

Candidate Conservation Agreement for the Gopher Tortoise First Annual Report

October 1, 2008 – September 30, 2009



Submitted to SERPASS

**Southeast Regional Partnership
for Planning and Sustainability**

February 2010

TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
INTRODUCTION	1
SECTION I EXECUTIVE SUMMARY	3
SECTION II PROPERTIES OR AREA COVERED.....	11
SECTION III LAND MANAGEMENT.....	17
SECTION IV SURVEYS AND INVENTORY	27
SECTION V POPULATION MANIPULATION	35
SECTION VI RESEARCH.....	39
SECTION VII LAND CONSERVATION	45
SECTION VIII EDUCATION AND OUTREACH.....	49
SECTION IX LEGAL PROTECTION MEASURES	57
SECTION X CCA AGENCY CONSERVATION STRATEGY	61
RECOMMENDATIONS.....	63
APPENDIX I GOPHER TORTOISE CCA REPORT FORM.....	65

(This page left intentionally blank.)

INTRODUCTION

The gopher tortoise (*Gopherus polyphemus*) is endemic to the southeastern United States and has been in population decline in recent years. While the tortoise is federally-listed under the ESA in the western portion of its range, it is currently a candidate species for listing in the eastern portion. In 2006, the United States Fish and Wildlife Service received a petition to federally list the species throughout its non-listed range which includes Florida, Georgia, Alabama, and parts of South Carolina. As a response to the listing petition, stakeholders representing the four states' fish and wildlife agencies, branches of the Department of Defense, and related non-profit organizations drafted and executed a Candidate Conservation Agreement (CCA).

The purpose of the CCA is to address species management and conservation throughout the gopher tortoise's non-federal listed range. State and federal representatives from Florida, Georgia, Alabama, and South Carolina formed a partnership to develop a Candidate Conservation Agreement (CCA) for the gopher tortoise. The goal of the CCA is to organize a cooperative range-wide approach to gopher tortoise management and conservation in its eastern range. The CCA allows the signing parties to leverage knowledge and funding within a common conservation approach and framework. The CCA is voluntary and flexible in nature so that various conservation and management actions can be agreed to and implemented at different levels by the signing parties.

Established under the CCA, the Gopher Tortoise Team (GTT) is charged with implementation of the Agreement. The position of Chair rotates alphabetically among the four states' wildlife agencies, starting with Alabama in the first year of implementation, followed by Florida, Georgia, and South Carolina. Florida currently serves as Chair of this team through June 30, 2010. The Chair's responsibilities include organizing the annual meeting of the parties and compiling the annual report required under the CCA. The first year of implementation additionally saw the development of a standardized report format. This format will be used by all parties to help support an organized conservation approach and encourage uniform actions and reporting, integrate monitoring and research efforts with management, and support partnership formation.

In May 2009, the first annual meeting of the GTT was held at Georgia's *Charlie Elliott Wildlife Center*. Approximately thirty-five participants representing the thirteen parties attended the two-day meeting. During the meeting, parties presented conservation programs and actions currently being implemented by each agency. The meeting provided a great opportunity to meet all the representatives and establish a future work plan for the reporting requirement. The members of the GTT also discussed and approved the Longleaf Alliance's new participation as a party to the agreement.

Another outcome of the meeting was the formation of a small sub-team that together developed the standard report format (*Appendix 1*). Upon final draft, the proposed format was circulated to the entire team for input and approval. Furthermore, the Department of Defense Conservation Committee also approved the report format in September 2009. Standardized topics in the report include:

- Acres included by protection level
- Acres managed and/or restored
- Invasive exotics treated
- Population trends/survey results
- Population manipulation
- Research
- Land conservation
- Education and outreach
- Legal protection measures.

GTT established a shared website for all parties to use as an information clearing house and centralized reporting portal.

Comprehensive reports were submitted by one representative from each party by December 1, 2009, each using the new online report form or equivalent. Although the due date was collectively decided and accepted, many parties were not able to submit the report until later in December 2009 and January 2010. With the exception of one party, all other parties submitted a report for the period covering October 1, 2008 – September 30, 2009. It is important to note that not every section of the report is applicable to every party. Parties with no information appropriate to a particular section have indicated this with “not provided,” “not applicable,” or “none provided this reporting period.” Reports were submitted by each party’s point of contact and compiled by the Chair with minimal edits.

Since this is the first annual report under the CCA, a brief summary of recommendations for future reporting follows at its conclusion. We owe a debt of gratitude to all the parties for compiling this information on behalf of their agency and on behalf of gopher tortoise conservation. This first annual report is a landmark for range-wide conservation of this keystone species.

SECTION I EXECUTIVE SUMMARY

ARMY

The Army has gopher tortoise on five installations within the eastern portion of the gopher tortoise range: Fort Rucker, AL; Camp Blanding, FL; Fort Benning, GA; Fort Gordon, GA; and Fort Stewart, GA. All installations include conservation of gopher tortoise in Integrated Natural Resources Management Plans. These long-range plans provide for protection and enhancement of habitat and relocation of tortoises as necessary to avoid harm from human activities. The area of habitat or potential habitat on these installations is estimated at over 135,000 acres. The Army conducted gopher tortoise management actions on 76,538 acres including 69,963 acres of prescribed burning. Surveys indicate the Army has a population of about 15,000 gopher tortoises and about 14,000 active burrows. Army installations have translocated 645 tortoises since 1997. Education and research is robust, and policies are up to date and adequate. NOTE: Month and day dates in the submission are not accurate; they were all designated 1/1/year to accommodate the data base. In most cases the day and month are not known or needed.

NAVY

The US Navy has six installations within the eastern range of the Gopher Tortoise (GT). Two installations, Naval Support Activity Panama City and Naval Station Mayport, do not have GT populations. The four installations with GT populations include NSB Kings Bay in southeastern Georgia, NAS Jacksonville in northeastern Florida, and NAS Whiting Field and NAS Pensacola in the western Florida panhandle. NAS Whiting Field also has lands in southern Alabama. Each installation has an active and current Integrated Natural Resources Management Plan (INRMP). This report summarizes GT management activities for the four installations that have GT populations from the timeframe October 1, 2008 to September 30, 2009. Individual installation reports are available upon request. During this reporting period, the Navy managed over 12,000 acres of tortoise habitat, prescribed burned 1489 acres, reduced encroaching brush on 147 acres, treated 68 acres of invasive species, and eliminated 95 feral hogs. Surveys discovered 685 active burrows and 304 inactive burrows on Navy lands and a population estimate of 428 individuals. Issues with disease and predation were determined to be absent. There were no translocations conducted this reporting period. One research study involving DNA blood sampling was conducted at NAS Whiting Field and NAS Pensacola. There were no gains or losses of habitat. Community outreach consisted of brochures and informational signage. No regulations, laws, or policies were changed or implemented, and there were no deviations or additions regarding the CCA Agency Conservation Strategy.

AIR FORCE

Avon Park Bombing Range, FL: Consists of approximately 107,000 acres in Highlands and Polk counties in peninsular Florida. Plant communities include mainly pine

flatwoods, oak scrub, pine plantations, dry prairie, oak hammocks, marshes, swamps, and cutthroat seeps. Gopher tortoises are most often observed in oak scrub and pine flatwoods. A three year baseline survey is currently underway to obtain population size, density, and basic demographic information; prescribed burning was conducted on 8000 acres of tortoise habitat and 535 acres were treated with herbicide for invasive plants control. We also conducted four briefings which included information on identification and avoidance of gopher tortoise.

Eglin AFB, FL: Eglin AFB has been surveying small areas of gopher tortoise habitat as well as conducting large scale habitat management in order to maintain or improve gopher tortoise habitat conditions. In addition, they have relocated several tortoises away from project areas to new locations in good habitat within Eglin.

MacDill AFB, FL: MacDill AFB is a relatively small base (5,638 acres) surrounded by the waters of Tampa Bay on three sides and dense industrial and residential development on its northern side. The base supports only a small gopher tortoise population, roughly 100 tortoises, spread across several colonies throughout the airfield and pine forest areas. Including the airfield and pine forest areas there is roughly 1,500 acres of suitable gopher tortoise habitat on base. The installation has made a concerted effort to protect and improve gopher tortoise habitat on the installation. They spent DoD annual O&S funding to improve habitat areas and worked with the base Plans and Programs office to avoid construction in gopher tortoise areas. The installation also worked with the Planning office to find a suitable alternative site for the proposed Explosive Ordnance Disposal facility which would have impacted tortoise habitat if constructed where planned.

Patrick AFB, FL: The 45th Space Wing (45 SW) consists of four major installations and several smaller annexes. The four major installations: Cape Canaveral Air Force Station, Patrick Air Force Base, Malabar Tracking Annex, and Jonathan Dickinson Missile Tracking Annex, are the only properties within the 45 SW on which gopher tortoises are known to be present. Total area of all four properties is approximately 18,385 acres, of which roughly 6,200 is considered suitable gopher tortoise habitat. Cape Canaveral Air Force Station (CCAFS) has, by far, the largest population of gopher tortoises of the four sites; approximately 95% of gopher tortoises at 45 SW properties are found at CCAFS. A population survey has not been completed for all of the sites; therefore, an accurate population estimate is not available at this time. Management of gopher tortoise habitat is accomplished through mechanical cutting and controlled burning, as well as through the treatment/removal of invasive vegetation. This information is presented in this report. All gopher tortoise relocations are conducted in accordance with the 45SW Gopher Tortoise Relocation Plan.

Tyndall AFB, FL: Gopher tortoises have been identified on three separate areas on the base (315 acres). These areas have been surveyed in the past either in support of missions or for general biological information. After an 18 month vacancy, a wildlife biologist was hired in January 2009. Longleaf pine restoration and frequent prescribed fire are used on the base which would benefit suitable tortoise habitat.

Moody AFB, GA: Moody AFB is located 10 miles northeast of the City of Valdosta in Lowndes and Lanier counties in south-central Georgia. Comprising approximately 11,000 acres of federally owned land, the installation includes the main base (5,039 acres), the adjacent Grand Bay Range (5,874 acres), and the Grassy Pond Recreational Annex (489 acres), located 25 miles southwest of the main base. There are approximately 1,000 acres of gopher tortoise habitat located on the installation. Gopher tortoise management is accomplished through projects identified in the Moody AFB Integrated Natural Resources Management Plan with concurrence by the Georgia Department of Natural Resources and the U.S. Fish and Wildlife Service. Current projects include: seasonal monitoring and surveys of known gopher tortoise populations; disease surveillance for Upper Respiratory Tract Disease; gopher tortoise movement studies in relation to military activities; gopher tortoise mark-recapture population demography study; habitat improvement/restoration through burning, chemical release, and mechanical means.

UNITED STATES MARINE CORPS

The Marine Corps has two installations that have/may have gopher tortoises and conduct some management. Marine Corps Support Facility Blount Island (MCSF Blount Island), located in Jacksonville, FL, has 15 acres of gopher tortoise habitat. In April 2009 a burrow survey identified 30 active burrows and 15 inactive burrows. Though, the Marine Corps is evaluating the possibility of relocating all gopher tortoises to a long-term protected site off of the installation.

Marine Corps Logistics Base Albany (MCLB Albany), located in Albany, GA, has 1400 acres of potential gopher tortoise habitat and utilizes prescribed fire to maintain and enhance this habitat. While no burrow surveys have been conducted to determine if gopher tortoise are actually present on MCLB Albany, there was a confirmed gopher tortoise death in Nov 2009 by an automobile.

UNITED STATES FOREST SERVICE

Gopher tortoises occur in both Covington and Escambia counties of Conecuh National Forest. Conecuh's gopher tortoise population is likely the largest in Alabama. The gopher tortoise and its burrows are protected on Conecuh National Forest by a Supervisor's Closure Order that bans the gassing of burrows and by timber sale specifications requiring protection of burrows. Management activities conducted for the restoration and maintenance of native fire ecosystems that support gopher tortoise include: Timber thinning in mature longleaf stands, timber harvest to restore native overstory species (longleaf), prescribed fire, chemical treatment and eradication of cogongrass, trapping and removal of feral hogs, native grass seed collection and propagation for future restoration needs, and educational efforts through outreach and interpretation.

The NFs in Florida's management activities for the maintenance/restoration of GT habitat for FY09 include: Timber thinning in mature longleaf stands, prescribe fire, NNIS

eradication, mechanical mowing of mid-story vegetation, road restoration activities, GT surveys, land enclosures via electric fence to prevent hog disturbance, seed collection and planting, fire line restoration, specific hog hunt in GT areas, and education efforts through signage in strategic locations in the forests.

