CANDIDATE CONSERVATION AGREEMENT FOR THE GOPHER TORTOISE *(GOPHERUS POLYPHEMUS)*

EASTERN POPULATION

November 2008 (Revised December 2009)

(Photo Source: http://www.wildherps.com/species/G.polyphemus html; Photo taken April 8, 2004 at Oscar Scherer State Park, Sarasota County, Florida)

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1. INTRODUCTION

This Candidate Conservation Agreement (CCA or Agreement) for the gopher tortoise, *Gopherus polyphemus*, has been developed as a cooperative effort among state, federal, non-governmental, and private organizations. The purpose of this Agreement is to collectively implement proactive gopher tortoise conservation measures across its eastern range. With this Agreement, the Parties (see Section 4) hope to organize a cooperative, range-wide approach to gopher tortoise management and conservation. This Agreement will allow the Parties to leverage knowledge and funding within a common conservation approach and framework. The Agreement is voluntary and flexible in nature, and has been developed so different conservation and management actions can be agreed to and implemented at different levels.

Under Executive Order 13352, *Facilitation of Cooperative Conservation*, the Departments of the Interior, Agriculture, Commerce, and Defense and the Environmental Protection Agency are to carry out their environmental and natural resource programs in a manner that facilitates cooperative conservation. This Agreement is an example of a such a cooperative conservation approach. The terms of this Agreement shall be governed by and construed in accordance with applicable federal and state law. Nothing in this Agreement is intended to limit the authority of the US Fish & Wildlife Service (USFWS) to fulfill its responsibilities under federal laws. Additionally, nothing in this Agreement is intended to supersede applicable state authorities. All activities undertaken pursuant to this Agreement must be in compliance with all applicable state and federal laws and regulations. Consistent with the specific commitments by, and the available resources of, the Parties, conservation actions set forth in this Agreement will be implemented and will remain in effect for the duration of the Agreement.

2. BACKGROUND

Initial efforts to create a gopher tortoise conservation agreement between multiple parties began in June 2005. Out of these efforts, the Gopher Tortoise Team (GTT) was established, currently consisting of the organizations listed in Section 4. This group came together to address suspected decline in the tortoise population and explore conservation measures that could create an environment throughout the eastern range of the gopher tortoise for its population to thrive. One of the team's first initiatives included the development of a Memorandum of Intent (MOI), *Conservation of the Gopher Tortoise in its Eastern Distribution*, signed in 2006. The aim of the MOI was to foster an increased level of communication, collaboration, and conservation among the signatories to actively manage and conserve gopher tortoise populations and habitat. In the MOI the signatories agreed that:

- Gopher tortoise populations and habitat are in need of assistance
- Action is needed to improve gopher tortoise status throughout its range
- Each party could benefit from reversing the declining trend in gopher tortoise populations

Organizations involved in the MOI development were the Department of Defense (DoD), Southern Regional Environmental Office (SREO), USFWS, and US Forest Service (USFS), state Departments of Natural Resources (DNRs) or equivalent, The Nature Conservancy, Partners in Amphibian and Reptile Conservation, the Gopher Tortoise Council, and The Conservation Fund. The MOI allows any public or private entity or landowner within the range of the gopher tortoise to become a

cooperating Party to the agreement.

In January of 2006, the USFWS received a petition to list the eastern population of the gopher tortoise as a threatened species under the Endangered Species Act (ESA). A listing decision can create considerable regulatory constraints for both public and private landowners, a situation which prompted the Southeast Regional Partnership for Planning and Sustainability (SERPPAS) to adopt the efforts of the GTT to better resource and enhance gopher tortoise conservation efforts. Established in 2005, SERPPAS is a partnership of state and federal environmental and natural resource officials from across the southeast that was formed to promote better collaboration in making resource-use decisions. The SERPPAS mission is to coordinate and leverage partner resources to promote sustainable use of natural resources balanced with the health and safety of the environment and surrounding communities, while promoting economic development and military readiness.

The states of Alabama, Florida, Georgia, and South Carolina signed the original MOI. While the MOI was developed to increase the level of communication, collaboration, and conservation among the signatories to actively manage and conserve gopher tortoise populations and habitat, those commitments are general in nature. This CCA is focused on outlining more specific conservation commitments. With this Agreement, the Parties hope to implement an organized, range-wide approach with conservation actions that all can adhere to.

3. GOALS AND OBJECTIVES

The goals and objectives of this Agreement fall into two main categories.

1. Range-wide Conservation and Management: By addressing gopher tortoise conservation holistically across its eastern range, the Parties hope to more effectively identify and conserve gopher tortoise habitat and populations; develop and implement management strategies that maintain or enhance gopher tortoise habitat; and monitor the response of the species to conservation and management.

2. Cooperation and Collaboration: By managing gopher tortoise conservation actions in a proactive and collaborative manner, the Parties plan to highlight existing individual gopher tortoise conservation actions and efforts and to share knowledge and information across a wide range and diverse collection of organizations. This also allows for an organized conservation approach that encourages uniform actions and reporting, integrates monitoring and research efforts with management, and supports partnership formation.

By striving for and achieving these goals and objectives, the Parties believe that the gopher tortoise and its habitat can be conserved in its non-federally listed distribution in the states of Alabama, Georgia, Florida, and South Carolina such that any current or potential threats are significantly reduced. These actions would be considered in any future determination to list the gopher tortoise and may make it unnecessary to list the gopher tortoise in the foreseeable future. The Parties also believe that numerous listed and at-risk animal and plant species associated with the gopher tortoise will benefit from this Agreement and that implementation of this Agreement may significantly reduce or eliminate threats to species such as the gopher frog and federally listed indigo snake.

4. PARTIES

4.1. FEDERAL AGENCIES

- Department of Defense (DoD)
- United States Army
- United States Navy
- United States Air Force (USAF)
- United States Marine Corps (USMC)
- United States Forest Service (USFS)
- United States Fish and Wildlife Service (USFWS)

4.2. STATE AND TRIBAL AGENCIES

- Alabama Department of Conservation and Natural Resources (ADCNR)
- Florida Fish and Wildlife Conservation Commission (FWC)
- Georgia Department of Natural Resources (GaDNR)
- South Carolina Department of Natural Resources (SCDNR)
- Poarch Band of Creek Indians

4.3. NON-GOVERNMENTAL ORGANIZATIONS

- American Forest Foundation (AFF)
- Longleaf Alliance (LLA)

The Parties listed above share a common interest in gopher tortoise conservation. Each state comprising the geographic area of the gopher tortoise's eastern range is represented, as are non-governmental organizations (NGOs), tribal agencies, and federal agencies such as the Military Services. The Parties 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, be it training missions on military installations or forest management on USFS lands. Additional Parties that fit into the above categories are welcome to sign on at any time, at which point they shall provide legal authority and specific conservation commitment input to the GTT. This input will be incorporated into Appendix E. Upon execution of this Agreement by the Parties, the management actions outlined in this document will be implemented where appropriate and as funding allows.

