Department of Defense
Legacy Resource Management Program

Legacy #5-280
ANNUAL REPORT

Actions to Abate Critical Threats, such as Encroachment and Invasive Species, Using GIS and Conservation Area Planning Across the Gulf Coastal Plain Ecosystem Partnership (GCPEP) Landscape

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December 22, 2006

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
22 DEC 2006		**00-00-2006 to 00-00-2006**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Actions to Abate Critical Threats, such as Encroachment and Invasive Species, Using GIS and Conservation Area Planning Across the Gulf Coastal Plain Ecosystem Partnership (GCPEP) Landscape	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **The Nature Conservancy,Gulf Coastal Plain Ecosystem Partnership,4025 Highway 178,Jay,Fl,32565**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**148**	

Actions to Abate Critical Threats, such as Encroachment and Invasive Species, Using GIS and Conservation Area Planning Across the Gulf Coastal Plain Ecosystem Partnership (GCPEP) Landscape
Phase I

Annual Report
FY 2005
(October 2005 – December 2006)

Submitted
December 22, 2006

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NOTICE

Cooperative Agreement Number DACA 87-05-H-0016

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Introduction

As the population within the East Gulf Coastal Plain Ecoregion, encompassing northwest Florida and southern Alabama, continues to grow, develop and urbanize at a rapid pace, the federal, state, and private conservation lands in this region face innumerable threats posed by incompatible recreation, landscape fragmentation, urban encroachment, the persistence and spread of invasive species, and increased resource demands in general. Landscape fragmentation and shared boundaries with development at the urban interface restrict species' movement and home ranges, increase direct human disturbance to sensitive species and habitats, and can promote the infestation and spread of invasive species. The majority of invasive species currently found in northwest Florida thrive in disturbed habitats where native species have been removed, and almost all of the major infestations can be traced back to developments bordering conservation lands. The Gulf Coastal Plain Ecosystem Partnership (GCPEP), composed of 10 public agencies and private entities that manage conservation lands including, Eglin AFB, Naval Air Station-Pensacola and Naval Air Station-Whiting Field, works cooperatively through its Conservation Action Plan (CAP) to strategically address and abate threats such as encroachment and invasive species.

For the past 10 years, GCPEP has served as a national model in landscape-level conservation planning and natural resources management. Through bi-annual Steering Committee Meetings and various subcommittee meetings, mutual land protection efforts, equipment sharing, the recently developed Ecosystem Support Team, and the free exchange of ideas among partners, threats to conservation targets identified in the CAP are being addressed and abated. Issues related to fire management and land protection have possibly seen the largest improvement since the inception of GCPEP. From the bi-annual meetings of the GCPEP Fire Subcommittee to the coordination of partnership prescribed burns to the transfer of a GIS-based burn prioritization model developed on Eglin AFB to the Blackwater River State Forest, GCPEP has played a key role in meeting landscape-level prescribed fire goals in a scientifically rigorous manner.

Although fire management and land protection have experienced impressive gains across the GCPEP landscape in the last ten years, the lack of a comprehensive, spatially-explicit Geographic Information System (GIS) delineating vegetative community types and incorporating conservation targets across partner lands is constraining strategic management of threats such as invasive species and urban encroachment. Partner resource managers require spatial data on the location, size, species, and adjacent land ownerships of invasive species infestations, in relation to conservation targets, to develop priority action plans for controlling and preventing their further spread. A GIS database, available to all partners through an Internet-based Webtool application, will provide GCPEP with real time mapping of conservation targets and threats at a landscape level.

Phase I of the current two-year Legacy Resource Management project is focusing on the initial development of this GIS database and incorporating this database into an updated GCPEP Conservation Area Plan. A powerful Web-based tool, also in development, will allow all GCPEP partners to more efficiently identify invasive species and encroachment issues and develop cost effective, site-specific prescriptions to abate these conservation threats.

Background

The GCPEP is a model partnership among the Department of Defense, Florida Department of Environmental Protection, Florida Division of Forestry, Florida Fish and Wildlife Conservation Commission, International Paper, National Park Service, Nokuse Plantation, Northwest Florida Water Management District, The Nature Conservancy, and United States Forest Service, who together operate under a 1996 Memorandum of Understanding. The strength of the partnership is the respect among 10 partners of differing missions and objectives while acting cooperatively and sharing significant challenges.

Contained within the GCPEP landscape is a vast amount of the remaining longleaf pine ecosystem and a majority of the remaining old-growth stands of longleaf pine. These connected lands also include portions of five major watersheds. Of 87 watersheds identified by The Nature Conservancy as United States "hotspots" for at-risk freshwater fish and mussels, four of them are found within the GCPEP region. Together, these wetlands, bays, and rivers support numerous globally rare or imperiled species. Despite being a small percentage of the land and water area within the 47 million-acre East Gulf Coastal Plain Ecoregion, GCPEP lands and waters contain many of the Ecoregion's target species and natural communities as shown in the GCPEP Conservation Action Plan. The Florida Fish and Wildlife Conservation Commission rates this region as having the greatest concentration of rare and imperiled fish species in Florida, with two federally listed species.

In 2000, GCPEP developed the first iteration of a Conservation Action Plan. The plan outlined consensual conservation targets, threats to these targets, strategies with associated actions to abate these threats, and measures needed to evaluate the success of these actions. Several threats to both terrestrial and aquatic systems were outlined in the CAP including landscape-level fragmentation of natural communities and invasive exotic species on all partner lands. During Legacy FY 03-04, GCPEP focused on aquatic resources and compiled the GCPEP Aquatic Management Plan, which provides thorough guidance on priorities for projects for the extensive waterways in the region.

Legacy FY 05-06 is focusing on the abatement of encroachment and invasive species threats through:

1. the completion of a spatially explicit GIS-based database which will map conservation targets, invasive species, and encroachment buffers on GCPEP partner lands;
2. the development of a GCPEP Invasive and Native Strategic Work Plan using the GIS Database and Target Maps;
3. facilitation of a GCPEP Invasive and Native Species Subcommittee Working Group (for implementation of high priority invasive species and encroachment actions); and
4. the revision of the GCPEP Conservation Area Plan (to include new partners and address escalating threats to partners' land management).

The following sections outline accomplishments for completed Phase I of this project during the period from October 2005 to December 2006.

Geographic Information Systems (GIS) / Target Mapping

Natural resource management planning has become much more accurate and spatially contextual with the advent of GIS mapping. GIS-based viewing and manipulation of spatial data is a powerful tool that provides managers the ability to map resources, analyze spatial relationships among various resources, design management regimes, and track land-use trends over time. Management operations can also be planned within the context of a larger landscape and across multiple agencies. Aside from resource data available for lands within a given agency's jurisdiction, data from adjacent lands allows management planning and coordination that considers shifting area land uses, buffer zone needs, and the presence of outside conservation threats.

Many of the conservation targets and invasive species identified in the GCPEP CAP either have large home ranges that cross partner boundaries and/or have populations which are located at a shared boundary of two or more partners. Conservation targets such as the Florida black bear and the red-cockaded woodpecker require corridors for movement between partner lands, and invasive species on one partner's land often have the potential of migrating onto an adjacent partner's land. The current lack of spatial data on these and other species across the partnership constrains coordinated management efforts. In addition, mitigation of encroachment threats requires landscape-level mapping that will provide context to surrounding land uses, development, and necessary buffer zones for each partner's land as well as the partnership as a whole.

A number of the partners within GCPEP possess spatial data and GIS mapping capabilities, with varying degrees of sophistication, for their individual lands. Natural resource managers at Eglin AFB, for example, have a wealth of spatial data for Threatened and Endangered Species, invasive species, vegetation community cover, fire history, and a host of other conservation targets which allows them to create spatial models to guide their management protocols. Some partners at the other end of the spectrum have only basic data layers, aerial photos, or rudimentary state and county data with which to work. Prior to the Legacy FY05-06 project, there was no comprehensive GIS database that encompassed all GCPEP partner lands. Once completed, such a database will allow all partners to access spatially explicit data of conservation targets, invasive species, and encroachment concerns shared between and among multiple partners and across the entire GCPEP landscape.

The initial step in designing a GCPEP partnership-wide GIS database was acquiring existing quantitative and spatial data from partners and other federal, state, and local sources and data libraries. Collation of existing data is being used to build a data framework for the partnership. Through this data collection process data gaps are being identified and needs are being addressed with priority attention given to gaps in conservation target and invasive species data. For gaps that do exist, a protocol is in development to add data as it is gathered, either by on-the-ground or from additional sources. An immediate application of this GIS-based database will be to aid in the development of a GCPEP Invasive and Native Strategic Work Plan.

In the 1st quarter of FY05 Legacy, the initial phase in designing a GCPEP partnership-wide GIS database was spent planning acquisition of existing quantitative and spatial data from partners and other federal, state, and local sources. Planning meetings were held with GCPEP staff, Eglin AFB natural resource managers, and a GIS expert employed by Science Applications International Corporation, Inc. (SAIC). SAIC has been building a similar database for Eglin AFB and has a proven track record and familiarity with spatial database applications for conservation and natural resource mapping in northwest Florida. SAIC has also been involved with past technology transfer between GCPEP partners by facilitating the transfer of Eglin AFB's burn prioritization model to Blackwater River State Forest. The GCPEP and EST Staff continue to work with SAIC GIS experts to develop the GCPEP GIS database. To better facilitate data acquisition and database creation work to be performed by the SAIC GIS expert, much of the first through third quarters was spent developing a work contract between GCPEP/TNC and SAIC for both Phase I and Phase II of this project. Through the initial planning meetings, the following process for Phase I of this project was agreed upon as follows:

1. Designate a GIS Point-of-Contact (POC) for each GCPEP partner. The GCPEP staff will continue to work with each partner POC throughout the data collection and collation process in order to build a data framework for the partnership;

2. Develop data surveys and attribute metadata forms and distribute to partner POCs (see Attachment A);

3. Schedule one-on-one site visits with each partner POC to acquire spatial data; and

4. Collate all partnership data into one central GCPEP spatial database.

Also during the 1st quarter, the GCPEP staff and SAIC discussed the feasibility and potential timeline for implementing a web-based mapping tool for the partnership which will eventually be part of the GCPEP internal website (see GCPEP Internal Website section). SAIC has been designing a web-based application for Eglin AFB that provides a user interface for viewing, editing, and updating Eglin's natural resource, civil engineering, and cultural resource GIS database. With the programming already established, it makes sense to consider a similar "webtool" interface for the GCPEP GIS database. This interface would allow user friendly, on-line, real time access to the database for GCPEP partner management planning, target and invasive species mapping, prioritization of land protection opportunities, and identification of encroachment buffers. The potential applications and power of an interface that provides simple access to vast amounts of spatial data are endless.

During the 2nd quarter, partner GIS POCs were finalized and data surveys and attribute metadata forms were developed and distributed. These surveys helped to identify data gaps that need to be addressed with priority attention given to gaps in conservation target and invasive species data. One gap that has already been identified is the need for additional satellite imagery. Although the attribute metadata forms would have been useful in collating and managing partner data, the partners found them too time-consuming to complete, especially for those partners with large amounts of data. The most useful outcome of data surveys and metadata forms was in focusing

partners towards providing data that is of most importance to the current GCPEP spatial database.

Data surveys were completed and returned to the GCPEP staff throughout the 2nd and 3rd quarters. All partner POCs responded with varying degrees of data availability and organization. The timeline agreed upon by Eglin natural resource managers and a Science Applications International Corporation, Inc. (SAIC) GIS expert within which data acquisition was to occur was delayed slightly during the 3rd quarter as a work contract between TNC and SAIC was developed and finalized during this quarter. Once the work contract process was completed, site visits to each GCPEP partner for data collection were scheduled.

Partner site visits and data acquisition began in the 4th quarter. By the end of the 4th quarter and Phase I of Legacy 05-06, all boundary data and the majority of the conservation target and invasive species data have been acquired from every GCPEP partner. Spatial data are being stored in a central database on an external hard drive. GCPEP staff now possess all available natural resource spatial data for:

- Eglin AFB (DoD);
- Naval Air Station (NAS) Pensacola and Whiting Field (DoD);
- Blackwater State Forest (Division of Forestry);
- Point Washington State Forest (Division of Forestry);
- Pine Log State Forest (Division of Forestry);
- Escribano Point (Florida Fish and Wildlife Commission);
- Northwest Florida Water Management District (western panhandle);
- Gulf Islands National Seashore (National Park Service);
- Perdido River Nature Preserve (The Nature Conservancy);
- Choctawhatchee River Delta Preserve (The Nature Conservancy); and
- Nokuse Plantation.

Boundary data have been acquired, but additional natural resource data are still lacking, for the following partners:

- Florida State Parks and Aquatic Preserves (Florida Department of Environmental Protection);
- Northwest Florida Water Management District Choctawhatchee River; and
- Conecuh National Forest (US Forest Service).

The inability to acquire data from the above three partners was due primarily to scheduling conflicts between GCPEP staff and each partner POC. Site visits to obtain data from these partners is currently being re-scheduled.

The process of organizing and mining all partnership data has begun and has already exposed a number of data gaps. At this time, only four partners (Eglin AFB, Florida Division of Forestry, NWFWMD, and the Nokuse Plantation) possess invasive species data for their lands. Those partners lacking invasive species data may be aware of invasive species issues and locations on their lands, but they have yet to collect spatial data and map these locations. The same is true of conservation target data; again, only four of the ten partners have spatial data concerning GCPEP

conservation targets. Those partners with target spatial data are better able to plan management activities with regard to changes and trends in these targets over time. Through the process of compiling a comprehensive GCPEP database, it has become clear that helping partners fill in these data gaps should be a future priority of the GCPEP staff.

The first drafts of conservation target and threat GIS maps have been produced based on partner and other available state and national data (see Attachment B). Maps were created with ESRI ArcMap® 9.2 GIS interface software. These maps include a general GCPEP boundary map, a non-native invasive species map, an encroachment/buffer map, nine community target maps, and seven species target maps. It is visually evident from the maps that there are large gaps in partner data, especially in the western range of the partnership. An obvious data gap example in the "Enroachment/Buffers Map" is the lack of land use data for Alabama. In addition, a "Fish/Mussel Complex" map was not produced at all due to a complete lack of data concerning this target. GCPEP staff will continue acquiring these data as they become available. It should be kept in mind that these maps are in draft form and will be improved upon and finalized in the second phase of Legacy FY05-06.

Annual GCPEP Staff Activities:

- Met with SAIC GIS experts and Eglin AFB natural resource managers to discuss logistics and action plan for developing GIS database for GCPEP landscape. Specific items discussed included: 1) identifying data sources and partner contacts for data acquisition, 2) developing format for partner data surveys and attribute metadata forms, 3) priority mapping of conservation targets, encroachment buffers, and invasive species, 4) future transfer of existing GIS technology developed at Eglin AFB to entire GCPEP partnership, 5) assessing satellite imagery needs for the partnership (Eglin AFB currently possesses 90% of the satellite imagery profile for GCPEP); and 6) assessing GIS hardware needs to complete spatial database;
- Met with SAIC Webtools expert to discuss potential applicability and feasibility of webtool interface for partnership GIS database. Webtool would facilitate real-time partner access to GCPEP spatial data for management planning and monitoring;
- Designed and distributed partner data and attribute metadata surveys with examples from Eglin AFB for partners to reference;
- Compiled a comprehensive GIS Point-of-Contact (POC) spreadsheet for the partnership;
- Developed and finalized a contract for work to be performed by Science Applications International Corporation, Inc. (SAIC) GIS expert;
- Assessed GIS hardware needs to complete the spatial database and purchased an external hard drive to collect and store large quantities of partner data;
- Compiled data surveys returned by partners and scheduled partner site visits;
- Visited each available GCPEP partner and acquired existing boundary and natural resource spatial data;
- Began compiling and collating individual partner data into a single, comprehensive database; and

- Created initial draft of GCPEP partner boundary, encroachment/buffer, conservation targets, and invasive species GIS maps.

GCPEP Internal Website

To facilitate effective communication and the transfer of information between the GCPEP partners, the concept of an internal password-protected website was conceived to serve as the hub of current information as well as archival information. The website will provide a mechanism by which the user can access calendars and schedules, search news article clippings by topics (previously provided at Steering Committee meetings in bound format), partner contact information, Steering Committee Minutes, Subcommittee products, current maps, and a host of other attributes to assist communication between the GCPEP partnership (see Attachment C and www.gcpeppartners.com).

The marriage of the GCPEP website and the GIS component will provide the foundation and mechanism to encourage and promote a central site to house a collection of studies conducted by those within the partnership or other local entities, such as universities, colleges, or other organized and credited consortia.

Annual GCPEP Staff Activities:

- Conceptualizing the best form of communication between the GCPEP staff and the GCPEP partnership (determining the most user-friendly, accessible and current technology);
- Developed and finalized a contract for work to be performed by Science Applications International Corporation, Inc. (SAIC) website design expert;
- Developed types of information, format, design, and layout that the website would contain;
- Began the population process for the dynamic tool;
- Secured the domain name (www.gcpeppartners.com) and will have the site navigable by the end of 2006; and
- The site will still be under construction and being populated as data gaps are filled and input from the partners are incorporated.

Invasive/Native Species

Populations of native plant and animal species in the East Gulf Coastal Plain Ecoregion have maintained an interconnected balance in their size and distributions over time through competition and from controls by natural predators, insects, and disease. As non-native species have been introduced to the Southeast either by accident, for erosion control, as ornamentals, or as forage for livestock, they have been able to proliferate in the absence of the natural population controls under which they evolved. Not all non-native species are invasive and harmful, but many can completely encroach upon and change entire established ecosystems.

It has been estimated that the total costs of invasive species in the United States amount to more than $100 billion each year and more than $240 million has been spent in Florida by state, federal and local agencies since 1980 to control invasive species on public owned waterways and lands. According to the Florida Department of Environmental Protection (DEP), upland exotic invasives had infested an estimated 15% of all public conservation lands in Florida at a cost of

$6.3 million in control measures in FY 2003. As these species invade longleaf sandhills, seepage slopes, riverine systems, and other important ecological communities across the GCPEP landscape, they hold the potential to displace native species, interrupt natural ecosystem functions such as fire or wildlife habitat, and disrupt nutrient cycles that provide for human services such as water purification by wetlands.

Perhaps most sensitive and at-risk from non-native species' invasions are Threatened and Endangered (T&E) species. Invasive species impact nearly half of the species currently listed as Threatened or Endangered under the US Federal Endangered Species Act. Populations of T&E species are so reduced already due to habitat loss, hunting, and other pressures that the additional stress and displacement by invasive species carries the risk of pushing these species to the brink of extinction.

Invasive and/or exotic plant and animal species were identified by the GCPEP Steering Committee as a primary threat to many conservation targets. These nuisance species were also identified in the CAP by all of the partners as a threat, both ecologically and economically, to the natural communities and native species that they manage.

Partner lands within GCPEP harbor lower populations of invasive species in comparison to surrounding land holdings due to healthy native species populations, the higher frequency of prescribed fire, and vigilant management of invasive species in general. However, the occurrence of invasive species is becoming more prevalent across the GCPEP landscape as the population of the area grows and encroaches on partner boundaries. Native species in natural ecological communities typically provide sufficient competition to prevent invasive species from becoming established; however, soil disturbance, removal of native species, shifting land uses, hurricanes, and encroachment all provide conduits for invasive species to gain a foothold on the perimeter of natural communities from which they can slowly move inward.

Across the GCPEP, the most prolific and problematic invasive species include cogongrass (*Imperata cylindrica*), Chinese tallowtree (*Sapium sebiferum*), Japanese climbing fern (*Lygodium japonicum*), Chinese privet (*Ligustrum sinense*), Chinaberry (*Melia azedarach*), mimosa (*Albizia julibrissin*), and feral hogs. Through the Florida Department of Environmental Protection (DEP) Panhandle Invasive Species Working Group, a number of the partners have been awarded grants to treat and control invasive upland plant species. The GCPEP Conservation Ecologist serves as the liaison for the Panhandle Working Group and plays a key role in providing funding sources for invasive issues on GCPEP partner lands.

Encouraging local landowners and agencies to plant and manage for native species is an additional approach the GCPEP staff is taking to ensure invasive species are unable to gain a foothold and spread. During Phase I of the Legacy Resource Management Project FY 05-06, the following action items have been addressed through the facilitation of a GCPEP Invasive and Native Species Subcommittee Working Group, cataloguing non-native and native species spatial information through a Web-based GIS database, and through early stages of creating a GCPEP Invasive and Native Strategic Work Plan. The top GCPEP action items developed in the CAP for dealing with the threat of invasive species were:

1. to determine which invasive non-native species are present in the GCPEP area;

2. to identify the extent on partners' lands, and the effects that they are having on GCPEP targets;
3. to establish protocol for the necessary documentation across the partnership including GPS coordinates; species, aerial extent, and the natural community where found; and
4. to develop priorities for control and eradication, especially in areas that impact the GCPEP conservation targets.

In September 2006, the GCPEP Conservation Ecologist and supporting GCPEP staff organized the first GCPEP Invasives/Natives Subcommittee meeting at Jackson Guard, Eglin Air Force Base. GCPEP staff facilitated discussions concerning the top invasive issues faced on each partner's land and the effectiveness with which they have been able to mitigate the threat posed by invasive exotic species. Similar discussions were facilitated concerning native species, particularly an assessment of groundcover restoration programs, across the partnership. Through this meeting and ensuing discussions, the GCPEP staff drafted the initial framework for a GCPEP Invasive Species Strategic Work Plan (see Attachment D).

Annual GCPEP Staff Activities:

- Two Ecosystem Support Team Members finished annual surveys with Eglin AFB natural resource staff to monitor feral hog damage within rare steephead wetland communities across the Eglin reservation;
- As the Liaison for the Panhandle Working Group within the Department of Environmental Protection's Upland Plant Management Program, the GCPEP Conservation Ecologist facilitated a meeting to review and rank invasive species' control funding proposals for public land agencies in the Panhandle of Florida. At this meeting, GCPEP staff also facilitated the development of new scoring criteria for future proposals submitted to the Panhandle Working Group. The GCPEP Conservation Ecologist then defended the new proposals at the statewide meeting to secure funding for the Panhandle Working Group;
- One of the GCPEP Ecosystem Support Team Members obtained a Commercial Pesticide Applicator's license for future treatment of invasive exotic plant species on partner lands;
- One Ecosystem Support Team Member chemically treated multiple cogongrass infestations located at the Department of Environmental Protection (DEP) Bagdad Mill Site;
- The GCPEP Conservation Ecologist and an Ecosystem Support Team Member organized and convened the first GCPEP Invasives/Natives Subcommittee meeting. Through this meeting, partner subcommittee members identified priority invasive and native species' issues on each of their respective lands, described actions or programs in place to address these issues, and discussed future needs and action items that the Subcommittee should address. This meeting established the role and function of the GCPEP Invasives/Natives Subcommittee as well as provided the framework for a GCPEP Invasive Species Strategic Work Plan;
- GCPEP staff acquired available invasive species spatial data from most partners; and
- GCPEP staff, with help from SAIC GIS expert, produced a draft invasive species map for the partnership (Attachment B).

Land Protection/Encroachment

Several of the counties in the GCPEP landscape continue to rank in the top tier of fastest growing counties in the State of Florida, with Santa Rosa County recently moving to the number two ranking in Florida (as reported in Florida Trend). Property values have escalated dramatically over the past two years, and speculative interest in undeveloped or damaged areas increased after the recent hurricanes. Growth and development in areas surrounding GCPEP partner lands fragments the landscape with roads and infrastructure, increases direct human disturbances to wildlife, leads to greater levels of local air and water pollution, and presents more constraints to vital management activities such as prescribed burning and watershed protection.

The strength of GCPEP in addressing encroachment lies in the ability to conduct strategic landscape-level planning and leveraging to designate potential buffer zones, advocate for concentrating development outside of these buffer zones, and aid in acquisition of lands that could serve as corridors and/or additional buffers among various GCPEP partners. The Yellow River Ravines Florida Forever Project which connects habitat between Eglin AFB and Blackwater River State Forest is an example of a successful corridor project within GCPEP, while the proposed Clear Creek/Whiting Field Florida Forever Project would create substantial buffers around NAS-Whiting Field.

With support from the Legacy Resource Management Program, tremendous progress in improving management of the focal conservation targets selected by the GCPEP Steering Committee, as well as protection from base encroachment, has been made by Eglin Air Force Base, Naval Air Station (NAS) Pensacola, NAS Whiting Field, and the eight other GCPEP partners. This progress towards improving conservation conditions on the lands and waters surrounding military lands has assisted with assuring flexibility for military missions in one of the fastest growing regions in the nation.

Annual GCPEP Staff Activities:

- Project Director spoke at several conferences and meetings about GCPEP and the partner priority land protection projects. Emphasis was on educating both the public and community leaders about the significance of the GCPEP wildlife connectors and buffers, the importance of continued and increased funding, and the benefits provided by the added conservation lands. Presentations included those to staff at both Fort Stewart and Fort Gordon on land protection and base buffering. Additional presentations included the Florida Natural Areas Training Academy and the final National Park Service workshop on creating a Seamless Network of Protected Areas. GCPEP was highlighted in both of these workshops pertaining to the increased level of conservation accomplishments that occur through cooperative partnerships.
- In February the Project Director attended the annual “Hike the Hill” event, hosted by the American Hiking Society, in Washington DC with Florida Trail Association leadership. Meetings were held with all of the Florida elected officials or their staff to discuss accomplishments of the past year and the need for funding to continue management, restoration, and land protection. The Florida Trail Association has secured 15 million dollars in land acquisition funding which has led to the acquisition and protection of several key parcels across the State of Florida including the Nokuse Plantation conservation easement.