UNITED STATES FISH AND WILDLIFE SERVICE

Restoration efforts are taking place at most National Wildlife Refuges (NWR), including prescribed burning. Comprehensive Conservation Plans (CCPs) have been developed for most NWR which include monitoring and management actions depending on the priorities of the refuge. Other management action may include pine thinning, exotic vegetation removal, and restoration of priority areas. There is also a need for more monitoring of gopher tortoises at most NWR.

ALABAMA

Gopher tortoise occurs in the lower coastal plain of Alabama in 16 counties. Populations in two counties in the western portion of its Alabama range are listed as threatened by the U.S. Fish and Wildlife Service. Throughout the unlisted portion of its range the gopher tortoise is protected from killing, taking, or possession by state regulations. Additionally in 2009, a motion was passed by the Conservation Advisory Board establishing a regulation prohibiting the practice of "gassing" tortoise burrows.

At this time Alabama Department of Conservation and Natural Resources (ADCNR) has no staff or budget dedicated to gopher tortoise conservation. Total habitat for gopher tortoises throughout the state is currently unknown. Where tortoises occur on lands under ADCNR control or ownership, they do benefit from efforts primarily intended to restore historic longleaf pine habitats.

Currently ADCNR owns or manages some 55,000 acres in the range of the gopher tortoise.

State Lands Division manages 23,000 acres in the non-listed range of the tortoise in six tracts with an additional 5,000 acres in Mobile County where the gopher tortoise is listed. The Division of Wildlife and Freshwater Fisheries owns or manages three tracts of approximately 27,000 acres in the unlisted range of the tortoise.

Additionally, ADCNR is providing funding for gopher tortoise research through its State Wildlife Grant program. Through its Department website, Outdoor Alabama, ADCNR makes available to the general public information on the life history of the gopher tortoise and information on state-funded research on the species.

FLORIDA

The Gopher Tortoise Management Plan was approved in September 2007 and the species was reclassified from a species of special concern to threatened. The overarching conservation goal of the management plan is to restore and maintain secure, viable populations of gopher tortoises throughout the species' current range in Florida by addressing habitat loss. Specific objectives include increasing the amount of protected habitat; conducting appropriate vegetation management to maintain gopher tortoise habitat (e.g., prescribed burning); restocking tortoises to protected, managed, suitable habitats where densities are low; and decreasing tortoise mortality on lands proposed for development. Each objective provides benchmarks and measurements against which progress toward the plan's goal can be assessed.

A suite of conservation actions are proposed for the plan's first five-year cycle. The extensive series of conservation actions outlined in the plan fall under the following broad categories: regulations, permitting, local government coordination, law enforcement, habitat preservation and management, population and disease management, landowner incentives, monitoring and research, and education and outreach.

This past year marked a pivotal point in gopher tortoise permitting. The Gopher Tortoise Permitting Guidelines were approved by the Commission in April 2008, with revisions approved in April 2009. Implementation of the gopher tortoise permitting guidelines occurred in phases throughout the FY 2008-09 and was fully implemented on April 22, 2009 when FWC's new online permitting system was launched.

Aside from reducing the use of paper, this new system has enhanced communication between permit applicants and FWC staff by sending notices and requests for additional information online. The system can also be attributed for the expedited review and issuance of all gopher tortoise permits. By June 30, 2009, 190 permits were issued from the online system. Other technological enhancements to the online permitting system include an eLearning course for homeowners who want to relocated tortoises, and a Google Maps permit locator tool was developed and is available on the website.

Coordination within FWC and with other state and federal agencies has progressed substantially this past year. An interagency working group was formed to address restocking tortoises onto state public lands where populations have been depleted. Staff also continue to coordinate with public and non-profit organizations to encourage and provide incentives for gopher tortoise conservation on private lands.

Data provided for this reporting period are summarized primarily by lands that were either part of the permitting system (recipient sites, impacted sites from development, etc) or from FWC managed lands. The FWC implemented new permitting guidelines in April 2009 that changed both the sites tortoises could be relocated to and the way that data are reported from permits. New recipient sites are permitted under this new system. Because most of the reporting period covered for purposes of the CCA annual report includes the "old" permitting system, most relocation were to what is considered "unprotected lands".

Many activities are reported for research, education and outreach, and land acquisition. A more comprehensive summary of land management activities and surveys and inventories will be forthcoming.

GEORGIA

The State of Georgia permanently protects 30,889 acres of tortoise habitat on Wildlife Management Areas, Natural Areas, Public Fishing Areas, State Parks, and Historic Sites. Land management beneficial to the gopher tortoise on these properties included prescribed burning of 18,170 acres, thinning or clear-cutting of 3,346 acres of off-site planted pines, removal of invasive sand pine from 758 acres, planting longleaf pine on 375 acres, and planting native warm-season grasses on 250 acres. Either through acquisition or conservation easements, DNR protected 3,772 acres of tortoise habitat during the reporting period. Georgia DNR contracted gopher tortoise surveys and population estimates, using line transect distance sampling (LTDS), on 19 total sites, including 14 state-owned sites. A project aimed at assessing the quality of sandhill habitat across the state, included time-constrained searches for tortoise burrows at 91 sites.

Research conducted or funded by DNR included a project on reproductive ecology and offspring survival in translocated gopher tortoises on St. Catherine's Island, comparison of LTDS to the official Florida population estimate methodology, researching the predatory behavior of armadillos to determine patterns during gopher nesting season, and behavioral studies on head-started hatchlings at Reed Bingham State Park. 99 head-started hatchlings were released at Reed Bingham State Park in an effort to combat the impact of nest predation there. A Candidate Conservation Agreement with Assurances, currently under USFWS review, was developed for the eventual repatriation of gopher tortoises at Plant Vogtle, Burke County. Numerous publications, website materials, workshops, and events aimed at increasing awareness for gopher tortoise conservation among both professionals and the general public were produced and conducted during the past year.

SOUTH CAROLINA

Management of SCDNR owned gopher tortoise habitat and data analysis stemming from research on gopher tortoise life history and ecology were accomplished during the current reporting period. SCDNR staff are currently completing a conservation strategy for the gopher tortoise in South Carolina, intended to be internally to guide gopher tortoise conservation.

POARCH BAND OF CREEK INDIANS

No report was submitted.

AMERICAN FOREST FOUNDATION

Since 2003, the American Forest Foundation has worked in partnership with the American Bird Conservancy, Environmental Defense, Longleaf Alliance, Mississippi Fish & Wildlife Foundation, U.S. Forest Service, and U.S. Fish & Wildlife Service to improve pine habitat for the gopher tortoise and other species associated with the historically open forests of the South. This initiative generates and coordinates habitat improvement projects for the gopher tortoise on family-owned forestlands and leverages their impact through a variety of outreach methods. Its primary component is outreach and education to family forest owners and foresters that will engage them in pine ecosystem conservation. Although it started initially in the listed range, since 2008, the American Forest Foundation has shifted focus to the non-listed range in order to help preclude the need to list the gopher tortoise. All numbers reported here are results from AFF's work in the non-listed range.

LONGLEAF ALLIANCE

Continued development of voluntary sandhill habitat restoration credit trading system with American Forest Foundation. Taught courses in sandhill/gopher tortoise habitat management and enhancement in 12 weeklong Longleaf Academies to approximately 300 natural resource professionals from state and federal agencies and the private sector.

SECTION II PROPERTIES OR AREA COVERED

ARMY

d) Total estimated acreage tortoise habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise

Fort Rucker, AL	49,066 acres
Camp Blanding Training Center, FL	18,169 acres
Fort Benning, GA	62,699 acres
Fort Gordon, GA	11,303 acres
Fort Stewart, GA	14,302 acres

NAVY

Naval Submarine Base (NSB) Kings Bay, Naval Air Station (NAS) Jacksonville, NAS Whiting Field, and NAS Pensacola

d) Total estimated acreage tortoise habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise: **12,139**

AIR FORCE

Avon Park Bombing Range, Eglin Air Force Base (AFB), MacDill AFB, Patrick AFB, Tyndall AFB, Moody AFB

a) Total estimated acreage of permanently protected tortoise habitat (either by public ownership or by easement): Patrick AFB, FL: 101

b) Total estimated acreage of short-term protected tortoise habitat (either by public ownership or by easement): 0

c) Total estimated acreage of unprotected tortoise habitat:

Patrick AFB, FL: approx. 6,200 acres

d) Total estimated acreage tortoise habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise:

Avon Park Bombing Range: Estimated gopher tortoise habitat is 53,000 acres. We will refine this figure based on our baseline survey, in progress.

Eglin AFB, FL: 384,500 acres of potential habitat – which includes: 237,762 acres of natural sandhills, 74,351 acres of pine plantation, 36,704 acres of cleared vegetated areas (test areas), 13,025 acres of mesic flatwoods, 11,602 acres of upland pine; 6,060 acres of urban habitat; 2,563 acres of wet flatwoods, 2,432 acres of xeric flatwoods

MacDill AFB, FL: 550 acres of pine flatwoods habitat, 1,000 acres of mowed airfield

Patrick AFB, FL: 6,200 acres

Tyndall AFB, FL: Unimproved land and undeveloped Military activity lands total 25,254 acres. The number of acres of suitable tortoise habitat is currently unknown.

Moody AFB, GA: 946 acres

UNITED STATES MARINE CORPS

Total estimated acreage tortoise habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise: MCSF Blount Island – 15 acres; MCLB Albany – 1,400 acres

UNITED STATES FOREST SERVICE

Conecuh National Forest, AL

a) Total estimated acreage of permanently protected tortoise habitat (either by public ownership or by easement): 84,000 acres

d) Total estimated acreage tortoise habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise: 84,000 acres

Apalachicola, Osceola, and Ocala National Forests, FL

a) Total estimated acreage of permanently protected tortoise habitat (either by public ownership or by easement): 283,516 acres

d) Total estimated acreage tortoise habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise: 283,516 acres

UNITED STATES FISH AND WILDLIFE SERVICE

Total estimated acreage of permanently protected tortoise habitat (either by public ownership or by easement): 26,486 acres

Total estimated acreage of short-term protected tortoise habitat (either by public ownership or by easement): 261.54 acres

ALABAMA

Not provided.

FLORIDA

According to extensive Geographic Information Systems analysis, the majority of gopher potential tortoise habitat occurs on private lands in Florida. The analysis was completed using two categories of habitat patch sizes; under 100 hectares, and more than 100 hectares. The total potential habitat in Florida is approximately 1.4 million acres. Of this total, approximately 62% of potential habitat is in private ownership, with approximately 37% in public ownership.

POTENTIAL GOPHER TORTOISE HABITAT	NUMBER OF PATCHES	TOTAL HECTARES	PUBLICLY OWNED LANDS	PRIVATELY OWNED LANDS
1 – 100 ha	59,915	464,374	85,038	379,336
> 100 ha	1,587	944,483	446,682	497,801
TOTAL	61,502	1,408,857 (100%)	531,720 (37.7%)	877,137 (62.3%)

Under FWC's gopher tortoise permitting program, the number of protected habitat is provided below:

- a) Total estimated acreage of permanently protected tortoise habitat (either by public ownership or by easement): 2,211.09 private lands under FWC conservation easement;
- b) Total estimated acreage of short-term protected tortoise habitat (either by public ownership or by easement): 163.5

GEORGIA

The State permanently protects 30,889 acres of tortoise habitat on Wildlife Management Areas, Natural Areas, Public Fishing Areas, State Parks, and Historic Sites. The table

below breaks down the acreages by property. All state lands harboring tortoises are considered permanently protected. At this time we do not have information on protected tortoise habitat on private lands with conservation easements.

<u>Name</u>	<u>acreage</u>	<u>suitable tortoise acres</u>
Altamaha WMA	29,300	64
Bagby SP	742	82
Ballard Tract WMA	5700	840
Big Hammock WMA/NA	6900	140
Bullard Creek WMA	9331	1140
Chickasawhatchee WMA	19700	4200
Crooked River SP	511	195
Dixon Memorial WMA	35559	500
Dodge County PFA	445	110
Doerun Pitcher Plant Bog NA	600	300
Elmodel WMA	1600	200
Evans County PFA	400	30
Fall Line Sandhills NA	1576	1488
Flat Tub WMA	3597	740
Flint River WMA	2300	600
General Coffee SP	1428	564
George L. Smith SP	1666	380
Georgia Veterans SP	1474	388
Grand Bay WMA	8700	250
Griffin Ridge WMA	5600	645
Horse Creek WMA	8100	875
Howfyl-Broadfield State Historic Site	1264	200
Kolomoki Mounds SP	1297	185
Laura Walker SP	659	150
Little Ocmulgee SP	1290	332
Mayhaw WMA	4700	250
McDuffie PFA	600	40
Moody Forest NA	4455	1206
Ocmulgee WMA	11,700	600
Ochoopee Dunes NA	2500	1342
Paradise PFA	1300	100
Penholoway Swamp WMA	4565	500
Reed Bingham SP	1622	233
River Creek WMA	2793	1310
Seminole SP	776	300
Silver Lake WMA	8506	5000
Townsend WMA	18201	2460
Tuckahoe WMA	15100	250

Yuchi WMA	7800	2700
TOTAL	234,357	30,889

SOUTH CAROLINA

Not provided.

