMENT is given this 18th day of August, 2006, by JORDYN HOLDINGS IV LLC ("Grantor"), to the South Florida Water Management District ("Grantee"). As used herein, the term Grantor shall include any and all heirs, successors or assigns of the Grantor, and all subsequent owners of the "Property" (as hereinafter defined) and the term Grantee shall include any successor or assignee of Grantee.

WITNESSETH

WHEREAS, the Grantor is the owner of certain lands situated in Lee County, Florida, and more specifically described in Exhibits A attached hereto and incorporated herein ("Property"); and

WHEREAS, the Grantor desires to construct a commercial development ("Project") at a site in Lee County, which is subject to the regulatory jurisdiction of the South Florida Water Management District ("SFWMD"); and

WHEREAS, SFWMD Permit No. 36-03765-8 ("Permit") authorizes certain activities which affect surface waters in or of the State of Florida; and

WHEREAS, this Permit requires that the Grantor preserve and/or mitigate wetlands under SFWMD's jurisdiction; and

WHEREAS, the Grantor has developed and proposed as part of the permit conditions a conservation tract and maintenance buffer involving preservation of certain wetland and/or upland systems on the Property; and

WHEREAS, the Grantor, in consideration of the consent granted by the Permit, is agreeable to granting and securing to the Grantee a perpetual conservation easement as defined in Section 704.06, Florida Statutes (1995), over the Property.

NOW, THEREFORE, in consideration of the issuance of the Permit to construct and operate the permitted activity, and as an inducement to Grantee in issuing the Permit, together with other good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, Grantor hereby grants, creates, and establishes a perpetual conservation easement for and in favor of the Grantee upon the Property which shall

run with the land and be binding upon the Grantor, and shall remain in full force and effect forever.

The scope, nature, and character of this conservation easement shall be as follows:

1. It is the purpose of this conservation easement to retain land or water areas in their natural, vegetative, hydrologic, scenic, open, agricultural or wooded condition and to retain such areas as suitable habitat for fish, plants or wildlife. Those wetland and/or upland areas included in the conservation easement which are to be enhanced or created pursuant to the Permit shall be retained and maintained in the enhanced or created conditions required by the Permit.

To carry out this purpose, the following rights are conveyed to Grantee by this easement:

- a. To enter upon the Property at reasonable times with any necessary equipment or vehicles to enforce the rights herein granted in a manner that will not unreasonably interfere with the use and quiet enjoyment of the Property by Grantor at the time of such entry; and

- b. To enjoin any activity on or use of the Property that is inconsistent with this conservation easement and to enforce the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use.

2. Except for restoration, creation, enhancement, maintenance and monitoring activities, or surface water management improvements, which are permitted or required by the Permit, the following activities are prohibited in or on the Property:

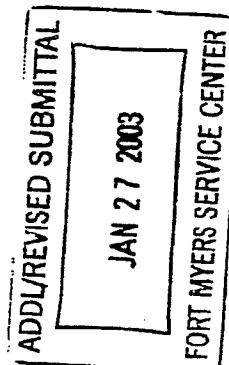
- a. Construction or placing of buildings, roads, signs, billboards or other advertising, utilities, or other structures on or above the ground;

- b. Dumping or placing of soil or other substance or material as landfill, or dumping or placing of trash, waste, or unsightly or offensive materials;

- c. Removal or destruction of trees, shrubs, or other vegetation, except for the removal of exotic or nuisance vegetation in accordance with a SFWMD approved maintenance plan;

- d. Excavation, dredging, or removal of loam, peat, gravel, soil, rock, or other material substance in such manner as to affect the surface;

- e. Surface use except for purposes that permit the land or water area to remain in its natural condition;



APPLICATION NUMBER

010723-8

f. Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation including, but not limited to, ditching, diking and fencing;

g. Acts or uses detrimental to such aforementioned retention of land or water areas;

h. Acts or uses which are detrimental to the preservation of any features or aspects of the Property having historical or archaeological significance.

3. Passive Recreational Facilities. Grantor reserves all rights as owner of the Property, including the right to engage in uses of the Property that are not prohibited herein and that are not inconsistent with any SFWMD rule, criteria, the Permit and the intent and purposes of this Conservation Easement. Passive recreational uses that are not contrary to the purpose of this conservation easement may be permitted upon written approval by the SFWMD.

a. The Grantor may conduct limited land clearing for the purpose of constructing such pervious facilities as docks, boardwalks, or mulched walking trails. Grantor shall submit plans for the construction of the proposed facilities to the SFWMD for review and written approval prior to construction.

b. The construction and use of the approved passive recreational facilities shall be subject to the following conditions:

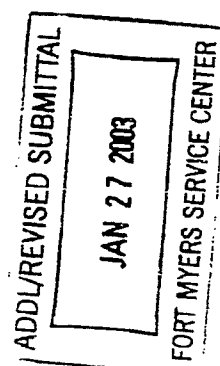
i. Grantor shall minimize and avoid, to the fullest extent possible, impact to any wetland or upland buffer areas within the Conservation Easement Area and shall avoid materially diverting the direction of the natural surface water flow in such area;

ii. Such facilities and improvements shall be constructed and maintained utilizing Best Management Practices;

iii. Adequate containers for litter disposal shall be situated adjacent to such facilities and improvements and periodic inspections shall be instituted by the maintenance entity, to clean any litter from the area surrounding the facilities and improvements;

iv. This conservation easement shall not constitute permit authorization for the construction and operation of the passive recreational facilities. Any such work shall be subject to all applicable federal, state, or local permitting requirements.