- GCPEP Staff worked with Nokuse Plantation (a GCPEP partner), the USFS, and the Florida Trail Association on additional land protection for a portion of the Nokuse Plantation (see Appendix E). On March 14, 2006 Nokuse Plantation founder M.C. Davis signed a landmark agreement with the USDA Forest Service to grant a conservation easement on over 2,000 acres of land that will permit the Florida Trail to move into a wilderness corridor in the heart of Florida's Panhandle. M.C. Davis sees the easement across Nokuse Plantation as one piece in a greater puzzle for natural connectivity. "For successful preservation of the habitats of the Gulf Coast Plain, large blocks of biologically diverse lands need to be connected and restored," said Davis. "Only then can we ensure the return of wilderness to pass along to future generations." The conservation easement allows the Florida Trail Association to move the Florida National Scenic Trail from a road walk along busy corridors to a 15 mile walk through natural areas being restored on Nokuse Plantation. The project connects Eglin AFB to the Choctawhatchee Water Management Area and provides an important buffer to the east side of Eglin AFB. GCPEP staff have also held a two day field meeting with Nokuse Plantation, the USFS, and the Florida Trail Association to review management and restoration needs on the newly acquired conservation easement. GCPEP received a grant from the USFS to assist with management and restoration of the land as agreed by Nokuse Plantation and the USFS. Initial work is centering on invasive species control, groundcover restoration, and planting of longleaf pine. The project will also involve volunteers on as many work projects as possible.
- The Project Director continued to work with Santa Rosa County and Naval Air Station – Whiting Field on the Clear Creek/Whiting Field Florida Forever project (see Appendix F). During the first quarter a proposal was completed to move 1900 acres from a "B" ranking to an "A" ranking, thus providing full acquisition funding. The area would provide both protection to a portion of Coldwater Creek, a major tributary of the Blackwater River, and also potentially provide a managed off-highway vehicle recreation area. The State of Florida has identified Northwest Florida as being severely deficient in providing legal areas for off-road vehicle enthusiasts. Providing such a recreation area would greatly reduce illegal riding and pressures on other partners such as Eglin AFB and Blackwater River State Forest. The Governor and Cabinet approved moving the 1900 acres to an "A" ranking during the second quarter. During that same time period the Project Director continued efforts to secure funding for the project and to move the remainder of the project to an "A" ranking. A meeting was held in Tallahassee consisting of Navy, DEP, Santa Rosa County, TNC, and State of Florida leaders. Discussions included the potential of securing Department of Defense support through base buffering funding through the newly approved base buffering authorization. The remainder of the "B" ranked portion of the project was approved for movement to an "A" ranking by the Florida Acquisition and Restoration Council during the third quarter and then approved by the Governor and Cabinet. In addition, the Navy has also secured very important additional funding in the amount of 5.031 million dollars to assist with the project. Because of the number of projects currently on the Florida Forever "A" list, such matching and supporting funds are even more important than previously. The timing of acquisition in this area is critical due to the rapid development that is beginning to occur in the area. The first three acquisitions of 1600 acres were completed by The Nature Conservancy during the fourth quarter.
- GCPEP has worked with several partners including Eglin AFB, Naval Air Station, Blackwater River State Forest, International Paper, The Nature Conservancy, and the

Northwest Florida Water Management District to secure several priority land holdings in the GCPEP landscape that were owned by International Paper. Four important areas, including the Clear Creek/Whiting Field acquisitions discussed above, were successfully protected highlighting many years of cooperative efforts among the GCPEP partners (see Attachment G). These projects were led by The Nature Conservancy, International Paper, and The Conservation Fund who worked together on a large southern U.S. project of more than 218,000 acres that will protect ecologically important forests, rivers and streams. The Nature Conservancy and The Conservation Fund acquired this acreage in the largest private land conservation project in the history of the south. In Florida, 28,579 acres were protected in three projects: 11,313 acres in the Yellow River Ravines Florida Forever project; 11,528 acres in the GCPEP Additions project, and another 205 acres in the Clear Creek/Whiting Field Florida Forever project (see Attachments H, I, and J). The Yellow River Ravines project is the important wildlife connector between Eglin AFB and Blackwater River State Forest. The project will form a continuous landscape of more than 800,000 acres stretching from the Gulf of Mexico to Conecuh National Forest in Alabama. The project is known for rare steephead ravine natural communities and will also provide habitat for the Florida black bear and other rare species found in the ravines. In addition to buffering Eglin AFB, the project will also buffer the Navy Outlying Field – Harold. The GCPEP Additions Project connects Blackwater River State Forest and Naval Outlying Field – Whiting Field. It includes protection of six miles of Coldwater Creek, a sand-bottomed creek that is the major tributary of the Blackwater River. The creek is also a state-designated canoe trail, often cited as the best in the state. The Yellow River Ravines project is currently being managed by The Nature Conservancy and was approved on 19 December, 2006, by the State of Florida for transfer to the Blackwater River State Forest. As approved by the Governor and Cabinet the project will close in 2007 (see Attachment K). The GCPEP Additions project will be managed in part by The Nature Conservancy and partly by a timber investment entity. The land will be managed as a working forest until such time it can be in total permanently protected by The Nature Conservancy and then transferred to the State of Florida. The land which most closely buffers NAS-Whiting Field, totaling 1,395 acres, will be transferred to the State of Florida first. The Perdido River acquisition is the final IP acquisition and consists of 5,533 acres on the Florida side and 14,119 acres on the Alabama side of the river. The 5,533 acres were purchased by The Conservation Fund and the Northwest Florida Water Management District and the 14,119 acres were purchased by the Alabama Chapter of The Nature Conservancy, together protecting some 15 miles of riverfront (see Attachment L). In total, 42,698 acres of land in the GCPEP landscape was protected in this historic land protection effort. The lands together provide habitat for many of the GCPEP conservation targets and provide invaluable buffering to Eglin AFB, NAS-Whiting Field, and NAS-Pensacola. GCPEP staff has worked on multiple items associated with the purchase and management of these lands including environmental assessment, site condition documentation, media and public relation tours, and hunting club lease support. New hunting leases were completed and signed for a majority of the lands purchased by The Nature Conservancy.

- GCPEP Staff have continued to work on other land protection priorities, with an emphasis on Escribano Point, Garcon Point, and other Florida Forever projects (see Attachment G). The Project Director met with local elected officials and planning department staff to discuss the need to protect the remaining parcels in the Escribano Point Florida Forever project. Only

576 acres remain unprotected within this project that would prevent encroachment on the western edge of Eglin AFB. Success with the project would also provide long term protection for Choctaw Outlying Field. Additional lands have become available totaling over 1,000 acres in the Garcon Point Florida Forever project area.

Conservation Area Plan (CAP) Update

In 2000, GCPEP developed the first iteration of a Site Conservation Plan (SCP), which was the predecessor to the Conservation Action Plan (CAP) process. The plan outlined consensual conservation targets, threats to these targets, strategies with associated actions to abate these threats, and measures needed to evaluate the success of these actions. Several threats to both terrestrial and aquatic systems were outlined in the SCP including landscape-level fragmentation of natural communities and invasive exotic species on all partner lands.

The SCP also addressed and prioritized actions to abate identified critical threats in order to provide for protection and restoration of both terrestrial and aquatic ecosystem and species conservation targets. In previous years, GCPEP efforts involved the identification and implementation of terrestrial and aquatic collaborative projects to restore and protect Threatened and Endangered species and natural communities on partner lands across the GCPEP landscape.

Through successful completion of previous terrestrial and aquatic GCPEP Legacy projects, many information gaps have been identified. In addition, several threats have persisted and/or escalated in their magnitude and scope, in particular the rapidly increasing incompatible residential and commercial development in the region, as well as the increased spread of invasive exotic species on all of the partners' lands. The partners have prioritized a need to continue to address these threats and to incorporate updated information and new partners needs and data into a new plan by utilizing the CAP process.

In addition, since the original SCP was completed in 2000, new partners and their lands have been enrolled in the partnership. Targets, threats, and threat abatement strategies must be developed for these new partner lands, and any other lands recently enrolled within the partnership, and incorporated into the partnership-wide CAP. The updated GCPEP Conservation Action Plan and GIS component will assist in further improving management plans for each of the partners.

Annual GCPEP Staff Activities:

- Completed the GCPEP Aquatic Management Plan, which identified aquatic specific issues and recommendations within the GCPEP landscape, and will be incorporated into the updated GCPEP CAP;
- Met several times with TNC Florida Science staff members, who will be key partners in facilitating the CAP process. Discussions included on how best to assist GCPEP with planning needs, defining planning needs, determining appropriate planning format(s), and establishing a timeline for a planning work schedule.
- Began development of a comprehensive conservation target list for the GCPEP area;
- Identified the core planning team;

- Finalized a new GCPEP Conservation Targets and have nearly completed the Nested Targets list, which will be presented in the first quarterly in Phase II. The new GCPEP Focal Conservation Targets, which were modified from the original 18 GCPEP Focal Conservation Targets are:
    1. Barrier Island Ecosystem;
    2. Pine Flatwoods Matrix with Embedded Wetlands;
    3. Florida Black Bear;
    4. Upland Pine Matrix with Embedded Wetlands;
    5. Red-cockaded Woodpecker;
    6. Alluvial Rivers, Streams and Floodplains;
    7. Blackwater Rivers and Streams;
    8. Estuarine Ecosystems;
    9. Diadromous Fishes;
    10. Steephead System; and
    11. Gopher Tortoise.
- Established a timeline for Phase II which will first complete viability per target, next conduct stresses and sources of stress per target, and then start developing strategies to address the threats to the targets.

GCPEP Internal Communications

Effective communication between the partners remains a vital component in continued conservation management and restoration success. Documentation of the partners' cooperative restoration projects and of the methods used is critical to circulating the information between partners, to supervisors, decision makers, and to the interested public. Communication is vital to the effectiveness of the partnership and was established as a priority by the GCPEP Steering Committee.

The GCPEP Memorandum of Understanding (MOU), which is a key component to partnership communication, is the foundation upon which the partnership developed. The MOU explicitly states that the purpose of the MOU is "to develop and implement a voluntary and cooperative stewardship strategy to sustain the long-term viability of native plants and animals, the integrity of ecosystems, the production of commodities and ecosystem services, and the human communities that depend upon all of them". The MOU has been updated, approved and obtained signatures from all 10 partners (see Attachment M).

Another vital means to ensure effective communication among the partners is to hold GCPEP Steering Committee Meetings. During these meetings important decisions are made, information and ideas are exchanged, challenges are brought to the table, and attempts to solutions are made. At the last GCPEP Steering Committee on 8 August, 2006, a new meeting format was tried which had the partners focus on future actions rather than past accomplishments (see Attachment

N). Since the Steering Committee members were pleased with the new format, the next meeting will follow the same template.

During this past year, a book was completed and printed on longleaf pine titled *The Longleaf Pine Ecosystem, Ecology, Siliviculture, and Restoration* by Shibu Jose, Eric J. Jokela, and Deborah L. Miller (Shibu et al. "The Longleaf Pine Ecosystem." New York: Springer, 2006.). The final chapter in the book was completed by GCPEP Staff and is titled the *Role of Public-Private Patnership in Restoration: A Case Study* (see Attachment O). The Chapter showcases the role a successful partnership such as GCPEP can play in protecting an ecosystem and explains how the partnership began and how it functions.

Work-in-Progress for Phase II:

1. **Geographic Information Systems (GIS) / Target Mapping**
   - Finalize spatial data acquisition from remaining GCPEP partners for whom data is currently lacking;
   - Migrate all GCPEP partner data into usable ArcGIS GCPEP geodatabase;
   - Produce second draft of targets, invasives, and encroachment buffer maps;
   - Present all maps to GCPEP Steering Committee and/or partners GIS POC for review;
   - Produce final GIS maps and completed GCPEP geodatabase; and
   - Pursue Webtool interface for partners to view, access, and update spatial data.

2. **GCPEP Internal Website**
   - Continue to populate the website with GCPEP relevant information;
   - Continue to collect data gaps from GCPEP Partnership and provide the information on the website; and
   - Provide useful information via the website as an 'At A Glance Tool' for the partnership and its landscape.

3. **Invasive/Native Species**
   - Facilitate discussion on adopting Minimum Data Standards for collecting invasive species data across partnership lands at next subcommittee meeting;
   - Provide a list of invasive species treatment funding sources at next subcommittee meeting;
   - Invite Florida Department of Transportation representative to next subcommittee meeting;
   - Finalize development of a Comprehensive Invasive / Native Species Strategic Plan; and
   - Coordinate annual groundcover restoration meeting in Fall 2007.

4. **Land Protection/Encroachment**

- Assist with items related to the transfer of the Yellow River Ravines Florida Forever project from The Nature Conservancy to the Florida Division of Forestry and Blackwater River State Forest in 2007.
- Assist State of Florida with purchase of remaining lands within the Clear Creek/ Whiting Field Florida Forever project boundary. Assistance to include needed site assessments and documentation.
- Increase efforts on remaining GCPEP priority land acquisitions including Escribano Point, Garcon Point, and the Perdido Pitcher Plant Prairie.
- Work with GCPEP partners to identify new land acquisition priorities using updated GCPEP conservation target maps. Priorities to include remaining key inholdings and buffers. Complete needed funding proposals, including Florida Forever, to allow for purchase of properties.
- Update the land protection section of the GCPEP Conservation Area Plan.
- Continue to work with and educate area citizens interested in starting a regional land trust to increase protection of small and unconnected but important conservation parcels.
- Serve on planning and transportation related committees and working groups that might impact or influence GCPEP land protection priorities or partner lands.

5. Conservation Area Plan (CAP) Update

- Finalize nested targets per focal conservation target;
- Become familiar and have a working knowledge of the new CAP workbook;
- Complete viability assessment per focal conservation target;
- Identify and rank threats to each focal conservation target;
- Develop strategies and action items to address threats; and
- Present the draft CAP to the GCPEP Steering Committee, receive and incorporate input.

ATTACHMENT A

GCPEP Partners' GIS Data Survey and Metadata Forms

Feature	File Name	Geometry (point/line /polygon)	Format (i.e. .shp, .xls, .mdb, etc.)	Coordinate System	Origin (i.e. field collected, satellite imagery, spatial model, other data source, etc.)	Date Created / Last Updated	Date/ Frequency of Future Updates *(Attach additional sheets if needed)*

Additional Information:

1. Please describe any current or future GIS projects your organization is planning.

2. Please describe any needs/uses your organization might have for spatial data.

GCPEP GIS Database Attribute Metadata

- Please complete separately for each data layer
- Fill in any/all fields for which you have accurate information
- Feel free to include any additional information not covered here

File Title:
File Name:
Date created:
Description:

Status:

Point of Contact (POC):
- Organization:
- Position:
- Telephone:
- Fax:
- E-mail:

Data quality POC:
- Organization:
- Position:
- Telephone:
- Fax:
- E-mail:

Grid Coordinate System:
- Grid Coordinate System Name:
- Universal Transverse Mercator:
  - UTM Zone Number:
  - Transverse Mercator:
    - Scale Factor at Central Meridian:
    - Longitude of Central Meridian:
    - Latitude of Projection Origin:
    - False Easting:
    - False Northing:

Planar Coordinate Information:
- Planar Coordinate Encoding Method:
- Coordinate Representation:
  - Abscissa Resolution:
  - Ordinate Resolution:
- Planar Distance Units:

Geodetic Model:

Horizontal Datum Name:
Ellipsoid Name:
Semi-major Axis:
Denominator of Flattening Ratio:

Attribute Information:

Ex. Attribute label: GOP_WT
Attribute: weight of adult gopher tortoise at burrow X

Attribute label:
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Feature	File Name	Geometry (point/line /polygon)	Format (i.e. .shp, .xls, .mdb, etc.)	Coordinate System	Origin (i.e. field collected, satellite imagery, spatial model, other data source, etc.)	Date Created / Last Updated	Date/ Frequency of Future Updates *(Attach additional sheets if needed)*
Community Targets:							
Longleaf pine sandhills	sandhills_06	polygon	.shp	UTM	spatial model	03/01/2001	Annual/Spring
Longleaf pine flatwoods							
Rivers/floodplains							
Depression wetlands							
Seepage slopes							
Steephead streams/ravines							
Mainland sand pine scrub							
Estuarine systems							
Barrier Island complex							
Other							
Species Targets:							
Red-cockaded woodpecker							
Cavities	rcw_active_trees	point	.shp	WGS 84	Field collected	11/15/2005	Annual/Fall
Clusters							
Flatwoods Salamander							
Breeding ponds							
Florida bog frog							
Breeding ponds							
Florida black bear							
Gulf Sturgeon							
Okaloosa darter streams							
Upland game birds							
Other							

Invasive Species:							
Cogongrass							
Chinese tallow tree							
Japanese climbing fern							
Chinese privet							
Mimosa							
Chinaberry							
Feral hogs							
Other							
Infrastructure:							
Property boundaries							
Roads							
Buildings							
Waterbodies							
Wetlands							
Timber Parcels/Stands							
Burn blocks							
Other							

Additional Information:

1. Please describe any current or future GIS projects your organization is planning.
   eg. Our organization is working on creating an invasive plant species coverage that can be updated on a regular basis and which will allow us to both track effectiveness of control measures as well as map spread of current and new infestations.

2. Please describe any needs/uses your organization might have for spatial data.
   eg. We would really like to get a more thorough dataset for active gopher tortoise burrows across our lands, so that we can better plan forest management activities to improve gopher tortoise habitat and minimize any potential negative impacts from harvest operations.

ATTACHMENT B

First Drafts of:
GCPEP Boundary
Invasive Species Map
Encroachment Map
Natural Communities and Species Conservation Target Maps

Legend

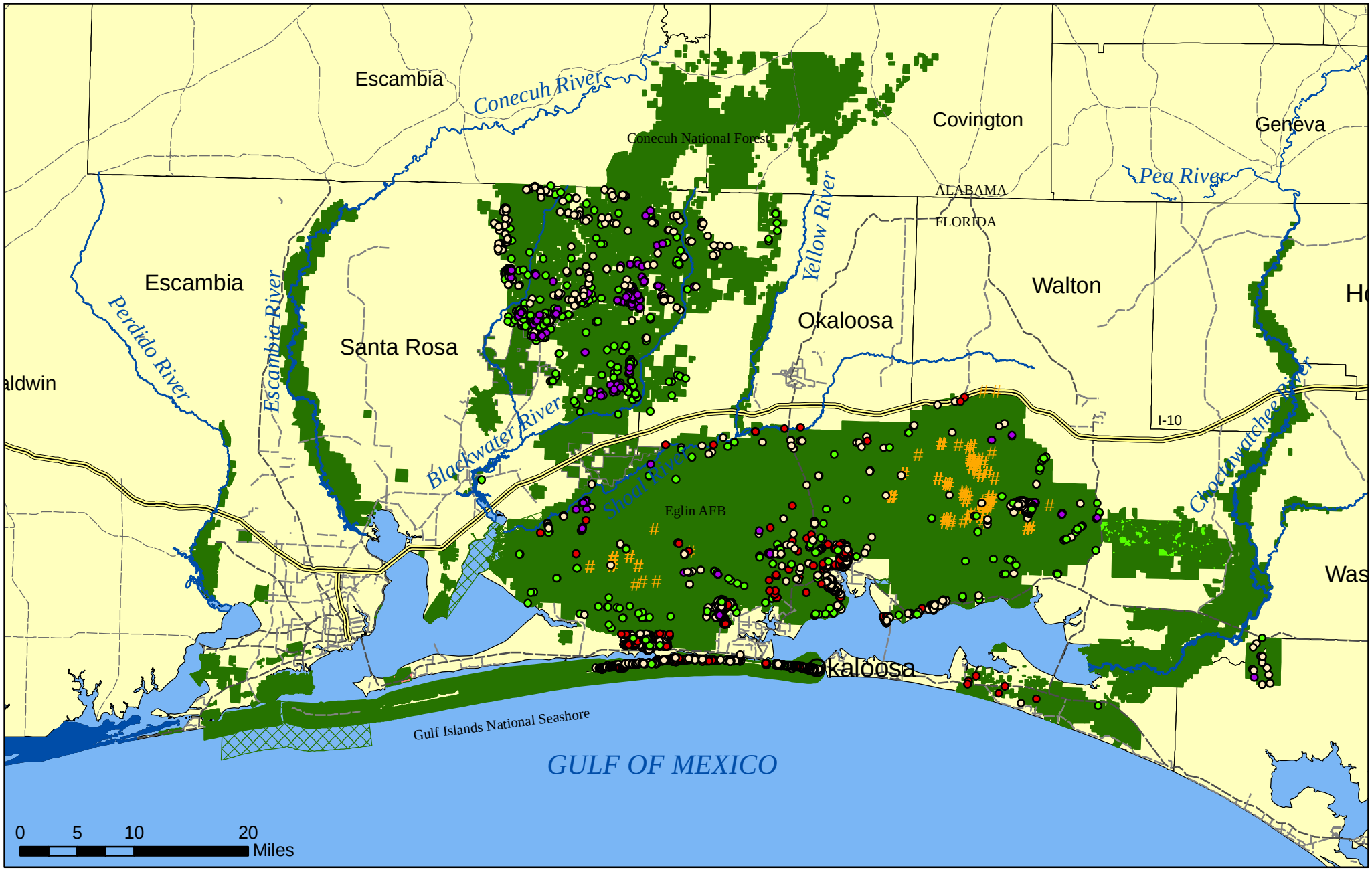
GCPEP Partner Lands

Boundary Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

- AGRICULTURE
- COMMERCIAL
- INDUSTRIAL
- MULTI-FAMILY
- SINGLE FAMILY

Encroachment/Buffers Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06



Legend

- Other invasives
- Chinese tallowtree
- Cogongrass points
- Japanese climbing fern
- # Feral Hogs (Trapped)
- Cogongrass Patches

Non-Native Invasive Species
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

Barrier Island Complex

Barrier Island Complex CommunitiesTarget Map Gulf Coastal Plain Ecosystem Partnership Legacy FY05-06

Legend

Depression Wetlands

Depression Wetlands CommunitiesTarget Map Gulf Coastal Plain Ecosystem Partnership Legacy FY05-06

Legend

Bays and Estuaries

Estuarine Systems CommunitiesTarget Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

Flatwoods

Pine Flatwoods Matrix CommunitiesTarget Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

- Active Red-cockaded Woodpecker Cavities
- Red-cockaded Woodpecker Clusters

Red-cockaded Woodpecker
Species Target Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

Okaloosa Darter Stream Habitat

Okaloosa Darter
Species Target Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

- Instream Sturgeon Habitat
- Open Water Sturgeon Habitat

Gulf Sturgeon
Species Target Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

- Confirmed Salamander Ponds
- Potential Salamander Ponds
- Salamander Habitat

Flatwoods Salamander
Species Target Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

- Potential Florida Bog Frog Locations

Florida Bog Frog
Species Target Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

- Black Bear Incidental Sightings
- Black Bear Track Counts
- D — Bear Mortality

Florida Black Bear
Species Target Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

! Potential steepheads

Eglin streams

Steephead/Slope Systems CommunitiesTarget Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

- Confirmed Seepage Slopes
- Historic Seepage Slopes

Seepage Slopes CommunitiesTarget Map Gulf Coastal Plain Ecosystem Partnership Legacy FY05-06

Legend

Longleaf Pine Sandhills

Longleaf Pine Sandhills Matrix CommunitiesTarget Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

Potential Sand Pine Scrub

Mainland Sand Pine Scrub CommunitiesTarget Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

Legend

River/Floodplain Type

- Alluvial
- Blackwater

Rivers/Floodplains CommunitiesTarget Map Gulf Coastal Plain Ecosystem Partnership Legacy FY05-06

Legend

- Upland Game Bird Management Areas
- Eglin AFB Game Management Units

Upland Game Birds
Species Target Map
Gulf Coastal Plain Ecosystem Partnership
Legacy FY05-06

ATTACHMENT C

Examples of GCPEP Website Pages

About Us:

Gulf Coastal Plain Ecosystem Partnership (GCPEP) was formed in 1996 when public and private landowners and land management partners united. The goal is to conserve and restore the dwindling longleaf pine ecosystem and unique aquatic resources of northwest Florida and southern Alabama. This effort, joining 10 major conservation entities and 1,052,000 acres of land and water, has stabilized endangered red-cockaded woodpecker populations, increased prescribed fire as a management tool, and restored thousands of acres of longleaf pine.

Overview of the Gulf Coastal Plain Ecosystem Partnership:

The Gulf Coastal plain Ecosystem partnership (GCPEP) is a collaboration among the Department of Defense, Florida Division of Forestry, Northwest Florida Water Management District, National Forests in Alabama, Florida Department of Environmental Protection, Nokuse Plantation, National Park Service, International paper, the Florida Fish & Wildlife Conservation Commission, and The Nature Conservancy that operate under a 1996 multi-party Memorandum of understanding (MOU) encompassing 1,052,321 acres in northwest Florida and south Alabama. This area is known for its extensive longleaf pine forests, as well as being one of the most critical freshwater and marine sites in the United States, including numerous outstanding examples of wetland, riverine, and estuarine systems.

The Partnership is guided by a Steering Committee which is composed of two representatives from each of the partner organizations, one primary and one alternate. The GCPEP Steering Committee, operating under the MOU, has agreed to guidelines to ensure efficient operation of the Partnership. In reaching agreements, consensus is the method of decision making. If there is dissent, the majority is charged with finding an alternative solution. The GCPEP Staff is present to provide information and assistance to the Steering Committee, and does not vote on partner needs. The GCPEP Staff is guided by partner needs.