POARCH BAND OF CREEK INDIANS

No report submitted.

AMERICAN FOREST FOUNDATION

Not provided.

LONGLEAF ALLIANCE

Not provided.

SECTION III LAND MANAGEMENT

ARMY

Summary of management activities “acres restored or improved” is 76,538 which includes prescribed burning, chemical/mechanical treatment, and invasive species control at all 5 Army sites. Army did not separate dormant and growing season burns. Total burned is 69,963 acres.

Other Activities: 6,471 acres. Note: Fort Rucker and Camp Blanding forest thinning is included, but all forest thinning on the 3 GA sites is not included.

- a) Acres maintained: 150,963
- d) Acres of invasive species treated/eradicated (include invasive plant/animal type): 157
Cogon grass, Japanese climbing fern, lantana, rose natal grass, and kudzu.
Approximately 1,794 feral swine were removed from Fort Benning.

NAVY

- a) Acres of gopher tortoise habitat restored or improved: 115 acres.
- b) Acres of gopher tortoise habitat maintained: (see paragraphs c, d, and e below).
- c) Acres of gopher tortoise habitat burned: 1489
 - i. Acres burned during dormant season: 1289
 - ii. Acres burned during growing season: 200
- d) Other land management activities (chemical/mechanical treatment): 147 acres of Gyrotrac brush cutting in forest areas and military mission edge areas. Acres of invasive species treated/eradicated (include invasive plant/animal type): 30 acres of cogon grass control; 20 acres of chinese tallow tree control; 18 acres of air potato vine control. In addition, 95 feral hogs were eliminated.

AIR FORCE

- a) Acres of gopher tortoise habitat restored or improved:

Eglin AFB, FL: 8,176 acres total improved – 2,070 acres of fuelwood removal, 1570 acres of sand pine timber stand improvement, and 4,536 acres of herbicide application. All of these land management activities are designed with the goal of improving sandhills habitat conditions for all species associated with this natural community. These operations open the canopy, allow for better longleaf pine

regeneration, and permit the reintroduction of fire; the exclusion of which resulted in the abundance of oaks and sand pine.

Patrick AFB, FL: Approx. 306 acres

Tyndall AFB, FL: Ecosystem restoration efforts benefiting gopher tortoises in 2008/2009 include 1,000 acres of dense sand pine plantation removal from sandhills habitat. Additionally 200 acres have been hand planted with longleaf pine seedlings. Remaining areas are scheduled for future longleaf plantings.

b) Acres of gopher tortoise habitat maintained:

Eglin AFB, FL: The vast majority of the acreage listed in II) d) above is maintained in a suitable condition for occupation by gopher tortoises. This includes test area acreage. Test area maintenance is moving away from roller drum chopping and towards the one time application of herbicides to control oak sprouting, with the use of repeated prescribed fire for long term vegetation control. This method will improve forage and make it even more suitable for gopher tortoises.

Patrick AFB, FL: Approx. 1,448 acres

c) Acres of gopher tortoise habitat burned:

Avon Park Bombing Range: approximately 8000 acres

Eglin AFB, FL: 111,962

Tyndall AFB, FL: 4,000 acres during February and March 2009

Moody AFB, GA: 946

i) Acres burned during dormant season:

Avon Park Bombing Range: 4000 acres

Eglin AFB, FL: 60,004 acres

Moody AFB, GA: 946

ii) Acres burned during growing season:

Avon Park Bombing Range: 4000 acres

Eglin AFB, FL: 51,958 acres

d) Other land management activities (chemical/mechanical treatment):

Eglin AFB, FL: see (a) above

Patrick AFB, FL: 1,448 acres

Moody AFB, GA: 100 acres

e) Acres of invasive species treated/eradicated (include invasive plant/animal type):

Avon Park Bombing Range: 400 acres treated for cogon grass; 135 acres treated for a variety of other species including tropical soda apple, air potato, and climbing fern; for a total of 535 acres.

Eglin AFB, FL: 200 acres treated

MacDill AFB, FL: In FY09, the base: (1) treated invasive species in Quadrant 2 (661 acres) which included approximately 300 acres of pine forested areas (Cost: \$63,193); (2) treated invasive species in Quadrant 3B (249 acres) which is a mixture of pine forest and scrub/shrub uplands (Cost: \$43,400); and (3) roller-chopped nuisance and invasive understory vegetation throughout 350 acres of pine forest and scrub/shrub uplands (Cost: \$35,000).

Patrick AFB, FL: Approx. 1,448 acres of Brazilian pepper/cogon grass treated/eradicated.

Tyndall AFB, FL: Tyndall participates in a feral hog and coyote control program which benefits predation on the gopher tortoises. This is done through the BASH program near the flight lines and also through a USDA contract in the coastal areas.

Moody AFB, GA: 1 acre.

UNITED STATES MARINE CORPS

a) Acres of gopher tortoise habitat restored or improved

MCSF Blount Island – removal of dense understory = < 5 acres

b) Acres of gopher tortoise habitat maintained: MCLB Albany – 1,400

c) Acres of gopher tortoise habitat burned: MCLB Albany – 1,400

i) Acres burned during dormant season: MCLB Albany – 1,400 (1/3 each year)

ii) Acres burned during growing season: None

UNITED STATES FOREST SERVICE

Conecuh National Forest, AL

- a) 24,000 acres maintained are same acres as burn acres. Other Activities(chemical/mechanical treatment)1,445 (same acres as reported restored)
Acres Restored

- b) 1,445 acres Maintained
- c) Acres Burned
 - i. 24,000 acres burned(dormant season)
 - ii. 15,000 acres burned (growing season) 9,000
- d) See next
- e) Acres of invasive species treated/eradicated species: cogon grass acres 25, feral hog 100 acres

Apalachicola, Osceola, and Ocala National Forests, FL

- a) Acres Restored 2,966
- b) Acres Maintained 886
- c) Acres Burned
 - i. Burned (dormant season) 20,000Acres
 - ii. Burned (growing season) 25,204
- d) Other Activities (chemical/mechanical treatment)200 acres treated
- e) Acres of invasive species treated/eradicated: feral hog acres 220

UNITED STATES FISH AND WILDLIFE SERVICE

- a) Acres of gopher tortoise habitat restored or improved: 5,030.5
- b) Acres of gopher tortoise habitat maintained: 11,770
- c) Acres of gopher tortoise habitat burned:
 - i. Acres burned during dormant season: 4,758
 - ii. Acres burned during growing season: 4,381
- d) Other land management activities (chemical/mechanical treatment): cogon grass, Brazilian pepper, Australian pine, lygodium, sesbania 58 Acres

ALABAMA

Barbour Wildlife Management Area is a 19,624 acre public use area in Bullock and Barbour Counties managed by the Division of Wildlife and Freshwater Fisheries in which longleaf

pine restoration activities are underway. Acres of treatment listed, if known, are those to date and not necessarily limited to this reporting period.

- a) Acres of gopher tortoise habitat restored or improved: 280
- b) Acres of gopher tortoise habitat maintained: Not provided
- c) Acres of gopher tortoise habitat burned:
 - i. Acres burned during dormant season: 5,000
 - ii. Acres burned during growing season: 1,000
- d) Acres of invasive species treated/eradicated (include invasive plant/animal type) Bicolor lespedeza (*Lespedeza bicolor*) 3,000 Acres

Fred T. Stimpson Community Hunting Area is a 5,361 acre public use area managed by the Division of Wildlife and Freshwater Fisheries located in Clarke County. Longleaf pine restoration efforts are underway in this area. Acres of treatment listed, if known, are those to date and not necessarily limited to this reporting period.

- a) Acres of gopher tortoise habitat restored or improved: Not provided
- b) Acres of gopher tortoise habitat maintained: 500
- c) Acres of gopher tortoise habitat burned:
 - i. Acres burned during dormant season: 2,000
 - ii. Acres burned during growing season: 500
- d) Acres of invasive species treated/eradicated (include invasive plant/animal type) Cogongrass (*Imperata cylindrica*), Japanese climbing fern (*Lygodium japonicum*), Tung oil tree (*Aleurites fordii*) 300 Acres

Wehle Tract is 1,500 parcel of land in Bullock County purchased in 1994 by the State Lands Division Forever Wild Program. Five hundred acres are managed as part of the Barbour Wildlife Management Area and the remaining 1,000 acres retained for other public and scientific uses. Longleaf pine restoration efforts are underway on this portion as well. Timber harvest in preparation of longleaf restoration occurred on 212 acres.

- a) Acres of gopher tortoise habitat restored or improved: Not provided
- b) Acres of gopher tortoise habitat maintained: Not provided
- c) Acres of gopher tortoise habitat burned:
 - i. Acres burned during dormant season: Not provided

- ii. Acres burned during growing season: Not provided
- d) Acres of invasive species treated/eradicated (include invasive plant/animal type):
Not provided

FLORIDA

Partnerships with public and non-profit organizations have increased our ability to manage and restore gopher tortoise habitat throughout the state. Funding from FWC's annual appropriation for gopher tortoise conservation has enabled Florida to partner on the State Wildlife Grant (SWG) funded Multi-State Sandhill restoration project, increased the capacity of The Nature Conservancy's Fire Strike Team program in Florida and has enabled state and local government land managing agencies to perform necessary gopher tortoise habitat management projects. Additional assistance through FWC's Landowner Assistance Program cost-share opportunities has also improved habitat management activities on private lands.

Using mostly contracted vendors, habitat management actions including the use of prescribed fire or prescribed fire preparation activities have benefited over 42,000 acres of gopher tortoise habitat. The annual goal under the Plan is provide management support benefitting at least 10,000 additional acres of gopher tortoise habitat on both public and private lands each year.

- a) Acres of gopher tortoise habitat restored or improved

Public lands: 1,461 acres

- b) Acres of gopher tortoise habitat maintained

Public lands: 4,643 acres

Private lands: 52

- c) Acres of gopher tortoise habitat burned

Acres burned during dormant season: 4,643 acres

GEORGIA

Acreages given below for various land management activities include all habitats within burn and stand units of state lands harboring tortoises, but undoubtedly include habitats, such as embedded wetlands, not suitable or occupied by tortoises.

- a) Acres of gopher tortoise habitat restored or improved

250 acres of native warm season grasses, including wiregrass, were planted at River Creek WMA. Also, see "c" and "d" below.

b) Acres of gopher tortoise habitat maintained: See “c” and “d” below

c) Acres of gopher tortoise habitat burned

i. 17,865 acres of state lands harboring gopher tortoises were burned during the dormant season. The table below breaks down the acreages by property.*

Altamaha WMA	1278
Bullard Creek WMA	560
Chickasawhatchee WMA	3304
Crooked River SP	110
Doerun Pitcher Plant Bog NA	95
Elmodel WMA	304
Fall Line Sandhills NA	739
Flint River WMA	450
General Coffee SP	135
George L. Smith SP	50
Grand Bay WMA	193
Griffin Ridge WMA	243
Horse Creek WMA	300
Little Ocmulgee SP	50
Mayhaw WMA	500
Moody Forest NA	145
Ocmulgee WMA	1689
Ohoopie Dunes NA	100
Penholoway Swamp WMA	545
Reed Bingham SP	131
River Creek WMA	1396
Seminole SP	190
Silver Lake WMA	3558
Tuckahoe WMA	900
Yuchi WMA	900
<hr/>	
TOTAL	17,865

* - Our burn data do not break down acreages by habitat. As a result, the acreages given here unfortunately over-estimate tortoise habitat burned by including all habitats within burn units.

ii. 305 acres of state lands harboring gopher tortoises were burned during the growing season. The table below breaks down the acreages by property.*

Doerun Pitcher Plant Bog NA	120
Moody Forest NA	105
Seminole SP	80
<hr/>	
TOTAL	305

* - Our burn data do not break down acreages by habitat. As a result, the acreages given here unfortunately over-estimate tortoise habitat burned by including all habitats within burn units.

d) Other land management activities (chemical/mechanical treatment)*

3190 acres of state lands harboring gopher tortoises were thinned of off-site pines and 156 acres were clearcut. Additionally, 375 acres of longleaf pine were planted on state lands harboring gopher tortoises. The tables below breaks down the acreages by property.*

Name	acres of off-site pine thinned	acres of off-site pine clearcut
Chickasawhatchee WMA	654	
Doerun Pitcher Plant Bog NA	120	
Flint River WMA	74	
Horse Creek WMA	780	
Kolomoki Mounds SP	195	37
Mayhaw WMA	35	
Moody Forest NA	341	35
Ocmulgee WMA	387	
Penholoway Swamp WMA	300	
River Creek WMA	128	
Seminole SP	156	
Yuchi WMA	20	84
TOTAL	3190	156

* - Our timber data do not break down acreages by habitat. As a result, the acreages given here unfortunately over-estimate tortoise habitat thinned or clearcut by including all upland habitats within timber sales.