5. THE ROLE OF THE PRIVATE LANDOWNER

To meet the goals and objectives of this Agreement, the Parties acknowledge and recognize the value and role of private landowner(s) within the geographic scope of this Agreement. It is generally agreed that significant conservation opportunities on private lands exist and that the overall status and trend of the gopher tortoise and its habitat will depend upon the individual and collective actions of private landowners. Thus, the Parties expect that this Agreement will provide guidance and a framework within which interested private landowners can participate in gopher tortoise conservation in a voluntary and proactive manner. Other tools and programs will emerge as a result of implementation of this Agreement whose sole purpose will be to assist landowners conserve gopher tortoise habitat. The tools include, but are not limited to, the development of CCAs with Assurances (CCAAs) – either at the local or landscape levels.

The CCAA program is an aspect of the USFWS's implementation of the ESA that is intended to facilitate the conservation of proposed and candidate species, and species that may become candidates, by giving non-federal property owners incentives to implement conservation measures for declining or at-risk species. The incentives available through CCAAs include providing property owners certainty that no further land, water, or resource use restrictions beyond those agreed to in the CCAA will be imposed if the species later becomes listed under the ESA. Further, a level of incidental take is provided to landowners within the CCAA. Implementation of the stated conservation measures within the CCAA should produce a level of benefit, assuming that conservation measures are also implemented on other necessary properties, that would preclude or remove any need to list the covered species. "Other necessary properties" are other properties on which conservation measures would have to be implemented in order to preclude or remove any need to list the covered species.

By precluding or removing any need to list a species through early conservation efforts, property owners can maintain land use and development flexibility. In addition, initiating or expanding conservation efforts before a species and its habitat are critically imperiled increases the likelihood that simpler, more cost-effective conservation options will still be available and that conservation will ultimately be successful. The CCAA has been an effective mechanism for conserving declining species, particularly candidate species, and have, in some instances, precluded or removed any need to list some species. Currently, CCAA development is already underway in Georgia between GaDNR, USFWS and Georgia Power Company at Plant Vogtle.

A CCAA will involve the USFWS, one or more non-federal property owners, and possibly other cooperators. State fish and wildlife agencies, which have primary jurisdiction over species that are not federally listed, may be a cooperator in any program and some of the states participating in this Agreement are contemplating the implementation of programmatic CCAAs. Other potential cooperators include neighboring property owners, state or local agencies, tribal governments, federal property owners, or NGOs. However, it is important to note that only non-federal property owners may receive regulatory assurances offered in the CCAA programs.

6. AUTHORITY

The Parties enter into this Agreement under authority provided by federal and state law. Nothing in this Agreement is intended to limit the authority of the USFWS to fulfill its responsibilities under federal laws. Nothing in this Agreement is to imply that any Party is in any way abrogating or ceding any responsibility or authority inherent in its sovereign ownership of, jurisdiction over, and control of its property interests or wildlife. All activities undertaken pursuant to this Agreement must be in compliance with all applicable state and federal laws and regulations.

6.1. FEDERAL AGENCY AUTHORITIES

6.1.1. Department of Defense

The Sikes Act, 16 United States Code (U.S.C.) §§ 670a-670o, requires the Secretary of Defense to prepare and implement integrated natural resource management plans (INRMPs) for the conservation and rehabilitation of natural resources on military installations. These plans reflect mutual agreement between the USFWS and the head of each appropriate state fish and wildlife

agency concerning conservation, protection, and management of fish and wildlife resources. DoD may enter into cooperative agreements with states, local governments, nongovernmental organizations and individuals to provide for the maintenance and improvement of natural resources on, or to benefit natural and historic research on, DoD installations.

An INRMP is a comprehensive plan used to manage installation natural resources by providing and ensuring the sustained use of a landscape necessary to support the military mission in accordance with accepted stewardship principles. It replaces the need for separate management plans for particular natural resources (for example, endangered species management, forest management, wetlands management, and fish and wildlife management). The INRMP describes how natural resources will be managed for military mission needs and in compliance with applicable laws and regulations. It ensures that management of natural resources does not result in a "net loss" of mission training land and describes how ecosystems will be managed to create and maintain certain landscape characteristics needed to enhance military training opportunities.

Department of Defense Instruction (DoDI) 4715.3, *Environmental Conservation Program*, provides guidance to the Services for the integrated management of natural resources on property under DoD control. It also states that natural resources under the stewardship and control of the DoD shall be managed to support and be consistent with the military mission, while protecting and enhancing those resources for multiple use, sustainable yield, and biological integrity.

Additionally, Section 2684(a) of Title 10 U.S.C., known as the buffering authority, authorizes the Services to enter into partnerships with private conservation organizations or state and local governments to preserve land and prevent incompatible development around military installations.

6.1.2. Army

Sections of Department of the Army Regulation (AR) 200-1 set forth policy, procedures, and responsibilities for the conservation, management, and restoration of land and natural resources consistent with the military mission and in consonance with national policies. In fulfilling their conservation responsibilities, paragraph 4-3d(5)(v) authorizes installations to participate in regional/habitat-wide efforts to conserve candidate species and Army-designated species at risk (SAR). Paragraph 4-3d(6) provides authority for managing SAR and their habitats. Specific SAR guidance is found in *Army Species at Risk Policy and Implementing Guidance*, dated 15 September 2006. This Army SAR policy memorandum specifically identifies the gopher tortoise as a priority Army species at risk. The SAR policy encourages proactive management efforts for SAR and their habitats, before federal protection under the ESA is necessitated, and further encourages installations to capitalize on partnerships and agreements when managing for such species.

The DoD buffering authority mentioned above is implemented by the Department of the Army with the Army Compatible Use Buffer (ACUB) Program. Installations with approved ACUB plans have authority to work with partners to protect and restore habitat outside the installation if those activities are deemed beneficial to sustaining the installation's military mission. Installations with pending or approved ACUB plans within the geographic extent of this CCA include Fort Stewart, Camp Blanding, Fort Gordon, Fort Benning, and Fort Rucker.

6.1.3. Navy

Operational Navy Instruction OPNAV 5090.1C, *Environmental and Natural Resources Program*

Manual, provides installation requirements for the implementation of The Sikes Act regarding the management of natural resources on Navy lands. Additionally, the *Integrated Natural Resources Management Plan Guidance for Navy Installations, April 2006* provides Navy natural resource managers with information necessary to prepare, update, and implement Integrated Natural Resources Management Plans (INRMPs). Natural resources at Navy installations are managed in accordance with installation INRMPs which are developed cooperatively with USFWS and state fish and wildlife agencies as stakeholders and are reviewed annually by the stakeholders for content, project implementation, and updates.