GULF COAST PLAIN ECOSYSTEM PARTNERSHIP | 4025 HIGHWAY 178 | JAY, FL 32565 | PHONE (850) 675-5758 | FAX (850) 675-5759

About the GCPEP Partners and their Missions:

GCPEP Partnership Lands <<click to enlarge>>

Conecuh National Forest (CNF)

Conecuh is composed of 83,790 acres in southern Alabama . Conecuh has received national acclaim for meeting prescribed burning goals, and is setting an example through the use of native grasses for road maintenance and erosion control. The forest also protects crucial Gulf sturgeon spawning areas and red-cockaded woodpecker nesting habitats.

DoD / Eglin Air Force Base

At 463,441 acres, Eglin Air Force Base is the largest military base in the United States . Undeveloped lands serving as buffers for military operations have also protected the largest remaining old growth longleaf pine forest in the world, along with other unique communities and species. With GCPEP assistance, Eglin has started a native plant initiative at the base, including a native plant demonstration area and native plantings in base housing and along roads and streams for erosion and biodiversity restoration.

DoD / Naval Air Station - Pensacola

Naval Air Station Pensacola Natural Resource program manages 8,400 acres of wetlands and coastal areas in GCPEP. Accomplishments include completion of the Installation Natural Resources Management Plan, assisting with Project Greenshores, setting aside sensitive lands, and the ongoing work to maintain the regional Osprey population with 20 new fledglings produced annually. Careful management of the natural resource assets at NAS Pensacola has allowed base personnel and the public to enjoy protected habitats via trails, boardwalks and camping areas.

DoD / Naval Air Station – Whiting Field

NAS Whiting Field brings 9,400-acres to GCPEP with a goal of implementing an ecosystem-based conservation program that: provides for conservation and rehabilitation of natural resources in a manner consistent with the military mission; integrates and coordinates all natural resources; provides for sustainable multipurpose uses of natural resources; and provides public access for use of natural resources subject to safety and military security considerations.

ATTACHMENT D

GCPEP Invasive / Native Subcommittee Meeting
Minutes and Summary

GCPEP INVASIVE/NATIVE SUBCOMMITTEE MEETING
21 SEPTEMBER 2006
MINUTES / SUMMARY

Purpose

The overall purpose of the GCPEP Invasive / Native Subcommittee is to work collectively and collaboratively as a partnership to address the landscape level invasive species and native vegetation issues across the GCPEP area.

Invasive Species

Through discussion and consensus the subcommittee agreed to utilize The Nature Conservancy of Florida's Statewide Comprehensive Invasive Species Strategy Goals as a framework to mitigate threats posed by invasive plant and animal species to GCPEP conservation targets. By sharing information, knowledge, and integrated pest management methodology, the GCPEP partners will strive to:

1. prevent new invasions within the GCPEP landscape;
2. promote early detection and rapid response of newly established invasions;
3. locate and document current infestation occurrences within the partnership; and
4. control and manage known infestations.

Native Vegetation

Again through discussion and consensus, the subcommittee agreed to serve as a forum for sharing information, knowledge, resources, and opportunities in order to enhance partner capacity to restore native vegetation for the benefit of the GCPEP conservation targets. The primary focus of the subcommittee will be to:

1. replace invasive species with appropriate native species; and
2. restore vegetative structure and composition of degraded sites.

Invasive Species

Prior to the meeting the partners were asked to provide information on the top ten invasives (flora, fauna, terrestrial and aquatic) on their managed lands, based on extent and threat, within the partnership (see Appendix 3 for individual partner responses). This information was then shared with the subcommittee and a list was developed to rank invasive species across the partnership.

Table 1. List of invasive, non-native flora and fauna developed from partner input for ranking priority invasive threats across the GCPEP partnership. The numbers represent the number of partners that indicated that particular species as a priority threat. Species in bold letter were identified as the top invasives across the partnership.

Plants	Animals
10 **Cogon Grass(*Imperata cylindrica*)**	4 **Feral Hog**
10 **Chinese Tallow Tree(*Sapium sebiferum*)**	3 **Feral Cat**
8 **Japanese Climbing Fern (*Lygodium japonicum*)**	3 **Red Fox**
6 **Chinese Privet (*Ligustrum sinense*)**	2 **Coyote**
5 **Torpedo Grass (*Panicum repens*)**	1 Tropical Gecko
4 Mimosa (*Albizia julibrissin*)	
3 Chinaberry (*Melia azedarach*)	
3 Kudzu (*Pueraria montana*)	Cactus Moth
3 Chinese Wisteria (*Wisteria sinensis*)	
2 Japanese Honeysuckle (*Lonicera japonica*)	
2 Lantana (*Lantana camara*)	
2 Vasey Grass (*Paspalum urvillei*)	
1 Pampas Grass	
1 Camphor Tree (*Cinnamomum camphora*)	
1 Air Potato (*Dioscorea bulbifera*)	
1 Water Hyacinth (*Eichhornia crassipes*)	
1 Autumn Olive (*Eleagnus umbellata*)	

Through the ranking process a number of additional issues also became apparent:

- There are also a number of native species that have become invasive on specific partner lands due to ecological imbalance. These include
    - Muscadine Grapevine
    - Green brier
    - Titi
    - Choctawhatchee Sand Pine
    - Raccoons
    - Beavers
- There is a lack of knowledge concerning presence, extent, and threat of marine, estuarine and freshwater aquatic invasive species within the partnership.
- Some partners still need assistance with surveying and mapping invasive species on their properties.
- Fire ants have become so ubiquitous that the partners view them as common place within the landscape and therefore beyond management.
- Invasive species such as Torpedo Grass and Vasey Grass are considered the new up and coming problematic invasives.

Management Successes and Lessons Learned

During this section only the top partnership-wide invasives (those in bold in the above table) were considered in the discussion. For each of these species a roundtable discussion was facilitated in order to capture methods and techniques employed by the partners to control these species.

Chinese Tallowtree

Option(s) for Management:

Sapling size and above

- Basal Bark Treatment: Garlon 4 (18% solution) with basal oil
- Basal Bark Treatment in Wet Areas: Garlon 3A (50% solution)
- Cut Stump: Garlon 3A or Rodeo at label rates

Seedlings

- Hand pulling (especially in wet areas)
- Garlon 4 (2% solution)

Discussion(s):

- Garlon 4 is not labeled for wetlands and aquatic areas

Cogon Grass

Option(s) for Management:

- Glyphosate (2% solution) / Arsenal (0.5% solution)
- Arsenal AC (greater than 24 oz / acre…about a 2% solution)
- Add fertilizer or aluminum sulfate to tank mix

Discussion(s):

- Glyphosate alone is an option, but has proven less effective in control
- Adding fertilizer, aluminum sulfate or glyphosate to tank mixes of Arsenal may have an antagonistic effect on cogon grass
- Arsenal may cause pine mortality in some species
- Timing:
  - 1st burn in Spring / Early Summer
  - 2nd apply herbicide in September
  - 3rd may require annual treatment cycles

Japanese Climbing Fern

Option(s) for Management:

- Glyphosate (2% solution) / Escort (1 to 2 ounces per acre) tank mix
- Clipping and pulling

Discussion(s):

- Recommended repeated applications of above tank mix
- Measures need to be taken to clean equipment before and after entering an area of infestation
- Avoid any mowing in infested areas
- Use of a dye when spraying can aid in visual recognition of treated areas
- Treat one year in advance of burning the site
- Summer burning helps reduce vertical growth

Chinese Privet

Option(s) for Management:

- Glyphosate (2% solution plus a surfactant) foliar application in mid-winter
- Hexazinone soil spot treatment
- Basal bark: Garlon 4 (20% solution) / basal oil (80% solution)

Discussion(s):

- Mid-winter treatment should be done on a warmer day when plants are actively photosynthesizing

Torpedo Grass

Option(s) for Management:

- Glyphosate (2% solution)
- Glyphosate / Arsenal at label rates

Discussion(s):

- Rodeo formulation of Glyphosate should be used adjacent to wetland or aquatic areas
- Selective spraying may be necessary to prevent mortality to native vegetation

Feral Hogs

There was a round-table discussion on Eglin's successful selective hog removal on Eglin and all Subcommittee members will receive a copy of Eglin's report (Engeman *et al*. 2007. Feral swine management for conservation of an imperiled wetland habitat: Florida's vanishing seepage slopes. Biological Conservation 134:440-446). There was also discussion on the best way to approach the hog situation on Blackwater River State Forest' Hutton Unit. The following are bulleted captured items from this round-table discussion:

Discussion(s):

- Success of selective hog removal on Eglin
- Feral hog activity within the Hutton Unit, Blackwater River State Forest
- Pros/cons of trapping and shooting vs. targeted public hunts
- Public hunts may be a first step for FWCC on Hutton Unit to appease public
- Public hunting may also increase populations b/c people intentionally release hogs
- Public hunters target only large boars and not sows or young
- Public education across the GCPEP landscape on the issues of feral hogs is necessary
- Private contractors may need to be highly monitored or avoided
- Exploring the ponential of a USDA costshare
- Leaving carcasses may attract scavengers…take carcasses to land fill
- Inability to distribute dead hogs to food banks because of liability and health issues

Coyotes / Red Foxes / Feral Cats

Note: these pertain more to the barrier islands and coastal areas in regards to threats to sea turtle nests, beach mice, and nesting shore birds.

Option(s) for Management:

- Live trap (taken to humane societies)
- Shooting on sight
- Snares / Leg hold traps

Discussion(s):

- Shooting may create negative publicity
- Have had success with working with the county in establishing cat free condos on the beach containing federally listed beach mice (Escambia County)
- Continue public education campaign to inform public of threats to endangered species by these predators

Funding Sources

- DEP's Bureau of Invasive Plant Management (BIPM) Panhandle Working Group
    - For public conservation lands
    - Funds can be used for contractors
    - Provide herbicide bank
    - Proposals due April/May
    - JJ Bachant-Brown is Liaison for the Panhandle Working Group
- USDA costshare for hog control
    - Contact John Allen (see Appendix 2)
- DOF has been using USFS grant money from the Hurricane recovery funds (1 ½ year of funding remaining)
- Cities can apply for urban reforestation grants through USFS and DOF
- Lobbying is needed to increase resource management funds for state agencies to address invasive issues
- Florida TNC's statewide invasive coordinator is developing a funding list for private land owners

Prevention Measures

- Providing cleaning / decontamination centers for heavy machinery entering and leaving partner lands
- Stipulating cleaning requirements within contracts
- Increase employees awareness of need to clean own equipment when used
- Currently logging trucks are not required to utilize cleaning centers on some partner lands
- Prevention measure were difficult to enforce during hurricane salvage operations

Adjacent Landowners

- More successful on individual home owner level (face to face)
- Harder to work with developers
- Counties and Cities governments need better education and engagement
- Work with counties when reviewing Habitat Conservation Plans
- GINS was successful in funding for removing exotics and replacing with native on private adjacent lands
- Subcommittee needs to approach DOT to sit on this subcommittee as a cooperator
- Alabama DOT is providing training for invasive mapping

Other Invasive Groups to be aware of

- FL Exotic Pest Plant Council (EPPC)
    - May be looking in the future for someone within the Panhandle to serve on the board of directors
- Southeasten Invasive Initiative (look more for more info)
- Contact Andi VanLoan with DOF for more information on invasive groups

Tracking and Data Collection

- Make contact with FNAI for information on their data collection protocol
- Obtain BIPM's datasheet

- Partners have varying levels of tracking methodology from GPS and PDA to field notebooks and data sheets
- GCPEP staff will look into Weed Information Management System (WIMS)
- At next subcommittee meeting, GCPEP staff will propose minimum data standards for within the partnership

Native Species

The "native" portion of the subcommittee meeting focused on first defining the purpose and scope of the subcommittee with regards to native plants. It was agreed upon that the function of the "native" part of the subcommittee should remain fairly broad but essentially focus on the following topics:

- replacing non-native vegetation with native vegetation across partner lands;
- restoring native groundcover (understory) to degraded sites, roadsides, and as a buffer to invasive species within GCPEP; and
- creating a network of donor sites to supply seed for GCPEP partner groundcover restoration needs.

Although the majority of the interest in groundcover restoration centered on wiregrass (*Aristida stricta*), there was a general agreement that other desirable species should be included as well (legumes, composites, etc.). Following the discussion on purpose and scope, each partner was asked to provide information concerning their agency's current and desired native vegetation (or groundcover restoration) program. What follows is a summary of each attending partner's programmatic assessment.

Conecuh National Forest (CNF)
- Started a groundcover restoration program in 2005
- Primary need is to restore groundcover in logging decks and other disturbed sites
- Have found that shear and pile of logging debris does less damage to wiregrass than roller chopping
- Success with establishing commercial switchgrass (*Panicum anceps*), partridge pea (*Chamaechrista fasciculata*), and beggar's lice (*Desmodium* sp.) on 100+ acres to date and have found that longleaf pine seedling survival seems to have visually improved on sites seeded with this commercial mix
- CNF would like to find a better method of establishing wiregrass but lack any seeding or sowing equipment
- CNF would be willing to offer donor sites for wiregrass collection by partners

Gulf Islands National Seashore (GINS)
- Have conducted a small amount of dune restoration in the past but no great need currently
- Major issues revolve around replacing torpedograss:
    1. Which native species would be a good replacement;
    2. How should these species be sown or planted to replace torpedograss; and
    3. How can torpedograss be controlled with the least amount of mortality to existing native species?

- Would be willing to act as a seed or plant materials source for other partners by request

Eglin Air Force Base (Eglin AFB)

- Currently have an active groundcover restoration program
- Focus is mainly on wiregrass establishment in longleaf pine sandhills and would like to begin work in flatwoods as well
- Hand collect a small amount of other species in some years including indiangrass (*Sorghastrum spp*.), pineywoods dropseed (*Sporobolus junceus*), and Florida milkpea (*Galactia floridana*)
- Currently own and maintain a Prairie Harvester for collection and a Grasslander for sowing
- Collect average of 20 lbs per year of fluff seed with a max of 100 lbs in one year
- Sow an average of 20-25 acres with seed per year
- Site prep prior to sowing is double roller drum chop and/or burn
- Major issues and obstacles include:
    1. need larger amount of seed;
    2. collection site maintenance (access and navigation of seed harvester are issue on sites with high longleaf pine basal area and/or dense oak midstory); and
    3. coordination with Jackson Guard fire section on burning collection sites in the spring between May and June.
- Working on establishing donor sites across Eglin AFB (one possibility is cleared test ranges)
- Are willing to provide sharecropping opportunities on Eglin for other partners and are interested in cooperating with other GCPEP partners to create a seed collection network across the partnership
- Seeking native alternatives for stabilizing erosion control sites
- Currently have a native groundcover operational plan in place

Perdido River Nature Preserve (PRNP)

- Need to re-establish native groundcover on sites formerly in bedded slash pine plantations and/or degraded in the past by cattle grazing
- 2006 is the first year seed collection has begun
- Seed collection has focused (or will focus this Fall) on hand collection of sedges (*Carex spp*.), switchgrass (*Panicum anceps*), gayfeather (*Liatris spp*.), and a variety of other composites
- Possess no equipment for collection or sowing
- Expressed future need for equipment and personnel for seed collection and sowing

Department of Environmental Protection State Parks

- 90% of groundcover restoration has been sea oat plantings to restore dune systems at Tarkiln Bayou and Big Lagoon state parks after hurricanes
- Have planted 2.5 million tubelings across the panhandle
- Species include sea oats (*Uniola paniculata*), cordgrass (*Spartina* spp.), and coastal bluestem (*Schizachyrium scoparium* subvar. *maritimum*)
- Have plans to conduct streamside restoration of boat launches and other erosion sites at Blackwater River State Park in the future
- DEP has established greenhouses in Escambia county that currently produce 39 native species for restoration projects on public lands

- Tarkiln Bayou State Park is willing to be a seed source for GCPEP partners and currently has requests from Perdido River Nature Preserve and Northwest Florida Water Management Districts to collect seed
- Only approved site for sea oats collection in the Panhandle is St. George Island due to beach mouse concerns

Florida Fish and Wildlife Conservation Commission (FWCC)
- Currently, the priority for restoring Escribano point is prescribed fire
- Once Escribano point is burned and access issues are resolved, groundcover restoration needs can be assessed

Division of Forestry (DOF) – Blackwater State Forest
- Not currently pursuing groundcover restoration
- Could see some need for seed in the future to restore logging decks
- Would most likely be willing to serve as a seed source for GCPEP partners
- Tom Serviss would be the point-of-contact for natives

Division of Forestry (DOF) – Pt. Washington/Pinelog
- There is a DOF nursery growing wiregrass plugs in Chiefland (Tim Pitman)

Pinelog
- Ecological condition is mainly disturbed sandhills
- Restoration focus is on removal of slash pine and seeding wiregrass
- Currently approximately 1,000 acres of longleaf pine forest community
- Wiregrass on site has been shown to have low viability – stressed the importance of viability testing (Steve Brown with NWFWMD has experience with submitting seed for viability testing)
- Spring burning is an obstacle to wiregrass seed collection

Pt. Washington
- Most of Pt. Washington has intact groundcover already in place
- Growing season burns are not a viable option

Up-coming Needs and/or things the partners would like to see (items from the flipcharts)
- Powerpoint on prevention and identification for contractors
- GCPEP staff to work with counties and cities
- DOT representative on subcommittee (Jeff Caster is DOT Native person)
- Spreadsheet leading to website forum on treatment or link to best sites
- Fieldtrip to cleaning stations
- Education of the Army Corps of Engineers on Cogongrass regarding DOF's spoil bank
- Available and reliable herbicide vendors and contractors
- Need additional staff and equipment on partner lands
- BIPM flashcards
- Annual groundcover meeting in the Fall
- Find out from Steve Brown where he has his viability testing done
- Site visit to Eglin

- Annual map of areas for seed collection
- Map of invasives at landscape level
- Possibility of partnership equipment (future)
- Guest speaker at subcommittee meetings; Q & A; researcher on invasives
- Future meetings focus on control
- More info/pictures on the equipment
- Educational work with the Extension Service
- Next Meeting in April/May timeframe…focus of meeting for each partner to bring success story or lesson learned

Next Steps

The GCPEP and EST staff will facilitate the next meeting of this subcommittee in finalizing the development of a Comprehensive Invasive and Native Species Strategic Plan. This strategic plan will be divided into three parts for each Invasive Species and Native Species:

- Goals and Strategies – Achieving Success;
- Objectives – Three Year Workplan; and
- Action Details – Specific Implementation Schedules.

Currently, the agreed upon Goals for addressing invasive species threats are:

1. prevent new invasions within the GCPEP landscape;
2. promote early detection and rapid response of newly established invasions;
3. locate and document current infestation occurrences within the partnership; and
4. control and manage known infestations.

And for natives:

1. replace invasive species with appropriate native species; and
2. restore vegetative structure and composition of degraded sites.

The next steps in finalizing the Strategic Plan will be to develop strategies for these goals and then develop objectives and action details. The Objectives section will outline what the GCPEP partners and overall partnership will "DO", facilitate ("PUSH"), and/or "WATCH" (to ensure that adequate progress is occurring) during the timeframe of the workplan. The workplan will be dynamic and can be adapted as opportunities arise. There will also be a long-term section that will available as a place marker for objectives beyond the planning horizon.

APPENDIX 1

GCPEP INVASIVE/NATIVE SUBCOMMITTEE MEETING
21 SEPTEMBER 2006
JACKSON GUARD, CONFERENCE ROOM
AGENDA

Morning Session Invasives: 8:00 am to Noon

Introductions

Logistics

Quick Background into GCPEP and the subcommittees

Purpose of this sub-committee (planting the seed for discussion)

- What should be the highest priorities of this subcommittee for addressing invasive issues?
- How can this subcommittee be most useful and effective in addressing partner needs?

Roundtable from each partner focusing on the following:

1. **Current Challenges**
   (**Please come prepared with charts completed; see below**)
   - Top 10 invasives (flora and fauna; aquatic/terrestrial) on the property you manage ranked in order of concern. Please complete a separate chart for each parcel/unit (i.e. for NAS each OLF; for NWFWMD each unit such as Garcon, Grassy Point, etc.; for DEP each State Park/Preserve)
   - Where are each of the 10 primarily found (edge, interior, patches, throughout)?
   - Size and/or extent of the 10 listed
   - Have any of the 10 listed been surveyed / mapped?
   - What management is being done for each of the 10 listed?

2. **Successes and Lessons Learned**
   - What management has worked particularly well
   - What management has not had good results
   - What funding source(s) has been helpful
   - Good prevention measures being implemented
   - Working with adjacent landowners?
   - Partners involved in what other invasive groups?
   - How are partners tracking projects? (gis layers, forms when treating, data sheets?)

3. **Up-coming needs; Things you would like to see**
   - Potential for cross partner projects
   - How can GCPEP / EST staff provide assistance
   - GCPEP workshops that you could benefit from
   - Resources and information needs (i.e. herbicide prescriptions, control methods, etc.)
   - Spreadsheet; compilation database?
   - Legacy project

Re-visit purpose and scope of the subcommittee and next steps with regards to invasives

Lunch (on your own): 12:00 to 1:30

Afternoon Session Natives: 1:30 to 4:30

(no pre-work, just come prepared to discuss)

1. **Purpose and scope of the subcommittee with regard to natives**
   - What should be the highest priorities of this subcommittee for addressing native groundcover issues?
   - How can this subcommittee be most useful and effective in addressing partner needs?

2. **Defining "groundcover restoration" (discussion)**

3. **Partner Program Assessment**

4. **Upcoming or Future Needs**
   - Does GCPEP need to create a seed cooperative or similar system?
   - If so, which partners are willing to offer potential donor sites?
   - How should GCPEP tie into a larger seed cooperative potentially being organized by NWFWMD?

5. **Re-visit purpose and scope of the subcommittee and next steps**

APPENDIX 2
SUBCOMMITTEE ATTENDEES
CONTACT INFORMATION

Name	Agency/Organization	Email
John Allen	USDA / APHIS	John.b.allen@aphis.usda.gov
Tom Beitzel	DOF / Point Washington & Pine Log	beitzet@doacs.state.fl.us
Steve Brown *	NWFWMD	Steve.brown@nwfwmd.state.fl.us
Randy Cohron	FWCC	Randy.cohron@myFWC.com
Chris Cook	DOF / Blackwater	cookc@doacs.state.fl.us
Michael Hardy *	NAS	Mike.hardy@navy.mil
Anne Harvey	DEP / Parks & Rec	Anne.harvey@dep.state.fl.us
Randy Hill	DOF / Blackwater	hillw@doacs.state.fl.us
Tim Knight	USFS / CNF	tcknight@fs.fed.us
Michael Low	Eglin	lowm@eglin.af.mil
Mark Nicholas	NPS / GINS	Mark_nicholas@nps.gov
Adlai Platt	TNC / PRNP	aplatt@tnc.org
Barb Schmeling	FWCC	Barbara. schmeling@myfwc.com
Amanda Stevens	Eglin	stevensa@eglin.af.mil
Ron Taylor	Eglin	taylorr@eglin.af.mil
Dennis Teague	Eglin	Dennis.teague@eglin.af.mil
JJ Bachant Brown	GCPEP Staff	jbachant@tnc.org
Brett Williams	EST Staff	Brett_williams@tnc.org

* Not able to attend but sent information

APPENDIX 3

PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: _Florida Division of Forestry_____

Property (separate sheet for each parcel/unit): ___Point Washington State Forest_____

Point of Contact(s):_ ____Tom Beitzel / Joe Vanderwerff_____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Cogongrass	Edge	200 Acres 20%	Yes	Spray with roundup & arsenal mix using DEP invasive grant
2. Chinese Tallow	Single Specimens	> 1 acre approx. 50 trees	Yes	None
3. Japanese Climbing Fern	?	?	No	None
4. Coyote	Throughout	Unknown	No	None
5. Feral Cats	Edge	Unknown	No	None (rx burning)
6. Lantana	Edge	> 10 sq. m	Yes	None
7.				
8.				
9.				
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: __Florida Division of Forestry _____

Property (separate sheet for each parcel/unit): __Pine Log State Forest _____

Point of Contact(s):_ _Tom Beitzel / Keith Cullen _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Cogongrass	Patches	> 1 Acre	Yes	Spray with roundup & arsenal mix twice/year
2. Chinese Tallow	Single Specimens	> 1 Acre	Yes	None
3. Japanese Climbing Fern	Single Infestation	> 1 Acre	Yes	None
4. Mimosa	Single Specimens	> 1 Acre	Yes	None
5. Torpedo grass	Patches	1-2 acres	Yes	None
6.				
7.				
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: ___Northwest Florida Water Management District _____

Property (separate sheet for each parcel/unit): _Yellow River, Perdido River, Escambia River __

Point of Contact(s):_ __Steve Brown_____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Cogongrass				
2. Japanese Climbing Fern				
3. Chinese Tallow				
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: _Florida Division of Forestry_____

Property (separate sheet for each parcel/unit): __Blackwater River State Forest_____

Point of Contact(s):_ _Chris Cook _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Japanese Climbing Fern	Throughout	80% of forest affected	Somewhat	Active forest-wide survey, treatment of some infestations
2. Cogongrass	Patches throughout	500 + Acres	Somewhat	Active forest-wide survey, treatment of some infestations
3. Chinese Privet	Throughout	80% of forest affected	Somewhat	Active forest-wide survey, treatment of some infestations
4. Kudzu	Edge (very few)	5 Acres	Yes	Active forest-wide survey, treatment of some infestations
5. Chinese Wisteria	Edge (very few)	10 Acres	Somewhat	Active forest-wide survey, treatment of some infestations
6. Chinese Tallow	Scattered highly disturbed areas	Scattered over 50% of forest	Somewhat	Active forest-wide survey, treatment of some infestations
7. Mimosa	Scattered highly disturbed areas, edges	Scattered over 50% of forest	Somewhat	Active forest-wide survey, treatment of some infestations
8. Japanese honeysuckle	Throughout (co-occurs with privet)	50% of forest affected	Somewhat	Active forest-wide survey, treatment of some infestations
9. Chinaberry	Scattered edge, homesites	5 acres	Somewhat	Active forest-wide survey, treatment of some infestations
10. Feral hog	Around creek and river bottoms	Scattered over 20% of forest	No	None, small game season

PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: __U.S. Navy_____

Property (separate sheet for each parcel/unit): _Saufley Field _____

Point of Contact(s):_ _Mark Gibson / Michael Hardy _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Chinese Privet	Patches	5 Acres	No	None
2. Chinese Tallow	Patches	5 Acres	No	None
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: _U.S. Navy_____

Property (separate sheet for each parcel/unit): __Corry Station __

Point of Contact(s):_ _Mark Gibson / Michael Hardy _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Chinese Tallow	Throughout	40 Acres	Somewhat	Sprayed in early summer 2006 (contract)
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: _U.S. Navy _____

Property (separate sheet for each parcel/unit): _NOLF Bronson_____

Point of Contact(s):_ _Mark Gibson / Michael Hardy _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Cogongrass	Patches	3 acres	No	None
2. Chinese Tallow	Patches	3 acres	No	None
3. Chinese Privet	Patches	3 acres	No	None
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: __U.S. Navy __

Property (separate sheet for each parcel/unit): _NAS Pensacola _____

Point of Contact(s):_ _Mark Gibson / Michael Hardy _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Cogongrass	Patches	10 Acres	No – Somewhat	None
2. Chinese Tallow	Patches	7 Acres	No	Some sprayed in August 2006
3. Chinese Privet	Patches	5 Acres	No	None
4. Japanese Climbing Fern	Patches	5 Acres	No	None
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: __U.S. Navy__

Property (separate sheet for each parcel/unit): __NOLF Silverhill, Baldwin County Alabama ___

Point of Contact(s):_ _Mark Gibson / Michael Hardy / Jimmie Bartee_____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Chinese Tallow	Patches	4 Acres	No	Some sprayed in August 2006
2. Chinese Privet	Patches	2 Acres	No	None
3. Cogongrass	Patches	3 Acres	Somewhat	Sprayed in August 2006
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: _U.S. Navy_____

Property (separate sheet for each parcel/unit): _NOLF Summerdale, Baldwin County Alabama _

Point of Contact(s):_ Mark Gibson / Michael Hardy / Jimmie Bartee_____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Chinese Tallow	Patches	5 Acres	No	Some sprayed in August 2006
2. Cogongrass	Patches	5 Acres	Somewhat	Sprayed in August 2006
3. Chinese Privet	Patches	2 Acres	No	None
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: _U.S. Navy_____

Property (separate sheet for each parcel/unit): _NOLF Baria, Baldwin County Alabama_____

Point of Contact(s):_ Mark Gibson / Michael Hardy / Jimmie Bartee _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Chinese Privet	Throughout	7 Acres	No	None
2. Cogongrass	Patches	8 Acres	No	None
3. Chinese Tallow	Patches	8 Acres	No	None – small amount done in August 2006
4. Japanese Climbing Fern	Patches	2 Acres	No	None
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: _U.S. Navy_____

Property (separate sheet for each parcel/unit): __NOLF Wolf, Baldwin County Alabama _____

Point of Contact(s):_ _Mark Gibson / Michael Hardy / Jimmie Bartee _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Cogongrass	Patches	7 Acres	Somewhat	Sprayed in August 2006
2. Chinese Tallow	Patches	3 Acres	No	Sprayed in August 2006
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PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: _U.S. Navy_____

Property (separate sheet for each parcel/unit): _NOLF Santa Rosa_____

Point of Contact(s):_ _Mark Gibson / Michael Hardy / Jimmie Bartee_____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Cogongrass	Patches	3 Acres	Somewhat	Sprayed in August 2006
2. Chinese Privet	Patches	1 Acre	No	None
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9.				
10.				

PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: _U.S. Navy_____

Property (separate sheet for each parcel/unit): _NAS Whiting Field _____

Point of Contact(s):_ _Mark Gibson / Michael Hardy / Jimmie Bartee _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Chinese Privet	Throughout	10 Acres	No	None
2. Cogongrass	Patches	5 Acres	No	None
3. Kudzu	Patches	5 Acres	No	None
4. Chinese Tallow	Throughout	3 Acres	No	None
5. Japanese Climbing Fern	Patches	3 Acres	No	None
6. Silktree Mimosa	Throughout	1 Acre	No	None
7.				
8.				
9.				
10.				

PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: _Conecuh National Forest _____

Property (separate sheet for each parcel/unit): _Conecuh _____

Point of Contact(s):_ Tim Knight _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Cogongrass	ROW	26 Acres in 1/8 acre patches	Yes	EA being developed for herbicides JPM control
2. Japanese Privet	Drainages	?	No	EA being developed for herbicides JPM control
3. Chinese Privet	Drainages	?	No	EA being developed for herbicides JPM control
4. Chinese Tallow tree	Scattered	?	No	EA being developed for herbicides JPM control
5. Japanese Climbing Fern	Throughout	?	Somewhat	EA being developed for herbicides JPM control
6. Mimosa	Scattered	?	No	EA being developed for herbicides JPM control
7. Wisteria	Patches	2 Acres	Yes	EA being developed for herbicides JPM control
8. Autumn Olive	Patches	2 Acres	Yes	EA being developed for herbicides JPM control
9.				
10.				

PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: ___DOD Eglin Air Force Base_____

Property (separate sheet for each parcel/unit): __Eglin_____

Point of Contact(s):_ _Dennis Teague _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Chinese Tallow	Urban interface spread in	200 +	Yes	Treat
2. Torpedo Grass	Primary flatwoods Upland roads	93? 150-200	Yes	Treat
3. Cogongrass	Roads	75-100	Yes	Treat
4. Japanese Climbing fern	East Uplands urban interface	10	Yes	Treat
5. Chinese Privet	Mesic areas Creeks	5+	Yes	Treat
6. Mimosa	Roads Throughout	5+	Yes	Treat
7. Chinaberry	Urban Interface	5+	Yes	Treat
8. Wisteria	Urban interface	5+	Yes	Treat
9. Kudzu	Urban interface Main base	10+	Yes	Treat
10. Camphor	Road edges	1+	Yes	Treat

PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: __DOD Eglin Air Force Base con't _____

Property (separate sheet for each parcel/unit): __Eglin_____

Point of Contact(s):_ _Dennis Teague _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
11. Lantana	Urban Interface			
12. Potato Vine		3	No	
13. Feral Hogs	Uplands			
14. Feral cats	Barrier Island			
15. Coyotes	Barrier Island			
16. Red fox	Barrier Island			

PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: __National Parks Service_____

Property (separate sheet for each parcel/unit): _Gulf Islands National Seashore _____

Point of Contact(s):_ Mark Nicholas _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Canine coyote / red fox	Barrier islands		Yes, track counts	USDA trapping effort
2. Torpedo Grass	Naval Live Oaks	50 acres	Yes	Sprayed summer 2006 Round-up with arsenal
3. Popcorn tree	Fort Pickens wetland	30 Acres	Yes	Treated for last 10 years Stump / garlon 4
4. Cogongrass	Naval Live Oaks	~ 10 Acres	Somewhat	FL DOT spray??
5. Lantana	Naval Live Oaks, Fort Pickens	~10 Acres	Yes	NPS Spray 2004
6. Mimosa	Naval Live Oaks	1 Acre	No	NA
7. Kudzu	Naval Live Oaks, Fort Pickens	1 Acre	No	NA
8.				
9.				
10.				

PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: __The Nature Conservancy – Florida Chapter _____

Property (separate sheet for each parcel/unit): __Perdido River Preserve _____

Point of Contact(s):_ __Ad Platt _____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Titi / Gallberry	Throughout	Pervasive	Pervasive	Prescribed Fire Herbicide Application Mowing
2. Vines Grape & Smilax	Recently harvested hurricane damage	200 acres	Pervasive Yes – worst	Herbicides Mowing Prescribed fire
3. Wild Hogs	Food Plots	Small, primarily on food plots	Yes	Needed urgently
4. Japanese Climbing Fern	Units M & N	Appearing across 12 acres	Yes	Herbicide on sight
5. Cogongrass	Near entrance Unit B Log deck River Road	½ Acre 2 acres 2 acres	Yes	Spray in Fall
6. Tallow Tree	Tram Road Other sites Unit C	Isolated & scattered individuals	Yes	Herbicide on sight Mow or cut as needed
7. Privet	Scattered Patches	Occasional	No	Mow / cut & spray as nearby
8. Vasey Grass	Lane Landing along river road. Yards	Small but increasing	No	Clip seed heads, spray plants
9. Torpedo Grass	Land Landing Yards	3 Acres	Yes	None
10. Fire Ants	Maybe found throughout		No	

PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: __DEP_____

Property (separate sheet for each parcel/unit): _Yellow River Marsh Preserve_____

Point of Contact(s):_Anne Harvey_____

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Chinese Tallow	Low Areas	Unknown	No	CAMA was prior managers, Unknown
2. Feral Cats	Near Urban areas	Unknown	No	None
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

PARTNER INVASIVE ASSESSMENT REPLIES

Agency/Organization: __DEP _____

Property (separate sheet for each parcel/unit): __Blackwater River SP _____

Point of Contact(s):_Anne Harvey __

Top 10 invasives Most concern to least concern Flora, Fauna, Aquatic or Terrestrial	Located primarily where within property (edge, interior, patches, throughout, etc)	Size or Extent (approximate acres, % of coverage, etc)	Surveyed or Mapped? (Yes, No, Somewhat)	Current Management being conducted
1. Cogon Grass	DOF roads, fence lines, near Parking	5 acres, spotty	Somewhat	Garlon 4 applications in Spring, retreat in Fall
2. Japanese Climbing Fern	Wellfield, ranger station, residence and interior lots	1.5 acres, spotty	Yes	Garlon 4 throughout growing season
3. Japanese Honeysuckle	Camp area and shop road	1.5 acres	Yes	Garlon 4 throughout growing season
4. Chinese privet	Lower parking lot, Deaton Bridge Road	.5 acres	Yes	Garlon 4 and 3A, growing season
5. Mimosa	Lower parking log, Deaton Bridge Road	.5 acres	Yes	Garlon 4 and 3A, growing season
6. Feral cats	Camp area		No	Humane trapping and Animal Services
7. Chinaberry	Unknown		No	Garlon 4
8.				
9.				
10.				

ATTACHMENT E

News Article on Additional Land Protection for a Portion of the Nokuse Plantation

Wilderness welcomes Florida Trail

Courtesy photo

Eglin's low-level flight corridors and hiking enthusiasts will soon be reaping the benefits of a new 15-mile trail in south Walton County.

Agreement benefits conservation, recreation in Northwest Florida

Information Provided by The Nature Conservancy

ALTAMONTE SPRINGS, Fla. — Eglin's low-level flight corridors and hiking enthusiasts will soon be reaping the benefits of a realigned wilderness corridor thanks to an agreement between the U.S. Forest Service and Nokuse Plantation founder M.C. Davis.

The 1,400-mile Florida Trail is currently routed along a roadway before it enters Eglin Air Force Base. The new conservation easement will allow hikers to enjoy a 15-mile walk in the woods paralleling Lafayette Creek in southern Walton County. This new segment of the Florida Trail closes a major gap between SR 81 and US 331, connecting lands of the Northwest Florida Water Management District with 56 miles of existing Florida Trail on Eglin.

"It's strategically important to us because it will help some of our low-level flight corridors into Eglin," said Jesse Borthwick, Eglin's Greenway program manager. "The other thing is it's going to help maintain a biological corridor between Eglin, Blackwater and Conecuh National Forests, so it will strengthen our population of plant and animal species and help sustain them in the future and that's important to our mission as well."

"We are proud to announce the acquisition of this unique public access conservation easement and hope it will serve as a model for future projects throughout the state," said Marsha Kearney, forest supervisor for National Forests in Florida.

M.C. Davis views the easement across Nokuse Plantation as one piece in a greater puzzle for natural connectivity.

"For successful preservation of the habitats of the Gulf Coast Plain, large blocks of biologically diverse lands need to be connected and restored," said Mr. Davis. "Only then can we ensure the return of wilderness to pass along to future generations."

"We see this agreement as a major step forward in the completion and protection of the Florida Trail," said Deborah Stewart-Kent, executive director of the Florida Trail Association. "This partnership increases our ability to connect people to the land and to Florida's Footpath Forever."

The Florida Trail is one of eight National Scenic Trails in the United States.

Natural land restoration is under way at Nokuse Plantation after decades of agriculture, silviculture and road construction that has left the land scraped barren in places and infested with cogon grass and other invasive, non-native plants.

With the goal of re-establishing a region rich with biodiversity on its more than 53,000 acres, Nokuse Plantation is an active member of the Gulf Coast Plain Ecosystem Partnership, a public-private partnership that cooperates on conservation projects and management of more than a million acres in northwest Florida and south Alabama containing the majority of the world's remaining old-growth longleaf pine ecosystem.

"It's pretty exciting since it's the longest land acquisition in the history of the south," Mr. Borthwick said. "It's very commendable and my hat's off to the Nature Conservancy and the Conservation Fund. It's a fantastic effort on their part and it fits into our strategic military interests."

The easement across Nokuse Plantation is also a key part of the Northwest Florida Greenway, a project with a goal of connecting Eglin to the Apalachicola National Forest via a corridor of natural lands that provide wildlife habitat and outdoor recreation opportunities as well as a buffer zone between local communities and military testing and training.

"The Nokuse addition to the Florida National Scenic Trail adds significantly to the linkage of protected natural communities in this region and increases our ability to access the area for recreation and reflection," said Deborah Keller, The Nature Conservancy's Northwest Florida Greenway Program coordinator. "Where we choose to protect habitats and how those landscapes are linked to other protected habitats ultimately determine the long-term health of an ecosystem."

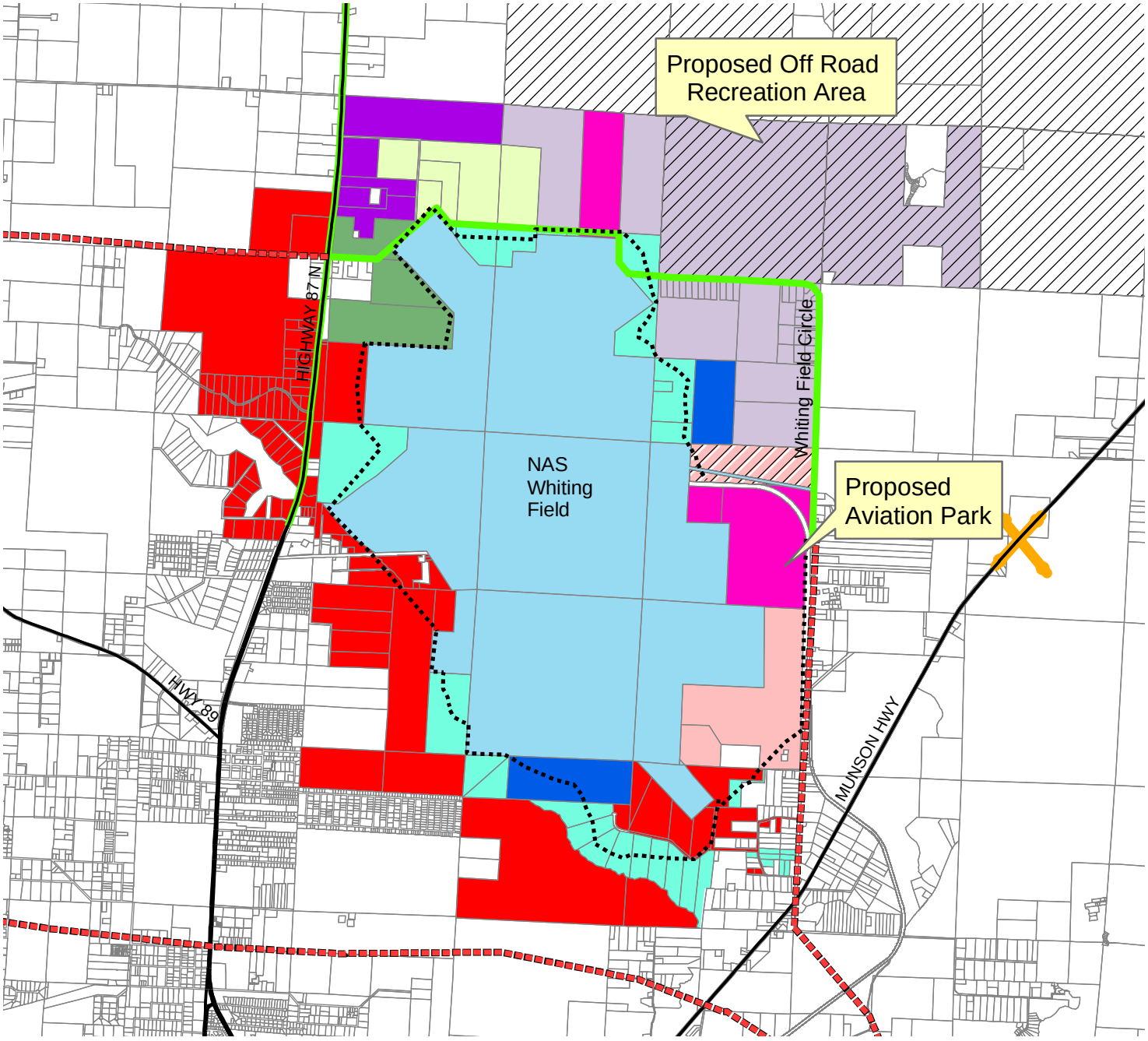
The 96th Air Base Wing Public Affairs Office also contributed to this article.

ATTACHMENT F

Map of the Clear Creek / Whiting Field
Florida Forever Project

Land Acquisition & Other Planning Efforts Around NAS Whiting Field

WORKING DOCUMENT



Legend

Better Santa Rosa Plan

Goal

- 4 Lane
- Repair Bridge
- Multiple Use Trail
- Possible Bypass Road
- Main Roads

Land Acquisition Projects

- Clear Creek I Approved "A" List
- Clear Creek II Approved "A" List
- Greenways & Trails Approved 100% Funding
- NAS Whiting Field Encroachment Project I
- NAS Whiting Field Encroachment Project II
- Santa Rosa County Desired Purchase and NAS Whiting Field Encroachment Project III
- Santa Rosa County Desired Purchase Area
- Santa Rosa County Ownership
- Targeted for AG Easements Farmland Grant Submittal
- NAS Whiting Field
- Acquired Nature Conservancy
- Targeted for Nature Conservancy Acquisition

N W E S

Miles 0 0.25 0.5 1

Maps Prepared by:
Planning, Zoning
and
Development Division
January 11, 2006
Last Update: December 18, 2006

Map Document: (C:\mav's-d-drive\mav\marty-projects\Grants for Land Acquisitions\Plans Around NAS WF Lg Map Dec 06.mxd)
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ATTACHMENT G

Overall GCPEP Florida Forever Map

N

10 5 0 10 Miles

Scale 1 : 750,000

Gulf Coastal Plain Ecosystem Partnership
Partnership Lands

Northwestern Florida and Southern Alabama

Note: Because of map scale, map does not indicate all private property. GCPEP partners recognize the full rights of individual land managers & neighboring private property owners to pursue their own interests and objectives on their own land.

ATTACHMENT H

IP Fact Sheet - Florida

Southern Forests Project

Florida

The Nature Conservancy, International Paper and The Conservation Fund have undertaken a once-in-a-lifetime opportunity to protect ecologically important forests, rivers and streams in 10 southern states. The Nature Conservancy and The Conservation Fund will acquire more than 218,000 acres in the largest private land conservation project in the history of the southern U.S. partners include state governments, federal agencies, the Department of Defense and timber investment entities.

© R Hilsenbeck / TNC

The project

The Nature Conservancy and The Conservation Fund have been working for many years to secure permanent protection of these areas that represent remnants of the historic 60 million-acre longleaf pine ecosystem and vibrant areas of diversity in Florida.

total area 28,579 acres
- **yellow river ravines** 11,313 acres
- **gulf coast plain ecosystem partnership** 11,528 acres
- **perdido river** 5,533 acres
- **whiting field / blackwater heritage trail** 205 acres

river and stream miles protected
approximately 30 miles of stream & creek

representative species
- florida black bear
- red-cockaded woodpecker
- tiger salamander
- eastern indigo snake
- panhandle lily
- yellow fringeless orchid
- florida pine snake

project partners
- The Nature Conservancy
- Department of Agriculture and Consumer Services' Division of Forestry (DOF)
- Florida Dept. of Environmental Protection
- Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (state)
- Timber investment entity
- The Conservation Fund
- Northwest Florida Water Management District

Yellow River Ravines: 11,313 Acres

The Yellow River Ravines project is the connector between two of Florida's outstanding natural areas, Eglin Air Force Base and Blackwater River State Forest. The project will form a protected landscape of more than 800,000 acres, from the Gulf of Mexico through Eglin Air Force Base and Blackwater River State Forest into Conecuh National Forest in Alabama.

Yellow River Ravines is an "A" ranked Florida Forever Program project, located in Santa Rosa and Okaloosa counties. There are three steephead ravine systems within the project that flow into the Yellow River that ultimately feeds into Blackwater Bay and the Gulf of Mexico. The project will provide important habitat for Florida black bear, red-cockaded woodpeckers and rare species found in the ravines. The project will be managed by DOF as an addition to Blackwater River State Forest and will provide an opportunity for long-term restoration to the original longleaf pine community type, of which only two percent remains in the world.

In addition, Yellow River Ravines is adjacent to two military installations, Eglin Air Force Base and Navy Outlying Landing Field—Harold. Acquisition will assist in buffering the bases from incompatible uses and help to allow the missions of both the base and the field to continue.

GCPEP (Gulf Coast Plain Ecosystem Partnership): 11,528 Acres

This project connects Blackwater River State Forest and Whiting Field Naval Air Station in Santa Rosa County. It includes a section of Coldwater Creek, a sand-bottomed, clearwater creek with a relatively unaltered floodplain and fed by numerous small seepage streams. Coldwater Creek is a tributary of the Blackwater River, which ultimately flows into Blackwater Bay and the Gulf of Mexico. The project will protect six miles of outstanding state-designated canoe trail, often cited as the best in the state.

A large portion of the project will likely be an addition to Blackwater River State Forest, probably the premier state forest in Florida. The site includes 1,160 acres of a Florida Forever "A" ranked project. As a connector between Blackwater River State Forest and Whiting Field Naval Air Station, the project area will provide additional habitat for wide-ranging species such as the Florida black bear and various waterfowl and bird species.

All Navy helicopter pilots train at Whiting Field, which is also a major training facility for fixed-wing pilots. Acquisition will assist in buffering the base from incompatible uses and protect from encroachment.

A timber investment entity will continue to manage a portion of the project as a working forest until such time as it can be purchased by the state or by The Nature Conservancy.

Perdido River: 5,533 acres

The Northwest Florida Water Management District is working with The Conservation Fund to preserve wildlife habitat, recreation areas and water resources along the Perdido River. The newly protected forestland will be restored to include more than 5,500 acres of Atlantic white cedar groves, longleaf pine forests and wiregrass habitats along 15 miles of riverfront..

Whiting Field -/ Blackwater Heritage Trail: 205 acres

Two 100-acre (approximately) parcels adjacent to Whiting Field Naval Air Station will be acquired by The Nature Conservancy and sold to the Florida Office of Greenways and Trails (OGT). The two tracts will be the first purchases as part of OGT's Blackwater Heritage Trail/Coldwater Creek/Whiting Field Trail and Buffer Project. The route will surround the base and expand recreational opportunities already available on an existing trail.