4. No right of access by the general public to any portion of the Property is conveyed by this conservation easement.



APPLICATION NUMBER

010723-8

5. Grantee shall not be responsible for any costs or liabilities related to the operation, upkeep, or maintenance of the Property.

6. Grantor shall pay any and all real property taxes and assessments levied by competent authority on the Property.

7. Any costs incurred in enforcing, judicially or otherwise, the terms, provisions and restrictions of this conservation easement shall be borne by and recoverable against the nonprevailing party in such proceedings.

8. Enforcement of the terms, provisions and restrictions of this conservation easement shall be at the reasonable discretion of Grantee, and any forbearance on behalf of Grantee to exercise its rights hereunder in the event of any breach hereof by Grantor, shall not be deemed or construed to be a waiver of Grantee's rights hereunder.

9. Grantee will hold this conservation easement exclusively for conservation purposes. Grantee will not assign its rights and obligations under this conservation easement except to another organization qualified to hold such interests under the applicable state laws.

10. If any provision of this conservation easement or the application thereof to any person or circumstances is found to be invalid, the remainder of the provisions of this conservation easement shall not be affected thereby, as long as the purpose of the conservation easement is preserved.

11. All notices, consents, approvals or other communications hereunder shall be in writing and shall be deemed properly given if sent by United States certified mail, return receipt requested, addressed to the appropriate party or successor-in-interest.

12. This conservation easement may be amended, altered, released or revoked only by written agreement between the parties hereto or their heirs, assigns or successors-in-interest, which shall be filed in the public records in Lee County.

TO HAVE AND TO HOLD unto Grantee forever. The covenants, terms, conditions, restrictions, and purpose imposed with this conservation easement shall be binding upon Grantor, and shall continue as a servitude running in perpetuity with the Property.

Grantor hereby covenants with said Grantee that Grantor is lawfully seized of said Property in fee simple; that the Property is free and clear of all encumbrances that are inconsistent with the terms of his conservation easement and all mortgages have been joined or subordinated; that Grantor has good right and lawful authority to convey this conservation easement; and that it hereby fully warrants and defends the title to the conservation easement hereby conveyed against the lawful claims of all persons whomsoever.

APPLICATION NUMBER

010723-8

IN WITNESS WHEREOF, _____ has hereunto set its
authorized hand this _____ day of _____, 2006

Signed, sealed and delivered
in our presence as witnesses:

JORDYN HOLDINGS IN LLC

Print Name: _____

By: _____

STATE OF FLORIDA

) ss:

COUNTY OF LEE

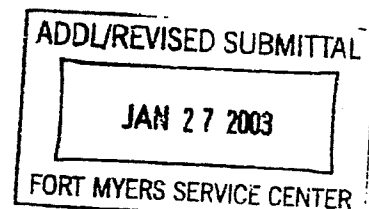
The foregoing instrument was acknowledged before me this _____ day of _____,
2006, by _____, of _____, a Florida
Corporation, on behalf of the Corpora. He is personally known to me or has
produced _____ as identification.

My Commission Expires:

Notary Public

Name of Notary

Commission Number



APPLICATION NUMBER

010723-8

Legal Description

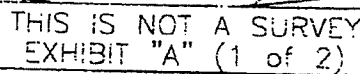
Tracts C-1, C-2, and C-3, Section 06, Township 45 South, Range 27 East,
according to Plat thereof, recorded in Plat Book 77, page 1-11, of the Public
Records of Lee County, Florida

Strap Numbers of Subject Property

06-45-27-10-000C2.00CE

06-45-27-10-000C3.00CE

06-45-27-10-000C1.00CE



SKETCH TO ACCOMPANY DESCRIPTION
OF A PARCEL OF LAND
LYING IN
SECTIONS 06, TOWNSHIP 45 SOUTH, RANGE 27 EAST
LEE COUNTY, FLORIDA
(CONSERVATION EASEMENT)



APPLICATION NUMBER
010723-8

ADDL/REVISED SUBMITTAL
JAN 27 2003
FORT MYERS SERVICE CENTER

*** THIS IS NOT A SURVEY ***
EXHIBIT "A" (2 of 2)

**COPPERHEAD
LEE COUNTY PROTECTED SPECIES SURVEY**

RECEIVED

MAY 11 2006

May 2006

DOS2006-00122

Prepared For:

EH Building Group II, LLC
12751 Westlinks Drive, Suites 1 and 2
Fort Myers, Florida 33913
(239) 275-0721

Prepared By:

Passarella and Associates, Inc.
9110 College Pointe Court
Fort Myers, Florida 33919
(239) 274-0067

**COPPERHEAD
LEE COUNTY PROTECTED SPECIES SURVEY**

May 2006

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INTRODUCTION

Passarella and Associates, Inc. (PAI) conducted a Lee County protected species survey (PSS) at Copperhead on May 2, 2006. The survey was conducted to meet Lee County Land Development Code (LDC) Chapter 10, Article III, Division 8 (Protection of Habitat) standards.