6.1.4. Air Force

Air Force Instruction (AFI) 32-7064, *Integrated Natural Resources Management*, provides guidance to manage natural resources on USAF installations and ranges. In addition, AFI 13212, *Range Planning and Operations*, provides specific guidance for range management. These resources are managed in accordance with the relevant federal laws, including the Sikes Act, using an INRMP as the principal tool under AFI 32-7064 and the sole tool under AFI 13-212. The INRMP is developed in cooperation with the USFWS, NOAA Fisheries (for installations that include or border marine environments), and the appropriate state fish and wildlife agency for the state in which the Air Force installation is located. Changes in an INRMP affecting its goals and objectives (including addition and/or deletion of projects) must be coordinated within and among appropriate USAF personnel, and should be coordinated with USFWS and the appropriate state fish and wildlife agency before they are implemented.

6.1.5. Marine Corps

Marine Corps Order (MCO) P5090.2A Change 1 (22 Jan 08), *Environmental Compliance and Protection Manual*, establishes Marine Corps policy and responsibilities for compliance with both statutory/regulatory requirements and the management of Marine Corps programs, to include the preservation of natural resources. As with the other Military Services, all Natural Resource management activities at Marine Corps installations are conducted under that installation's INRMP. In accordance with Chapter 11 of MCO 5090.2A, *Natural Resource Management*, Marine Corps installations will survey and take other appropriate actions to document the presence of state rare and endangered species. Marine Corps installations should also inventory and monitor state-listed species as NEPA may require the consideration of a proposed action's impact on these species, and because state laws and regulation may govern their possession, propagation, sale, or taking on an installation. Additionally, Marine Corps installations will inventory and monitor candidate species to evaluate and document any effects that military activities may have upon them. MCO 5090.2A also allows the Marine Corps to execute cooperative agreements to exchange information, conduct research, or study projects that contribute to an installation's INRMP.

6.1.6. Forest Service

The USDA Forest Service has recognized the need to implement special management direction for rare species on the lands it administers. The Regional Forester may designate these species as Sensitive as described in the Forest Service Manual 2670.22. The objectives of management for such species are to ensure their continued viability throughout their range on National Forest lands, and to ensure that they do not become threatened or endangered because of Forest Service actions. The gopher tortoise is designated Sensitive on the Regional Forester's Sensitive list.

6.1.7. Fish & Wildlife Service

Sections 2, 6, and 7 of the ESA, 16 U.S.C §§ 1531-1544, authorize the USFWS and other federal parties to enter into this Agreement. Section 2 of the ESA states that encouraging parties to develop and maintain conservation programs is a key to safeguarding the nation's heritage in fish, wildlife, and plants. Section 2(c)(1) of the ESA, (16 U.S.C. 1531(c)(1)), states "the policy of Congress is that all federal departments and agencies shall seek to conserve endangered and threatened species and shall utilize their authorities in furtherance of the purposes." Under Section 6 of the ESA, the "Secretary shall cooperate to the maximum extent with the States...", 16 U.S.C. §1535(a). Further, under Section 6, the Secretary may authorize under cooperative agreement with a state program, a state agency to establish conservation initiatives; and may provide financial assistance to the state to monitor the status of a species within a state to prevent significant risk to the well-being of any such species, 16 U.S.C. §1535(c). Section 7 of the ESA requires federal agencies to review programs that they administer and to utilize such programs in furtherance of the purposes of the ESA. Entering into this Agreement is an important and proactive initiative that follows the intent of Section 7 to provide for the conservation of the nation's fish, wildlife, and plants.

In addition to the ESA, the Fish and Wildlife Act of 1956 provides that the Secretary shall "...take such steps as may be required for the development, advancement, management, conservation, and protection of fish and wildlife resources...". The Fish and Wildlife Coordination Act states that the Secretary is authorized "to provide assistance to, and cooperate with, Federal, State, and public or private agencies and organizations in the development, protection, rearing, and stocking of all species of wildlife, resources thereof, and their habitat...". Lastly, the Sikes Act requires DoD installations to develop INRMPs to support the military mission in cooperation with USFWS and state fish and wildlife agencies.

Perhaps the largest driving force behind the USFWS's authority to conserve wildlife and habitat is the National Wildlife Refuge System and the laws and regulations that established and manage this system. Refuges are special places where the USFWS and its partners restore, protect, and manage habitat for America's wildlife.

A history of laws directs the USFWS's administration of the National Wildlife Refuge System. Early legislative acts laid the groundwork for President Roosevelt's 1903 Executive Order establishing the first refuge, and acts of Congress as recent as 1997 continue to shape the administration of our Nation's refuges. The National Wildlife Refuge Improvement Act of 1997 requires that each National Wildlife Refuge create a Comprehensive Conservation Plan (CCP). This Refuge planning process is consistent with the provisions of various Acts, including but not limited to: the National Wildlife Refuge Improvement Act of 1997 (16 U.S.C. 668dd *et seq.*); the Migratory Bird Treaty Act (16 U.S.C. 703-712); the National Environmental Policy Act of 1969, as amended (42 U.S.C. 94321 *et seq.*); the Administrative Procedures Act (5 U.S.C. 5706); the Estuary Protection Act (16 U.S.C. 1221-1226); the Coastal Zone Management Act of 1972 (16 U.S.C. 1451-1464); the Acts listed in the paragraphs above; and various Executive Orders and internal Federal Policy and Procedure Memoranda.

In addition, The National Wildlife Refuge System Improvement Act of 1997 requires the USFWS to maintain the ecological health, diversity, and integrity of refuges. In this context, gopher tortoise is frequently a focus species for managing and restoring open woodlands and savannas, as well as xeric scrub habitats represented on National Wildlife Refuges.

6.2. STATE AND TRIBAL AUTHORITIES

6.2.1. Alabama

In Alabama, the gopher tortoise is a protected non-game species. Populations west of the Tombigbee and Mobile Rivers are federally listed as Threatened. Additionally, under the Nongame Species Regulation 220-2-92, the gopher tortoise is on the list of species in Alabama that legally prohibits the take, capture, kill, or attempt to take, capture or kill; possess, sell, trade for anything of monetary value, or offer to sell or trade for anything of monetary value, the nongame wildlife species on that list (or any parts or reproductive products of such species) without a scientific collection permit or written permit from the Alabama Department of Conservation and Natural Resources, which shall specifically state what the permittee may do.

6.2.2. Florida

In 2007, the Florida Fish and Wildlife Conservation Commission (Commission) released its updated Gopher Tortoise Management Plan in accordance with the Threatened and Endangered Species regulation, Florida Administrative Code, Rule 68A-27. The gopher tortoise is designated as a threatened species within the state of Florida effective November 2007. Rule 68A-27.004 states that "No person shall 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."

6.2.3. Georgia

The state of Georgia has regulations (GaDNR Rules Chapter 391-4-10) for the protection of plant and animal species, including the gopher tortoise, which is listed as threatened within the state. GaDNR may issue permits for the collection, transportation, and/or possession of gopher tortoise for scientific or educational use only. Such permits do not alleviate the responsibility to acquire specific federal permits, if required. Georgia law specifically states that rules and regulations related to the protection of state protected species shall not affect rights on private property. Prohibitions are limited to the capture, killing, or selling of protected species and the protection of the habitat of these species on public lands. GaDNR has statutory and regulatory authority to enter into cooperative agreements with federal agencies and other states' agencies in carrying out its objectives, including management programs for the purpose of conserving any endangered or threatened species (O.C.G.A. §§ 12-2-6 & 27-1-6; Board Rule 391-4-10-.05).