Name	acres of longleaf pine planted
Dodge County PFA	15
Elmodel WMA	56
Flint River WMA	31
Griffin Ridge WMA	35
Silver Lake WMA	75
Yuchi WMA	163
TOTAL	375

e) Acres of invasive species treated/eradicated (include invasive plant/animal type)

Non-native sand pine was removed from 758 acres of tortoise habitat on the two tracts of Fall Line Sandhills Natural Area.

SOUTH CAROLINA

Gopher tortoise habitat management was limited to Aiken Gopher Tortoise Heritage preserve during the reporting period. Growing season prescribed burning, herbicide and mechanical treatment were applied primarily to control invasive hardwoods. Herbicide - 539 acres; Mechanical treatment – 195

- a) Acres of gopher tortoise habitat restored or improved: Not provided
- b) Acres of gopher tortoise habitat maintained: Not provided
- c) Acres of gopher tortoise habitat burned:
 - i. Acres burned during dormant season: Not provided
 - ii. Acres burned during growing season: 593
- d) Control of invasive hardwoods. Herbicide – 539 acres; Mechanical treatment - 195
- e) Acres of invasive species treated/eradicated (include invasive plant/animal type): Not provided

POARCH BAND OF CREEK INDIANS

No report submitted.

AMERICAN FOREST FOUNDATION

Through the American Forest Foundation's gopher tortoise outreach initiative, the following statistics have been self-reported on land in Georgia, Alabama and Florida. 177,633.1 acres

- a) Acres of gopher tortoise habitat restored or improved: 242,157.1
- b) Acres of gopher tortoise habitat maintained: 56,711
- c) Acres of gopher tortoise habitat burned:
 - i. Acres burned during dormant season: 62,134.4
 - ii. Acres burned during growing season: 28,844.6
- d) Other: none.
- e) Acres of invasive species treated/eradicated (include invasive plant/animal type): 32,256 acres of cogon grass, kudzu, privet, RIFA

LONGLEAF ALLIANCE

None this reporting period.

SECTION IV SURVEYS AND INVENTORY

ARMY

- a) Survey dates are by year - the precise day and month is not likely critical, and in many cases unknown.
- b) Fort Gordon has 563 burrows for which active or inactive is not yet known.
 - i. Monitoring # for Fort Gordon is unknown.
 - ii. Disease and die-off information is unknown.
 - iii. Number of “permitted takes” is not applicable to federal properties.

		active	inactive	monitoring	disease
Fort Rucker, AL	1/1/2003	636		1000	0
Camp Blanding Joint Training Center, FL	1/1/2008	6433	12093	9263	0
Fort Benning, GA	1/1/1998	2700	5695	2550	0
Fort Gordon, GA	1/1/2007	147	130		0
Fort Stewart, GA	1/1/2009	4045	2171	2129	0

NAVY

- a) Survey date(s) and results by property (active and inactive burrows)

Surveys for all four installations were completed from 2006-2009. Each installation used a different survey source which included The Nature Conservancy, University of Georgia, Gulf South Research Corporation, and the Student Conservation Association. The surveys are dynamic and the installations are continually updating the survey information. A summary of the survey results indicated 685 active burrows and 304 inactive burrows present.

- b) Population trends

Monitoring (date, property/location, results): Monitoring occurred at all four installations during the summer of 2009. Population estimates indicate 428 tortoises present on Navy properties collectively. NAS Pensacola and NAS Jacksonville are working to develop a more accurate population estimate while NAS Whiting Field and NSB Kings Bay have a current population baseline in place. In

September 2009 an additional 31 active burrows were located at NAS Whiting Field. Additionally, NSB Kings Bay reported a population estimate of 128 tortoises with the following burrow type percentages: 215 adult burrows (56.9 %), 30 Sub-adult burrows (7.9%), 126 juvenile burrows (33.3%), 7 hatchling burrows (1.9%) with a total minimum population estimate of 128.

c) Disease and die-offs (date, property/location, cause if known, number of deaths):

No reports of mortality except by NSB Kings Bay where there was one confirmed road kill and 12 tortoises reported as dead by installation personnel but too late for investigation information or to verify species accuracy. Permitted takes (property/location, number of takes permitted): None this reporting period.

AIR FORCE

a) Survey date(s) and results by property (active and inactive burrows)

Avon Park Bombing Range: A three year baseline survey through a contract with Archbold Biological Station is currently underway. Year one is almost complete. Surveyors traverse, randomly placed, straight lines through more or less homogeneous habitat searching for tortoise burrows. Burrows encountered are inspected with a burrow camera for presence of live tortoise. Data is collected to determine baseline density. Live tortoise encountered are aged, sexed, and measured to build a basic data set of population structure.

Eglin AFB, FL: Over the year we have surveyed 4,297 acres and found a total of 91 burrows – 64 active and 27 inactive. Also, we have documented 16 new active and 7 new inactive burrows based on incidental sightings.

MacDill AFB, FL: N/A

Patrick AFB, FL: 1/27/09: Construction of Stormwater Pond – 2 active, 8 inactive, 2 tortoises captured; 3/19/09: Establishment of a Soil Storage Area – 10 active, 10 inactive, 10 tortoises captured; 8/7/09: Installation of Water Line – 2 active, 0 inactive, 2 tortoises captured; 8/7/08: Repair Collapsed Pavement Due to Burrow – 1 active, 0 inactive, 1 tortoise captured; 9/15/09: Relocation of Overhead Powerline to Underground Ductbank – 7 active, 10 inactive, 7 tortoises captured.

Tyndall AFB, FL: Previous survey data from 1999 shows 43 active burrows, 38 inactive burrows, along with 17 old burrows. The survey method and coverage area is unknown. A new contract for a base wide herpetological review, to include tortoises, began in September 2009. The contract focus is on identification of suitable tortoise habitat. Burrow surveys done in-house will follow, using latest survey protocols.

Moody AFB, GA: Pedestrian surveys of suitable gopher tortoise habitat are conducted annually to identify new gopher tortoise burrows. All known

burrows are marked in the field with semi-permanent markers, measured to determine occupant size class, and GPS'd for incorporation into the installation Geographic Information System (GIS) database. The activity of each burrow is collected annually and is used for making tortoise population estimates. Concurrent with gopher tortoise surveys, installation personnel conduct visual searches for eastern indigo snakes, including the examination of burrows for tortoises and snakes with burrow cameras and remote sensing cameras and searching burrow entrances and aprons for indigo snake skin sheds. As of 30 September 2009, there were 323 marked gopher tortoise burrows in seven colonies on the installation: Colony 71st (87 burrows), Colony CP (39 burrows), Colony AR (8 burrows), Colony ES (4 burrows), Colony BR (18 burrows), Colony BF (13 burrows), and Colony CS (154 burrows).

b) Population trends

i) Monitoring (date, property/location, results):

Eglin AFB, FL: Over the last year we have not resurveyed any acres but revisited 71 known burrows. Of the burrows revisited 6 active remained active, 16 active went inactive, 13 inactive remained inactive, and 3 inactive went active. The remaining 33 burrows were no longer present.

Tyndall AFB, FL: Unknown population status. Burrows along forestry roads are marked to prevent vehicle traffic.

Moody AFB, GA: Gopher tortoises are captured and marked with subcutaneous and external radio frequency identification (RFID) tags and movements are monitored via a set of continuous RFID readers placed on selected burrows in the largest gopher tortoise colonies. Additionally, 15 gopher tortoises were fitted with radio transmitters and tortoise locations are obtained 2-3 times weekly during the monitoring season (March through October). Data from these movement studies is used to determine home range, foraging habitat, and behavioral changes due to military training and other installation activities.

- i. Disease and die-offs : N/A
- ii. Permitted takes: N/A

UNITED STATES MARINE CORPS

a) Survey date(s) and results by property (active and inactive burrows) MCSF Blount Island – April 2009 survey identified 30 active burrows and 15 inactive burrows

b) Population trends

- i. Monitoring: MCSF Blount Island – April 2009 survey identified 30 active burrows and 15 inactive burrows
- ii. Disease and die-offs: MCLB Albany -- 11/10/09, one gopher tortoise killed by a vehicle
- iii. Permitted takes: N/A

UNITED STATES FOREST SERVICE

Several research studies, including a long-term study by Dr. Guyer, have been ongoing in the Conecuh National Forest. Recent and ongoing State Wildlife Grant research involving the Conecuh National Forest and the gopher tortoise are summarized at Alabama Department of Conservation and Natural Resources website at:

<http://www.outdooralabama.com/research-mgmt/State%20Wildlife%20Grants/projectsfunded.cfm>

a) Summaries of the relevant studies are as follows:

Amphibian and Reptile Response to Longleaf Pine Ecosystem Restoration, Conecuh National Forest:

Conecuh National Forest (CNF) is in the third year of a 30-year plan to restore the native longleaf pine ecosystem. CNF supports populations of 38 high priority amphibians and reptiles, including more species of frogs than any other National Forest. This project will evaluate 60 restoration plots to document amphibian and reptile response to longleaf ecosystem restoration, compare current conditions to previous studies, identify potential reintroduction sites for rare and extirpated species, evaluate monitoring protocols of Partners in Amphibian and Reptile Conservation and provide educational opportunities for partners and resource managers. Craig Guyer, AU and Mark Bailey, Conservation Southeast. October 2004 - November 2006. (Final Report)

Use of Gopher Tortoises in Restoration of the Upland Longleaf Fauna on the Conecuh National Forest:

The longleaf pine ecosystem is one of the world's most imperiled forest types. Many rare amphibian and reptile species are found in this forest, especially those that burrow in loose soils. For these reasons, restoration of longleaf pine forests is one of the most challenging conservation problems in North America. The Gopher Tortoise is a keystone species of the longleaf pine ecosystem, principally because of the burrows that this species creates. These holes assist in maintenance of an unusually rich flora and fauna. For these reasons, Gopher Tortoises are crucial to the success of conservation plans for the longleaf pine ecosystem. Thanks to 15 years of proactive management on the Conecuh National Forest (CNF), the habitat structure of a significant portion of the forest has moved closer to the aspect of old-growth longleaf pine forests. Despite success in improving habitat structure, Gopher Tortoise populations on the CNF have not

recovered to densities observed in old-growth forests. The slow recovery of tortoises makes it difficult to create features that will allow recovery of missing species such as the Eastern Indigo Snake, Southern Hognose Snake, and Eastern Pocket Gophers. Therefore, implementation of active tortoise management to enhance populations on the CNF is vital for maintenance of the longleaf herpetofauna on this key property. This project will 1) work with staff at the CNF to develop a plan for implementing herpetofauna repatriation projects, 2) survey and map burrows of Gopher Tortoises on a large site selected for eventual release of Eastern Indigo Snakes and 3) establish five large penned sites for relocation of adult Gopher Tortoises and juvenile Eastern Indigo Snakes. Dr. Craig Guyer, AU. October 2007 - September 2008. (Final Report)

A Survey of Gopher Tortoise (*Gopherus polyphemus*) Burrows on Key Properties in Alabama:

Gopher Tortoises (*Gopherus polyphemus*) are a keystone species of the southeastern Coastal Plains. Protection of this species through habitat conservation and restoration of longleaf pine forests will be vital to retaining the many sensitive species of this forest type and in preventing the need to list the Gopher Tortoise for protection under the Endangered Species Act throughout its geographic range. This project is designed to survey key state and federal properties in south Alabama to determine the current distribution of Gopher Tortoises and to create a model of carrying capacity for the species. The results of this project will be comprehensive maps of burrows on three properties; a model that uses soil type, overstory vegetation structure, and understory vegetation cover to predict density of Gopher Tortoise burrows; and an assessment of where on these three properties conservation banks for Gopher Tortoises might be established. Craig Guyer, AU. October 2008 – September 2011. 400 acres surveyed on Florida national forests. No burrows reported.

UNITED STATES FISH AND WILDLIFE SERVICE

Egmont Key has been conducting mark-recapture surveys. Eufaula NWR conducted a survey in 1997. Most other refuges have not conducted surveys.

		active	inactive	monitoring	disease
Egmont Key	12/31/2009	148	115	0	0

ALABAMA

Survey date(s) and results by property: None this reporting period.