The project development area totals 90.61± acres and is located in Section 6, Township 45 South, Range 27 East, Lee County (Figure 1). The site is bordered by Beth Stacey Boulevard to the north and residential development on all four sides.

LAND USES AND VEGETATION ASSOCIATIONS

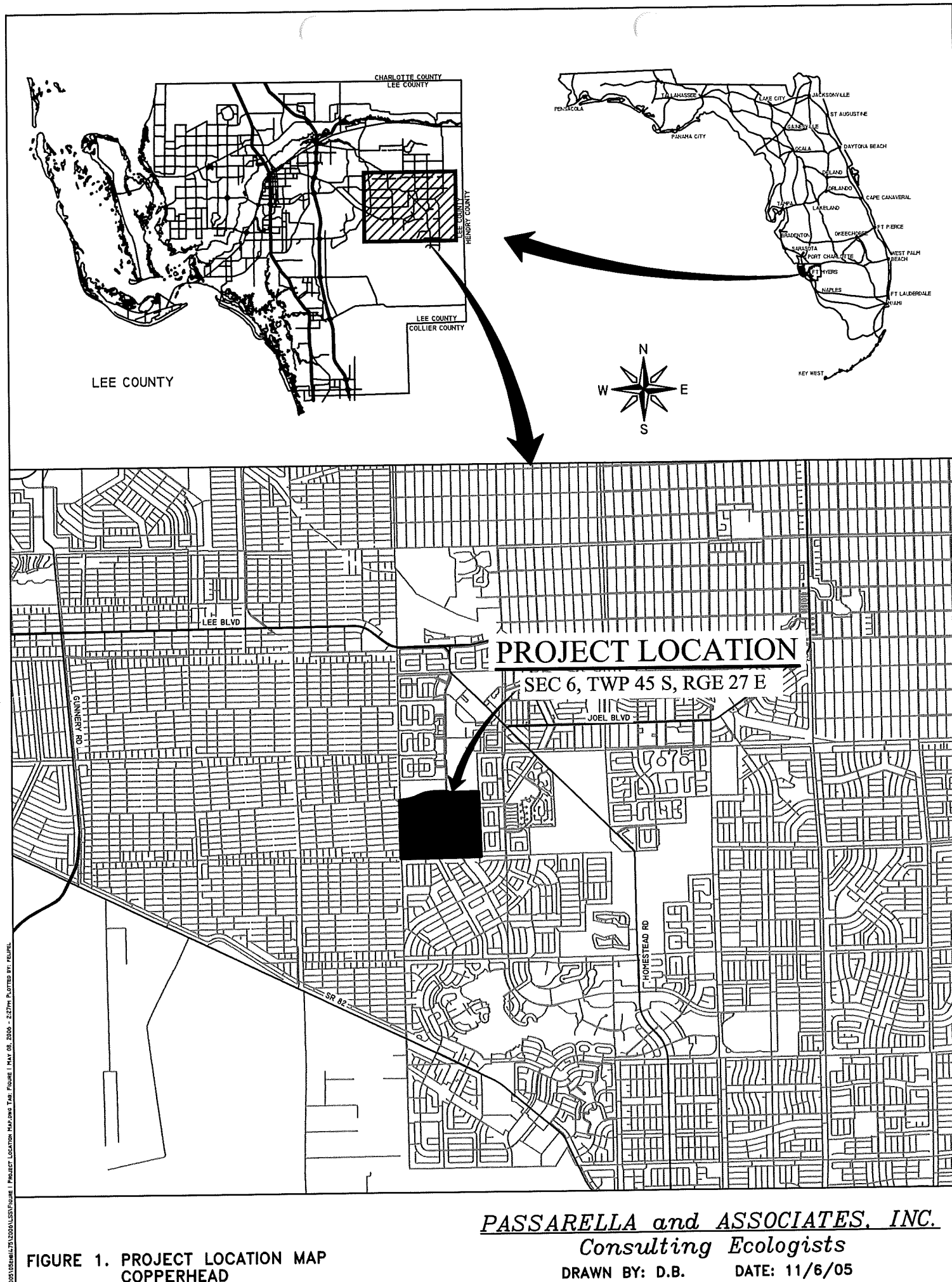
Vegetation associations for the property were delineated using 2005 Lee County color aerials (1"=200') and on-site field surveys conducted in May 2006. During the surveys, lines were drawn on the aerial delineating the different vegetation associations. These delineations were classified based on the nomenclature of the Florida Land Use, Cover and Forms Classification System (FLUCFCS), Levels III and IV (Florida Department of Transportation 1999). The resulting FLUCFCS map with acreages is provided in Appendix A. Table 1 provides the breakdown of the FLUCFCS codes by acreage, while a description of each of the classifications follows. The FLUCFCS delineations are depicted on a 2005 aerial provided as Appendix A.

Table 1. Existing Land Use and Cover Summary

FLUCFCS Code	Description	Acreage	Percent of Total
182	Golf Course	5.59	6.2
3219 E1	Palmetto Prairie, Disturbed (0 – 24% Exotics)	5.16	5.7
4159 E1	Pine, Disturbed (0 – 24% Exotics)	7.72	8.5
740	Disturbed Land	72.14	79.6
TOTALS		90.61	100.0

Golf Course (FLUCFCS Code 182)
This recreational area is occupied by Copperhead Golf Course.