6.2.4. South Carolina

The gopher tortoise is listed by the state of South Carolina as a critically endangered species within the state of South Carolina. This state designation requires that the federal ESA is observed in reference to gopher tortoise, meaning it is unlawful for any person to take, possess, transport, export, process, sell or offer for sale or shipment, and for any common or contract carrier knowingly to transport or receive for shipment any species or subspecies of wildlife that is endangered within the state. Very few tortoises reside in South Carolina, but known populations

are protected on wildlife management areas, where it is illegal to take tortoises without written permission from the Department of Natural Resources (Wildlife Management Area Regulation 11.1).

6.2.5. Poarch Band of Creek Indians

The gopher tortoise is a culturally significant species for the Poarch Band of Creek Indians. Tortoises have historically been part of cultural and religious practices as well as a food and utilitarian use source for thousands of years. The Tribe protects gopher tortoise populations according to federal laws and regulations on the Tribal Reservation and Trust lands. Additionally, the Tribe protects gopher tortoises on "fee lands" according to federal and appropriate state laws and regulations. Tribal members also have certain protections for collecting native flora and fauna for cultural and religious practices covered under federal laws and regulations. Tribal Code, Chapter 26, Environmental Protection, covers the regulations for protecting wildlife habitat and improving it to benefit wildlife.

6.3. NON-GOVERNMENTAL ORGANIZATIONS

6.3.1. American Forest Foundation

AFF is a private, not for profit organization organized under U.S.C. 501.c.3, that works with forest owners across the nation to promote sustainable forest management on family forest lands. AFF's Center for Conservation Solutions works with partners and family forest owners to conserve and create habitat for imperiled species. Through the promotion of conservation incentives and regulatory assurances, AFF engages family forest owners and encourages their active habitat management for the gopher tortoise and associated species. The organization is uniquely qualified to develop educational materials for and outreach to family forest owners and other interested stakeholders regarding the gopher tortoise.

6.3.2 The Longleaf Alliance, Inc.

The Longleaf Alliance, Inc. is a U.S.C. 501.c.3 non-profit conservation organization dedicated to the conservation, restoration, and management of longleaf pine ecosystems across their range. Working across broad partnerships, the Alliance has a 15 year history of outreach, education, and research in "all things longleaf". Serving as a source of technical assistance for landowners and land managers, in-service training for natural resource professionals, and education for a broad array of audiences, the Alliance has served as the region's clearinghouse for longleaf ecosystem conservation. The Alliance has established a reputation as an honest broker of information with private and public landowners that fosters trust and allows access denied many public agencies and conservation NGO's. With interest and experience in managing sandhills and sandhill communities, including both gopher tortoises and indigo snake studies, across the region, the Alliance brings both technical knowledge and valuable relationships to the task of conserving those communities.

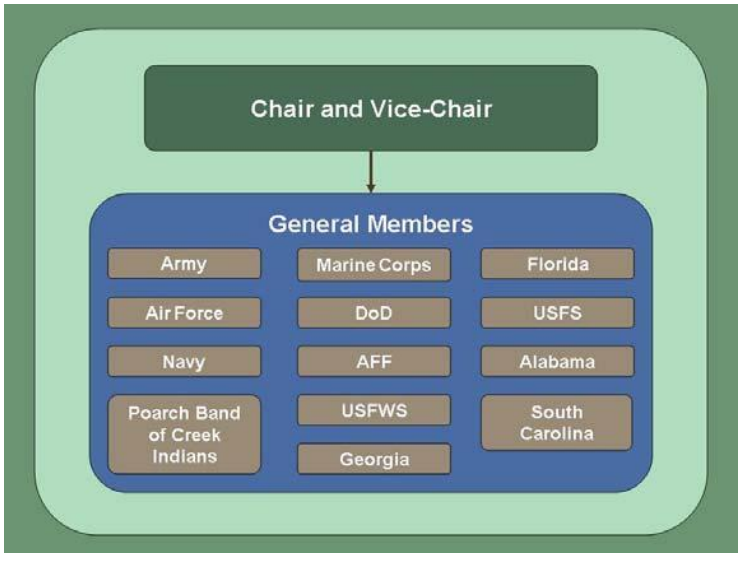
7. CCA MANAGEMENT AND ADMINISTRATION

In order to meet the objectives of this Agreement, the GTT will manage, administer, and periodically review this Agreement. The responsibility of this team is to coordinate the implementation and administration of the Agreement without superseding the jurisdictional authorities of any party. The GTT will develop and make recommendations for the conservation and research needs of the gopher tortoise and identify new threats in its eastern distribution.

7.1. GOPHER TORTOISE TEAM LEADERSHIP AND MANAGEMENT

The GTT will consist of one or more designated representatives from each Party to this Agreement and may include technical and legal advisors and other members as deemed necessary. Parties may have multiple sub-organizations involved; e.g., Wildlife, Forestry, and Endangered Species divisions of a state. The GTT will be chaired by participating state representatives only. On 1 July of each year the Chair with be succeeded by the Vice Chair. Alabama will hold the first chairmanship followed by Florida; the states will follow in alphabetical order. The GTT's organizational structure is outlined below in Figure 7.1 and will be updated as needed.

Figure 7.1: Gopher Tortoise Team's Organizational Structure



7.2. ASSESSING AND MANAGING THE AGREEMENT

The GTT is responsible for the coordination of the conservation activities and monitoring of the conservation actions being conducted by the Parties to encourage all actions to be in accordance with the Agreement. The GTT will develop an annual assessment of the Parties' progress towards implementing the conservation actions described in this Agreement. This assessment will be comprised of an annual report and recommendations for CCA revisions and actions. The annual report will be based on input provided to the GTT by the Parties. The GTT will devise a standardized reporting format for the Parties to use when providing input. Following the annual assessment, the GTT will publish an announcement that details the progress made to date on implementation of conservation actions described in the Agreement.

7.3. EDUCATION AND OUTREACH

The GTT will assess the need to develop and/or distribute outreach materials to promote gopher tortoise conservation. Parties that develop new outreach materials related to the gopher tortoise and/or its habitat will share the materials with other GTT members. Outreach materials include, but are not limited to, pamphlets, newsletter articles and announcements, fact sheets, and other educational materials. In addition, the GTT will reach out to and utilize partnering organizations such as SERPPAS or the Partnership for Amphibian and Reptile Conservation for support.

The GTT will also create a repository or utilize an existing repository for gopher tortoise conservation research and information (e.g., a GTT website). This repository will include items such as gopher tortoise research, habitat management strategies, population densities, and outreach materials. Each Party to this Agreement will post gopher tortoise information and/or links to other appropriate sites on the information repository as well as their own internal websites if applicable.