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The Conservation Fund
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West Palm Beach, Florida 33401
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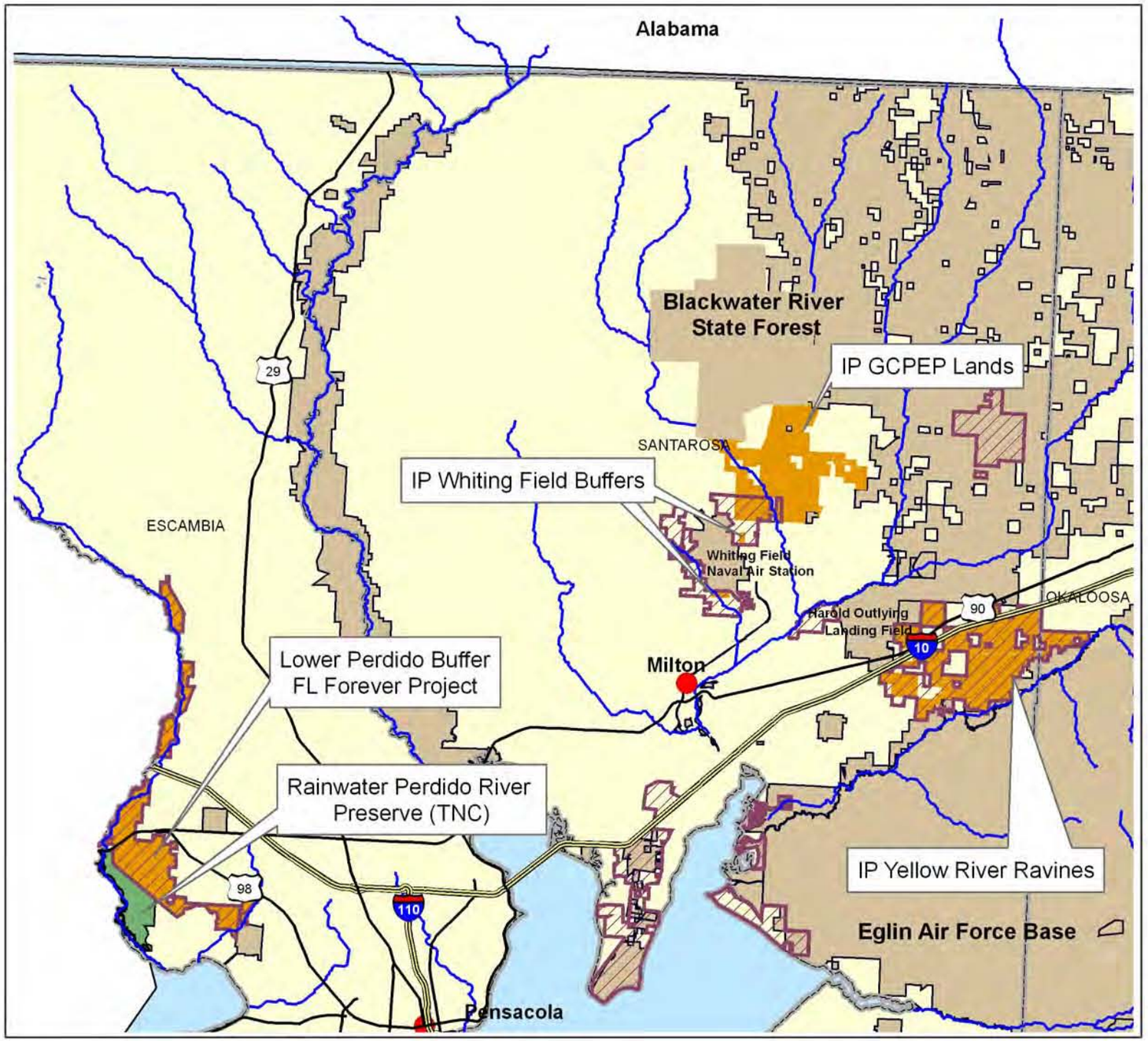
fax [561] 832-8102
conservationfund.org

ATTACHMENT I

Map of IP
(GCPEP Lands, Whiting Field Buffers and Yellow River Ravines)

International Paper (GCPEP Lands, Whiting Field Buffers and Yellow River Ravines)



Legend

- International Paper Project
- Florida Forever Project Boundaries
- Other Agency-managed areas*
- County Boundaries
- TNC Preserve
- East Gulf Coastal Plain Ecoregion

*Source: Florida Natural Areas Inventory

The Nature Conservancy
SAVING THE LAST GREAT PLACES ON EARTH

Location within East Gulf Coastal Plain Ecoregion

Map created: 3/15/06 by P. Royston
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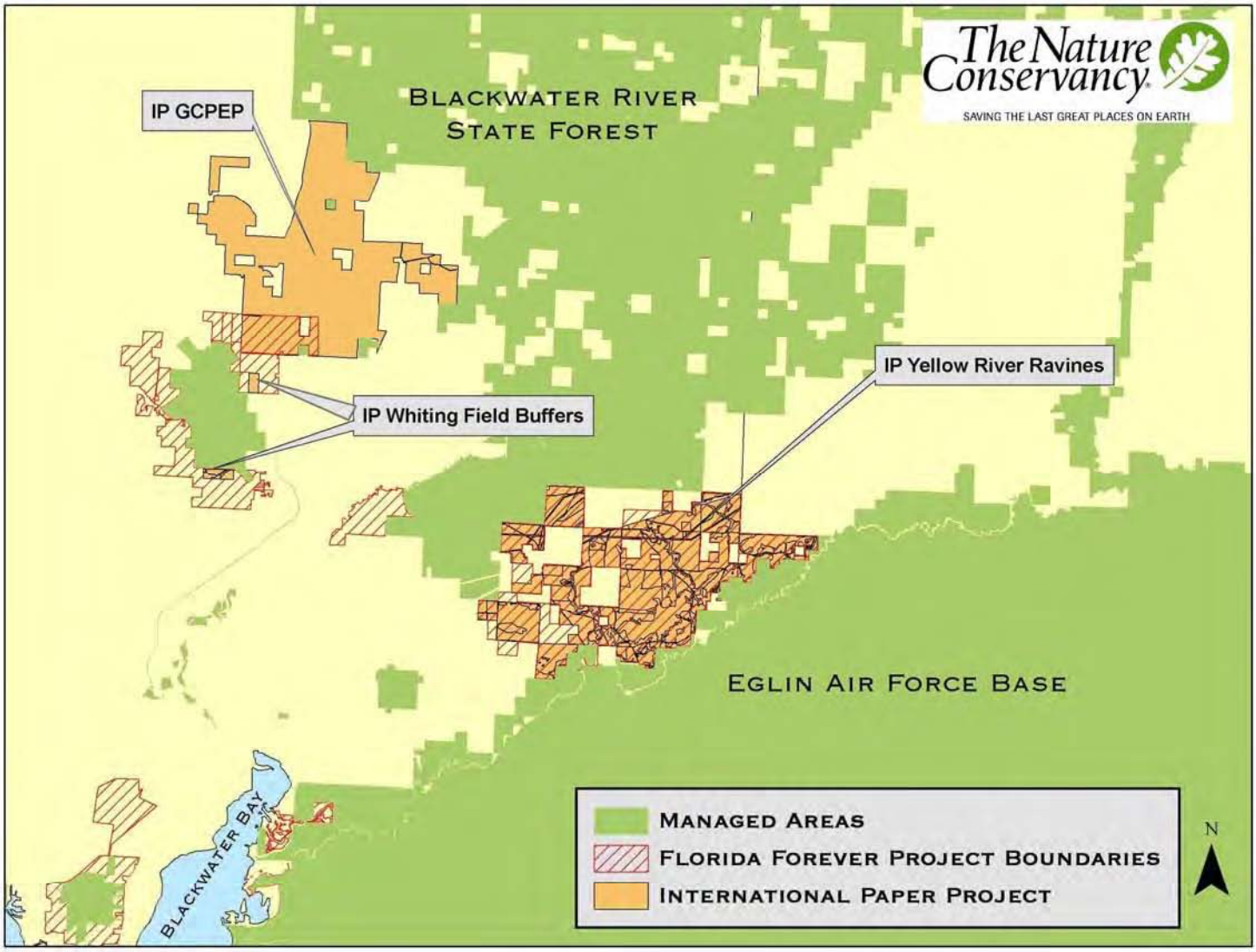
Florida Chapter Office, The Nature Conservancy

ATTACHMENT J

Map of Florida Forever Project
Boundaries of IP GCPEP,
IP Whiting Field Buffers, and
IP Yellow River Ravines


The Nature Conservancy
SAVING THE LAST GREAT PLACES ON EARTH
IP GCPEP
Blackwater River State Forest
IP Whiting Field Buffers
IP Yellow River Ravines
Eglin Air Force Base
Blackwater Bay
Managed Areas
Florida Forever Project Boundaries
International Paper Project
N

ATTACHMENT K

News Release on Yellow River Ravines
And
Opinion Article on Land Preservation Purchase

For Immediate Release **Contact: Anna Berardi (407) 682-3664, ext. 128**
December 19, 2006

State to Buy Rare Ravines, Important Connector

Governor and Cabinet agree to buy protected lands held by The Nature Conservancy.

ALTAMONTE SPRINGS, FL — Gov. Bush and the Cabinet agreed today to buy approximately 11,300 acres from The Nature Conservancy in Santa Rosa and Okaloosa counties that protects historic longleaf pine habitat, outstanding river frontage, threatened ravine systems, important wildlife corridors and buffers two important military installations.

The state will acquire 11,313 acres of the long-sought Yellow River Ravines *Florida Forever* project, which The Nature Conservancy bought this year from International Paper and has held for the state since then. The site links outstanding natural areas in Eglin Air Force Base with those in Blackwater River State Forest. The Florida Division of Forestry will manage the Yellow River lands as part of the Blackwater River State Forest.

“This is a great day for the state of Florida and for all of us who have looked forward to this for years,” said Callie DeHaven, senior field representative for The Nature Conservancy. “The Yellow River Ravines project is the most important connector piece in the puzzle that links the Gulf of Mexico with Alabama’s Conecuh National Forest.”

“We are excited to have these lands in public ownership and managed by the Florida Division of Forestry,” said Commissioner of the Department of Agriculture and Consumer Services Charles Bronson. “The continued fragmentation and loss of forestlands due to subdivision, land use change and development is one of the most pressing issues facing the Florida landscape today. With a continued sustainable forest-based industry, forestland in Florida will remain for the enjoyment of future generations and protection of native ecosystems.”

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PENSACOLA News Journal
www.PensacolaNewsJournal.com

EDITORIAL

Land preservation purchases help ensure a better future

We have long believed that in the not-too-distant future Florida — including the Pensacola Bay Area — will be almost totally divided into two land classifications: private property off-limits to most people, and publicly owned land.

It will have profound implications for anyone who uses the outdoors: hunters, hikers, fishermen, campers, bird watchers, horse riders, even motocross and four-wheel drivers.

That's what makes this week's announcement of conservation land purchases so important.

Protecting land for wildlife and water quality important for the future of the Gulf Coast.

The purchases — 28,000 acres in Escambia and Santa Rosa counties, and 14,000 acres in Baldwin County, Ala. — are crucial to protecting wildlife habitat and water quality and supply.

But they are equally important in guaranteeing open space for outdoor recreation.

As the area's population grows, there is a corresponding reduction in open space. More and more open land is disappearing into subdivisions and commercial development. Roads are splitting open lands into smaller pieces, and making solitude harder to find.

It means that once-rural areas are becoming increasingly urbanized. That brings the pressures, noise and crowding of a growing area into places that used to provide a respite from all that.

Country roads, open fields, widely spaced housing and wooded areas are increasingly disappearing as rising densities push back rural amenities.

Many Pensacola Bay Area residents remember when ample open land — even in private hands — offered opportunities for families to reach bay and Gulf beaches, creeks, bayous and lakes.

Today most of those lands are developed, leased to an exclusive hunting club or posted. Or so hemmed in by development that the seclusion and charm they once offered are long gone. Somehow, picnicking with your family between closely spaced houses on what was once an isolated shoreline isn't much fun — and might be legally risky, as well.

So as the area's population grows, and its open land shrinks, it is increasingly important to act now to put land into public hands. In the future it will provide the bulk of land available to the public for outdoor recreation.

Fortunately, the State of Florida has long recognized the need to preserve open land, and actively purchases it through it Florida Forever conservation program.

At the same time, the state — and particularly Northwest Florida — are fortunate to have the active presence of The Nature Conservancy. The Conservancy operates a world-class conservation program in the Panhandle through its Gulf Coastal Plain Ecosystem Partnership. Through that and other programs the Conservancy is aggressively working to preserve the best and most important lands for the future.

Also, International Paper Co. deserves credit for understanding the importance of the lands it holds, and working with the state and The Nature Conservancy to set aside crucial parcels.

ATTACHMENT L

IP Fact Sheet - Alabama

Southern Forests Project

Alabama

The Nature Conservancy and International Paper have undertaken a once-in-a-lifetime opportunity to protect ecologically important forests, rivers and streams in 10 southern states. The Nature Conservancy will acquire more than 218,000 acres in the largest private land conservation project in the history of the southern U.S. Partners include state governments, federal agencies, the Department of Defense and timber investment entities.

The project

The Perdido River Corridor covers 120,000 acres of significant blackwater watershed. Comprised of the headwaters, forested and marsh wetlands, bogs and long-leaf pine communities, the river flows for 84 miles into one of the Gulf Coast´s least developed back areas, the Perdido Bay.

total area 14,119 acres
perdido river

river and stream miles protected 15

representative species
- gulf sturgeon
- swallow-tailed kites
- cypress and atlantic white cedar forests
- prothonotary warblers
- gopher tortoise
- panhandle lily
- american chaffseed
- alligator snapping turtle
- florida pine snake
- riverfrog

opportunity to reintroduce species
- red-cockaded woodpecker
- mississippi sandhill crane
- southern hognosed snake

Perdido River

This acquisition protects 14,119 acres of the Perdido River Corridor including 15 miles of river frontage on the highest quality remaining free-flowing blackwater river in the southern coastal plain. The high-quality forests along the river corridor include slash pine flatwoods, pitcher plant seepage bogs, upland longleaf pine forests, and riparian Atlantic white cedar swamps, rare this far west in the Gulf Coastal Plain.

The lands along the Perdido River are utilized by hundreds of species of neo-tropical migratory birds as stopover habitat for feeding and resting as the move through Alabama's coastal area each spring and fall.

The undeveloped lands along the Perdido River also serve an important water quality protection function for the Perdido River, as well as its associated estuary and marshes.

The acquisition parcel is connected to an almost 4,000-acre site the state of Alabama recently purchased to protect an additional 10 miles of Perdido River frontage upstream. The Nature Conservancy is working with the State of Alabama to eventually connect this parcel to several other state conservation areas.

Nearby protected areas in Alabama include the Lillian Swamp State Preserve downstream and the Splinter Hill Bog Nature Conservancy and Forever Wild state preserves upstream in the Perdido River headwaters.

Several other projects along the river include The Nature Conservancy's Rainwater Preserve on the Florida side. At the southernmost end of the river, along Perdido Bay, is the Perdido Pitcher Plant Prairie Preserve owned by the State of Florida

The Perdido River Corridor has the potential to link the conservation efforts of the Panhandle of Florida with the protected areas of the Mobile-Tensaw River Delta, providing a corridor of movement for Alabama's restricted black bear population.

In the headwater area of Rabun, acres of pitcher plant bogs and forested wetlands form the beginning of the Perdido River Corridor. Owned and protected by The Nature Conservancy of Alabama, ADCNR -State Lands Division and the Forever Wild Program, the watershed extends from the origin of Dyas Creek in Baldwin County, south along the Perdido River to the mouth of Perdido Bay and Lillian Swamp.

The Perdido River was named by the Spanish who occupied the area until 1813. The word "perdido" in Spanish is translated as "lost".

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nature.org/alabama

ATTACHMENT M

Updated GCPEP Memorandum of Understanding (MOU)

FDACS CONTRACT #
003325

MEMORANDUM OF UNDERSTANDING
Among

DEPARTMENT OF DEFENSE,
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION,
FLORIDA DIVISION OF FORESTRY,
FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION,
INTERNATIONAL PAPER,
NATIONAL FORESTS IN ALABAMA,
NATIONAL PARK SERVICE,
NOKUSE PLANTATION,
NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT, and
THE NATURE CONSERVANCY

THIS MEMORANDUM OF UNDERSTANDING (hereinafter referred to as "MOU" or "Understanding") is made and entered into on the ____ day of _____, 20__, among Conecuh National Forest (National Forests in Alabama), Department Of Defense, Florida Department Of Environmental Protection, Florida Division Of Forestry (Florida Department of Agriculture and Consumer Services), Florida Fish and Wildlife Conservation Commission, International Paper, National Park Service, Nokuse Plantation, Northwest Florida Water Management District, and The Nature Conservancy (hereinafter referred to as "parties").

This MOU hereby replaces and supercedes that certain MOU between Eglin Air Force Base (Air Armament Center), Blackwater River State Forest (Florida Department of Agriculture and Consumer Services-Division of Forestry), Northwest Florida Water Management District, Conecuh National Forest (National Forests in Alabama), Florida Department of Environmental Protection, International Paper and The Nature Conservancy (Florida Southeast Division, Alabama Field Office and Alabama Natural Heritage Program), dated April, 4, 2003.

The parties have responsibilities on and collectively own and manage approximately 1,050,000 acres in the ecosystems of the region (see Attachment). These acres comprise the largest remaining nearly contiguous block of longleaf pine uplands in the southeastern United States and include portions of five major watersheds, including the Escambia-Conecuh, Blackwater, Yellow, Choctawhatchee, and Perdido River drainages.

The purpose of this MOU is to develop and implement a voluntary and cooperative stewardship strategy to sustain the long-term viability of native plants and animals, the integrity of ecosystems, the production of commodities and ecosystem services, and the human communities that depend upon all of them.

The general goals of this MOU include the following:

-To assist, share information and coordinate efforts with the other parties in fulfilling the purposes of the MOU.

-To provide a model for local, state, federal, and private entities working together to fulfill the purpose of the MOU.

-To communicate to the public success in meeting both individual and common goals related to the MOU.

-To cooperate with other agencies and organizations including:

- U.S. Fish and Wildlife Service
- Universities and Junior Colleges
- The National Biological Service
- The Florida Department of Transportation
- The Alabama Department of Conservation and Natural Resources
- The Longleaf Alliance
- Southern Group of State Foresters

This MOU recognizes that the individual parties (public and private) have legitimate and varied management goals ranging from military missions, to producing forest commodities, providing recreational opportunities, protecting water quality, and conserving native species and ecosystem integrity. This MOU is in no way intended to limit or constrain the party's individual goals.

This MOU is entered into pursuant and subject to all applicable federal, state, and local laws. This MOU is not entered in the interest of obtaining advise or recommendations for any office or agency of the federal government and nothing herein shall be construed, nor is intended to state or imply, that this MOU establishes a federal advisory committee or that the Federal Advisory Committee Act (5 U.S.C. Appendix 2) shall apply.

IN ORDER TO FULFILL the stated purpose and intent of this MOU, the Parties agree in principle to the following:

1. To develop jointly a voluntary strategy, to be reviewed and updated annually, that will document critical ecosystem elements, processes, and interactions, identify priority ecosystem goals and objectives, both individually and jointly, and measure progress in attaining goals and objectives.

2. To develop jointly a voluntary red-cockaded woodpecker management strategy, and strategies for other listed species as appropriate, to be reviewed and updated annually, that will coordinate objectives and management efforts among the parties toward the mutual goal of recovering the red-cockaded woodpecker and other listed species.

3. To develop jointly a voluntary longleaf pine and other natural communities restoration strategies, to be reviewed and updated annually, that will coordinate objectives, strategies and actions among the parties and other efforts toward the mutual goal of recovering representative and ecologically functional examples of the longleaf pine ecosystem.

4. To share and exchange relevant information and technology as appropriate and need to compile and implement the above strategies.

5. To develop specific agreements and working plans for individual projects considered by all or some of the parties hereto to have mutual interest. Such agreements and working plans will be developed whenever deemed appropriate by the relevant parties.

6. To consider entering into specific agreements among all or some of the parties and/or third parties, as occasion demands, for the use of specialized equipment, transfer of funds, purchasing of supplies, and other matters pertaining to the general purposes of management agreed upon by all or some of the parties hereto. Any allocation of responsibilities and liabilities, including limitation of expenditures under this Understanding, will be as set forth in specific working agreement entered into by the relevant parties.

7. To hold at least one meeting per year and more often as required to discuss management opportunities and coordinate management and monitoring efforts and to keep written records made under this Understanding.

8. To make this Understanding effective as of the date it is executed by the last party and continuing for a term of one year and renewing automatically on an annual basis unless terminated in writing by one or more of the parties hereto pursuant to paragraph 9 below.

9. To terminate this understanding at any time by mutual agreement by all parties with any party having the right to withdraw from this Understanding by giving the other parties 30 days notice.

10. To amend this Understanding as necessary at any time to incorporate new parties, new information or changes in any parties authorities, policies, directives, or goals, subject to concurrence by all parties.

11. Nothing in this Understanding shall be construed to place financial commitment upon any of the parties. Actions taken and funds expended to implement this Understanding are contingent upon appropriations, priorities, and other constraints.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Understanding as of the date above written.

DEPARTMENT OF DEFENSE, 96th AIR BASE WING

Edmond B Keith | Commander | 30 Sep 05
Signature | Title | Date

DEPARTMENT OF THE NAVY, NAVY REGION GULF COAST

[signature] | COMMANDER | 18 MAY 06
Signature | Title | Date

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

[signature] | Dep Sec | 07/27/06
Signature | Title | Date

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
(Florida Division of Forestry)

[signature] | Director of Administration | 3-23-06
Signature | Title | Date

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

[signature] | Director, Div. of Habitat + Species Cons | 5-09-06
Signature | Title | Date

INTERNATIONAL PAPER

Sharon L Haines | Director Sustainable Forestry & Forest Policy | 12/14/05
Signature | Title | Date

NATIONAL FORESTS IN ALABAMA

Signature	Title	Date
	Forest Supervisor	1/31/06

NATIONAL PARK SERVICE

Signature	Title	Date
	Superintendent	9/6/06

NOKUSE PLANTATION

Signature	Title	Date
	OWNER	8-10-06

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Signature	Title	Date
	Executive Director	08/30/06

THE NATURE CONSERVANCY

Signature	Title	Date
	Florida State Director	09/24/06

ATTACHMENT
Ownership Included in Memorandum of Understanding

OWNERSHIP/MANAGER	NAME OF PROPERTY	ACREAGE (Approx.)
DEPARTMENT OF DEFENSE	Eglin Air Force Base, Naval Air Station Pensacola, and Naval Air Station Whiting Field	481,241
FLORIDA DIVISION OF FORESTRY	Blackwater River, Pine Log, and Point Washington State Forests	211,752
NW FLORIDA WATER MANAGEMENT DISTRICT	Garcon Point, Escribano Point, Yellow River, Choctawhatchee River, Blackwater River, and Escambia River Water Management Areas	112,963
NATIONAL FORESTS IN ALABAMA	Conecuh National Forest	83,790
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	NW Florida Aquatic and Buffer Preserves, and Blackwater River, Perdido Key, Tarkiln Bayou, and Big Lagoon State Parks	57,270
NOKUSE PLANTATION	Nokuse North and Nokuse South	50,000
NATIONAL PARK SERVICE	Gulf Islands National Seashore and Naval Live Oaks, Florida	24,795
INTERNATIONAL PAPER	International Paper Connector Parcel and Coldwater Creek	24,263
THE NATURE CONSERVANCY	Choctawhatchee River Delta Preserve, and Perdido River Nature Preserve	5,081
FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION	Escribano Point	1,166
TOTAL ACREAGE ENROLLED IN GCPEP (As Of April 2005)		**1,052, 321**

ATTACHMENT N

Steering Committee Minutes for 8 August, 2006
Steering Committee Meeting

Gulf Coastal Plain Ecosystem Partnership

GCPEP Staff:

Vernon Compton
Project Director

JJ Bachant-Brown
Conservation Ecologist

Kenneth Kallies
Aquatic Ecologist

Brett Williams
GCPEP EST Team Member

Barbara Albrecht
Program Manager

Summary of the GCPEP Steering Committee Meeting

August 8, 2006

Meeting Summary

This summary attempts to capture the most important information as recorded by Barbara Albrecht during the Gulf Coastal Plain Ecosystem Partnership (GCPEP) Steering Committee meeting. Editorializing was kept to a minimum except when needed to clarify the context of issues and recommendations. Some of the discussion and recommendations required interpretation. Any errors in translation or interpretation are the responsibility of the authors and are unintentional.

The GCPEP Steering Committee representatives in attendance were Matt Aresco (Nokuse), Chadwick Avery (Eglin Air Force Base), James Furman (Eglin Air Force Base), Debbie Holland (Coastal Aquatic Management Areas), Mike Kancilja (Naval Air Station-Pensacola), Tim Knight (Conecuh National Forest), Tom LeDew (Blackwater River State Forest), Steven Lee (Conecuh National Forest), Lamar Munroe (Nokuse), Adlai Platt (The Nature Conservancy), and Fred Robinette (FL Fish & Wildlife Conservation). GCPEP staff included Vernon Compton, JJ Bachant-Brown, Ken Kallies, Brett Williams, and Barbara Albrecht.

Meeting Objectives

The Gulf Coastal Plain Ecosystem Partnership Steering Committee met at Adventures Unlimited in Milton, Florida. The GCPEP Staff applied a forward looking approach to this Steering Committee Meeting in hopes that as topics were discussed they would be viewed as “in the future” as opposed to “in the past” thus discussing each issue in the most efficient manner.

GCPEP Operations

In order to inform new Steering Committee members, a review of GCPEP operating procedures was given to highlight how the Steering Committee functions. The Memorandum of Understanding (MOU) was signed by the partners in 1996. The MOU serves as the foundation of the Partnership. The Steering Committee agreed upon the following operating guidelines to ensure efficient operation of the partnership:

1. Each partner organization chooses representatives. The Steering Committee consists of one primary and at least one alternate contact for each partner. A designee chosen by the primary contact may represent the alternate contact. Representation at the Steering Committee meetings by one of the contacts from each partner organization is encouraged.

2. Consensus is desired in reaching agreements among the partners to ensure an equal voice for all. If there is minority dissent, then the majority is charged with finding an alternative solution acceptable to all. The goal is to always maintain productivity while keeping the consensus process efficient.

3. The GCPEP staff is present to provide information and assistance to the partnership, and they do not vote on issues. Decisions are based upon Steering Committee voices only. The Steering Committee functions best when everyone participates and ensures input from their organization in all decisions.

The topics which were addressed in the meeting included the following:

- Communications, Finance, and GCPEP Project Updates;
- Land Protection;
- Recreation, Eco-tourism, and Public access & use;
- Aquatic Issues;
- Invasive Flora & Fauna; and
- Prescribed Fire.

During all topic discussions, projects and strategies were identified that continue to address the challenges and threats identified in the first GCPEP Steering Committee meeting held during 4-5 December, 1998.

COMMUNICATIONS AND FINANCE

Communications

Effective communication between the partners remains a vital component in continued conservation management and restoration success. Documentation of the partners' cooperative restoration projects and of the methods used is critical to circulating the information between partners, to supervisors, decision makers, and to the interested public. Communication is vital to the effectiveness of the partnership and was established as a priority by the GCPEP Steering Committee.

GCPEP Internal Website

To facilitate effective communication and the transfer of information between the GCPEP Partners, the concept of an internal password-protected website was conceived to serve as the hub of current information as well as archival information. The website will provide a mechanism by which the user can access calendars and schedules, search news article clippings by topics (previously provided at Steering Committee Meetings in bound format), partner contact information, Steering Committee Minutes, Subcommittee products, current maps, and a host of other attributes to assist communication between the GCPEP Partnership.