Palmetto Prairie, Disturbed (0 – 24% Exotics) (FLUCFCS Code 3219 E1)
This upland plant community has an open canopy with scattered slash pine (*Pinus elliottii*) and cabbage palm (*Sabal palmetto*). The sub-canopy is open. The ground cover includes saw palmetto (*Serenoa repens*), beauty-berry (*Callicarpa americana*), gallberry (*Illex glabra*), muscadine grape (*Vitis rotundifolia*), greenbrier (*Smilax* sp.), lantana (*Lantana camara*), dwarf live oak (*Quercus minima*), gopher apple (*Licania michauxii*), pawpaw (*Asimina reticulata*), winged sumac (*Rhus copallinum*), pennyroyal (*Piloblephis rigida*), and staggerbush (*Lyonia fruticosa*).



Pine, Disturbed (0 – 24% Exotics) (FLUCFCS Code 4159 E1)
 This upland plant community has a canopy of slash pine and cabbage palm. The sub-canopy contains slash pine, cabbage palm, and laurel oak (*Quercus laurifolia*). The ground cover includes saw palmetto, muscadine grape, laurel oak, greenbrier, beauty-berry, Brazilian pepper (*Schinus terebinthifolius*), and shiny blueberry (*Vaccinium myrsinites*).

Disturbed Land (FLUCFCS Code 740)
 This upland plant community has an open canopy with widely scattered slash pine and cabbage palm. The sub-canopy is open with scattered melaleuca (*Melaleuca quinquenervia*), and slash pine. The ground cover includes muscadine grape, greenbrier, saw palmetto, beauty-berry, lantana, ragweed (*Ambrosia artemisiifolia*), dog fennel (*Eupatorium capillifolium*), rustweed (*Polypremum procumbens*), carpetweed (*Phyla nodiflora*), broomsedge (*Andropogon virginicus*), and natalgrass (*Rhynchelytrum repens*).

METHODOLOGY AND DISCUSSION

Surveys for Lee County protected species are based on the presence of specific vegetation associations and habitat types noted on-site, as outlined in the LDC. The frequency of transects performed in these habitats were designed to meet, if not exceed, the 80 percent minimum coverage requirement. Cursory surveys were also conducted in those habitats not technically required to be surveyed per the LDC. Based on past experience and conversations with Lee County's Division of Environmental Sciences (DES) staff, these areas were reviewed for certain protected species as a precautionary measure. Table 2 outlines those protected species that may inhabit or utilize a particular vegetation association.

Table 2. Potential Lee County Protected Species by Habitat Type

FLUCFCS Code and Description		Potential Protected Species
182	Golf Course	Florida Sandhill Crane (<i>Grus canadensis pratensis</i>)
		Eastern Indigo Snake (<i>Drymarchon corais couperi</i>)
3219	Palmetto Prairie, Disturbed	Gopher Tortoise (<i>Gopherus polyphemus</i>)
		Gopher Frog (<i>Rana areolata</i>)
		Southeastern American Kestrel (<i>Falco sparverius paulus</i>)
		Florida Sandhill Crane (<i>Grus canadensis pratensis</i>)
		Audubon's Crested Caracara (<i>Polyborus plancus audubonii</i>)
		Florida Panther (<i>Puma concolor coryi</i>)
		Florida Black Bear (<i>Ursus americanus floridanus</i>)
		Curtis Milkweed (<i>Asclepias curtissii</i>)
		Fakahatchee Burmannia (<i>Burmannia flava</i>)
		Florida Coontie (<i>Zamia floridana</i>)
		Beautiful Pawpaw (<i>Deeringothamnus pulchellus</i>)

Table 2. (Continued)

4159 Pine, Disturbed	Eastern Indigo Snake (<i>Drymarchon corais couperi</i>)
	Gopher Tortoise (<i>Gopherus polyphemus</i>)
	Gopher Frog (<i>Rana areolata</i>)
	Southeastern American Kestrel (<i>Falco sparverius paulus</i>)
	Red-cockaded Woodpecker (<i>Picoides borealis</i>)
	Florida Panther (<i>Puma concolor coryi</i>)
	Big Cypress Fox Squirrel (<i>Sciurus niger avicennia</i>)
	Florida Black Bear (<i>Ursus americanus floridanus</i>)
	Fakahatchee Burmannia (<i>Burmannia flava</i>)
	Satinleaf (<i>Chrysophyllum olivaeforme</i>)
	Beautiful Pawpaw (<i>Deeringothamnus pulchellus</i>)
740 Disturbed Land*	Florida Coontie (<i>Zamia floridana</i>)
	Gopher Tortoise (<i>Gopherus polyphemus</i>)

*Habitat surveyed for the species noted as a precautionary measure although not required per the LDC.

Passarella and Associates, Inc. conducted the PSS on May 2, 2006 from 1100 – 1545 hours. The type of survey utilized included meandering pedestrian transects, per Southern Biomes Environmental Impact Statement methodology previously approved by Lee County. The weather conditions were clear skies, light breeze, and temperatures in the upper 80’s.

Visibility in the surveyed habitats varied due to the density of vegetation. A summary of the limits of visibility, number, length of transects walked, and percent of coverage by habitat type is provided in Table 3.