8. STATUS AND DISTRIBUTION OF THE GOPHER TORTOISE

8.1. DESCRIPTION

The gopher tortoise is a member of the Class Reptilia, Order Testudines, and Family Testudinidae. Of four North American tortoise species (genus *Gopherus*), the gopher tortoise is the only one that occurs east of the Mississippi River. The gopher tortoise is a moderately-sized terrestrial turtle, averaging 23–28 centimeters in length. The species is identified by its stumpy, elephantine hind feet and flattened, shovel-like forelimbs adapted for digging. The shell is oblong and generally tan, brown, or gray in coloration.

8.2. LIFE HISTORY

The gopher tortoise is slow to reach sexual maturity, has low fecundity, and has a long life span. Females reach sexual maturity at 9–21 years of age, depending on local resource abundance and latitude; males mature at a slightly younger age. The breeding season is generally April– November. Nests are constructed (often in burrow mounds) from mid-May to mid-June, and only one clutch is produced annually. Clutch size is usually five to nine eggs, with an average of six. Predation on nests and hatchlings is heavy.

Gopher tortoises feed primarily on broadleaf grasses, wiregrass, grass-like asters, legumes, and fruits, but they are known to eat more than 300 species of plants. Tortoise densities and movements are affected by the amount of herbaceous ground cover. Generally, feeding activity is confined to within 50 meters of the burrow, but a tortoise may travel up to 100 meters from its burrow for specific forage requirements. Home range size varies with habitat type, season, and sex of the tortoise; moreover, considerable individual variation has been found. Reported annual average home ranges for males have varied from 0.5 to 1.9 hectares. Females generally have smaller home ranges, with reported averages ranging from 0.1 to 0.6 hectares. Multiple burrows are typically used, which complicates estimates of population density.

8.3. HABITAT

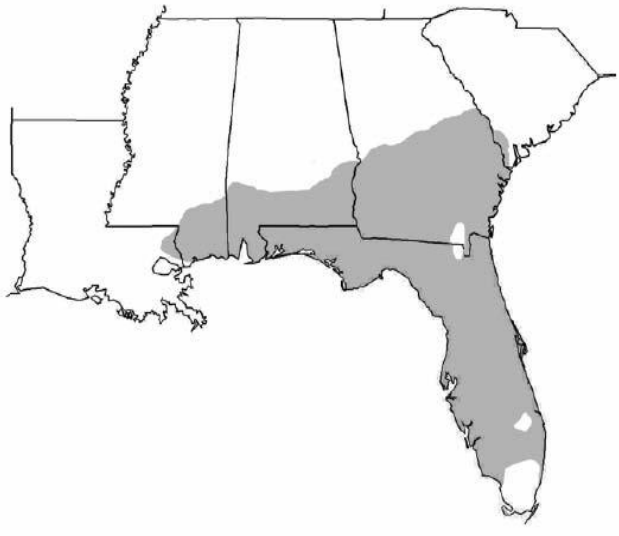
The gopher tortoise typically inhabits relatively well-drained, sandy soils. The gopher tortoise is generally associated with longleaf pine, xeric oak sandhills but also occurs in scrub, xeric hammock, pine flatwoods, dry prairie, coastal grasslands and dunes, mixed hardwood-pine communities, and a variety of disturbed habitats. Gopher tortoises excavate burrows that average 4.5 m in length and 2 m in depth. These burrows, which provide protection from temperature extremes, desiccation, and predators, serve as refuges for approximately 360 other species, including federally listed species such as the Mississippi gopher frog (*Rana capito*) and Eastern indigo snake (*Drymarchon couperi*).

8.4. DISTRIBUTION

The gopher tortoise occurs in the southeastern Coastal Plain from southeastern South Carolina to extreme southeastern Louisiana. The gopher tortoise is endemic to the United States, and Florida

represents the largest portion of the total range of the species.

Figure 8.4: Gopher Tortoise Distribution
(Source: Gopher Tortoise Management Plan, Florida, September 2007)



9. PROBLEMS FACING THE GOPHER TORTOISE

The success of any conservation or recovery effort depends on reducing or eliminating threats to the continued existence of the species. The following summarizes the five listing factors identified in section 4(a)(1) of the ESA which must be considered by the USFWS in evaluating current threats to the gopher tortoise.

9.1. THE PRESENT OR THREATENED DESTRUCTION, MODIFICATION, OR CURTAILMENT OF THE SPECIES' HABITAT OR RANGE

The primary threats to gopher tortoises in the Southeastern U.S. are habitat destruction, fragmentation, and degradation. Causes of these threats include, but are not limited to; urbanization and development, intensive forestry practices, agriculture, dam construction, invasive exotic plant establishment, sand extraction, mining, land-use requiring vegetation clearance, fire suppression, agriculture, and human predation. Most gopher tortoise habitat exists on privately owned lands, rendering threats to habitat quality an important issue for private landowners. Additionally, federal and state lands are comprised of gopher tortoise habitat, and this Agreement focuses on these areas.

9.2. OVERUTILIZATION FOR COMMERCIAL, RECREATIONAL, SCIENTIFIC, OR EDUCATION PURPOSES

Human collection and consumption is the primary way in which gopher tortoise populations are overutilized. Human predation on gopher tortoises has occurred throughout the Southeastern U.S. Harvesting of gopher tortoises is now prohibited by all states throughout its range; however, illegal commercial hunters continue to collect gopher tortoise for their meat. For

example, the effects of human predation on tortoise populations in longleaf pine-turkey oak habitat in the Florida Panhandle has resulted in a low density of tortoise populations, as compared to higher densities of tortoises found in similar habitat in Peninsular Florida. Although tortoise protection and decreased tortoise populations have reduced human consumption rates, some tortoise populations may still be depleted by sustained human predation.

9.3. PREDATION OR DISEASE

In the wild, gopher tortoise eggs and hatchlings are preyed upon by mammals, birds, and snakes. Approximately 80–90% of nests are typically depredated, primarily by mammalian predators. It is believed that more than 90% of hatchlings may not survive their first year. Adults are not usually subject to predation, but there is evidence that they can succumb to dogs and coyotes. Gopher tortoise populations can typically withstand natural predation pressure, with only one to three of every 100 eggs probably producing a breeding adult. However, predator populations, such as raccoons and crows, can be artificially high in some habitats because of anthropogenic factors. Also, potential new tortoise predators have invaded the Southeast (nine-banded armadillo, coyote, monitor lizards, feral hogs, and red imported fire ant) via human transport or habitat alteration.