Monitoring: None this reporting period.

FLORIDA

Perry Oldenburg WEA	Yes	2005	368 ac	1.00 / ac
Janet Butterfield Brooks WEA	Yes	5/1/06	192 ac	1.30 / ac
Hilochee WMA	Yes	04/01/03	500 ac	0.62 / ac
Lake Wales Ridge WEA				
Royce Grove	Yes	09/01/06	22 ac	0.11 / ac
Royce Scraped Scrub	Yes	09/01/06	55 ac	0.45 / ac
Silver Lake	Yes	09/01/06	28.5 ac	0.80 / ac
Holmes Avenue	Yes	09/01/06	47.5 ac	0.85 / ac
Crooked Lake WEA	Yes	8/1/06	732 ac	1.70 / ac
Platt Branch WEA	Yes	2004	957 ac	2.07 / ac
Hickey Creek WEA	Yes	2005	487 ac	1.27 / ac
Bullfrog Creek WEA	Yes	2003	560 ac	1.05 / ac
Moody Branch WEA	Yes	2003	550 ac	1.10 / ac
Suwannee Ridge WEA	Yes	2005		1.07 /ac
Chinsegut WEA	Yes	2007		1.6 / ac

- b) Population trends
- i) Monitoring data: N/A
 - ii) Disease and die-offs: N/A
 - iii) Permitted takes: N/A

GEORGIA

a) Survey date(s) and results by property (active and inactive burrows)

Georgia DNR contracted the Jones Ecological Research Center to survey and estimate gopher tortoise population sizes (using line transect distance sampling: LTDS) on 19 total sites, including 14 state-owned sites.

GT population estimates:

Doerun NA:	109 tortoises
Fall Line Sandhills NA:	91
General Coffee SP:	91
George L. Smith SP:	127
Little Ocmulgee SP:	48
Ohoopsee Dunes NA:	140
River Creek WMA:	313
Seminole SP:	159
Townsend WMA (including Barrington):	414
Non-state lands (three sites):	441

Five state lands (as well as two non-state lands) sampled had too few detections to estimate population, however for 5 % of the suitable habitat, active + inactive burrow counts were made:

Flat Tub WMA:	6 burrows
Moody Forest NA:	19
Penholoway WMA:	24
Silver Lake WMA:	47
Yuchi WMA:	1
Non-state lands (two sites):	50

A State Wildlife Grant to expand LTDS to twenty additional sites, largely on private lands, has been approved and surveys will begin this winter.

Another project, aimed at assessing the quality of sandhill habitat across the state (public and private lands), included time-constrained searches for tortoise burrows and resulted in the detection of 1664 active burrows at 67 different sites (out of 91 sampled) in 38 counties.

b) Population trends

- i. **Monitoring:** Only base-line surveys, as described in previous section, were conducted during the reporting period.
- ii. **Disease and die-offs:** No significant disease outbreaks or die-offs were observed or reported during the period.
- iii. **Permitted takes:** No permitted take was granted during the reporting period.

SOUTH CAROLINA

None during this reporting period.

POARCH BAND OF CREEK INDIANS

No report submitted.

AMERICAN FOREST FOUNDATION

None during this reporting period.

LONGLEAF ALLIANCE

None during this reporting period.

SECTION V POPULATION MANIPULATION

ARMY

The level of detail anticipated below in a, b, and d was not obtained. Translocations over the recent history (multiple years) are:

Fort Rucker	0
Camp Blanding	40
Fort Benning	347
Fort Gordon	0
Fort Stewart	258
Fort Stewart	1/1/2010 150

Georgia Southern University has head-started gopher tortoises from 2005-2008 clutches. They will be released on Fort Stewart in spring 2010. The proposed release sites are on improved habitats that do not have gopher tortoises.

NAVY

- a) Relocation (number of tortoises) N/A to properties under an INRMP.
- b) Repatriations (number of tortoises): N/A to properties under an INRMP.
- c) Head start efforts: N/A to properties under an INRMP
- d) Onto or off of habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise: None this reporting period.

AIR FORCE

- a) Relocation (number of tortoises)
 - i. To permanently protected lands (number of tortoises): Eglin AFB, FL: N/A (NOTE: but seven on-site relocations)
 - ii. To short-term protected lands: N/A for all properties
 - iii. To unprotected lands: Patrick AFB, FL: 39
- b) Repatriations (number of tortoises)
 - i. To permanently protected lands: N/A
 - ii. To short-term protected lands: N/A
 - iii. To unprotected lands: N/A

- c) Head start efforts: None
- d) Onto or off of habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise: Eglin AFB, FL: N/A –off-base (NOTE: seven on-site relocations (see above))

UNITED STATES MARINE CORPS

None during this reporting period.

UNITED STATES FOREST SERVICE

None have occurred as yet, but are planned as part of the indigo snake repatriation to enclosed areas.

UNITED STATES FISH AND WILDLIFE SERVICE

None during this reporting period.

ALABAMA

No significant translocations of gopher tortoises were conducted by ADCNR during the reporting period. However, 53 tortoises to date have been moved to the Wehle Tract under the management of State Lands Division.

FLORIDA

In April 2009, new permitting guidelines were implemented affecting where tortoises are relocated during development projects. Prior to April 2009, 128 Standard relocation permits were issued that moved tortoises either to areas onsite or to approved recipient areas. Because these areas have no conservation assurance with our agency, all 2237 tortoises relocated under this permit type are considered to be moved to "unprotected" lands. Similarly, all onsite relocations (totaling 570 tortoises) and tortoises moved to research recipient sites (totaling 85) are placed into the unprotected site category. The new permits require that all gopher tortoises relocated off the site of development projects are placed at permitted recipient sites that meet specific requirements.

- a) Relocation (number of tortoises)
 - i. To permanently protected lands (number of tortoises): 199
 - ii. To short-term protected lands: 3

- iii. To unprotected lands: 2892
- b) Repatriations (number of tortoises): n/a
- c) Head start efforts: n/a
- d) Onto or off of habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise: n/a

GEORGIA

- a) Relocation (number of tortoises)
 - i. To permanently protected lands (number of tortoises): Two waif tortoises (origin unknown) were relocated to McDuffie Public Fishing Area. Ft. Benning relocated a number of tortoises, but that should be reported in the Army's report. One aspect of the Jones Center-contracted tortoise survey (see section IV) was to rank surveyed lands based on their need or potential for tortoise augmentation through relocation of displaced animals elsewhere. "Medium quality-not viable" and "low quality" sites were considered suitable for augmentation; five such sites were identified.
 - ii. To short-term protected lands: None
 - iii. To unprotected lands: None
- b) Repatriations (number of tortoises)
 - i. To permanently protected lands: A Candidate Conservation Agreement with Assurances (CCAA) has been jointly developed by Georgia DNR-WRD, Georgia Power, and USFWS for the repatriation of tortoises to restored habitat at Plant Vogtle, Burke County. The CCAA is currently under review by USFWS, after which, if approved, tortoises may be moved from development sites as they become available.
 - ii. To short-term protected lands: None
 - iii. To unprotected lands: None
- c) Head start efforts
 - i. In response to concerns for excessive nest predation, personnel at Reed Bingham State Park recovered 24 nests for a total of 139 eggs, from May 24th until June 30. Following incubation and hatching, 99 healthy hatchlings, all implanted with PIT tags, were released on-site on October 10th.
- d) Onto or off of habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise: None

SOUTH CAROLINA

In 2006 SCDNR, in partnership with the University of Georgia's Savannah River Ecology Laboratory initiated a gopher tortoise population augmentation project, using translocation, at the Aiken preserve. Prior to the current reporting period five 1-hectare holding pens were constructed at the preserve. In the first two years of the project 43 tortoises, comprising waifs of unknown origin, South Carolina tortoises from other donor sites and local tortoises were placed in these pens. During the current reporting period thirteen additional tortoises were placed in pens, bring the total for all years to 56.

During May 2009 fourteen tortoises in pen 1 were outfitted with radio transmitters and pen 1 was taken down. These tortoises have been tracked 2-3 times weekly since May to determine their site fidelity and movement patterns.

- a) Relocation (number of tortoises)
 - i. To permanently protected lands (number of tortoises): 56

POARCH BAND OF CREEK INDIANS

No report submitted.

AMERICAN FOREST FOUNDATION

None this reporting period.

LONGLEAF ALLIANCE

None this reporting period.

SECTION VI RESEARCH

ARMY

The following research is for 2008-2009. Considerable research was been completed prior to 2008, but is not included here.

- Beauman, R. L. 2008. The effects of burrow collapse on the gopher tortoise (*Gopherus polyphemus*). A Thesis Submitted to the Graduate Faculty of Auburn University in Partial Fulfillment of the Requirements for the Degree of Master of Science. Auburn, Alabama.
- Delaney, D. K. 2009. Invited white paper on gopher tortoise research. Acoustical Society of America. <http://www.acoustics.org/press/154th/delaney.html>
- Ennen, J.R., B.R. Kreiser, and C.P. Qualls - in press. Low genetic diversity on several gopher tortoise (*Gopherus polyphemus*) populations in the DeSoto National Forest, Mississippi. *Herpetologica*
- Ennen, J. R., J. Lamb, and C. P. Qualls. In press. *Gopherus polyphemus* Nesting. *Herpetological Review*
- Entz, J. 2009. Effects of habitat quality on maternal investment in two Georgia populations of *Gopherus polyphemus*. M.S. Thesis, Georgia Southern University (planned completion – Fall 2009).
- Hammond, S.L. 2009. Analyses of Changes in Burrow Density and Hatching Success of the Gopher Tortoise, *Gopherus polyphemus*, in the DeSoto National Forest, Mississippi. M.S. Thesis, University of Southern Mississippi
- Radzio, T. A., J. Hackler, A.D. Walde, D.K. Delaney, and M. Hinderliter. 2009. *Gopherus Polyphemus* (Gopher Tortoise) Emergence Behavior. *Herpetological Review* 40(1):77
- Radzio, T.A., J. Hackler, A.D. Walde, D.K. Delaney, and H. Hinderliter. 2009. *Terrapene carolina* (Eastern Box Turtle) and *Gopherus polyphemus* (Gopher Tortoise) Interspecific Interaction. *Herpetological Review* 40(2):217
- Smith, L. S., J. Stober, H. E. Balbach, and W. D. Meyer. 2009. Gopher Tortoise Survey Handbook. ERDC/CERL TR-09-7
- Tuberville, T. D. 2008. Evaluating the utility of translocation for turtle conservation: A case study based on the behavioral and demographic responses of the gopher tortoise (*Gopherus polyphemus*). University of Georgia, School of Ecology, Athens, GA
- Tuberville, T. D., J. W. Gibbons, and H. E. Balbach. 2009. Estimating Viability of Gopher Tortoise Populations. ERDC/CERL TR-09-2

- Wendland, L., H. Balbach, M. Brown, J. Berish, R. Littell, and M. Clark. 2009. Handbook on Gopher Tortoise (*Gopherus polyphemus*): Health Evaluation Procedures for Use by Land Managers and Researchers. ERDC/CERL TR-09-1

Research documents in preparation:

- Delaney, D. K. Effects of human and non-human disturbance on Gopher Tortoise
- Radzio, T.A. and D.K. Delaney. Gopher tortoise drinking behavior
- Delaney, D.K. and T.A. Radzio. Gopher tortoise nesting behavior on Camp Shelby, MS
- Delaney, D.K. and T.A. Radzio. Female aggression in the gopher tortoise
- Delaney, D.K. and T.A. Radzio. Male dominance hierarchies within the western range of the gopher tortoise
- Delaney, D.K. and T.A. Radzio. Seasonal and yearly activity patterns of gopher tortoises within the western range
- Radzio, T.A. and D.K. Delaney. Juvenile gopher tortoise response to burrow flooding
- Radzio, D.K., T. Lee, and D.K. Delaney. Use of gopher tortoise burrows by snakes
- Radzio, T.A. and D.K. Delaney. Juvenile-adult gopher tortoise interactions
- Radzio, T.A. and D.K. Delaney. Winter activity patterns of gopher tortoises on Camp Shelby, MS

NAVY

Conducted by or supported by agency (if published, include citation):

Paul Moler, Florida Fish & Wildlife Conservation Commission, July and August 2009 collected blood samples from 13 tortoises at NAS Whiting Field and NAS Pensacola for an ongoing FWCC DNA research study.

AIR FORCE

a) Conducted by or supported by agency (if published, include citation):

Moody AFB, GA: Surveillance for upper respiratory tract disease (URTD) and other physiological parameters began in 2000 and continued through the reporting period. For the reporting period, very few tortoises were trapped and tested because of changes in technicians and graduate students with the cooperating agency. A total of six tortoise samples were submitted for serology and 11 tortoise samples for PCR

testing for mycoplasma; results from these tests are still pending. Additionally, 45 tortoise samples were submitted for genetic profiling; results from these tests are pending as well.