Table 3. Summary of Habitat Coverage

FLUCFCS Code and Description	Total Area (Acres)	Transect Length (Feet)	Average Visibility (Feet)*	Percent Coverage
182 Golf Course**	5.59	975	100	80
3219 Palmetto Prairie, Disturbed	5.16	2,250	40	80
4159 Pine, Disturbed	7.72	2,690	50	80
740 Disturbed Land	72.14	12,570	100	80

*Average visibility to one side of transect.

** Habitat surveyed as a precautionary measure although not required per the LDC.

SURVEY RESULTS

Eight gopher tortoise (*Gopherus polyphemus*) burrows (i.e., six active and two inactive) were the only protected species identified in the project boundary during the May 2, 2006 field survey. The gopher tortoise burrows were located in the Palmetto Prairie, Disturbed (FLUCFCS Code

3219 E1) habitat. A 2005 aerial photograph with the survey transects and gopher tortoise burrow locations is provided as Appendix A.

ABUNDANCE OF PROTECTED SPECIES OBSERVED

Density calculations for the gopher tortoise were done in accordance with Step 8, Attachment 2 of the Lee County Survey Methodology adopted August 30, 1989. The gopher tortoise density is based on the number of active (A) and inactive (I) burrows found. The Florida Fish and Wildlife Conservation Commission (FWCC) gopher tortoise conversion factor of 0.6 was used for density determinations. The PSS abundance calculations are provided in Table 4, while Table 5 summarizes the protected species survey findings.

Table 4. Lee County Protected Species Abundance Calculations

Gopher Tortoise (GT) Density:

= {n/[L₁(w₁+w₂)]} (43,560 ft²/ac.) (C)

- where
- n₁ = active plus inactive GT burrows
 - L₁ = length of transect (feet)
 - W₁ = distance of visibility to the right of transect (feet)
 - W₂ = distance of visibility to the left of transect (feet)
 - C = GT conversion factor 0.6

Gopher Tortoise (*Gopherus polyphemus*)

FLUCFCS Code 3219

Density = {[8GT/[2250ft (40 ft + 40 ft)]]} (43,560 ft²/acre) (0.6)

= [4.44 x 10⁻⁵ GT/ft²] (43,560 ft²/acre) (0.60)

= (1.93GT/acre) (0.6)

= 1.16 GT/acre

Table 5. Lee County Protected Species Survey Summary

Protected Species	FLUCFCS Code/Area	Percent of Area Surveyed	Individuals Present	Individuals Absent	Density (Acre)
Reptiles					
Eastern Indigo Snake	3219	80		X	
	4159	80		X	

Table 5. (Continued)

Protected Species	FLUCFCS Code/Area	Percent of Area Surveyed	Individuals Present	Individuals Absent	Density (Acre)
Reptiles (Continued)					
Gopher Frog	3219/4159	80		X	
Gopher Tortoise	3219	80	X		1.16
	4159	80		X	
Gopher Tortoise	740	80		X	
Birds					
Red-Cockaded Woodpecker	4159	80		X	
Southeastern American Kestrel	3219/4159	80		X	
Florida Sandhill Crane	182	80		X	
Audubon's Crested Caracara	3219	80		X	
Mammals					
Big Cypress Fox Squirrel	4159/6189	80		X	
Florida Black Bear	3219/4159/6189	80		X	
Florida Panther	3219/4159/6189	80		X	
Plants					
Fakahatchee Burmannia	3219/4159	80		X	
Beautiful Paw-paw	3219/4159	80		X	
Florida Coontie	3219/4159	80		X	
Satinleaf	4159	80		X	
Curtis Milkweed	3219	80		X	

MANAGEMENT PLAN

The applicant has obtained a Gopher Tortoise Incidental Take Permit from the Florida Fish and Wildlife Conservation Commission. All active and inactive gopher tortoise burrows within the impact areas will be excavated and all tortoises and commensal species relocated to existing indigenous preserve areas.

REFERENCES

Florida Department of Transportation. 1999. Florida Land Use, Cover and Forms Classification System. Procedure No. 550-010-001-a. Third Edition.

APPENDIX A

**AERIAL WITH FLUCFCS, SURVEY TRANSECTS,
AND LISTED SPECIES LOCATIONS**

FLUCCS MAP
IS
INCLUDED
WITH
SETS
OF
ENGINEERING
DRAWINGS

PASSARELLA AND ASSOCIATES, INC.

Consulting Ecologists

9110 College Pointe Court
Fort Myers, FL 33919
Phone (239) 274-0067
Fax (239) 274-0069

August 10, 2006

Mr. Robert Irving
Senior Environmental Planner
Lee County Division of Environmental Sciences
P.O. Box 398
Fort Myers, Florida 33902-0398

APPROVED
AUG 15 2006
Environmental Sciences

RE: Copperhead
Project No. 05EHB1475

Dear Mr. Irving:

Per our recent telephone and e-mail communications, and your August 3, 2006 meeting with Andy Woodruff, enclosed please find the Restoration Planting Plan (Revised August 2006) for Copperhead. The plan addresses specific non-compliance on-site issues of landscaping/environmental requirements set forth in the Lee County Land Development Code and the approved development order plans.

After your review and approval, the applicant will formally submit the restoration plan as a minor change to the development order.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

PASSARELLA AND ASSOCIATES, INC.