GIS Update

GCPEP Staff will be visiting the Partners in the remaining months of the year to collect and assimilate GIS data for GCPEP enrolled lands to develop a larger comprehensive database for the 2007 Conservation Action Plan. When completed, the data layers will identify areas within the Partnerships lands which contain invasive flora and fauna (and eradication schedules), areas presently on a burn schedules or those that are next in line to be burned, erosional/depositional areas requiring restoration or monitoring, and a number of other valuable land management tools to assist GCPEP and the Partnership with their support activities.

GCPEP Website and GIS Potential in the Future

The marriage of the GCPEP Website and the GIS component provide the foundation and mechanism to encourage and promote a central site to house a collection of studies (i.e., water quality, environmental, etc.) conducted by the those within the Partnership or other local entities, such as universities, colleges, or other organized and credited consortia (e.g. SETAC, BARC-TAC).

GCPEP Staff Update

Perrin Penniman accepted a position in Gainesville (Hogtown), FL, and continues to share her talents with The Nature Conservancy as the Office Manager. In May of this year, she passed the torch to Barbara Albrecht who joined the GCPEP Staff Team as the Program Manager, and who continues to attempt to fill Perrin's shoes.

A long-time fan of The Nature Conservancy, she finally left the environmental consulting world which had her traveling too much, to do some good in her own back yard.

GCPEP Brochures

The GCPEP landscape has been shifting and growing the last few years and it is time to update our brochures. In the following months, the GCPEP Staff will be contacting each of the partners to update the verbiage currently contained in the GCPEP brochures. Landscape information will be collected with the GIS data and included with the brochures.

GCPEP Memorandum of Understanding (MOU)

The GCPEP MOU has been updated and began the circulation-for-signature by the 10 partners' agencies since the partnership has reached the number of partners currently desired by the Steering Committee. The process will be completed within the calendar year and the final documents will be distributed to each agency.

Finance

The GCPEP staff ensured that all of the required deliverables including Quarterly Progress Reports, Annual Reports, Materials, Training, Management Plans, and all products required for each of the Grant Agreements and Awards for GCPEP were met and delivered in a timely manner.

GCPEP staff activities for Communications and Finance:

- Quarterly Progress Reports submitted during FY06 Phase I Legacy Project;
- Pre-proposals and full proposals were submitted that would assist the GCPEP Staff in implementing on-the-ground projects that the partners have identified as priorities;
- GCPEP staff attended Grants Training (budget & ethics training); and
- GCPEP has received generous private donations to support GCPEP conservation activities.

LAND PROTECTION

The GCPEP Staff has been active in leading and/or supporting land protection across the GCPEP landscape. Incompatible development and growth was identified by the GCPEP Steering Committee as a major threat to conservation targets. These encroachment issues are also increasingly becoming a threat to partner management actions and mission capacity. Incompatible development of the lands surrounding Eglin AFB, NAS-Pensacola and NAS-Whiting Field, and other partners would make land and water management even more difficult, particularly watershed protection and prescribed burning. This threat would also increase the pressures on rare and imperiled species, increasing the challenges of managing these species on partner lands. The Nature Conservancy and GCPEP partners consider land protection a high priority and take a leadership role in finding solutions to encroachment issues around partner lands and across the GCPEP landscape.

The current trend in real estate provides little resolution. A brief comparison of recent land costs in South Florida and Northwest Florida revealed the following:

South FL 1999	$956/acre
South FL 2006	$4714/acre
NW FL 1999	$840/acre
NW FL 2006	$2700/acre

Specific Land Protection efforts achieved by GCPEP staff include the following discussions:

Florida Forever Projects

The Nature Conservancy has worked closely with GCPEP partners to propose several critical projects in and around Eglin AFB and several of the other partners. These projects include the Yellow River Ravines, Escribano Point, Nokuse Plantation and Clear Creek/Whiting Field. Each of these projects were approved and ranked as "A" or "B" projects and negotiations continue on most of the projects. If negotiations are successful, over 40,000 acres of critical buffers, corridors, and connectors will be protected and managed in a compatible and sustainable manner.

The Preservation 2000 and Florida Forever Programs have been the most successful state land conservation programs in the nation. Purchase and sustainable management of lands from willing sellers can lead to important conservation, recreation, and water-resource lands. Currently the Preservation 2000 and Florida Forever Programs will sunset in 2010. Alabama's similar program will sunset around that time also.

GCPEP staff activities for Florida Forever Projects:

Yellow River Ravines

- The Yellow River Ravines project is recognized as one of the most important in the State of Florida due to the critical connection made between two significant natural areas, Blackwater River State Forest and Eglin Air Force Base. Corridors such as this one are essential to the survival of wide-ranging species like the Florida Black Bear. Negotiations continue between The Nature Conservancy and International Paper on the remaining acreage of the Yellow River Ravines project.

Escribano Point

- A portion of the Escribano Point project area was purchased by a private developer, but remains on the Florida Forever list as an "A" ranked project. The area contains relatively intact examples of wetland communities, hammocks, and wet prairies. These communities provide habitat for numerous rare and threatened plants and animals. The project area also provides an important buffer to the west side of Eglin AFB.

Nokuse Plantation

- More than 18,800 acres of land within Nokuse Plantation have been permanently protected since the beginning of 2005 through the purchase of conservation easements and landowner donations. Funds are now needed to supplement state and federal funding for acquisition of conservation easements on the northern parcels of Nokuse Plantation. The northern section

actually connects to the east side of Eglin AFB and would serve as another important wildlife corridor between the Choctawhatchee River and Eglin.

Clear Creek/Whiting Field

- Project was approved in early 2005 as a "B" ranked Florida Forever project. Application was completed by The Nature Conservancy. GCPEP Staff continue to work with Santa Rosa County, Naval Air Station – Whiting Field, and the Florida Department of Environmental Protection to secure additional funds needed for this "B" ranked Florida Forever project. Progress also continues with the Office of Greenways & Trails "A" ranked project area, land immediately adjacent to Whiting Field. Successful negotiations with this project would protect 1,143 acres of land for conservation and recreation. Discussions have been initiated to explore requesting a portion of the project area be considered for "A" ranking at the October and December Acquisition and Restoration Council Meetings. The focus of a portion of these holdings would include potential development of a controlled Off-Highway-Vehicle (OHV) area.

Northwest Florida Greenway

This project, if successful, would protect water supplies, critical conservation parcels, and would assist in protecting the Eglin AFB military mission and their flight space. There has been strong leadership for this project from the Governor of Florida, Department of Defense, the Florida Department of Environmental Protection, and The Nature Conservancy. This significant project has received political and community support across the region and the nation.

The Northwest Florida Greenway Project will provide approximately a 10-mile wide and 100-mile long linkage between Eglin AFB, Apalachicola National Forest, and the Gulf of Mexico. This corridor would prevent encroachment of incompatible residential and commercial development on military testing and training areas, protect the regions' important biodiversity and water resources, link existing protected areas, and provide recreational opportunities for a growing population.

GCPEP staff activities for the Northwest Florida Greenway:

- Continued to assist in planning the corridor;
- Presented the Northwest Florida Greenway concept in several public/community meetings;
- The US Forest Service, on behalf of the Florida Trail Association, has completed negotiations with the Nokuse Plantation on a trail corridor immediately east of Eglin that will connect the trail from the Eglin east boundary to the Choctawhatchee River. Additional efforts continue on securing the corridor further east to the Apalachicola National Forest; and
- Participated in several meetings to complete a Conservation Area Plan for the Northwest Florida Greenways, identifying targets, threats, and viability to date.

Blackwater River State Forest In-holdings & Additions

The securing of in-holdings and additions of importance to GCPEP partners helps to improve both land and water management.

GCPEP staff activities for in-holdings:

- The Nature Conservancy continues to negotiate with a large landowner to secure several important in-holdings and buffers to Blackwater River State Forest.

Forest Legacy

Led by the Florida Division of Forestry, the Forest Legacy program aims to protect and conserve important forests that are threatened by conversion to non-forest uses, such as development. The Forest Legacy program will provide another important funding source to work with willing landowners to protect important conservation lands long term with conservation easements. One potential project will protect important lands adjacent to Blackwater River State Forest.

GCPEP Steering Committee Roundtable Discussion

The Partnership was asked to identify lands which are being threatened by growth and to discuss issues relating to land use and their missions:

Blackwater River State Forest:
- Edges and in-holdings are their focus
- Continued growing population and the balance between management concerns and demands

CAMA:
- Shoreline restoration work along the Yellow River Preserve

Conecuh National Forest:
- Open to discussions and potential land swapping
- Working on enhancements
- Blackwater River Track could come up again next year

Eglin:
- Escribano Point (discussed above)
- Greenway (discussed above)

FWCC:
- Escribano Point (discussed above)

NAS:
- Updates to come from Jimmie Bartee
- Whiting Field
- OLFs – possible work with Partners to place in areas without encroachment along the edges

Nokuse:

- Still looking for additional lands to add
- Just added a parcel that adds connectivity along the NWFWMD Lands
- Conservation Easement on east side of Nokuse
- MC just bought some lands from Rainer within Conecuh

The Nature Conservancy – Alabama:

- Splinter Hill Bog – recent successes, still a work in progress

The Nature Conservancy – Florida:

- The Perdido River Preserve has two new neighbors, the NWFWMD and FWCC
- IP – and their possible role with GCPEP by enrolling their lands which abut the Preserve
- Raises the question of a Land Trust possible in this area

Areas of Concern & Areas of Need within the overall GCPEP:

- Focus along aquatic corridors
- Road bypass concerns
- Bonifay Wildlife Safari Park concern
- Shoal River Ranch

Identified Possible Solutions within the GCPEP area:

- Mailings to key parcel owners regarding conservation easements, conservation selling
- Newspaper articles on conservation easements
- Focus on stream corridors, in-holdings
- Mitigation from road developments

RECREATION, ECO-TOURISM, and PUBLIC ACCESS & USE

The GCPEP Steering Committee has recognized the opportunity to explore the means of fostering economic development while sustaining and conserving biological diversity in this region through the support and the application of recreation in the form of nature based tourism as a GCPEP conservation strategy.

The GCPEP Steering Committee discussed the threats associated with human impact affecting the partnership. One condition which may be perceived as a threat is primary road systems. Paved and maintained roads encourage development, and as discussed in previous meetings, inappropriate development is a threat to the GCPEP Partners. Other threats may be unintentional such as the misuse of public access boat launches (i.e., launching large boats at canoe or kayak designed access points) or they may be intentional (i.e., poachers tearing down fences to hunt in out-lying fields, OLFs). In some cases, possible solutions were identified.

GCPEP Steering Committee Roundtable Discussion

Blackwater River State Forest:

The Blackwater River State Forest has recently developed a new position to focus solely on recreational issues in the forest. In addition to the new position, a new statewide avenue for funding recreation projects has just made its debut, Friends of Florida State Forests (http://www.floridastateforest.org/), which logs in-kind volunteer hours and applies them towards goals identified within the specific forest region. This grant mechanism provides the necessary vehicle for organizations to apply and receive grants.

The Blackwater River State Forest is now taking a more regional approach within the various counties in which it is located. In the future, the forest would like to develop a multiuse trail which circumvents the forest, and provides access to out-of-the-way forest features. For instance, Baker, FL, has a small horse arena which does not receive much use, but a series of connectors to it would develop potential uses. Roads remain an issue for the forest; monies for paving primary roads continue to be scarce, and at the other extreme keeping tertiary roads in good shape by resurfacing with crushed rock are endless. ATV issues have been addressed by taking some offenders to court and fining them, but the best solution would be more law enforcement.

CAMA:

The biggest threat facing CAMA at this time is the erosion caused by boat wakes. One solution to the boat wake issue is to place rip rap along the affected areas, but this solution comes with its own set of threats. Rip rap stabilization along shorelines has been shown to create turbulent conditions which accelerate seagrass die off.

Law enforcement presence has helped to decrease issues surrounding inappropriate public access (large motor boats on non-motor vessel launches) around boat ramps, and recognition of idle speeds near ramps and the shoreline.

Blackwater River State Park:

The Blackwater River State Park has received monies to apply towards park improvements.

Conecuh National Forest:

Activities and usage have increased forest-wide; ATV trails are not too big of an issue at the Conecuh, but many ATV riders are going off into the wilderness and creating problems for the forest when new trails are developed.

A bigger problem for the Conecuh National Forest is with the impacts currently being seen at Blue Springs. Activities around the springs have created water backing up, severe erosion, and flooding. Ideally, the Conecuh would like to prohibit alcohol usage, determine and address usage, and restore the springs.

This scenario sounds very similar to the issues that the NWFWMD had to address with the Econfina Creek and springs.

Eglin:

Eglin AFB has lost a labor pool when the inmates were removed from the program. In previous years, the inmates assisted by picking up trash and lawn maintenance on recreational areas. Recent realignment of military missions has most recreational areas and activities on Eglin AFB closed to the public increasingly. On the upside, the base may get some conservation law officers to help with policing the base.

FWCC:

The Florida Fish and Wildlife Conservation Commission are still working on obtaining the last parcel on Escribano Point. Currently there is no land access to the parcel unless you cross over Eglin AFB property. Water access is the only viable method at this time.

NAS:

The Naval Air Station at Whiting Field has seen a higher level of poachers on their out lying fields (OLFs). Reports from neighbors near Silverleaf OLF indicate that poachers have pulled up to fences, cut through them, shortly thereafter shots were fired, and then deer are pulled through the fences and poachers drive off. Incidents involving poachers have also been noted at Bronson and Wolf OLFs, Santa Rosa County and Baldwin County OLFs. Remedies to this problem include getting conservation officers on staff at each base, but the remedy is also a double edged sword. The time and monies to invest and train an "active type person" may be lost if that person is deployed.

Nokuse:

Nokuse Plantation has experienced some poaching, but not at the level described by NAS Whiting Field. Currently, the only public access will be the Florida Trail on the southern boundary on the North Parcel. Plans are underway to build an accredited education center which will be located on Highway 20. This education center will serve to bring science related studies into the classroom for K-12, and also provide research opportunities for higher level studies.

The Nature Conservancy:

The Perdido Preserve has undergone a new land-use shift, and as such has developed a need for a law enforcement presence. The hunt club which had been hunting on the Preserve for the past few years was officially asked to leave in July 2006, after their hunting lease was not renewed. In addition, the river access and usage was also halted and has left for some difficult feelings. Uninvited ATVs remain a concern. To date, having a presence on the preserve is the best way to address these issues.

A canoe and kayak workshop recently attended near the Suwannee River has opened up a new potential use which would fit nicely with the river and landscape along the Preserve. Future efforts to designate camping and day use areas will be developed in the future.

The mission on the Preserve is to create a "land Friendly" (low impact) use where those wishing to be in nature can experience nature. Currently, the goals on the Preserve are to burn areas and replant with longleaf pine and wiregrass during the winter season.

ATV Issues

All terrain vehicles continue to be a problem on Partner lands. On way to address this issue has been to identify a potential legal use area which will be designated for ATV use only. This will hopefully offset some of the pressure placed on the Partners. Potential areas will include:

- Whiting Field track
- Borrow Pit by Whiting Field

Steering Committee Discussions

The Steering Committee discussed the current size of the current GCPEP Landscape and the need to establish a subcommittee focused on recreational concerns and threats. Below are the names of individuals who the Steering Committee recommended.

GCPEP Recreation Subcommittee Point of Contacts:

- Justin Johnson, Eglin
- Jerrie Lindsey, FWCC
- Ad Platt (or someone from Chapter Office), TNC
- Tom LeDew & David Creamer, DOF
- Rec position at Conecuh
- NAS to be decided
- Debbie & Bob (and someone with Office of Greenways & Trails), DEP
- Ben Faure, Rocky Bayou

AQUATIC ISSUES

Current Aquatic Projects

The GCPEP Aquatic Management Plan was discussed and it was suggested that the Plan be subdivided into two parts, a freshwater plan and an estuarine/marine plan. The Steering Committee rejected this suggestion opting for a single comprehensive plan.

TNC has partnered with the Bagdad Waterfront Partnership and has offered assistance in the development of the "Old Mill Site."

GCPEP's Aquatic Ecologist is in the process of writing a grant to monitor the health of GCPEP's saltmarsh community using three imperiled vertebrates (Diamondback Terrapin, Gulf Saltmarsh Snake, and Saltmarsh Topminnow) as indicators of marsh health (Three-Vertebrates Project).

GCPEP's Aquatic Ecologist is assisting in the cooperative removal of derelict crab traps from East Bay.

GCPEP staff, Jackson Guard, and the U.S. Fish and Wildlife Service are working cooperatively to restore and maintain Okaloosa Darter populations on Eglin AFB and to replace and/or repair incompatible culvert crossing systems.

GCPEP in cooperation with Jackson Guard and the Gopher Tortoise Conservation Initiative have scheduled a workshop on Gopher Tortoise Management and Mitigation.

GCPEP Steering Committee Roundtable Discussion

Blackwater River State Forest:

BRSF staff reported concerns dealing with a number of stream-based threats. Dirt road and streambank erosion continue to be a problem, as well as solid waste pollution (glass) getting into the streams. They report success with deer cleaning station (decreased number of deer carcasses in the streams). They also reported that a new Kennedy Bridge was going to be going "bank-to-bank."

CAMA:

Water quality monitoring is currently being conducted at Rocky Bayou and will continue with the goal of working towards monitoring all CAMA Preserves. The East Bay derelict crab trap removal project has been initiated and will continue. The Prop Scar/Seagrass restoration project is complete and post-project monitoring is scheduled to continue. Staff reported a continued desire to assist with the Three-Vertebrates Project.

Conecuh National Forest:

CNF reported that they have established a number of permanent monitoring stations and continue to collect water quality data and survey for Gulf Sturgeon. They are conducting a Yellow River mussel survey following a preliminary fisheries survey. Herpetological surveys are on-going, including managing for the Gopher Tortoise (GPSing burrows) and continuing with existing burn plan.

Eglin:

U.S. Fish and Wildlife Service staff active on Eglin AFB (Jackson Guard) reported that the Okaloosa Darter may be down listed, reporting increased population numbers, improved water quality, and habitat being important is the potential down listing. USFWS staff continue to survey and fill in freshwater data gaps on Eglin AFB. Road/erosion control projects continue on Eglin AFB.

FWCC:

FWCC has expressed an interest in getting involved with the Three-Vertebrates Project and assisting with the Florida Bog Frog Survey being conducted jointly between Jackson Guard and Virginia Tech. They also expressed a need to conduct a variety of hydrological surveys. Monitoring at Pine Log, Point Washington, and Blackwater continues.

NAS:

NAS and UWF have partnered to conduct Seagrass bed surveys and research as well as contracting a survey of Gopher Tortoise survey to TNC staff.

Nokuse:

Nokuse staff reported that they have historical data on 104+ ponds that had flatwoods salamander (8 still have potential) and would like to see restoration of these ponds. Nokuse staff is currently working with FWCC on the Gopher Tortoise Stakeholder Group and will be accepting Gopher Tortoises. Staff is hoping to become involved in historical Pine Barrens

Tree Frog sites restoration and assessing the population status of the Alligator snapping turtle in the Choctawhatchee River, tributaries, and floodplain swamps. They also need surveys conducted on the Seven-Runs Creek, specifically for mussels and steephead ravines.

The Nature Conservancy:

TNC expressed a need for a rapid assessment tool for lands and waters on TNC preserves and funding to address critical road and culvert needs, as well has hydrologic issues associated with inappropriately placed roads and culverts. They also expressed a desire to eliminate many of the data gaps associated with the Preserves.

INVASIVE FLORA & FAUNA

The GCPEP Conservation Ecologist and EST Team Member presented the following overviews, challenges and potential solutions to the GCPEP Steering Committee.

Why GCPEP focuses on "Invasives": quick overview

- Ranked as a Medium Threat, but recognized as one that is increasing
- Ecologically: displace native species (high risk to T & E spp), interrupt natural ecosystem functions such as fire or wildlife habitat, and disrupt nutrient cycles that provide for human services such as water purification by wetlands.
- Economically: According to DEP, upland exotic invasives had infested an estimated 15% of all public conservation lands in Florida at a cost of $6.3 million in control measures in FY 2003.
- Landscape fragmentation and shared boundaries with development at the urban interface restrict species' movement and home ranges, increase direct human disturbance to sensitive species and habitats, and can promote the infestation and spread of invasive species. The majority of invasive species currently found in northwest Florida thrive in disturbed habitats where native species have been removed, and almost all of the major infestations can be traced back to developments bordering conservation lands.

Current Needs & Future Challenges

- The lack of a comprehensive, spatially-explicit Geographic Information System (GIS) delineating vegetative community types and incorporating conservation targets across partner lands is constraining strategic management of threats such as invasive species and urban encroachment. Partner resource managers require spatial data on the location, size, species, and adjacent land ownerships of invasive species infestations, in relation to conservation targets, to develop priority action plans for controlling and preventing their further spread.
- Partner lands within GCPEP harbor lower populations of invasive species in comparison to surrounding land holdings due to healthy native species populations, the higher frequency of prescribed fire, and vigilant management of invasive species in general. However, the occurrence of invasive species is becoming more prevalent across the GCPEP landscape as the population of the area grows and encroaches on partner boundaries. Native species in

natural ecological communities typically provide sufficient competition to prevent invasive species from becoming established; however, soil disturbance, removal of native species, shifting land uses, hurricanes, and encroachment all provide conduits for invasive species to gain a foothold on the perimeter of natural communities from which they can slowly move inward.

- Across the GCPEP, the most prolific and problematic invasive species include cogongrass (*Imperata cylindrica*), Chinese tallowtree (*Sapium sebiferum*), Japanese climbing fern (*Lygodium japonicum*), Chinese privet (*Ligustrum sinense*), Chinaberry (*Melia azedarach*), mimosa (*Albizia julibrissin*), and feral hogs.
- Increased threat and increased damage from hogs
- Data gaps

Solutions to needs and challenges

- A GIS database, available to all partners through an Internet-based Webtool application, will provide GCPEP with real time mapping of conservation targets and threats at a landscape level.
- the development of a GCPEP Invasive and Native Strategic Work Plan using the GIS Database and Target Maps;
- facilitation of a GCPEP Invasive and Native Species Subcommittee Working Group (for implementation of high priority invasive species and encroachment actions); and
- Through the Florida Department of Environmental Protection (DEP) Panhandle Invasive Species Working Group, a number of the partners have been awarded grants to treat and control invasive upland plant species. The GCPEP Conservation Ecologist serves as the liaison for the Panhandle Working Group and plays a key role in providing funding sources for invasive issues on GCPEP partner lands.
- Utilization of the EST

Top GCPEP action items developed for dealing with the threat of Invasive Species:

1. to determine which invasive non-native species are present in the GCPEP area;
2. to identify the extent on partners' lands, and the effects that they are having on GCPEP targets;
3. to establish protocol for the necessary documentation across the partnership including GPS coordinates; species, aerial extent, and the natural community where found; and
4. to develop priorities for control and eradication, especially in areas that impact the GCPEP conservation targets.

GCPEP Steering Committee Roundtable Discussion

Blackwater River State Forest:

- Problems because of in-holdings
- Have received grant money to treat (BIPM)
- Dedicated employee to map invasives (Tom Serviss, Tom Arrington, also at the county DOT road maintenance level)
- Need help with public education
- Need help with control techniques (cogon grass)
- Currently the BRSF does have an issue with hogs on the Hutton Unit but are currently working with FWCC on options

CAMA:

- Rocky Bayou along the shoreline (erosion issues are compounded)
- Bagdad project

Conecuh National Forest:

- Working on an environmental assessment (expect to be completed in a couple of months)
- Working with contractors to clean equipment (clause in the contract)
- Working with adjacent landowners to treat road right of ways
- Not experiencing big problems with hogs

Eglin:

- Problems on the urban interface and main base maintenance phase
- Feral hogs within steephead and seepage slopes
- Positive and effective results being seen through hog trapping
- Seeing more torpedo grass (want to bring this up to the sub-committee level)
- Public education needs

FWCC:

- Invasive survey to be done on Escribano Point

NAS:

- Hired contractors to spray popcorn trees and cogon grass on P-NAS and OLFs
- Legacy Project (potential) can address cogon grass on DOD Lands and their adjacent landowners beginning with Baldwin County

The Nature Conservancy:

- In areas which have been cleared, issues with grapevines to smilax choking out natives
- Need money for hog control
- Need a funding source for private lands

Nokuse:

- Still working on cogon grass; they have learned tricks on how to treat it
- Spot treating other invasives
- Needs a survey on the extent of hogs and the damage that they have caused (send Lamar USDA POC)
- Always looking for additional input

Potential Solutions identified during Steering Committee meeting:

- GCPEP landscape database
- Invasive / Native Sub-committee
- Strategic work plan
- DEP / BIPM proposals
- Utilization of the EST
- Bagdad restoration project
- Assisting at the TNC Preserve
- EST at Tarkiln Bayou
- Potential funding through USFS, state, and private funding sources.

PRESCRIBED FIRE

Since the Fire Subcommittee met on 25 July, '06, the GCPEP Conservation Ecologist and EST Team Member presented to the Steering Committee the following summaries from that meeting.