UNITED STATES MARINE CORPS

None during this reporting period.

UNITED STATES FOREST SERVICE

Several research studies, including a long-term study by Dr. Guyer have been on Conecuh NF. Recent and ongoing State Wildlife Grant research involving the Conecuh National Forest and the gopher tortoise are summarized at Alabama Department of Conservation and Natural Resources website at:

<http://www.outdooralabama.com/research-mgmt/State%20Wildlife%20Grants/projectsfunded.cfm>

Summaries of the relevant studies are as follows:

Amphibian and Reptile Response to Longleaf Pine Ecosystem Restoration, Conecuh National Forest:

Conecuh National Forest (CNF) is in the third year of a 30-year plan to restore the native longleaf pine ecosystem. CNF supports populations of 38 high priority amphibians and reptiles, including more species of frogs than any other National Forest. This project will evaluate 60 restoration plots to document amphibian and reptile response to longleaf ecosystem restoration, compare current conditions to previous studies, identify potential reintroduction sites for rare and extirpated species, evaluate monitoring protocols of Partners in Amphibian and Reptile Conservation and provide educational opportunities for partners and resource managers. Craig Guyer, AU and Mark Bailey, Conservation Southeast. October 2004 - November 2006. (Final Report)

Use of Gopher Tortoises in Restoration of the Upland Longleaf Fauna on the Conecuh National Forest:

The longleaf pine ecosystem is one of the world's most imperiled forest types. Many rare amphibian and reptile species are found in this forest, especially those that burrow in loose soils. For these reasons, restoration of longleaf pine forests is one of the most challenging conservation problems in North America. The Gopher Tortoise is a keystone species of the longleaf pine ecosystem, principally because of the burrows that this species creates. These holes assist in maintenance of an unusually rich flora and fauna. For these reasons, Gopher Tortoises are crucial to the success of conservation plans for the longleaf pine ecosystem. Thanks to 15 years of proactive management on the Conecuh National Forest (CNF), the habitat structure

of a significant portion of the forest has moved closer to the aspect of old-growth longleaf pine forests. Despite success in improving habitat structure, Gopher Tortoise populations on the CNF have not recovered to densities observed in old-growth forests. The slow recovery of tortoises makes it difficult to create features that will allow recovery of missing species such as the Eastern Indigo Snake, Southern Hognose Snake, and Eastern Pocket Gophers. Therefore, implementation of active tortoise management to enhance populations on the CNF is vital for maintenance of the longleaf herpetofauna on this key property. This project will 1) work with staff at the CNF to develop a plan for implementing herpetofauna repatriation projects, 2) survey and map burrows of Gopher Tortoises on a large site selected for eventual release of Eastern Indigo Snakes and 3) establish five large penned sites for relocation of adult Gopher Tortoises and juvenile Eastern Indigo Snakes. Dr. Craig Guyer, AU. October 2007 - September 2008. (Final Report)

A Survey of Gopher Tortoise (*Gopherus polyphemus*) Burrows on Key Properties in Alabama:

Gopher Tortoises (*Gopherus polyphemus*) are a keystone species of the southeastern Coastal Plains. Protection of this species through habitat conservation and restoration of longleaf pine forests will be vital to retaining the many sensitive species of this forest type and in preventing the need to list the Gopher Tortoise for protection under the Endangered Species Act throughout its geographic range. This project is designed to survey key state and federal properties in south Alabama to determine the current distribution of Gopher Tortoises and to create a model of carrying capacity for the species. The results of this project will be comprehensive maps of burrows on three properties; a model that uses soil type, overstory vegetation structure, and understory vegetation cover to predict density of Gopher Tortoise burrows; and an assessment of where on these three properties conservation banks for Gopher Tortoises might be established. Craig Guyer, AU. October 2008 – September 2011. 400 acres surveyed on Florida national forests. No burrows reported.

UNITED STATES FISH AND WILDLIFE SERVICE

Egmont Key NWR is conducting a long-term mark-recapture study by Eckerd College. Also St. Marks has been conducting genetic sampling for a large scale genetic study.

ALABAMA

A State Wildlife Grant has been awarded to Dr. Craig Guyer of Auburn University to survey gopher tortoise burrows on key properties in Alabama including the Conecuh National Forest (Covington/Conecuh County), Geneva State Forest (Geneva County), and Forever Wild property, the Perdido River-Longleaf Hills Tract (Baldwin County).

Objectives of this research include: 1.) Creating maps of habitats likely to be occupied by gopher tortoises on the Perdido River-Longleaf Hills Tract, Conecuh National Forest, and Geneva State Forest. 2.) Performing comprehensive burrow surveys and vegetative analyses on each property. 3.) Using burrow surveys and vegetative analyses to develop a model of carrying capacity for properties likely to be used in state conservation plans for gopher tortoises.

This is a three year project beginning in October 2008. Project is budgeted for approximately \$300,000 of which \$136,000 are State Wildlife Grant funds.

FLORIDA

Studies involving gopher tortoises are underway and include research on the use of temporary enclosures (soft release), the genetics of Florida Panhandle tortoises, the population dynamics of wild tortoises, and the effect of cattle grazing on gopher tortoise stocking capacity. A much anticipated manuscript on Upper Respiratory Tract Disease (URTD) has been submitted for publication and is currently under review.

GEORGIA

Conducted by or supported by agency (if published, include citation)

The friends group of the Nongame Conservation Section of DNR (“The Environmental Resources Network”) funded a project titled “Reproductive ecology and offspring survival in translocated gopher tortoises” for the tortoise population on St. Catherine’s Island. A manuscript will be submitted for publication.

As part of the Jones Center-contracted surveys and population estimates, LTDS and the population estimate methodology recommended in the Florida Gopher Tortoise Management Plan were compared. Results were published:

Smith, L.L., J. M. Linehan, J. M. Stober, M. J. Elliott, and J. B. Jensen. 2009. An evaluation of distance sampling for large-scale gopher tortoise surveys in Georgia, USA. *Applied Herpetology* 6:355-368.

Two studies at Reed Bingham State Park, related to the head-starting efforts (See Section V(c-i)), are being conducted by researchers at Valdosta State University: 1) Dr. Colleen McDonough is researching the predatory behavior of armadillos to determine patterns during gopher nesting season and 2) Dr. Mitch Lockhart is conducting behavioral studies on the head-started hatchlings themselves.

SOUTH CAROLINA

In 2003 SCDNR initiated a radio telemetry study of gopher tortoises at two sites, both on the Tillman Sand Ridge in Jasper County. From 2003 through 2008 twenty-four tortoises were tracked 2-3 times weekly to determine their home range, habitat use and seasonal movement patterns. In addition SCDNR staff examined diet, reproductive ecology and hatching success. During the current reporting period SCDNR staff and partners at the University of Georgia and University of South Carolina have been analyzing this data. Additional data on clutch size and hatch percent was collected during the 2009 nesting season, and is currently being analyzed.

POARCH BAND OF CREEK INDIANS

No report submitted.

AMERICAN FOREST FOUNDATION

None during this reporting period.

LONGLEAF ALLIANCE

None during this reporting period.

SECTION VII LAND CONSERVATION

ARMY

Permanent easements have been acquired since 2003 at Camp Blanding, Fort Benning, and Fort Stewart. The number of acres reported includes total of 24,772 acres except for Fort Stewart which reports only suitable tortoise habitat.

NAVY

Acquisitions, easements and other long-term conservation protection: None this reporting period.

Land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/non-permanent): None this reporting period.

AIR FORCE

a) Acquisitions, easements and other long-term conservation protection:

Patrick AFB, FL: The Air Force partnered with the Brevard County Environmentally Endangered Lands to purchase 188 acres of land in Malabar, FL, under the Readiness Environmental Protection Initiative (REPI). The Air Force received a 101-acre easement on the property, which is aimed at ensuring federal lands are not the exclusive viable oak scrub habitat remaining in Florida. Although the primary focus of the partnership was protection of the Florida Scrub-jay, the gopher is expected to benefit since both species occupy similar types of habitat.

b) Land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/non-permanent):

Eglin AFB, FL: 596 acres permanently lost due to new construction. This represents a small fraction of the currently available and under stocked habitat on Eglin AFB. No projects are known for the future that would eliminate large acreages of suitable habitat for this species. Some future projects may change the habitat type from forested to cleared vegetated but this change does not permanently remove the available habitat. As long as tortoises are protected during the process of conversion these activities will not impact the long term viability of the species in the area. Acreages where this type conversion may occur are expected to be negligible compared to the amount of habitat that currently exists.

Patrick AFB, FL: Establishment of a soil storage area on Cape Canaveral AFS resulted in the permanent loss of approximately 14 acres of occupied habitat. Although the majority of the acreage consisted of Brazilian pepper, 10 tortoises were relocated out of

the area. Additionally, due to the lack of burning over the past 18 months, many of the areas that are waiting to be burned continue to degrade. There are approximately 600 acres of tortoise habitat on CCAFS that are waiting to be burned. Furthermore, grounds maintenance of many improved areas on CCAFS has been severely reduced. Tortoises are abandoning these areas because the grass is getting too high.

UNITED STATES MARINE CORPS

None during this reporting period.

UNITED STATES FOREST SERVICE

None during this reporting period.

UNITED STATES FISH AND WILDLIFE SERVICE

- Lower Suwannee NWR, 100 acres
- Egmont Key, permanent loss of habitat due to island degradation from storms and high tides

ALABAMA

None during this reporting period.

FLORIDA

More than 3.8 million acres of conservation land has been purchased in Florida, with 2.4 million acres purchased under the Florida Forever and Preservation 2000 programs.

Since its inception in July 2001, the Florida Forever program has acquired more than 638,600 acres of land with \$2.62 billion including more than 600,000 acres that support gopher tortoises and numerous other species. Currently, approximately 25% of Florida's lands are protected public lands, much of which supports gopher tortoises (Attachment 12).

- a) Acquisitions, easements and other long-term conservation protection
 - Bell Ridge Longleaf Wildlife and Environmental Area in Gilchrest County, Florida. 719 acres. July 1, 2009
- b) Land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/non-permanent): 38,574

- Across Florida summarized from available permitting data. Development*Note Standard relocation permits are not included in this estimate.

GEORGIA

Acquisitions, easements and other long-term conservation protection:

600 acres of tortoise habitat were acquired by the state and 3172 acres were protected through conservation easements as part of both the Georgia Land Conservation Program and the Georgia Land Conservation Tax Credit Program. The table below breaks down the acreages by property.

TYPE	NAME	COUNTY	TOTAL ACRES	ACRES POTENTIAL TORTOISE HABITAT
Acquisition	Rayonier-Phase 1	Long/McIntosh	7180	600
Easement	Gillis Forest	Treutlen	1590	743
Easement	Gaskins	Berrien	4883	1014
Easement	JG3	Treutlen	1454	217
Easement	Pipes	Taylor	102	50
Easement	Joe Beverly	Thomas	455	148
Easement	Ken Beverly	Thomas	936	200
Easement	TRC	Decatur	152	54
Easement	Sumter Timberland	Sumter	429	159
Easement	Leavell	Twiggs	301	25
Easement	Bald Eagle Estates	Effingham	189	40
Easement	Conifer Estates	Effingham	96	30
Easement	Satilla Bluff	Camden	203	10
Easement	Saraland	Dodge	1235	482
Easement Total			19205	3172

b) Land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/non-permanent): N/A on state lands

SOUTH CAROLINA

None during this reporting period.

POARCH BAND OF CREEK INDIANS

No report submitted.

AMERICAN FOREST FOUNDATION

None during this reporting period.

LONGLEAF ALLIANCE

None this reporting period.