Matthew Brosious
Ecologist

MB/pz

Enclosure

cc: Brent Evans, w/enclosure
Al Quattrone, w/enclosure

Irving, Robert B.

From: Irving, Robert B.
Sent: Tuesday, August 15, 2006 4:26 PM
To: 'Brent Evans'
Cc: Andy Woodruff; charles.basinait@henlaw.com; Matthew Brosious; Mike Ward
Subject: RE: Copperhead Indigenous Restoration plan DOS991203400D

Brent,

The restoration plan submitted to me by Matt Brosious of Passarella and Associates, Inc. on August 10th is approved with the following conditions:

- (1) An additional 129 – one gallon shrubs must be installed in the restoration of Preserve P-7 to bring the total number of shrubs to the equivalent of 1307.
- (2) Avoid damage to the roots of the existing pines by planting a majority of the restoration plants out of their driplines.

Prior to the certificate of compliance, this plan must be submitted as an amendment to the development order.

Robert Irving
Senior Environmental Planner
Lee County Division of Environmental Sciences
(239) 479-8351
(239) 479-8144 fax

From: Brent Evans [mailto:bevans@ehbuilding.com]
Sent: Tuesday, August 15, 2006 3:21 PM
To: Irving, Robert B.
Cc: Andy Woodruff; charles.basinait@henlaw.com; Matthew Brosious; Mike Ward
Subject: Restoration plan

Good Afternoon Rob:

I was inquiring on the approved restoration plan that was approved on 8/10/06. I haven't received a copy signed off from you to date. I wanted to insure we are in receipt prior to starting. Please Advise

Sincerely,

Brent Evans

Director of Land Operations
EH Building Group II SW Division, LLC
12751 Westlinks Drive, Unit #1
Fort Myers, FL 33913
Office: 239-275-0721 x104
Cell: 239-340-6091
Fax: 561-721-3378
E-mail: bevans@ehbuilding.com

Irving, Robert B.

From: Irving, Robert B.
Sent: Tuesday, August 08, 2006 9:20 AM
To: 'Pamela Zamora'
Cc: bevans@ehbuilding.com; Matthew Brosious; Andy Woodruff; Sweigert, Rebecca H.
Subject: RE: Copperhead (05EHB1475) Indigenous Restoration Plan DOS991203400D

Pam,

Here are my comments;

- (1) Beautyberry is a shrub not a groundcover (mentioned at our meeting).
- (2) If shiny blueberry and pawpaw are not available, a new species list must be submitted for approval.
- (3) Preserve 6 is a pine flatwoods plant community, not a cabbage palm hammock.
- (4) More saw palmettos must be installed since they were removed trimmed from the impacted areas. 50% of the shrubs must be saw palmetto in P-2, P-3, P-6, P-7, P-9, P-10 (cabbage) and P-11.
- (5) Grasses must be planted in P-9 and CW-2 but removed from P-5. CW-2 is a transitional pine flatwoods plant community so pawpaw and shiny blueberry are not appropriate species. P-5 is a cabbage palm hammock plant community.
- (6) The overall number of restoration plants in Table 2 for P-7 (1307) does not match the total number in Exhibit B (1176). Please revise.
- (7) Please include the restoration for CW-2 in Table 2.
- (8) The littoral plantings must be installed as depicted on the plan.

In my meeting with Matt and Andy, we discussed prescribed burning in P-10 to enhance the area for gopher tortoises. What happened with this idea?

Robert Irving
Senior Environmental Planner
Lee County Division of Environmental Sciences
(239) 479-8351
(239) 479-8144 fax

From: Pamela Zamora [mailto:PamelaZ@passarella.net]
Sent: Monday, August 07, 2006 1:45 PM
To: Irving, Robert B.
Cc: bevans@ehbuilding.com; Matthew Brosious; Andy Woodruff
Subject: Copperhead (05EHB1475)

Mr. Irving:

Attached please find the revised Restoration Planting Plan for Copperhead, per your meeting with Andy Woodruff last Thursday, August 3. Hard copy to follow in the mail. Please call if you have any questions.

Thank you.

Pamela R. Zamora
Administrative Assistant
Passarella and Associates, Inc.
9110 College Pointe Court
Fort Myers, FL 33919
(239) 274-0067
(239) 274-0069 Fax

Irving, Robert B.

From: Irving, Robert B.
Sent: Wednesday, August 09, 2006 5:42 PM
To: 'Matthew Brosious'
Cc: Brent Evans
Subject: RE: Copperhead DOS991203400D

Matt,

If these species are not available, then substitute with the other species. I recommend a majority of the plants be saw palmetto and grasses.

Have you revised the restoration plans?

Robert Irving
Senior Environmental Planner
Lee County Division of Environmental Sciences
(239) 479-8351
(239) 479-8144 fax

From: Matthew Brosious [mailto:MatthewB@passarella.net]
Sent: Wednesday, August 09, 2006 3:15 PM
To: Irving, Robert B.
Cc: Brent Evans
Subject: Copperhead

Rob,

Have you had a chance to look at that email I sent to you? Could we just take pawpaw and shiny blueberry out of the current plan without substituting other plants?