Beginning in the 1990s, upper respiratory tract disease (URTD) was identified as a potential threat to the gopher tortoise, and relatively large die-offs (100–300+ shells) that might be linked to URTD were documented on several public lands in Florida. In addition to at least two Mycoplasma species responsible for URTD, gopher tortoises also may have herpesvirus and iridovirus. Pathogens may be partially responsible for recent declines in some gopher tortoise populations, but URTD may have a long evolutionary history as a gopher tortoise disease. It is possible that *Mycoplasma agassizii* may be detected in virtually every population, if enough tortoises are sampled. There are several possibilities why URTD has only been discovered recently: 1) increased research on the species, 2) increased stress on gopher tortoise populations from habitat fragmentation and degradation has lowered their resistance to pathogens, 3) a more virulent form of the pathogen has evolved, or (4) URTD was introduced by humans via exposure to infected captive tortoises. On Sanibel Island, 87% of tortoises tested were seropositive for exposure to the pathogen, and at least one population there appears to have experienced a 25– 50% reduction in breeding age adults. However, it has been found that observed declines in the demographic well-being of gopher tortoise populations did not appear to be related to the presence of *Mycoplasma agassizii*.

9.4. EXISTING REGULATORY MECHANISMS

The species is federally listed west of the Tombigbee/Mobile Rivers with no federal and some state protection east of these rivers. While the gopher tortoise is currently state protected in Alabama, Florida, Georgia, and South Carolina, state protection varies greatly, and there is no coordinated or comprehensive framework for conservation or protection currently in place. For more state-specific regulatory information, see Section 6.2.

9.5. OTHER MANMADE OR NATURAL FACTORS AFFECTING THE SPECIES' CONTINUED EXISTENCE

There are no other known manmade or natural factors affecting the species continued existence. However, increased conversion to agricultural lands could cause increased use of and tortoise

exposure to agricultural chemicals.

10. CONSERVATION STRATEGY AND COMMITMENTS

The strategy for organizing a cooperative, range-wide approach to gopher tortoise management and conservation is focused on establishing a baseline of conservation commitments that all Parties agree to, and then collectively accounting for specific agency conservation actions across the region. It also establishes a starting-point for private landowner involvement in gopher tortoise conservation and management activities. Key components of this strategy are based on the premise that this Agreement, in the near term, is focused on reducing the deteriorating status of the species by improving, organizing, and implementing specific management actions, and in the long term, will facilitate the development of a network of managed gopher tortoise populations across its range.

The commitment and actions outlined in this Section focus on conservation, improvement, and ongoing management of gopher tortoise habitat. The landscape and local level conservation actions are designed to be adaptable and implementable by all Parties in a collaborative environment, and the agency-specific actions describe the specific actions that each Party will conduct to effectively manage the species and reduce habitat and population loss. The results of these actions will be observed through monitoring the response of tortoise populations. Information obtained from surveys and monitoring will increase the understanding of the gopher tortoise and its management needs. This knowledge will be applied using the concepts of Adaptive Management that periodically assess and modify conservation actions.

10.1. HABITAT CONSERVATION COMMITMENTS

Each of the Parties is bound by certain guiding agency requirements which establish their mission, goals, and responsibilities while also managing and conserving the habitat of various species (e.g., the gopher tortoise) in the Southeastern U.S. This section addresses general measures that will be taken by the Parties to conserve gopher tortoise and its habitat at the landscape and local level. Best practices for habitat management, monitoring, and translocation of tortoises are contained in Appendix B.

10.1.1. Landscape Level Conservation

This section describes general conservation efforts that all Parties agree to implement at the regional or landscape level, in accordance with their respective authorities and their individual missions. These common and comprehensive efforts and actions include:

- Identifying suitable or potentially suitable gopher tortoise habitat/sites/areas, and documenting those that are exceptional ecosystems known to support high biodiversity and/or numerous federal-and-state listed threatened and endangered plant and animal species.
- Identifying areas occupied by gopher tortoises.
- Identifying areas of potential agency mission – gopher tortoise habitat conflict.
- Identifying and reducing dispersal barriers between gopher tortoise populations.
- Developing and implementing best management practices for avoiding/minimizing/mitigating impacts to suitable and occupied habitats.
- Identifying and collaborating with landowners (private and public) on conservation/management efforts needed to minimize impacts to or sustain gopher tortoise habitat.

- Making gopher tortoise information available to promote appropriate data sharing, conservation, and partnering.
- Assessing and evaluating gopher tortoise habitat or population trends related to actions associated with development/agriculture/etc or conservation/restoration.
- Avoiding/minimizing impacts to suitable, unoccupied gopher tortoise habitat to allow for occupation of gopher tortoises in such areas, and managing these areas appropriately (e.g., prescribed fire).

10.1.2. Local Level Conservation

This section describes general conservation efforts that all Parties agree to implement at the local, installation or property level, consistent with their respective authorities and in accordance with their individual missions. These common and site-specific efforts and actions include:

- Considering the effects of actions on gopher tortoise during the planning process, and avoiding or minimizing impacts on habitat where practical.
- Identifying presence/absence of gopher tortoises in proposed action areas where the action will disturb soils in suitable habitat.
- Avoiding when practical or otherwise minimizing adverse effects on gopher tortoise habitat during land management activities.
- Considering translocation of gopher tortoises for projects that will adversely and permanently degrade/fragment/destroy occupied habitat and where all other management options have been exhausted. If translocation is selected as an action, developing a translocation plan.
- Avoiding where practical or otherwise minimizing adverse effects of actions that isolate existing gopher tortoise populations.

10.2. AGENCY-SPECIFIC HABITAT CONSERVATION ACTIONS

The following section details specific gopher tortoise conservation and management actions that have been implemented, are being implemented or are being considered for implementation by:

- United States Army
- United States Navy
- United States Air Force (USAF)
- United States Marine Corps (USMC)
- United States Forest Service (USFS)
- United States Fish & Wildlife Service (USFWS)
- State of Alabama
- State of Florida
- State of Georgia
- State of South Carolina
- Poarch Band of Creek Indians
- American Forest Foundation (AFF)
- Longleaf Alliance (LLA)

10.2.1. Army

The gopher tortoise occurs on Camp Blanding, FL; Fort Benning, GA; Fort Gordon, GA; Fort

Rucker, AL; and Fort Stewart, GA. Specific management objectives and activities for gopher tortoise management are included in the INRMP for each installation. Conservation of the gopher tortoise and other species is part of a broader goal to conserve biological diversity on Army lands consistent with the Army's mission. Biological diversity and the long-term survival of species such as the gopher tortoise ultimately depend upon the health and sustainability of the ecosystem in which they reside. Therefore, installation-specific gopher tortoise management strategies will promote ecosystem integrity. Maintenance of ecosystem integrity and health also benefit the Army by preserving and restoring training lands for long-term use.

In accordance with Army Regulation 200-1, *Environmental Protection and Enhancement*, INRMPs support the Army mission through stewardship of Army lands and are the primary tool for managing species and their habitats at Army installations. Garrison commanders utilize INRMPs for the conservation, rehabilitation, and enhancement of natural resources to ensure readiness. The Army Species At Risk Policy and Implementing Guidance Memorandum, dated 15 September 2006, identifies the gopher tortoise as a high priority species at risk. The Army has programmed funds for the management of key species at risk. Camp Blanding, FL has additional state-mandated requirements to conserve gopher tortoise and is currently participating in the development of a CCAA for that location.