SECTION VIII EDUCATION AND OUTREACH

ARMY

- a) Publications: Education cards for soldiers (soldier cards), posters, signs, and educational flyers.
- b) Workshops and events: Earth day events, April 2009, installation and general public, organized by installations; routine training sessions for soldiers, periodic, soldiers, organized by installations; training, periodic, installation Environmental Compliance Officers, organized by installations.
- c) Also, the following presentations were reported by Fort Stewart:
 - Callaway, J.C., D.C. Rostal, P.H. Marley, and J.W. Entz. 2008. Demography of Two Populations of *Gopherus Polyphemus*: Size, Age, Growth and Habitat Quality. 2008 Annual Meeting of the Society for Integrative and Comparative Biology, San Antonio, TX, January 4-6, 2008.
 - Carruth, W., J.W. Entz, P.H. Marley, and D.C. Rostal. 2009. The relationship between egg size, clutch size, pelvis size & body size in *Gopherus polyphemus*. 2009 Annual Meeting of the Society for Integrative and Comparative Biology, Boston, MA, January 3-7, 2009.
 - Entz, E.W., and D.C. Rostal. 2009. Effects of habitat quality on maternal investment in two Georgia populations of *Gopherus polyphemus*. 2009 Annual Meeting of the Society for Integrative and Comparative Biology, Boston, MA, January 3-7, 2009.
 - Entz, J.W., P.H. Marley, J.C. Callaway, and D.C. Rostal. 2008. Effects of Habitat Quality on Maternal Investment in Two Georgia Populations of *Gopherus polyphemus*. 2008 Annual Meeting of the Society for Integrative and Comparative Biology, San Antonio, TX, January 4-6, 2008.
 - Hutchison, N.L., J.S. Harrison, and D.C. Rostal. 2009. Population and conservation genetics of two Georgia populations of the gopher tortoise (*Gopherus polyphemus*). 2009 Annual Meeting of the Society for Integrative and Comparative Biology, Boston, MA, January 3-7, 2009.
 - Rostal, D.C. 2008. Reproduction and Health in the Gopher Tortoise (*Gopherus polyphemus*) Population on Fort Stewart: A 15 Year Study in Chelonian Reproductive Health. 2008 Gopher Tortoise Council Meeting, Jekyll Island, Georgia. October 3-5, 2008. (Invited Presentation).
 - Waddell, J.C., L.D. McBrayer, and D.C. Rostal. 2008. The Ontogeny of Carapace Morphology in Gopher Tortoises (*Gopherus polyphemus*). 2008 Annual Meeting of the Society for Integrative and Comparative Biology, San Antonio, TX, January 4-6, 2008.

NAVY

- a) Publications (signage, brochures): Habitat protection and species informational signage posted at Navy Outlying Landing Field Whitehouse to protect tortoise road crossings. NAS Jacksonville produced signage and brochures for identification and information on protected species including the gopher tortoise. Brochures, public relations flyers, and burrow protection markers and cones were used for education, outreach, and protection at NAS Pensacola and NAS Whiting Field.
- b) Workshops and events (date, location, audience, organizer): Informal training sessions conducted by NAS Pensacola and NAS Whiting Field regarding mowing techniques and protection practices for tortoise habitat that is mowed in mission areas.
- c) Public service broadcasts/announcements: None this reporting period.
- d) Electronic media (website, Listserv, other internet-based outreach): Tortoise informational material published to NAS Pensacola website, Conservation section.

AIR FORCE

- a) Publications (signage, brochures):

MacDill AFB, FL: In FY09, the base prepared a Prescribed Burn Management Plan that describes the need to burn forested areas of the base to improve biodiversity and habitat values (which would benefit gopher tortoises).

- b) Workshops and events (date, location, audience, organizers):

Avon Park Bombing Range: We brief incoming military units and contractors on identification and avoidance of Threatened, Endangered and sensitive species including gopher tortoise and burrows. We provided four such briefings this year: prior to Joint Integrated Fire Exercise (May 2009) and Atlantic Strike (September, 2009) and two briefings for contractors: one prior to maintenance of Arbuckle Dike (February, 2009) and another prior to remediation contaminated soil around livestock dip vats (March, 2009). All briefings were conducted at APAFR and organized by staff members: Hal Sullivan, Tod Zechiel, and Mark Fredlake.

Eglin AFB, FL: October 16, 2008 – Air Armament Academy class open to all Eglin personnel. Two hour threatened and endangered species class which included a section on gopher tortoises.

Patrick AFB, FL: The 45th Space Wing exhibited an educational display that included information regarding the gopher tortoise program at the installation. This display was set up at the following venues: Jan 2007; Jan 2008 and 1/21/09 – 1/24/09: Space Coast Wildlife and Birding Festival; Titusville, FL; organized by Brevard Nature Alliance; audience is public nature/bird lovers; 3/16/09 – 3/21/09:

National Military Fish and Wildlife Association Meeting, in conjunction with the North American Wildlife and Natural Resources Conference; Crystal City, VA; audience is DoD natural resource managers and state and federal fish and wildlife personnel; 4/22/09: Earth Day; Kennedy Space Center and Cape Canaveral AFS; organized by NASA and the Air Force; audience was AF, NASA and contractor personnel who work at the installation and on Kennedy Space Center (KSC).

- c) Public service broadcasts/announcements: None during this reporting period.
- d) Electronic media (website, Listserv, other internet-based outreach): None during this reporting period.

UNITED STATES MARINE CORPS

None during this reporting period.

UNITED STATES FOREST SERVICE

- a) Publications (signage, brochures): 3 signs erected on national forest lands in FL
- b) Workshops and events (date, location, audience, organizer): Not a workshop, but the State and Private Forestry branch of the USDA Forest Service is working with private landowners on longleaf pine restoration efforts. Also the new Chief of the Forest Service, Tom Tidwell, was recently on the Conecuh National Forest looking at gopher tortoise, indigo snake, and RCW restoration efforts.

UNITED STATES FISH AND WILDLIFE SERVICE

- a) Publications: Brochures and signage are used at Egmont Key, Bon Secour and Lower Suwannee; Several NWR, including Lower Suwannee and Merritt Island have also has included gopher tortoises in a exhibit.
- c) Public service broadcasts: Local newspaper on benefits of prescribed fire for gopher tortoises (Lower Suwannee)
- d) Website: Lower Suwannee uses website

ALABAMA

- d) Electronic media: Alabama Department of Conservation website, Outdoor Alabama, has a species profile of the gopher tortoise that has been updated to reflect new information regarding protection and future research activities pertaining to the species in the state: <http://www.outdooralabama.com/watchable-wildlife/what/Reptiles/Turtles/gt.cfm>.

FLORIDA

- a) Publications (signage, brochures): Brochures, "Living with Gopher Tortoises" and "Before you Build", were developed. Three one-page "fact sheets" on the rules and regulations, available permit options, and safety information for horse owners were also released. A gopher tortoise activity book for children and written by a young author and conservationist, Zander Strodes, was printed and is currently being distributed. Lastly, an educator's curriculum that follows Project WILD Standards and meets Sunshine State Standards for K-12 schools in Florida will be presented at an upcoming annual educator's conference.
- b) Workshops and events (date, location, audience, organizer): A series of eight workshops were conducted in Alachua, Charlotte, Hillsborough, Indian River, Lake, Leon, Okaloosa, and Volusia County. The workshops were attended by nearly 300 representatives primarily from public organizations. Three stakeholder meetings were held (8/28/09 in Lecanto, Florida, 3/13/2009 in Lecanto, Florida, and 12/11/2008 in Gainesville, Florida).
- c) Public service broadcasts/announcements: A full page newspaper insert ran throughout Florida called the "Featured Critter." The goal is to reach a broad public audience on the key facts of gopher tortoise and gopher tortoise conservation efforts underway in Florida.
- d) Electronic media (website, Listserv, other internet-based outreach): New website was implemented MyFWC.com/GopherTortoise. In addition, an online permitting system was developed and implemented to expedite review and issuance of all gopher tortoise permits. A Permit site online locator tool has also been developed utilizing Google Maps technology and is available to the public online. This feature allows the public to located and review basic information on all gopher tortoise permits.

GEORGIA

- a) Publications (signage, brochures)
 - No new GA DNR-WRD publications were produced during the reporting period, but three items have been reprinted and/or widely distributed during this time. A tear-sheet specific to the gopher tortoise in GA is made available to educators across the state and is regularly set out on tables at pertinent public events. Similar use is given to a Longleaf Pine-Wiregrass Community Access Guide booklet, although it contains information on other animals, plants, and issues beyond just tortoises. A booklet entitled "A Landowner's Guide to Conservation Incentives" is provided to interested private landowners, and although it does not have information specific to gopher tortoises, it does provide excellent information on programs that can assist landowners in managing or conserving their lands for tortoises and other species.

- GA DNR-WRD personnel contributed to a booklet produced by the American Forest Foundation:
- Dunleavy, L. (ed.). 2008. Pine Ecosystem Conservation Handbook for the Gopher Tortoise in Georgia: A Guide for Family Forest Owners. A publication of the American Forest Foundation. 96 pp.

b) Workshops and events (date, location, audience, organizer)

- GA DNR personnel either organized the workshops shown in the table below or GA DNR personnel were heavily involved in conducting them. These workshops reached nearly 600 people who were instructed on land management and conservation programs beneficial to gopher tortoises, as well as conservation issues facing the gopher tortoise. The table below summarizes each workshop.

<u>Date</u>	<u>Location</u>	<u>Topic/Audience</u>	<u># in Attendance</u>
9/20/2008	Talbotton	Gopher Tortoises and Conservation	75
10/9/2008	Hawkinsville	Land conservation	30
11/2008	Forsyth	Master Timber Harvester	25
11/6/2008	Newton	Land conservation, land management	30
12/2008	Valdosta	Continuing Logger Education	30
2/12/2009	Guyton	Land conservation, land management	50
2/19/2009	Homerville	Land conservation, land management	30
3/2009	Swainsboro	Master Timber Harvester	27
3/2009	Jesup	Continuing Logger Education	30
4/14/2009	Butler	Healthy Forest Reserve Program	50
5/2009	Tifton	Master Timber Harvester	25
5/2009	Tifton	Continuing Logger Education	30
5/2009	Jesup	Plum Creek Environmental Training	25
5/5/2009	Augusta	Cost-share programs	35
8/2009	Statesboro	Master Timber Harvester	25
8/13/2009	Macon	GLCP, GCTCP	10
9/15/2009	Midway	Land Conservation	40
9/15/2009	Midway	ACUB, easements, technical	15

- In association with the release of head-started gopher tortoises at Reed Bingham State Park (See Section V(c-i)), a full day of gopher tortoise-related educational programs, attended by hundreds from the general public, was held on 10 October 2009.

c) Public service broadcasts/announcements: None during this reporting period.

d) Electronic media (website, Listserv, other internet-based outreach)

- A gopher tortoise profile was featured in the February 2009 WRD-Nongame Conservation Section's monthly e-newsletter, which has a current distribution of 2,100 addresses: <http://campaign-archive.com/?u=946679e7fe51bbf81ce578cc1&id=695f1e85c3>
- Further, the gopher tortoise was a featured animal in the Georgia Conservancy's Great Georgia Photo SWAP contest, aimed at increasing awareness of Georgia DNR-WRD's Wildlife Action Plan.
- Main page: <http://www.gaconservancy.org/index.php?page=state-wildlife-action-plan/photo-SWAP>
- GT profile: <http://www.georgiaconservancy.org/index.php?page=gopher-tortoise>
- A species account for the gopher tortoise was created during this period for posting on the Protected Wildlife of Georgia webpage of GA DNR-WRD's website: http://georgiawildlife.dnr.state.ga.us/assets/documents/gnhp/gopherus_polyphemus.pdf
- Lastly, one of the printed documents listed under VIII(a), "A Landowner's Guide to Conservation Incentives," is also available electronically: <http://georgiawildlife.dnr.state.ga.us/documentdetail.aspx?docid=370&pageid=1&category=conservation>

SOUTH CAROLINA

None this reporting period.

POARCH BAND OF CREEK INDIANS

No report submitted.

AMERICAN FOREST FOUNDATION

- a) Publications (signage, brochures): 3 handbooks to 11,456 landowners holding 8,577,009 acres ; Wildlife Conservation Area signs to 250 landowners holding 301,821.8 acres
- b) Workshops and events (date, location, audience, organizer): October 25, 2008: Langford-Every Family Tree Farm in Union County, FL for 32 landowners holding 2,500 acres; November 8, 2008: Gail and Philip Jones Tree Farm in Covington County, AL for 42 landowners holding 3,264 acres; November 15, 2008: Gould Tree Farm in Chipley, FL for 22 landowners holding 7,437 acres; May 12, 2009: Escambia

Experimental Forest in Brewton, AL for 58 landowners and resource professionals holding/managing 231,787 acres.

- c) Public service broadcasts/announcements: None reported at this time.
- d) Electronic media (website, Listserv, other internet-based outreach): Broad program newsletter on conservation forestry to 2,106 landowners

LONGLEAF ALLIANCE

- a) Publications (signage, brochures): Collaborated with American Forest Foundation in development of Pine Ecosystem Conservation Handbooks for the Gopher Tortoise in Alabama, Mississippi, Georgia, Florida, and South Carolina.
- b) Workshops and events (date, location, audience, organizer): Held two working group meetings at Auburn in February to discuss habitat needs, potential ranking systems for habitat characteristics for use in evaluating habitats for banking system, and assessing potential markets, including credit sellers and buyers. A total of 12 Longleaf Academies held at Solon Dixon Forestry Education Center in Alabama in January, February, April, May, October, November and December 2009 to natural resource professionals representing state and federal agencies and the private sector. Academies included instruction practices designed to enhance habitat for gopher tortoises and other sandhill inhabitants.
- c) Public service broadcasts/announcements: None reported at this time.
- d) Electronic media (website, Listserv, other internet-based outreach): None reported at this time.