Why GCPEP focuses on "Fire": quick overview

- Altered Fire Regime ranked as a high threat across the partnership
- Ecologically: for a majority of the Conservation Targets (both species and NC), fire is the dominant ecological process…a necessity for a healthy ecosystem
- Economically: conducting prescribed fire can be a less expensive management tool than mechanical or herbicide treatments
- Safety: Decreasing fuel loads to help prevent a catastrophic wildfire; wildland/urban interface

Summary from the Fire Subcommittee meeting: Current Needs & Future Challenges

- Increased beetle activity (Ips)
- Different fire behavior as a result from hurricane damage
- New international airport coming into Bay County (smoke concerns)
- DEP employees now mandatory moderate pack test; may lose personnel
- Heavy fuel loading at Big Lagoon (will need help in November/December)
- Arson fires on GCPEP lands
- NAS temporarily losing half their full-time staff
- FWCC – Escribano Point currently without staff
- Perdido Preserve will need to establish new firelines as IP cuts reserve timber
- Perdido Preserve will need more personnel resources this coming year
- Eglin might see changes in type of military activity and increased activity resulting in wildfires
- Eglin facing challenges with equipment replacement

- NWFWMD still might do more complex burns in-house

Summary from the Fire Subcommittee meeting: Discussed Solutions to needs and challenges

- Firewise workshops around Big Lagoon, Tarkiln Bayou
- With 48 hour notice, DOF can provide support for Rx fire
- More use of PFTC
- Assist with EST funding in order to have EST assist with partner burns
- DEP (Lance) has extra type 6 engine (staffed) on any day state parks in GCPEP area are not burning
- Eglin hosting Southern Area Engine Academy in September
- Eglin offers ability to serve as a training ground to partners (contact James)
- NAS proposal into USFWS in order to get lines put in at Holley Field
- Potential partnership burn on Escribano Point about a year down the road
- Perdido Preserve hosting equipment demos
- NWFWMD using contractors to assist with meeting burn goals
- Perdido Preserve might be hiring a burn boss this coming year
- Communication between the partners that use Heliworks
- GCPEP hosting the 2nd Fire Behavior and Fuels Conference

TEN YEAR CELEBRATION

The following points were captured during the discussion on how to celebrate the 10-year anniversary of GCPEP:

- Bring back some of the original members and founding fathers
  - Rick McWhite
  - Jeff Hardesty
  - Gary Taylor
  - Carlton Owens
  - Legacy Staff
- Potential Places to host the celebration
  - Bear Lake
- Timing of the event
  - Mid Morning to lunch (with lunch served)

- Items to note at the celebration:
  - Land Protection projects
  - Before & after GCPEP Maps
  - EST

- Numbers and statistics on resource sharing
- Increase in staff
- Increase in prescribed burns
- Partnership projects such as erosion, etc.
- Comments from individual Steering Committee Members
- Running slide show on accomplishments
- New partners
- Goal of partnership & how it evolved
- Hosting of the FLN Workshop
- Legacy Projects awarded
- GCPEP Shirts
- The fact that the timber industry was/is involved with the Partnership
- Where are we going in the next 10 years?? (Slide show)
- Early December
- Something commemorative
    - Paperweight
    - Coin
    - Lapel pin
- Afternoon fieldtrips

The following were items captured on flipcharts throughout the meeting:

General Items

- Send James the names of 'good' burners for 'Lessons Learned' by Dave Thomas (james.furman@eglin.af.mil)
- If you know of any job opportunities for foresters, etc., for IP employees, let Barbara know (balbrecht@tnc.org)
- See Ken for gopher tortoise management plan (kkallies@tnc.org)
- Get Lamar the USDA POC

Parking Lot Items

- Land Trust – appears to be a need in this area
- I-10 wildlife underpasses
- Proposed Road Public Hearings
- More coverage in TPOs
- Gopher tortoise relocation efforts
- Need for GCPEP Recreation Sub-committee
    - Develop regional approach
- Better use and coordination of volunteers
- Potential for gopher tortoise Sub-committee
- Contact Chris Metcalf with FWS on dirt road BMP Workshop
- Tackle the hog issue at the invasive/native Sub-committee level

GCPEP Staff Requests of the Partners

- Double check the contact list
- Send Barbara agency/organization phone lists
- Double check acreage numbers

- Update sections in tri-fold brochures
- Send Barbara shirt size & favorite colors for those directly involved with GCPEP
- Send Barbara Dec date availability for 10 year celebration
- Appoint an aquatic POC to serve on the Aquatic Sub-committee (see Ken's sign-up list)
- Fill out Ken's list for interest on gopher tortoise meeting
- Pass on fisheries survey report from the Conecuh National Forest to Ken

WRAP-UP

The meeting closed with a discussion on the new meeting format, focusing on future actions rather than past accomplishments. Steering Committee members were pleased and voiced strong support. Thus, the next Steering Committee will follow the same format.

ATTACHMENT O

GCPEP Chapter

Chapter 14

Role of Public–Private Partnership in Restoration

A Case Study

Vernon Compton, J. Bachant Brown, M. Hicks, and P. Penniman

Introduction

With today's increasing challenges in restoring the longleaf pine ecosystem, land managers, both public and private, need innovative management solutions. Since most challenges are shared across the landscape and desired end results are similar for land managers, one innovative approach that is proving effective is working in partnership with multiple organizations, agencies, and stakeholders. Within a partnership, members share the risks and the challenges of managing the longleaf pine ecosystem, as well as the benefits, such as healthier, more functional ecosystems. Focus and emphasis on collaboration, cooperation, and consensual goals provide the foundation for positive and productive partnership actions, which usually result in successful attainment of partnership and member goals and objectives.

The Gulf Coastal Plain Ecosystem Partnership (GCPEP) is an example of a partnership that has been able to frequently attain challenging and ambitious landscape-scale conservation goals and objectives through positive, result-oriented action and collaboration. GCPEP was formed because several landowners and managers shared concerns and challenges regarding the decline of the longleaf pine ecosystem in northwest Florida and south Alabama. In 1996, seven public and private landowners formed a partnership to address common land- and water-conservation concerns and challenges, and to utilize the opportunity to act collaboratively and cooperatively. Currently, there are ten partners in GCPEP that share landscape-scale conservation goals in the region.

This chapter will describe how the framework and function of GCPEP may provide a "blueprint" for other partnerships, and will explain the ecological rationale behind the creation of GCPEP. In addition, some of the early and current successes as well as challenges the partnership has experienced will be discussed. The chapter will also examine how the partnership maintains a common focus on, and kinetic progress toward, conservation goals through planning and prioritization methods.

The chapter is approached in sequence beginning with the concepts that lead to the formation of the partnership, including landscape-scale conservation and the advantages of ecosystem management through partnerships. The following sections explain in

Vernon Compton, J. Bachant Brown, M. Hicks, and P. Penniman • The Nature Conservancy, Jay Florida Office, The Gulf Coastal Plain Ecosystem Partnership of Jay, Florida 32565.

detail the various aspects of GCPEP, including inception, discussion about each individual partner, and many of the conservation projects that have been identified as priorities by the partners.

Landscape-Scale Conservation

Landscape-scale conservation served as the primary purpose for establishing GCPEP. Successful landscape-scale conservation usually involves actions that affect large and numerous parcels of land, typically owned by multiple persons or organizations. Conserving functional landscapes improves the likelihood of achieving sustainable conservation of biodiversity. According to Low (1999), emphasis on conserving functional landscapes dramatically improves efficiency and effectiveness for the following reasons:

- Conservation actions that simultaneously affect ecological systems, communities, and species at multiple scales within a single intact landscape provide a more ecologically integrated conservation strategy that better protects functional landscapes and biodiversity.
- Functional landscapes typically include private and public lands both of which are frequently needed to protect and restore ecological processes.
- Landscape-scale conservation requires an ecosystem approach involving multiple strategies to abate critical threats driven by incompatible human uses of the lands and waters.
- Landscape-scale conservation focuses on restoration of conservation targets.

Ecologically important natural systems and resources are typically embedded within a large working landscape, which includes the people who live and work in these places. Except for isolated wilderness areas, threats to conservation targets often involve incompatible human uses and economic development. Solutions invariably require working with local landowners, community leaders, and governments. Long-term conservation of these places will only happen through support of and participation in conservation planning and implementation by the local community.

Partnerships in Conservation

When forming a landscape-scale partnership, consideration of many different factors is essential. Partnerships require a clear understanding of the purpose of the individual organizations interested in becoming enrolled, as well as the manner in which the coalition of organizations will operate. A successful partnership will become an entity of its own that ideally will be greater than the sum of its parts. This best occurs when each organization is well established and committed to remaining involved in the partnership for the long term.

Partnerships are often guided by a Steering Committee, the method used by GCPEP. Ideally, the Steering Committee has agreed-upon operating guidelines to ensure efficient operation of the partnership. During Steering Committee meetings, and day-to-day operations and interactions, it is important to approach all topics and issues with the utmost respect for members and their respective organizations, as well as to minimize preconceived expectations and conceptions. Negotiations are most successful when all partners view one another as equal. When the playing field is level for everyone involved, it provides an effective environment for cooperation, communication, and understanding. Greatest potential for success is realized when goals for far-reaching cooperative restoration projects are shared and involvement for partners is maximized. The end results of such an approach can be extremely positive and may produce widespread benefits that may never have been imagined when initially planning meetings and projects.

GCPEP: An Example of an Effective Partnership

The Gulf Coastal Plain Ecosystem Partnership is a successful collaboration among ten public and private organizations that collectively

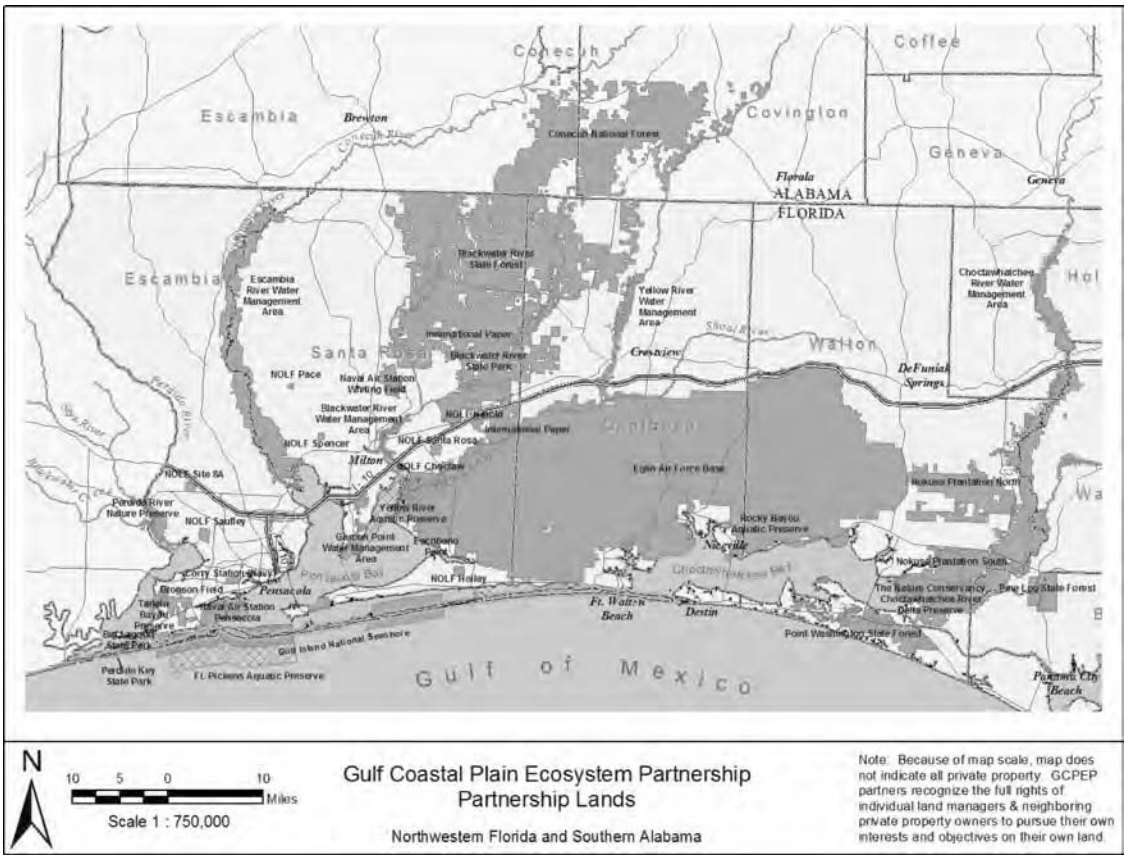

FIGURE 1. Gulf Coastal Plain Ecosystem Partnership lands and surrounding landscape in northwest Florida and south Alabama.

manage more than 425,859 ha of land in one of the most biologically significant regions in North America (Fig. 1). The GCPEP landscape has the vast majority of the world's remaining old-growth longleaf pine ecosystems, containing some longleaf pine trees that are over 500 years old. GCPEP partners include the Departments of Defense, Florida Department of Environmental Protection, Florida Division of Forestry, Florida Fish and Wildlife Conservation Commission, International Paper, National Forests in Alabama, National Park Service, Nokuse Plantation, Northwest Florida Water Management District, and The Nature Conservancy (Compton et al. 2002a and The Nature Conservancy 2005).

Explaining the inception of GCPEP may provide guidelines for initiating a partnership. An understanding of the partnership framework and projects may offer measures of success for cooperative restoration methods, which have been successful for GCPEP. The partnership has proven to be more effective and productive than expected, achieving goals that no one organization could individually accomplish.

How GCPEP Began

The GCPEP began with an idea. One agency contacted another to discuss the possibility of combining efforts to create a contiguous landscape for recovery efforts for the federally endangered red-cockaded woodpecker (RCW; *Picoides borealis*). By reconnecting the longleaf pine ecosystem, northwest Florida and south Alabama lands could provide enough contiguous forest to aid in the recovery of the RCW and other rare species, such as Florida black bears (*Ursus americanus floridanus*). The original

GCPEP landscape consisted of connected lands that were primarily undeveloped, but became fragmented by roads and increasing development. Reconnecting these lands through sharing resources, cooperating on management activities, and protecting important conservation lands would potentially restore the landscape to establish a more functional metapopulation of RCWs and other species requiring broad and largely intact longleaf pine and associated ecosystems.

Since GCPEP originally formed there have been several changes. New partners have joined GCPEP, while existing partners have enrolled additional lands into the partnership landscape. Steering Committee representatives have changed due to shifting responsibilities, relocations, and retirements. The GCPEP staff, which is explained later in more detail, plays an important role of providing continuity over time as changes occur both within and surrounding the partnership. Additional GCPEP staff has been added to support strategies and actions set by the Steering Committee.

The GCPEP Framework

It was decided that a Steering Committee would allow the GCPEP to function best because each partner would have equal representation and decision-making power. The GCPEP is guided by the Steering Committee, which is composed of two representatives from each of the partner organizations. Each partner organization chooses the representatives, which include one primary and one alternate contact. Representation at the Steering Committee meetings by one of the representatives from each partner organization is encouraged. Occasionally when a representative is unable to attend the meeting a designee chosen by the primary contact may represent the organization. The GCPEP Steering Committee, which meets biannually, has established guidelines to ensure efficient operation of the partnership.

Consensus is desired in reaching agreements among the partners during the Steering Committee meetings to ensure an equal voice for all. If there is minority dissent, then the majority is charged with finding an alternative solution acceptable to all. The goal is to always maintain productivity while keeping the consensus process efficient. Decisions are based upon Steering Committee voices only—the GCPEP staff does not vote. The Steering Committee functions best when everyone participates and ensures input from their respective organizations in all decisions.

The Steering Committee established GCPEP's mission: to develop a set of long-term strategies to abate the critical threats and to improve regional ecosystem health; to recover listed species of plants and animals and avoid new listings; to restore and protect large, connected, functional examples of native ecosystems; and to provide ecosystem goods and services compatible with the above to surrounding communities.

At each GCPEP Steering Committee meeting, a research, scientific, and general information manual that highlights all the partners' progress since the last meeting is distributed by the GCPEP staff to each representative (Compton et al. 2002b). The manual is then disseminated to the widest audience possible, particularly within and to the partners' agencies and supervisors. The Steering Committee recognizes the importance of exporting the lessons learned from the partnership to other landowners, organizations, community leaders, and the general public. Scientific research and knowledge gained remains limited in value if not shared with either those who manage land or influence the management of land.

Early Successes of GCPEP

GCPEP Memorandum of Understanding

The wording of the GCPEP Memorandum of Understanding (MOU) was established through a series of meetings to discuss the elements that each agency could agree upon, which would also fit within legal and inner-agency requirements. The MOU recognizes that the individual public and private agencies have legitimate and varied management

goals. The MOU is in no way intended to limit or constrain the individual goals and missions of each partner's organization.

The purpose of the GCPEP MOU is to develop and implement a voluntary and cooperative stewardship strategy to sustain the long-term viability of native plants and animals, the integrity of ecosystems, the production of commodities and ecosystem services, and the human communities that depend upon them.

The goals of the GCPEP MOU are to assist, share information, and coordinate efforts with the member partners in fulfilling the purposes of the MOU; to provide a model for local, state, federal, and private entities working together to fulfill the purposes of the MOU; and to communicate to the public the success in meeting both individual and common goals related to the MOU.

Conservation Area Planning

Conservation Area Planning, originally known as Site Conservation Planning, which is discussed in further detail later in this chapter, represents a tremendous partnership accomplishment by going beyond thinking within individual boundaries to thinking at a landscape level. The completion of a Conservation Area Plan allows for more effective management and restoration across large landscape areas, according to Compton et al. (2002a).

GCPEP Challenges

GCPEP has encountered many unexpected challenges, some of which required extensive cooperation to reach solutions. An initial challenge for the partnership was bringing together a committed, well-established nucleus of organizations. The establishment early on of the GCPEP Steering Committee to set overall goals and priorities was a challenge but led to a stronger partnership and much faster success on the ground.

When working through any challenging process it is important that each partner be cognizant of language to remain positive and solution-oriented in conversations, written documents, and while communicating with the media. Continuous and careful planning assists with the challenge of allotting the amount of time, staff, and resources necessary to manage required tasks, while maintaining and balancing the prioritization of crucial conservation opportunities that may be lost if not promptly addressed.

Challenges are experienced during the process of receiving approval and submitting funding proposals with numerous partner organizations. Clear and constant communication with each department involved is required to complete proposal submissions. Ensuring each partner involved in the agreement has reviewed and approved the proposal typically requires additional time. Close attention must be paid to tracking the progress and the reporting requirements for each project that is awarded funding to ensure the deliverables stated in the agreement are routed and received in a timely manner.

GCPEP Benefits Individual Partners

In addition to collective accomplishments, each GCPEP partner has achieved outstanding individual conservation successes. The partnership has played an important role in projects by providing assistance, scientific expertise, funding, in-kind donations, and public education support. Important contributions include facilitation of projects using unconventional methods such as cross-boundaries projects like RCW translocation between forests. Additional in-kind contributions to assist the partners include sharing supplies, equipment, and personnel required for support of landscape-scale conservation, such as office space and staff, sharing GIS data, burn prioritization modeling, endangered-species management, and road maintenance.

The following section highlights each individual GCPEP partner and briefly describes the lands they manage in the partnership.

Department of Defense

At 187,548 ha, Eglin Air Force Base holds the largest amount of land of all partners in the

GCPEP. Undeveloped lands serving as buffers for military operations contain old-growth longleaf pine forests and red-cockaded woodpecker clusters, along with other unique natural communities and species. Eglin projects include biodiversity restoration, native plant demonstration areas, and native plantings along roads and streams for erosion control. Eglin has led the way with developing a burn prioritization model and assisting with exporting it to other partner lands.

Naval Air Station Pensacola manages 3409 ha of forest, wetlands, shoreline, and outdoor recreation areas in the GCPEP. Naval Air Station Pensacola leadership highlights include maintaining the regional osprey population with 20 new fledglings produced annually, honeybee relocation programs, sea oat plantings for shoreline stabilization, International Coastal Cleanups, and Tree City USA designation on the base.

Naval Air Station Whiting Field manages 3795 ha in the partnership and natural resource efforts include gopher tortoise (*Gopherus polyphemus*) and flatwoods salamander (*Ambystoma cingulatum*) protection, public nature trails, Tree City USA designation, agricultural and timber projects, and regional support for conservation land purchases.

Florida Department of Environmental Protection

The Florida Department of Environmental Protection (DEP) manages 23,176 ha in GCPEP. The Coastal and Aquatic Managed Areas, a Division of DEP, manages four aquatic preserves. Beneficial efforts include Gulf sturgeon (*Acipenser oxyrinchus desotoi*) studies, shoreline vegetation restoration, and coastal cleanups. The Blackwater River State Park and the Yellow River Marsh Preserve State Park, also managed by DEP, maintains and restores lands and waters that provide a variety of recreational opportunities including swimming, canoeing, hiking, birding, botanizing, and camping.

Big Lagoon, Tarkiln Bayou Preserve, and Perdido Key State Parks bring coastal and barrier island habitats to the partnership, which are surrounded by urban development posing significant challenges with prescribed burning and roads leading into the properties. Ongoing projects in the parks include bird counts, protection of bird nesting areas, and beach mouse habitat restoration.

Florida Division of Forestry

Blackwater River State Forest is one of the largest state forest in Florida with 78,779 ha managed in the partnership. Working with GCPEP, the Blackwater River State Forest has increased erosion control efforts by using native plants to protect the entire Blackwater River watershed. The Division of Forestry has improved road management programs that construct stream crossings to protect water quality and aquatic habitat. Successful red-cockaded woodpecker recovery programs have also been implemented such as translocation of birds and installation of cavity inserts.

Pine Log State Forest with 2797 ha is the oldest state forest in Florida containing sandhills, flatwoods, cypress swamps, and titi forests located on the eastern border of the GCPEP. Point Washington State Forest with 6170 ha borders an area of rapid residential and commercial growth along spectacular, fragile coastal areas on the Gulf of Mexico and contains rare species such as white-topped pitcher plants (*Sarracenia leucophylla*).

Florida Fish and Wildlife Conservation Commission

The Florida Fish and Wildlife Conservation Commission (FWCC) manages the parcel of land and habitat between the Northwest Florida Water Management District and Eglin Air Force Base known as Escribano Point. Escribano Point is comprised of 472 ha, which is a mosaic of habitats including pine and scrubby flatwoods, inshore marine habitat, oak hammocks, wet prairies, and wetlands. Escribano Point also includes high-quality submerged plant communities with many rare plant species. The FWCC has technical knowledge

of endangered species, animal population records, bear information, game and nongame ecology, wildlife expertise, and prescribed fire, and provides assistance to landowners as well as operational support for the partnership.

International Paper

International Paper is a private timber and paper products company that has dedicated 9819 ha of crucial conservation lands to GCPEP, including an important connector parcel linking Eglin Air Force Base and the Blackwater River State Forest. This parcel serves as a critical wildlife corridor for wide-ranging species such as the Florida black bear and provides important habitat for the rare Florida bog frog (*Rana okaloosae*) and flatwoods salamander. With GCPEP support, the company implemented a cooperative gully restoration project that helped to protect Florida bog frog habitat. Additionally, International Paper has included other important conservation lands within the Blackwater River watershed to GCPEP.

National Forests in Alabama

Conecuh National Forest in south Alabama is composed of 33,909 ha of longleaf pine habitat. Conecuh has received recognition for continually meeting annual prescribed burning goals. Conecuh sets examples through successful longleaf pine restoration and monitoring projects and the use of native grasses for road maintenance and erosion control. The forest also protects crucial Gulf sturgeon spawning areas and red-cockaded woodpecker nesting habitats.

National Park Service

More than 80 percent of Gulf Islands National Seashore is under water, but the barrier islands are the most outstanding features to those who visit. The Seashore stretches 170 km from Cat Island in Mississippi to the eastern tip of Santa Rosa Island in Florida, but only the portions within the Florida Panhandle are enrolled within GCPEP which consists of 10,034 ha. There are snowy-white beaches, sparkling blue waters, fertile coastal marshes, and maritime forests all of which are important GCPEP conservation targets. This is the most highly visited GCPEP natural area and the National Park Service uses the opportunity to focus on resources interpretation and education.

Nokuse Plantation

Nokuse Plantation is an ambitious and exciting project by a private conservation buyer. The project includes 21,448 ha east of Eglin Air Force Base that was chosen for the biological significance and the importance of connectivity to GCPEP as a wildlife corridor and to restore highly degraded lands. The objective of the visionary project is to protect regionally significant areas that may serve as a critical wildlife habitat for species such as the Florida black bear and to restore the historical longleaf pine ecosystems.

Northwest Florida Water Management District

One of the five water management districts in Florida, the Northwest Florida Water Management District (NWFWMD) is charged with protecting watersheds, providing drought control, and maintaining drinking water supplies in the Florida Panhandle. The NWFWMD manages 45,715 ha in the GCPEP area, which serve to protect rivers, associated floodplains, estuarine systems, and wildlife habitat. With GCPEP assistance the NWFWMD has added to its landholdings, conducted important prescribed burns on wetland savannas, and constructed trail systems for public use and education.

The Nature Conservancy

The Nature Conservancy manages 2056 ha with its Perdido River Nature Preserve and Choctawhatchee River Delta Preserve. Participation in GCPEP has helped The Nature Conservancy advance its mission to conserve biodiversity in northwest Florida and south Alabama through community involvement, landscape-scale conservation and restoration, and land acquisitions.

New Partners

Other important conservation lands may be added to the GCPEP with unanimous agreement from the Steering Committee and the landowners. The Steering Committee has established the following criteria to admit new partners to the GCPEP:

1. Understands and supports the purposes of the GCPEP and can clearly articulate both what their organization has to gain from and what they plan to contribute to the partnership.
2. Meets one or both of the following criteria:
   (a) Manages or owns significant land or water holdings in the GCPEP geographic area with strong preference given to those sharing a border with one or more existing GCPEP partners, or
   (b) Can offer significant expertise in one or more of the following management or conservation disciplines: forestry, water and watersheds, wildlife, biodiversity, prescribed fire, endangered species, or nature-based recreation.
3. Commits to appointing and sending at least one, and preferably two, representatives to all GCPEP Steering Committee meetings and other functions as needed.
4. Agrees to lead or co-lead one or more cooperative GCPEP projects per year.
5. Agrees in principle to provide financial or operational support to the GCPEP, either as direct funds or as in-kind support, and agrees to seek additional resources to support cooperative projects.
6. Understands and agrees to adhere to the GCPEP operating guidelines.
7. Agrees to keep all appropriate people within their organization informed and knowledgeable about the GCPEP purposes and activities.