Thank You,

Matthew Brosious
Ecologist I
Passarella and Associates, Inc
9110 College Pointe Court
Fort Myers, FL 33919
office:(239) 274-0067
fax: (239) 274 0069

08/15/2006

COPPERHEAD
RESTORATION PLANTING PLAN
LEE COUNTY DEVELOPMENT ORDER NO. DOS991203400D

Revised August 2006

INTRODUCTION

The following restoration planting plan has been prepared to address the Lee County official notice of denial for Certificate of Compliance for landscaping/environmental requirements, dated March 1, 2006 for Copperhead Golf Community. The notice of denial was issued for the mowing, trimming, and removal of understory vegetation in the indigenous preserves; inadequate vegetation in the littoral zone of ponds 3, 8, and 9; and exotic vegetation present in the indigenous preserves.

RESTORATION PLANTINGS FOR INDIGENOUS PRESERVES

Restoration plantings will be installed in those areas where the understory vegetation was cleared, including indigenous preserve numbers 2 through 11 and a 0.27± acre pine flatwood area north of Conservation Wetland No. 2 (CW-2) (Exhibit A). Restoration plantings will include native shrub and ground cover species that typically occur within the existing on-site indigenous preserves (Table 1). Restoration plantings will be a minimum container size of one gallon excluding grasses, which may be two inch liner. Shrub and ground cover plantings will be planted on three foot centers. The estimated number of ground cover plantings by preserve is found in Table 2. The number of plants by preserve number and habitat type is found in Exhibit B.

Table 1. Supplemental Planting List for Copperhead

Common Name	Scientific Name	Minimum Container Size	Density (On Center)
Shrub ¹			
Rusty lyonia	<i>Lyonia ferruginea</i>	1 gal.	3 ft.
Gallberry	<i>Ilex glabra</i>	1 gal.	3 ft.
Wax-myrtle	<i>Myrica cerifera</i>	1 gal.	3 ft.
Saffron plum	<i>Sideroxylon celastrinum</i>	1 gal.	3 ft.
Myrsine	<i>Rapanea punctata</i>	1 gal.	3 ft.
Winged sumac	<i>Rhus copallinum</i>	1 gal.	3 ft.
Beautyberry	<i>Callicarpa americana</i>	1 gal.	3 ft.
Saw palmetto	<i>Serenoa repens</i>	1 gal.	3 ft.

¹ A minimum of three species will be utilized with relative proportions characteristic of those in existing indigenous vegetation on the property. No one species may constitute more than 50 percent of the plantings.

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Table 1. (Continued)

Common Name	Scientific Name	Minimum Container Size	Density (On Center)
Ground Cover ¹			
Shiny blueberry	<i>Vaccinium myrsinites</i>	1 gal.	3 ft.
Pawpaw	<i>Asimina reticulata</i>	1 gal.	3 ft.
Wiregrass	<i>Aristida stricta</i>	2 in. liner	3 ft.
Lovegrass	<i>Eragrostis spectabilis</i>	2 in. liner	3 ft.
Muhly grass	<i>Muhlenbergia capillaris</i>	2 in. liner	3 ft.

¹ A minimum of three species will be utilized with relative proportions characteristic of those in existing indigenous vegetation on the property. No one species may constitute more than 50 percent of the plantings.

Table 2. Estimated Number of Ground Cover Plantings by Preserve

Preserve No.	Total Acres of Preserve	Acres To Be Replanted	Number of Plants (3 foot centers) ¹
1	0.30	N/A	N/A
2	0.36	0.36	2,906
3	0.16	0.11	889
4	0.28	0.28	1,355
5	0.15	0.08	387
6	0.57	0.25	1,938
7	0.49	0.27	1,958
8	1.34	0.37	2,985
9	0.37	0.19	1,142
10	1.91	0.47	3,298
11	0.68	0.68	5,264
CW-2	0.27	0.27	2,607
Lake No.	Linear Feet of Shoreline	Number of Plants (Planted in Clusters)	
3	1,206	1,206	
8	1,789	1,789	
9	1,606	1,606	

¹Estimated number of plantings may be field-adjusted depending on existing native ground cover at time of planting. Number of plants includes 3:1 ratio for all two inch container groundcover.

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LITTORAL PLANTINGS

Additional native wetland herbaceous plants will be supplemented to correct deficiencies in Stormwater Ponds 3, 8, and 9 (Table 3). The number of plants in each pond will meet one plant per linear foot of lake shoreline as measured at the control elevation water level. Pond 8 is utilized as an aqua range and the shoreline is under frequent disturbance, thus plantings will be restricted to the south and west shoreline of Pond 8 (see attached aerial depicting location). Plants will be installed in clusters around the lake perimeter with preference to inlet and outlet areas. At least four species will be planted in each lake. Native wetland trees or shrubs may be substituted for up to 25 percent of the total number of herbaceous plants required. One tree (minimum four foot height; three gallon container size at planting) or two shrub (minimum 24 inch height; three-gallon container size at planting) may be substituted for ten herbaceous plants, per the Lee County Land Development Code.

Table 3. Littoral Planting List for Copperhead

Common Name	Scientific Name	Minimum Container Size
Pickerelweed	<i>Pontederia cordata</i>	2 in.
Arrowhead	<i>Sagittaria lancifolia</i>	2 in.
Bulrush	<i>Scirpus</i> sp.	2 in.
Knotted spikerush	<i>Eleocharis interstincta</i>	2 in.
Maidencane	<i>Panicum hemitomom</i>	2 in.
Canna	<i>Canna flaccida</i>	2 in.