SECTION IX LEGAL PROTECTION MEASURES

ARMY

None during this reporting period.

NAVY

None during this reporting period.

AIR FORCE

None during this reporting period.

UNITED STATES MARINE CORPS

None during this reporting period.

UNITED STATES FOREST SERVICE

Forest Supervisor's Closure Order Banning the Gassing of Gopher Tortoise Burrows originated in 2002 and reauthorized in 2007 (through 2012). Clause in Timber Sale Contracts – CT6.24 – Site Specific Special Protection Measures: "To protect gopher tortoise burrows, log decks and skid trails will be agreed upon in advance by the Forest Service and the Purchaser. Within the Sale Area, gopher tortoise burrows will be protected from damage by all motorized vehicles."

UNITED STATES FISH AND WILDLIFE SERVICE

None during this reporting period.

ALABAMA

Alabama Conservation Advisory Board in March 2009 passed a motion making it "illegal to introduce gasoline or any other noxious chemical or gaseous substance into wildlife burrows, dens, or retreats." This motion will be incorporated into existing regulations.

FLORIDA

In Florida, gopher tortoises and their burrows are protected by law. As a Threatened species, Florida law prohibits any person to take, attempt to take, pursue, hunt, harass, capture, possess, sell or transport any gopher tortoise or parts thereof or their eggs, or molest, damage, or destroy gopher tortoise burrows, except as authorized by Commission permit or when complying with Commission-approved guidelines for specific actions which may impact gopher tortoises and their burrows. A gopher tortoise burrow is a tunnel with a cross-section that closely approximates the shape of a gopher tortoise. Permits will be issued based upon whether issuance would further management plan goals and objectives [Rule [68A-27.004 \(2\)](#), Florida Administrative Code (F.A.C.)]. Additionally, permitting guidelines have been developed to provide for the safe and humane relocation of gopher tortoise off of sites that are to be developed. These guidelines provide additional requirements for relocating tortoises which is authorized via agency permit.

The permit conditions included on the issued permit provide additional regulatory protection of tortoises when authorized for relocation. Permit conditions are enforceable and violation of permit conditions is a second degree misdemeanor which carries a fine up to \$500 and/or 60 days in jail for each violation. Intentionally killing a threatened species is punishable as a third-degree felony, with a fine of up to \$5,000 and/or five years in prison per violation.

FWC's Wildlife Alert Hotline may be used by citizens to report potential wildlife violations and has led to multiple convictions of individuals who violated laws protecting gopher tortoises. A training manual for law enforcement is under development and will be utilized in starting in 2010 to better train recruits at the Law Enforcement training academy. Additional training on rules, law enforcement protocols, gopher tortoise natural history, permitting guidelines, and pertinent definitions for gopher tortoises will also help to inform and educate our officers so that they can best address wildlife complaints related to gopher tortoises.

GEORGIA

None during this reporting period.

SOUTH CAROLINA

SCDNR staff are currently completing a conservation plan for the gopher tortoise in South Carolina. This document is intended to be used internally guide conservation efforts with the tortoise.

POARCH BAND OF CREEK INDIANS

No report submitted.

AMERICAN FOREST FOUNDATION

None during this reporting period.

LONGLEAF ALLIANCE

None during this reporting period.

SECTION X CCA AGENCY CONSERVATION STRATEGY

ARMY

None during this reporting period.

NAVY

None during this reporting period.

AIR FORCE

None during this reporting period.

UNITED STATES MARINE CORPS

- b) New goals and strategies not included under the CCA Agency Conservation Strategy:
MCSF Blount Island – plan on relocating all gopher tortoises to location off of the installation

UNITED STATES FOREST SERVICE

None during this reporting period.

UNITED STATES FISH AND WILDLIFE SERVICE

None during this reporting period.

ALABAMA

None during this reporting period.

FLORIDA

None during this reporting period.

GEORGIA

a) Deviations from CCA Agency Conservation Strategy:

The CCA strategy for Georgia includes three translocation efforts involving tortoises displaced by development in Florida. Since the finalization of the CCA, the Florida tortoise stakeholders' group declined to allow Florida animals to be moved to other states. The translocation efforts remain the same; however non-Florida sources of tortoises will be used, as they become available. No other deviations have been made.

SOUTH CAROLINA

None during this reporting period.

POARCH BAND OF CREEK INDIANS

No report provided.

AMERICAN FOREST FOUNDATION

b) New goals and strategies not included under the CCA Agency Conservation Strategy

Sandhill Habitat Credit Bank: The American Forest Foundation is developing a market-based habitat credit trading system on family forestlands in portions of Georgia and Alabama to increase the number of managed forested acres for the for the gopher tortoise and associated species. Under the program, interested family forest owners become eligible for habitat management assistance and conservation credit payments through a reverse auction process that considers the potential habitat contribution of the property in combination with the landowner's bid requirements. Landowners selected to participate will be issued credits for verifiable gopher tortoise habitat and/or agreed upon management activities. These credits can then be voluntarily purchased by federal agencies (e.g., Department of Defense or Department of Transportation), state or county governments, or private companies to offset impacts on sandhill habitat and gopher tortoise populations. These banked credits may also assist the credit holders in meeting their regulatory obligations should the eastern population of the gopher tortoise become federally listed in the future.

LONGLEAF ALLIANCE

None during this reporting period.

RECOMMENDATIONS

The best conservation efforts are driven by a thorough understanding of current conservation needs and trends. Familiarity with the needs of gopher tortoises as a keystone species helps wildlife managers identify the gaps in conservation efforts that affect their overall status. With these needs identified, managers and decision makers can help focus resources and efforts to fill those gaps.

The purpose of the reporting requirement under the CCA is to collect information in standardized format on current conservation efforts for the gopher tortoise, including habitat management, land preservation, population monitoring and relocation activities, education efforts, and laws or regulations that provide protection for the species.

Some of the challenges encountered during the first reporting period were minor; however, they affected the timeliness and quality of information reported. Parties requested that the report be accessible for completion online. The Florida FWC Office of Information Technology created the report using a standard Microsoft program (InfoPath) following the approved format. Parties were asked in advance and throughout the process to verify access to this program on their machines but, because of security restrictions and some unavailability of the reporting software, a few parties encountered challenges completing or submitting the online report.

The online reporting deadline for the CCA was December 1, 2009. Twelve of the thirteen candidates' reports were submitted. Of the submitted reports, not all information was provided, either because it was not applicable or simply not available. Now that the format is familiar to everyone, next year's report should be more comprehensive and include more specific data from all parties.

Additional recommendations are as follows:

- A point of contact for each reporting party should be specified to the GTT Chair
- All parties should have access to the appropriate reporting software
- Data should be collected year-round in an ongoing manner to facilitate completion of a full report
- All parties should strive to meet the deadline jointly set by the Gopher Tortoise Team

All parties to the Candidate Conservation Agreement share a common interest in gopher tortoise conservation. Parties also share a desire to conserve gopher tortoise populations and habitat in order to prevent regulatory constraints and carry out their missions to the best of their ability, whether these are training missions on military installations or forest management on USFS lands. It is evident from the parties' participation that all have a sincere interest in helping to conserve this keystone species. Annual reporting is a key component to helping us as wildlife managers to focus resources and assistance where it is most required to improve the overall conservation of the gopher tortoise throughout its current non-listed range.

APPENDIX I GOPHER TORTOISE CCA REPORT FORM

Gopher Tortoise Candidate Conservation Agreement (GTCCA)

Reporting Period: October 1, 2008 – September 30, 2009

Report due to the CCA Gopher Tortoise Team (GTT) Chair: December 1, 2009

Annual Assessment Report for: _____

Organization/Agency name

Submitted by: _____ Email: _____ Phone: _____

Organization/Agency contact name

The Candidate Conservation Agreement for the Gopher Tortoise (GTCCA) was signed and implemented in December 2008. The Agreement requires an annual assessment report from each party to the agreement to document conservation activities occurring within the gopher tortoise' non-federally listed range. To facilitate the compilation of information, this report format should be followed by all CCA partners. The assessment report should include activities completed on an annual basis for the period covering October 1 – September 30. Not all sections included below will be applicable to each organization. If sections of this report are not applicable to your organization's gopher tortoise conservation activities or are not applicable for the current reporting period, please indicate so.

The annual assessment report will be submitted to the Gopher Tortoise Team Chair by December 1 of each calendar year. The final CCA Annual report will be compiled and submitted by the Gopher Tortoise Team Chair to the Southeast Regional Partnership for Planning and Sustainability (SERPPAS) Steering Committee and Principals Group no later than January 30 each calendar year. An announcement that details the progress made to date on implementation of conservation actions described in the GTCCA will then be placed on the official SERPPAS website after concurrence by the SERPPAS Principals.

- I) Executive Summary
 - a) Brief summary of activities included in the report
- II) Properties or Area Covered
 - a) Total estimated acreage of **permanently** protected tortoise habitat (either by public ownership or by easement)
 - b) Total estimated acreage of **short-term** protected tortoise habitat (either by public ownership or by easement)
 - c) Total estimated acreage of **unprotected** tortoise habitat
 - d) Total estimated acreage tortoise habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise
- III) Land Management
 - a) Acres of gopher tortoise habitat restored or improved
 - b) Acres of gopher tortoise habitat maintained
 - c) Acres of gopher tortoise habitat burned
 - i) Acres burned during dormant season
 - ii) Acres burned during growing season
 - d) Other land management activities (chemical/mechanical treatment)
 - e) Acres of invasive species treated/eradicated (include invasive plant/animal type)
- IV) Surveys and Inventory
 - a) Survey date(s) and results by property (active and inactive burrows)
 - b) Population trends
 - i) Monitoring (date, property/location, results)
 - ii) Disease and die-offs (date, property/location, cause if known, number of deaths)
 - iii) Permitted takes (property/location, number of takes permitted)
- V) Population manipulation
 - a) Relocation (number of tortoises)
 - i) To permanently protected lands (number of tortoises)
 - ii) To short-term protected lands
 - iii) To unprotected lands
 - b) Repatriations (number of tortoises)

- i) To permanently protected lands
 - ii) To short-term protected lands
 - iii) To unprotected lands
 - c) Head start efforts
 - i) Description of effort, property/location, release date (anticipated), number of tortoises
 - d) Onto or off of habitat without a designated special protection status, but included in a management plan that provides for the conservation of the gopher tortoise
- VI) Research
- a) Conducted by or supported by agency (if published, include citation)
- VII) Land Conservation
- a) Acquisitions, easements and other long-term conservation protection
 - b) Land/habitat loss due to development activities or habitat degradation (identify cause of loss and if permanent/non-permanent)
- VIII) Education and Outreach
- a) Publications (signage, brochures)
 - b) Workshops and events (date, location, audience, organizer)
 - c) Public service broadcasts/announcements
 - d) Electronic media (website, Listserv, other internet-based outreach)
- IX) Legal protection measures (new, revised or expired legal protections that impact tortoises and/or their habitat)
- a) State laws, rules and regulations
 - b) Agency policies/directives/compliance documents
- X) CCA Agency Conservation Strategy (see CCA Section 10.2)
- a) Deviations from CCA Agency Conservation Strategy
 - b) New goals and strategies not included under the CCA Agency Conservation Strategy

Definitions (please see the GTCCA for a full list of definitions):

Habitat without a designated special protection status – applies to lands that are included in a management plan: this could consist of state public lands under a state management plan; Department of Defense installations (with a signed/approved Integrated Natural Resources Management Plan - INRMP).

Integrated Natural Resources Management Plan (INRMP) - a document that supports the military mission by combining a series of component plans into an ecosystem management approach and is the primary tool for managing species and their habitat on military installations.

Long-term protection (habitat) – applies to either privately owned lands placed under a perpetual (i.e., endless duration) conservation easement, or publicly owned lands purchased for conservation purposes where either restrictions on the acquisition funding source or government commitment (through ordinances or other regulations) would prevent or prohibit the eventual sale or development of the property.

Protected (habitat) – applies to any land that is protected from any future development (i.e. take of habitat).

Short-term protection (habitat) – applies to either privately or publicly owned lands that have some enforceable protection commitment, but those commitments do not meet the definition of "long-term protection."

Unprotected Site (habitat) – applies to lands that do not have any enforceable protection commitments or use restrictions that would prevent them from being modified and made unsuitable for tortoises.

(This page left intentionally blank.)