The following is a list of some of the gopher tortoise habitat conservation and management activities included within the installation INRMPs which have been utilized by some installations in the southeastern U.S. to conserve and enhance species such as the gopher tortoise.

1. Installations conduct monitoring programs to scientifically determine demographic trends and to measure success. Monitoring activities include:

    - Surveying for burrows to assess and minimize impacts to GT population and habitat prior to significant ground disturbing activities.
    - Monitoring gopher tortoise population demography.
    - Monitoring gopher tortoise activity and movement patterns.
    - Maintaining site specific distribution and demographic information on tortoises within the installation GIS system.

2. Upon establishment of installation gopher tortoise goals, the Army may apply the Army Compatible Use Buffer (ACUB) program to protect gopher tortoise habitat on private lands. The ACUB Program authorizes installations with approved ACUB plans to work with partners to protect and restore habitat outside installation boundaries. The principal design of these plans and partnerships is to prevent incompatible development and pursue conservation activities that sustain the installation's military mission.

3. Soldiers and other personnel (including contractors) involved in field activities at the installation will receive training or literature on how to minimize impacts whenever practical while still accomplishing mission goals. Outreach and education materials will include gopher tortoise and gopher tortoise burrow identification, the relevance of gopher tortoise conservation to the Army mission, and information on how certain activities (e.g., heavy wheeled and tracked vehicle operation and mechanical digging) may directly harm individuals, damage burrows and nests, affect foraging and have potential for significant habitat damage.

4. Current silvicultural standards for Red-cockaded Woodpecker (RCW) management on installations is consistent with requirements for gopher tortoise habitat. Where RCW management is not an issue, forest management and timber harvest will be evaluated for compatibility with gopher tortoise habitat needs. Installations will use pine and hardwood timber harvest and various forms of mechanical and chemical vegetation control, as necessary, to achieve specific habitat and vegetation objectives or to enhance degraded habitat. The five Army installations in the southeast with gopher tortoise populations have aggressive prescribed burning programs. Current prescribed burning standards for wildfire hazard reduction and RCW management on installations is consistent with gopher tortoise habitat management. Frequent burning reduces shrub and hardwood encroachment, and stimulates growth of gopher tortoise forage plants such as grasses, forbs, and legumes. The physical result of fire on tree and shrub species is to reduce canopy cover. Heat stress caused by prescribed burning will eradicate undesirable hardwood mid-story and induce mortality among young, stressed, and diseased trees.

5. This allows greater sunlight penetration to reach ground level which promotes establishment of understory species used by the gopher tortoise as forage and is also important for proper egg incubation.

6. Headquarters, Department of the Army will designate a representative to the GTT.

7. Identify gopher tortoise management research and development projects currently conducted under the DoD's Strategic Environmental Research and Development Program to the GTT. Continue to conduct gopher tortoise research as appropriate through the W.S. Army Corp of Engineers Engineer Research and Development Center.

10.2.2. Navy

Naval Air Station (NAS) Jacksonville, FL:

Gopher tortoises are located in mission sensitive areas on Naval Air Station (NAS) Jacksonville, and gopher tortoise habitat is abundant at Outlying Landing Field (OLF) Whitehouse. The installation has prepared and is implementing a Gopher Tortoise Management and Relocation Plan covering all three NAS Jacksonville properties, revised in fiscal year (FY) 2005 along with updated surveys. NAS Jacksonville has a population at the weapons compound, where fencing has been modified to extend two feet below ground in some areas to discourage movement into the compound. Gopher tortoises also occur in habitat located on OLF Whitehouse along the mowed apron and in the dry sandy areas of Rodman Range. The goal of the gopher tortoise management plan project is to enable NAS Jacksonville to continue to relocate gopher tortoises from unsuitable, highly developed areas at NAS Jacksonville to improved habitat at OLF Whitehouse. Relocation efforts are coordinated with the Florida Fish and Wildlife Conservation Commission (FFWCC) and USFWS as appropriate. In addition to Navy owned lands, gopher tortoise populations occur at the Navy's Pinecastle Range on land owned by the U.S. Forest Service. At Pinecastle, the Navy and the U.S. Forest Service jointly monitor the rare, threatened, and endangered species onsite, including the gopher tortoise.

Management efforts also include two habitat restoration projects at OLF Whitehouse. The projects, which involve the conversion of unsuitable habitat to a longleaf pine/wiregrass ecosystem, are funded with Navy forestry funds. One 55-acre site has been planted with longleaf pine and the other is to be completed in FY07. Improving gopher tortoise habitat is also one of the goals of the

prescribed burn plan for the Rodman Range.

Naval Submarine Base (SUBASE) Kings Bay, GA:

Gopher tortoise surveys have been conducted for all suitable habitat on the base (a resurvey of previously-identified habitats was conducted in October of 2003 involving 315 burrows at 21 locations). Intense surveys were also conducted for the area involving the security fence enclave. While a formal management plan for the gopher tortoise has not been developed, the primary management practice on SUBASE Kings Bay involves the use of prescribed fire in pine stands, which opens tree canopies and allows suitable understory development.

Gopher tortoises affected by infrastructure improvements or mission activities have been relocated to suitable habitat on site in coordination with the Georgia DNR and USFWS as appropriate. Land disturbance activities within a known gopher tortoise habitat continue to prescribe mitigation or relocation in accordance with the recommendations outlined in the 1997 gopher tortoise survey conducted for the Base.

NAS Pensacola and NAS Whiting Field, FL:

NAS Pensacola and NAS Whiting Field have significant gopher tortoise populations. A gopher tortoise survey is currently being conducted by The Nature Conservancy, Gulf Coastal Plain Ecosystem Partnership for NAS Whiting Field as an update to prior efforts. Surveys at NAS Pensacola have been part of other biological survey efforts over the years with two specific surveys conducted in FY04 and FY08. It is estimated that approximately 400 burrows exist on Navy lands under the control of both NAS Pensacola and NAS Whiting Field. Based on preliminary current results and on prior survey efforts, it is estimated that approximately 200 burrows are currently active on Navy lands under the control of both NAS Pensacola and NAS Whiting Field.

Both NAS Pensacola and NAS Whiting Field have performed tortoise relocations in years past on a case by case basis due to mission and facility requirements, but no relocation has been required since 1999. Relocation, when conducted, is coordinated as an INRMP effort involving both the FWC and the USFWS as appropriate. As part of management, gopher tortoise signs are being installed adjacent to active burrows at both Pensacola and Whiting Field as a means of protecting the burrows from mowing equipment and other heavy machinery. In flight clear zones at NAS Whiting Field and its OLF's, a mission-approved orange cone marking system is used. The orange cones have been stenciled with "gopher tortoise" and are placed adjacent to the burrows. Outside of clear zones on NAS Whiting Field lands and on all lands at NAS Pensacola, flexible markers with "gopher tortoise" decals are driven into the ground adjacent to the burrows. In addition to surveys and protection practices, management for gopher tortoise populations include the use of prescribed fire to maintain gopher tortoise habitat, forest timber thinning to increase available sunlight to the forest floor in tortoise habitat areas, invasive species control, and coyote predator control to the extent achievable within staffing and budget availability.