EXOTIC AND DEBRIS REMOVAL

Invasive exotic vegetation and landscape debris piles will be hand-removed from the preserve unless other means are field-approved by Lee County Division of Environmental Sciences staff. Invasive exotic vegetation includes, but is not limited to, Brazilian pepper (*Schinus terebinthifolius*), melaleuca (*Melaleuca quinquenervia*), lantana (*Lantana camara*), tropical soda apple (*Solanum viarum*), earleaf acacia (*Acacia auriculiformis*), and caesarweed (*Urena lobata*). The hand removal of exotic and nuisance vegetation will include one or more of the following methods: (1) cut exotics within 12 inches of ground elevation, hand-remove cut vegetation, and treat remaining stump with approved herbicide; (2) girdle standing exotic trees with diameter at breast height (DBH) greater than four inches and apply approved herbicide to cambium; (3) foliar application of approved herbicide to saplings and herbaceous exotics; (4) foliar application of approved herbicide or hand pulling of exotic seedlings. The indigenous preserve areas shall be free from exotic vegetation immediately following a maintenance activity. Between maintenance activities, the indigenous preserve areas should consist of no more than five percent of total coverage of exotic and nuisance vegetation. Exotic and nuisance vegetation species are identified as those species listed by the Exotic Pest Plant Council at the time of development order issuance.

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LEGEND:

- LITTORAL PLANTING AREAS (TYP.)
- ▨ GROUND COVER PLANTING AREAS

INDIGENOUS

AREA	
NUMBER	ACREAGE
1	0.30 Ac.±
2	0.36 Ac.±
3	0.16 Ac.±
4	0.28 Ac.±
5	0.15 Ac.±
6	0.57 Ac.±
7	0.49 Ac.±
8	1.34 Ac.±
9	0.37 Ac.±
10	1.91 Ac.±
11	0.68 Ac.±
TOTAL	6.61 Ac.±

NOTES:

AERIAL PHOTOGRAPHS WERE ACQUIRED THROUGH THE LEE COUNTY PROPERTY APPRAISER'S OFFICE WITH A FLIGHT DATE OF JANUARY 2005.

PROPERTY BOUNDARY AND SITE PLAN FROM BANKS ENGINEERING DRAWING No. 3142.DWG DATED APRIL 20, 2006.

LITTORAL AND GROUND COVER PLANTINGS TO BE FIELD ADJUSTED AS NEEDED PER APPROVED RESTORATION PLAN.

REVISIONS

DESIGNED BY	DATE	HORIZONTAL SCALE
A.W.	6/21/06	N.T.S.
CHECKED BY	DATE	VERTICAL SCALE
A.W.	6/21/06	N/A
DRAWN BY	DATE	SEC./TWP./RNG.
D.B.	6/21/06	6/45/27, 1/45/26

PASSARELLA and ASSOCIATES, INC.
Consulting Ecologists
9110 College Pointe Court, Fort Myers, Florida 33919

COPPERHEAD
AERIAL WITH INDIGENOUS VEGETATION PRESERVES AND PLANTING PLAN

DRAWING No.:
05EHB1475
SHEET No.:
EXHIBIT A

Exhibit B. Estimated Number of Plants by Preserve (P) Number and Habitat Type for Copperhead

Plants	P-1 Pine	P-2 Pine	P-3 ¹ Pine	P-4 Cabbage	P-5 Pine/Cabbage	P-6 Pine	P-7 Pine/Cabbage	P-8 Pine	P-9 Pine/Cabbage	P-10 Pine	P-10 Cabbage	P-11 Pine/Cabbage	CW-2 Pine
Shrub ²													
Rusty lyonia	N/A	116	37			85						141	146
Gallberry	N/A	116	37			85				227		141	146
Wax-myrtle	N/A	116	37	271	48	85	79	199	92			141	145
Saffron plum	N/A			271	48		79		92		56	141	
Myrsine	N/A			271	49		79		92		56	141	
Winged sumac	N/A	116	37			85	79	199		113		141	75
Beautyberry	N/A	116		271	49	85	79	199	91	114	56	141	
Saw Palmetto	N/A	580	148	271	193	424	393	199	368	113	169	987	145
Ground Cover ²													
Shiny blueberry	N/A												
Pawpaw	N/A												
Wiregrass ³	N/A	582	197			363	390	730	136	798		1,097	650
Lovegrass ³	N/A	582	197			363	390	730	136	798		1,097	650
Muhly grass ³	N/A	582	199			363	390	729	135	798		1,096	650
Estimated Totals	N/A	2,906	889	1,355	387	1,938	1,958	2,985	1,142	2,961	337	5,264	2,607

¹The open canopy north side of Preserve No. 3 may be planted with mature cabbage palms relocated from developed areas. If cabbage palms are relocated to this area, then gallberry and rusty lyonia will be replaced by saffron plum and myrsine in cabbage habitat.

² A minimum of three species will be utilized with relative proportions characteristic of those in existing indigenous vegetation on the property. No one species may constitute more than 50 percent of the plantings. Estimated number of plants may be field-adjusted depending on existing ground cover at time of planting.

³Grass plantings are two inch liner container-size material. Numbers reflect a 3:1 increase in grass planting.

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