Partnership Staff

Multiple partners contribute the necessary staff to facilitate the GCPEP. The GCPEP staff provides assistance, support, coordination, and information to the Steering Committee and their organizations. The GCPEP staff does not vote on any topics. The Conservation Area Plan, which was completed by the Steering Committee, provides guidance for the staff.

To enable adequate operations, a partnership staff is recommended whose primary focus is the overall partnership. These positions may include a project director to lead important meetings and coordinate multiple projects; scientists to lead restoration, research, and monitoring; and a program manager to facilitate a wide range of administrative and financial tasks. This office provides a central location for functional communication among the different partners.

Approaching all interactions with flexibility and accommodating such a diverse group enables the staff to take advantage of vast opportunities. Remaining focused on priorities that have been identified, while at the same time incorporating unexpected changes, provides a dynamic forum for coordinating multiple projects. While attending to the requests of one individual partner, it is also essential to ensure that all of the partners receive a timely response when requesting assistance. Depending on the size of the landscape there may be a considerable amount of travel involved to address all of the partners' needs.

Low (1999) stated that the local project staff, particularly the project director, is the single most important element of success and the local partnership staff is possibly the most important factor that determines the success of a partnership for landscape-scale conservation. An ability to multitask and attend to numerous issues with various degrees of prioritization is essential. Some of the qualities include commitment to the future; ability to handle risk and uncertainty; ability to form constructive relationships with all kinds of people; and aptitude for problem solving.

Support Staff

Good project support for the GCPEP has been critical and extensive. According to Low (1999), no local partnership, particularly in the early stages of development, should be an

island. Each project needs high-level assistance from a support team. A local project needs to be able to call upon experienced ecosystem conservation practitioners to serve as sounding boards for ideas, to provide advice and counsel, to provide contacts with outside sources of assistance, and to provide hands-on help. The local GCPEP staff has received tremendous additional support from the partners' regional offices, providing assistance in numerous areas including conservation science, land protection, government relations, communications, and operations.

Conservation Area Planning

Once a partnership is established, use of a planning framework tool is highly recommended to help maintain focus, assist with prioritizing, and make the best use of limited time and funding. Any type of conservation planning must overcome many challenges, one of which is the need to simultaneously accommodate many different, sometimes competing, goals, only one of which may be conserving biodiversity. This planning tool also needs to be readily available, reasonably fast, and cost-effective. The GCPEP utilized The Nature Conservancy's Conservation Area Plan process identified by Low (1999). With this planning framework tool, the partners were able to determine local threats to the long-term persistence of conservation targets, which include specific focal species and natural communities at a site, and to identify the most important management actions needed to conserve selected conservation targets.

The Conservation Area Plan approach explicitly recognizes that humans are part of ecosystems, ecosystems are complex moving targets, ecosystem structure and composition are controlled by processes operating at many different spatiotemporal scales simultaneously, and the scientific community has little understanding of the structure and function or life history needs of most of the ecosystems and species that they seek to conserve. Thus, all knowledge is treated as provisional, and the planning process becomes as important as the information used in planning (The Nature Conservancy 1998).

The Conservation Area Plan is broken down into a Five-S Framework (The Nature Conservancy 2000). The Five S's are:

- Systems: the conservation targets at a site and the natural processes that maintain them
- Stresses: the causes of destruction, degradation, or impairment of the systems at a site
- Sources: the agents or activities generating the stresses
- Strategies: the types of conservation activities deployed to abate sources of stress (threat abatement) and enhance or restore the system (restoration)
- Success: measures that monitor the effectiveness of implemented strategies often involving tracking of biodiversity health and threat abatement at a site.

For the purposes of this chapter, the planning process will be briefly described. In order to gain a thorough understanding of the process, it is highly recommended to refer to The Nature Conservancy's "Landscape-Scale, Community-Based Conservation: A Practitioner's Handbook" (Low 1999).

The first "S," Systems, captures the conservation targets at a site. Conservation targets include significant and possibly unique ecosystems, biological communities, and species. Identifying the appropriate targets is the single most important step, since it lays the foundation for all subsequent steps in the planning process. The goal is to choose conservation targets that represent multiple levels of biological organization, have different life history requirements, depend on different ecological processes, and encompass a variety of different spatial scales. In effect, planning targets act as conservation umbrellas or surrogates, however imperfectly, for all other target species and natural communities occurring in the geographic area. Thus, targets, whether community- or species-level, are used to cumulatively address the ecological requirements for all species and communities occurring at a site.

After the selection of conservation targets, key ecological attributes associated with each of the targets are identified and defined. This important step allows for accurate assessment of target viability, threats to the targets, and subsequent strategies identified to abate the threats. It also allows the planners to better understand and identify the data gaps and uncertainties associated with the targets and their respective key ecological attributes.

The next two "S's" in the framework, Stresses and Sources, combine to determine the threats to a system. In order to develop effective conservation strategies, one must understand both the stresses affecting the conservation targets and their key ecological attributes, and the sources of stress. In this stage of the planning process, after identifying the major stresses to the targets, the stresses are then ranked based upon the severity and scope of damage. For each stress there may be one or more sources of stress. After the major sources of stress are identified, they are ranked according to specific guidelines. The source is what managers must focus on for threat-abatement strategies.

After having identified and ranked what the primary critical threats are to the conservation targets, conservation strategies are identified based on their ability to abate the threats to key ecological attributes of the conservation targets and ultimately improve and/or maintain target viability or health. Strategies can be either threat abatement, which focuses on preventing, diminishing, or removing one or more sources of stress, or restoration, which directly enhances or restores the viability of the conservation target. When identifying and developing strategies, it is important to first consider an array of strategic approaches and then formulate a suite of potential strategies. Next, evaluate and rank the potential strategies as to their impact and feasibility in order to identify the top priorities for immediate action.

The last "S" in the framework is Success. Measuring conservation success is an important step in order to monitor whether or not actions or implemented strategies are having the desired and anticipated outcome. Success can be defined as making substantial progress toward the long-term abatement of critical threats and the sustained maintenance or enhancement of biodiversity health at sites. Commonly, it takes a long time for implementation of a conservation strategy to manifest in the actual improvement or maintenance of target viability and health, signified by desired performance of indicators of biodiversity health. Therefore, indicators are needed and used to account for incremental short-term success. These indicators can reflect the capacity to implement strategies. The three key factors that can account for early success within a project such as a partnership are: project leadership and support, strategic approach, and adequate funding.

As a planning tool, the Conservation Area Plan should be adaptive in order to make accommodations for individual circumstances. For instance, GCPEP used the Five-S Framework as a foundation, which was modified and built upon to develop the overall GCPEP Conservation Area Plan. When the partners first established the partnership, one of the first agenda items for planning was to share individual land management conservation objectives. From these individual objectives, the partners then collectively prioritized overall GCPEP objectives. It was these conservation objectives and the process used in identifying them, as well as the identification of common challenges and conservation issues that laid the foundation for the Conservation Area Plan process.

The agreed-upon GCPEP objectives in priority order were:

1. Conserve viable populations of target species
2. Introduce relatively natural fire regimes and protect key ecotypes
3. Protect urban interface and reduce fragmentation by use of conservation easements
4. Control erosion in ecologically sensitive areas
5. Manage recreation and public access to maximize compatibility with conservation objectives

6. Increase communication, interaction, and training among partners
7. Increase inventory and monitoring to further adaptive management
8. Increase public education and stakeholder involvement
9. Share resources on priority projects
10. Secure outside funding and support
11. Inventory and control exotic species
12. Protect aquatic resources
13. Increase understanding of successful economic management of longleaf pine
14. Restore and manage the longleaf pine ecosystem
15. Recover the red-cockaded woodpecker
16. Manage populations of game species
17. Conserve functional community types

From these objectives, a list of potential conservation planning targets was identified. Then, using the partners' knowledge of the GCPEP area and the ecological analysis done by Hardesty and Moranz (1999), the partners selected, by consensus, a subset of targets. These 18 primary conservation-planning targets included 8 species and 10 natural communities. The 8 species were chosen because they were declining across their range, they had large area requirements (relative to their body size), they were found on the majority of GCPEP lands or waters, and they would not necessarily be well protected through appropriate management of natural community-level targets. The 10 communities were chosen because they are important for facilitating functional ecological processes and each included many rare, threatened, endangered, and/or ecologically significant species.

The GCPEP conservation targets identified in the Conservation Area Plan are:

- Alluvial rivers/floodplains
- Barrier island complex
- Blackwater rivers/floodplains
- Depression wetlands
- Estuarine systems
- Fish/mussel complex
- Flatwoods salamander (T)
- Florida black bear (t)
- Florida bog frog (e)
- Gulf sturgeon (T)
- Longleaf pine sandhill matrix
- Mainland sand pine scrub
- Okaloosa darter (E, e)
- Pine flatwoods matrix
- Red-cockaded woodpecker (E)
- Seepage slopes
- Steephead stream/slope systems
- Upland game birds

T = federally threatened
t = state threatened
E = federally endangered
e = endemic to GCPEP lands

In choosing these 18 primary conservation-planning targets, GCPEP deviated from the recommendations in the Five-S Framework. The handbook recommends that no more than eight focal targets be chosen; however, due to the large land area that was enrolled in the partnership and the large number of varying partner needs, a larger number of targets was deemed necessary. Also, based upon the partners' needs that were identified through the objectives, a species target (upland game birds) was chosen that might not have apparent "ecological" significance. Game birds were chosen because several partners identified this species group as one for which they needed assistance and guidance with regard to population management, in order to meet particular land management objectives.

Once the targets were identified, GCPEP staff met with each partner individually to conduct threats analyses for the targets that occurred on the lands they manage. During these sessions, which included the partners' scientists and managers, partner comments regarding specific targets were also incorporated. The GCPEP staff combined each of the individual partner target threat analyses into an overall GCPEP target threat analysis. This allowed the partners to gain a sense of the threats per target across the landscape as well as on individual properties. The final step was to compile overall stresses and sources (overall threats) for all of the GCPEP conservation targets. This part of the planning process is a work in progress since it is still being determined how to obtain a

more accurate picture by weighting the rankings of the stresses and sources based on the number of conservation targets and the number of partners affected.

Many threats were identified as being directly or indirectly related to the burgeoning growth of residential and commercial land uses in the region over the last decade. This growth has been forecasted to increase even more so over the next decade. With this growth have come increased land and water supply demand, recreational pressures, water quality degradation, strain on infrastructure, and other pressures on public and natural resources.

According to Hiers et al. (2002), from 1990 to 2000, the population of the seven-county GCPEP area increased by 18.5%. In Florida, the populations of Escambia, Okaloosa, Santa Rosa, and Walton counties increased by 12, 19, 44, and 46, respectively. Walton and Santa Rosa counties rank in the top ten fastest growing counties in Florida between 1990 and 2000.

The threats analysis process identified a number of primary threats that endanger terrestrial and aquatic targets. These threats can be considered "killer threats" to several of the targets. The biggest terrestrial "killer threat" identified by the partners was altered fire regime (stress) due to inadequate or incompatible fire management (source). These sources included, but were not limited to, the partners' ability to burn, the seasonality of burns, and the placement of plow lines. Another terrestrial "killer threat" identified was decreased reproductive fitness (stress) due to demographic isolation (source).

The identified aquatic "killer threat" concerned the hydrological and ecological impacts (stress) that a proposed dam (source) would have within one of the five watersheds within GCPEP. Another aquatic "killer threat" was alteration to the natural hydrologic, chemical, and physical characteristics of aquatic systems and subsequent degradation of aquatic ecological community and species integrity (stress) due to incompatible land use practices in agriculture, recreation, road construction and maintenance, forestry, and urban development (source).

The GCPEP staff then selected ten strategies considering all of the partners' conservation objectives, issues, and challenges, and their ability to abate threats to the identified 18 conservation targets as explained through the threats analyses. The following were identified for each strategy: the overall goal, the partner contacts for whom GCPEP staff will work, the potential expected accomplishments, and the conservation targets addressed by the strategy.

The issues that the ten GCPEP strategies address are as follows:

- Inadequate/incompatible fire management
- Incompatible development
- Inadequate/incompatible dirt roads, utility corridors, culverts, or clay pits management
- Surveying, mapping, and monitoring of conservation targets
- Incompatible recreation
- Invasive and native species management
- Inadequate/incompatible agriculture management
- Inadequate/incompatible forestry management
- Internal and community GCPEP communications and education
- Illegal trash dumps

After the strategies were selected, specific action items were identified that would accomplish the overall goals of the strategies. For each of the strategies, the partners prioritized the actions, which served as the basis for current and future GCPEP projects and activities.

As was mentioned earlier for the last "S," Success, early success can be shown with leadership and support, a strategic approach, and adequate funding. Early on, the GCPEP partnership concept appeared to be potentially successful. Since then, the partnership has proven effective in minimizing and eliminating critical threats due to the commitment of the partners to accomplish the top action priorities chosen in the Conservation Area Plan. A few of the top action project categories include prescribed fire, endangered species management,

and land protection. They are described below. Projects can range from assisting individual partners at specific sites, to landscape-scale in scope, involving coordination with multiple partners.

Prescribed Fire

Longleaf-pine-dominated sandhills and flatwoods provide the matrix within which many other communities, such as seepage slopes and depression wetlands, are embedded. These embedded communities require the same prescribed fire treatments as surrounding sandhills and flatwoods. Others, such as baygalls, have a less frequent fire return interval, approximately every 50–100 years. The exceptional diversity of animals and plants in the GCPEP landscape is a result of frequent fire. For instance, the federally endangered red-cockaded woodpecker depends on fire-maintained longleaf pine sandhills and flatwoods for foraging within the understory. The federally threatened flatwoods salamander also depends on fire to maintain the necessary ecotone of the depression wetlands where they breed (Hardesty et al. 1999). According to Provencher et al. (2000), plant diversity on fire-maintained ecosystems in the GCPEP is very rich: as many as 45 plant species have been found in 400-m^2 plots and at least 293 species of plants have been identified within sandhills on Eglin Air Force Base lands. Understory species richness and cover have been positively correlated with insect species abundance and biomass. Fire-adapted understory plant species also play an important role in this ecosystem by carrying the fire that limits the invasion of competing hardwoods and sand pines.

Significant partnership support for fire management exists, as evidenced by: prescribed burning on public lands and cooperative GCPEP prescribed burns, annual smoke management meetings, completion of a peer-reviewed landscape-disturbance model, partner involvement in a fire council, and the start-up of an Ecosystem Support Team that will provide prescribed burning assistance across GCPEP lands.

A priority conservation objective identified in the GCPEP Conservation Area Plan is the reintroduction of natural fire regimes to protect key ecosystems, embedded communities, and species. The challenges that led to incompatible and inadequate fire management being identified as a "killer threat" included insufficient amount of area burned, insufficient return of fire intervals, and resistance to growing season burning due to public misconceptions.

Collaborative work at Eglin led to the development of an innovative landscape disturbance computer model that simulates management of longleaf pine habitats in modeled landscapes. The landscape disturbance model creates "movies" of expected landscape changes over time resulting from different management scenarios. The model identified the need to burn on a shorter return interval than previously planned. Eglin and the GCPEP are collaborating to continue the development of a spatially explicit model that uses GIS data layers to evaluate ecological condition of upland longleaf pine ecosystems, which will ultimately help to prioritize management actions across the landscape. Another effort is the development of a spatial model that will help prioritize limited prescribed fire resources to areas where fire is most needed.

Development pressures are intense across the GCPEP landscape and have led to increasing wildland–urban interface challenges such as lack of prescribed fire near urban areas due to public misconceptions and concerns about fires being conducted close to neighborhoods. The wildland–urban interface challenge was highlighted when in 1998 the wildfire season proved to be devastating in Florida: nearly 2300 wildfires burned almost 202,500 ha throughout the state, and more than 300 homes and 30 businesses were damaged. As a result, greater statewide emphasis has been placed on managing the wildland–urban interface. The Division of Forestry, along with the GCPEP has created several fire teams to be proactive in the prescribed fire management of

these wildland–urban interface areas in order to decrease the high fuel loads.

Endangered Species Management

Partners are working together to improve habitat and recover populations of several rare and endangered species, including the flatwoods salamander, the Florida bog frog, the Gulf sturgeon, the Okaloosa darter (*Etheostoma okaloosae*), and the red-cockaded woodpecker. The red-cockaded woodpecker, a medium-sized woodpecker that inhabits open, mature pine or pine-oak woodlands, was federally listed as endangered under the Endangered Species Act due to dramatic declines that had occurred across their range. During the previous decade the population had also declined in the three main population centers within the GCPEP landscape: Eglin Air Force Base, Blackwater River State Forest, and Conecuh National Forest. These rare woodpeckers have often been labeled "indicators" of a healthy ecosystem. They depend upon southern pine forests managed well with prescribed fire, midstory management, and stand density control.

Several research studies suggest that RCW productivity is directly related to the diversity and quality of the understory plant–insect community. One study at the Savannah River Ecology Laboratory in South Carolina by Hanula and Franzreb (1998) observed that up to 70% of the prey captured by red-cockaded woodpeckers below the canopy was mainly from the soil/litter layer. In addition to healthy ground cover maintained by regular prescribed burning, the woodpeckers also require old pines for nest cavity construction. Very few old-growth pine trees remain, another limiting factor across the range of the RCW. RCW family groups also need large habitat areas, defending home ranges of 61–202 ha.

The local recovery effort for the RCW has been a GCPEP success story. Several of the partners have worked cooperatively to reverse the RCW's decline. Across the GCPEP landscape the RCW population is increasing due to a cooperative and intensive habitat improvement program ranging from increased lightning season prescribed burning, installation of cavity inserts, and supplementing the population with females from other southeastern population strongholds. In addition, partners share equipment and training opportunities.

The RCW population at Eglin Air Force Base has increased significantly over the last 10 years (Moranz and Hardesty 1998). In the late 1980s Eglin lost a military test mission due to a jeopardy opinion from the U.S. Fish and Wildlife Service. The main reason for the jeopardy opinion was the lack of information about the population of two endangered species: the RCW and the Okaloosa darter. This loss of a mission sparked the development of a management program that has produced the fastest growing large population of RCWs. Populations on Eglin Air Force Base lands have grown from 217 active clusters of cavity trees in 1994 to 308 active clusters currently.

A complete systematic survey of RCW habitat was reported in 1993 and a monitoring and banding program was established in 1992. Along with the continued survey and monitoring program, Eglin has developed an intensive management program, which has included constructing over 800 artificial cavities, translocating over 40 birds, conducting growing-season fires, and protecting cavity trees. Eglin has also completed the first landscape-level research program to determine the best combination of management techniques to increase the population.

At Blackwater River State Forest currently all RCWs are banded using color leg bands for identifying and monitoring the birds' activity. All tree clusters are surveyed for activity yearly. All nestlings and immigrating adults are color-banded yearly. During the 2001 breeding season, 26 of 27 clusters had successful nests. Of the 21 nests where chicks were banded, 42 nestlings were produced. Of this total, 19 nests fledged 34 young, with 13 males and 21 females. The artificial cavity insert program has also proven to be successful, with 67 out of 130

installed inserts currently occupied by RCWs. The population has also been augmented with 24 juvenile RCWs translocated from other populations, including Apalachicola National Forest and Eglin Air Force Base. These intensive management efforts have succeeded in stopping the decline of the RCW population on Blackwater. In a period of 4 years the RCW population has increased from 13 active groups and 6 single males, a total of 19 clusters in 1998, to 33 active groups and no single males, a total of 33 clusters.

Conecuh National Forest, in Covington and Escambia counties of Alabama, manages 22 active RCW clusters. Although a smaller population compared to that of its neighbors to the south, it has increased steadily from the 14 clusters that remained after Hurricane Opal in 1995. In keeping with the RCW Recovery Plan, the U.S. Forest Service maintains an inventory of both active and inactive nesting sites, monitors nesting activity, bands fledglings each spring, provides "recruitment" habitat by installing artificial cavities, and maintains existing habitat by prescribed burning approximately 10,000 ha each year. In addition, the agency is developing future habitat for the RCW by actively working to restore the native longleaf pine ecosystem.

Land Protection

Land protection was chosen as a high-priority strategy by the GCPEP Steering Committee due to the large number of inholdings, buffers, and connectors needed to protect the biological diversity of the GCPEP landscape over the long term. In addition, the partners recognized the benefit these lands would provide concerning prescribed burning, especially by reducing smoke management concerns and urban–wildland interface issues.

The Florida Forever Program is the state's blueprint for conservation of the unique natural resources and is the largest program of its kind in the United States. The program encompasses a wide range of goals, including: restoration of damaged environmental systems, water resource development and supply, increased public access, public lands management and maintenance, and increased protection of land by acquisition of conservation easements.

The Nature Conservancy, Florida Division of Forestry, and International Paper have worked closely on numerous Florida Forever projects, one of which is Yellow River Ravines, a 6500-ha project. The purchase of this important parcel would connect the two largest landholdings in GCPEP, Eglin Air Force Base and Blackwater River State Forest, and also includes a 1600-ha inholding in the state forest. The GCPEP Steering Committee has long recognized the importance of the Eglin–Blackwater connector parcel as a significant conservation land and as a buffer for Eglin Air Force Base. The property is a Stage 1 Priority Site identified in The Nature Conservancy's East Gulf Coastal Plain Core Team (1999). The Florida Game and Freshwater Fish Commission has also identified it as an important conservation area in the report "Closing the Gaps in Florida's Wildlife Habitat Conservation System" by Cox et al. (1994). The property includes important tributaries of the Yellow River that protect water quality and species diversity and which provide habitat for several rare species. Other important parcels in the project area buffer Blackwater River State Forest and Naval Air Station (NAS) Whiting Field.

The following are significant reasons to protect this and other GCPEP area lands long term:

1. Military Mission—Protecting the military mission is dependent upon ensuring adequate acreage for military training. Encroachment along the boundaries of a military base can have negative impacts on mission capacity through restrictions on low-level flights over developed areas or noise concerns from neighbors. The connector parcel is adjacent to an important Ranger training area along the Yellow River and an outlying field for NAS Whiting Field. Protecting this land would also provide long-term habitat for several rare species. Increasingly, as habitat around

bases is developed, more habitat demands fall upon the bases themselves. It then becomes more and more difficult to meet the military mission while supporting the rare species displaced from surrounding developed habitats.

2. Conservation Significance—The Yellow River Ravines land would serve as a critical wildlife corridor between Eglin Air Force Base and Blackwater River State Forest. Rare species include the Florida bog frog, flatwoods salamander, and Florida black bear. Natural communities of significance include steephead stream/slope systems and depression wetlands. The rare species and communities found on the connector parcel are also being managed for recovery on Eglin Air Force Base.
3. Water Quality/Quantity—Several creeks in the corridor, including Weaver, Garnier, and Julian Mill creeks, feed the Yellow River. This area serves as a water recharge area for Santa Rosa County. Planning for water recharge is important in an area that is dependent upon water from the shallow sand and gravel aquifer. Protecting water quality and quantity is important for biodiversity protection, providing water supply, and protecting military training that is dependent upon adequate water flow in the Yellow River watershed.
4. Recreation and Hunting—As the region continues to grow and develop, recreational space will become more limited and demands on remaining space will increase. The Yellow River Ravines connector parcel, located in Santa Rosa County, could decrease future recreational demands on Eglin and provide increased recreational opportunities for area residents and visitors alike.

The Yellow River Ravines project was approved by the State of Florida as an "A-ranked" Florida Forever Project, assuring funding for the project. Additional projects, which protect and buffer important conservation lands, were also approved by the State of Florida including the Northwest Florida Greenway Project. This 100-mile-long and 5- to 10-mile-wide conservation corridor will link Eglin Air Force Base to Apalachicola National Forest and the Gulf of Mexico. All of these projects were strongly supported by GCPEP, other state and federal agencies, the local county commission, environmental and recreational organizations, and the general public.

GCPEP has been instrumental in moving land and water management and land protection from being controversial community issues, historically, to the present, being more strongly supported issues. This has, in part, been due to a tremendous education effort aimed at community leaders and politicians. The GCPEP staff has served as an important communication and support link between the partnership and the surrounding communities.

Conclusion

Large-scale restoration of the longleaf pine ecosystem may be more effective if public and private landowners choose to work together in landscape-level partnerships. When partners who restore and manage longleaf pine use science-based planning as a common goal, partnerships can succeed though individual partner missions may vary widely. Completion of a Conservation Area Plan allows for more effective and efficient management and restoration across large landscape areas. Given limited funding for personnel, equipment, and projects, this method of planning is recognized by many to leverage strategies to accomplish short- and long-range goals.

The success of any partnership depends on respect and cooperation and may operate more efficiently with a staff dedicated to the effort. More may be accomplished when combining expertise and resources to effectively manage individual lands, while at the same time meeting the challenges of sustaining larger ecosystems. By doing this, GCPEP serves as an example of how organizations can work together to achieve common and important goals such as restoring and maintaining the longleaf pine ecosystem. This chapter may provide a "blueprint" for partnerships to set conservation

and restoration objectives and priorities for both the individual partners and the collective partnership.

Acknowledgments

We extend gratitude to each of the GCPEP partners' Steering Committee Representatives and to their organizations for their commitment to, and support of, the GCPEP. The time dedicated by each of the partners is vital to the strength and success of the partnership. We are also grateful to the many individuals, the governmental and nongovernmental agencies, and the other essential organizations, which contribute generous amounts of time, expertise, and resources to make the GCPEP an effective conservation tool.

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