10.2.3. Air Force

Initial GIS estimates that the Air Force currently owns roughly 19% of the DoD-owned lands in the four states that are Parties to this Agreement. Unofficial estimates indicate that the Air Force has roughly 5-7% of the gopher tortoises on DoD-owned lands, but this does not account for potential

habitat. In conjunction with DoD, the Air Force will obtain more accurate data to include actual and potential habitat acreage.

In accordance with USAF Instruction 32-7064, *Integrated Natural Resources Management*, the Integrated Natural Resources Management Plan (INRMP) 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 at USAF installations. An approved installation INRMP assists the installation commander with the conservation and rehabilitation of natural resources consistent with the use of the installation to ensure the readiness of the Armed Forces. The following is a list of habitat conservation and management activities included within the installation INRMPs which have been utilized by some installations in the southeastern U.S. to conserve and enhance species such as the gopher tortoise. This listing is not meant to be all-inclusive, but merely examples of the various actions that have been historically taken by USAF installations as detailed in their individually approved installation INRMPs:

- Conserving known burrows and surveying for new ones in areas of potential habitat if any construction or significant ground disturbing activities are planned.
- Managing the natural communities to improve habitat.
- Providing predator control programs capable of removing specific individual predators predating burrows, nests, or young hatchlings.
- Limiting public access to selected areas of the installation, which helps protect against poaching.
- Minimizing habitat conversion to incompatible land uses such as residential or commercial property on the installation.
- Monitoring gopher tortoise population demography.
- Monitoring incidence of upper respiratory tract disease (URTD).
- Monitoring gopher tortoise activity and movement patterns to determine home range for individual tortoises.
- Thinning forests and removal of hardwood midstory encroachment within known gopher tortoise/indigo snake habitat.
- Conducting prescribed burning of forests and fields within known gopher tortoise/indigo snake habitat.
- Maintaining locational and demographic information on tortoises within the installation GIS system, known as GeoBase (if applicable).
- Implementing inter- or intra-installation "on-site" permit relocation plans (with prior approval by the applicable states).

10.2.4. Marine Corps

Marine Corps Logistics Base (MCLB) - Albany, GA:

In accordance with MCLB Albany's INRMP, the following summarizes gopher tortoise conservation actions being conducted at the base:

- Timber management – use random spacing when planting longleaf pine seedlings to more closely mimic naturally occurring stands. This may encourage gopher tortoises to re-colonize the area or provide habitat for the species.
- Gopher tortoises have been identified on MCLB Albany; however, their burrows were not found after an intensive search by the MCLB Environmental Division

during March 2007. Potential gopher tortoise habitats will continue to be monitored.
  - If there are planned disturbances in potential gopher tortoise habitats, then a survey will be conducted prior to construction to determine their presence. Should tortoises be present, GDNR would be notified of the occurrence of tortoises.
  - Prescribed burning and thinning encourages the growth of grasses and other herbaceous cover needed by the tortoise. These practices should be continued at MCLB Albany.
- In areas considered to be high habitat potential for the tortoise, disturbances should be scheduled to avoid potential tortoise nesting periods. Establishment of sand pine, slash pine, or loblolly pine plantations with closed canopies limit tortoise habitat. Establishment of longleaf pine stands are better for tortoise habitat due to the more open canopy associated with this pine species and will therefore be encouraged.

Blount Island Command (MCSF-BI) - Jacksonville, FL

Several active gopher tortoise burrows have been identified in the southeastern corner of the site, near the former test track area. The approximate area of suitable habitat for gopher tortoise is 15 acres at MCSF-BI. Gopher tortoises are found in an undeveloped area with deep sandy soils, which appears to be one of the small islands adjacent to the original channel of the St. Johns River before Blount Island was created. The area was part of a vehicle test track route before the tortoises were documented in that location. Since then, the area has been posted to prohibit vehicle traffic and the test track has been relocated. In addition, MCSF-BI environmental staff have restricted military operations in the areas where gopher tortoise burrows are known to exist.

In accordance with Blount Island Command's INRMP, the following is a summary of planned conservation actions:

- Develop and maintain a GIS-based tracking system for protected species occurrences and their habitat areas.
- Identify and clearly indicate with signage a 25-foot buffer around gopher tortoise burrows.
- Restrict gopher tortoise buffer areas from vehicle traffic and ground-disturbing activities.
- Conduct yearly gopher tortoise burrow counts.
- Conduct yearly survey of forage quality and quantity around gopher tortoise burrows.
- Implement vegetation management measures, as warranted, to maintain gopher tortoise foraging habitat proximate to burrows.

10.2.5. Forest Service

Land and Resource Management Plans (LRMP) have been developed and approved for the National Forests in Alabama and the National Forests in Florida, the two U.S. Forest Service administrative units covered by this Agreement. These LRMPs were developed and are being implemented using an ecosystem management approach and adaptive management. The LRMPs can be accessed at www.fs.fed.us/r8/planning/sap/final_alabama_plan/welcome.htm and www.fs.fed.us/r8/florida/projects/documents/forest_plan/forest_plan.shtml. The following is a list of habitat management activities and objectives included within the LRMPs. While this list is not all-inclusive, it provides examples of actions that will conserve the gopher tortoise, associated species,

and the ecosystems upon which they depend:

- Protect from harm or move out of harm's way gopher tortoises encountered by personnel, cooperators, or contractors engaged in activities that may endanger individual specimens (note that the Forest Service or contractors are not going to search project areas for presence of gopher tortoises, but if, for example, a tortoise is encountered on a timber haul road, the logger will either move it out of harm's way or wait for it to cross the road).
- Protect known burrows and survey for new ones in areas of potential habitat if any significant ground disturbing activities are planned. Significant ground disturbing activities include road construction (temporary, permanent, haul roads, and skid trails), land clearing for rights-of-way, mining operations, oil and gas development, building construction, and intensive site preparation including sheering, root raking, drum chopping, and disking unless low PSI tracked equipment is used.
- Maintain information on known burrow locations in a database with GPS coordinates so these locations can be incorporated into habitat management plans and contracts.
- Maintain a 15-foot radius buffer zone around all known burrows, active or inactive, where heavy equipment use will be minimized (note that not all known burrows will be marked; GPS locations of known burrows will be provided to contractors and it will be their responsibility to maintain the buffer).
- When developing maintenance management plans for new or renewed special-use permits involving rights-of-way, the permittee must conduct gopher tortoise burrow surveys in suitable habitat of the right-of-way prior to performing vegetation maintenance with heavy equipment. Surveys shall be performed by personnel familiar with gopher tortoise ecology.
- Restore and maintain between 27,000 acres and 32,000 acres of longleaf pine per decade of this Agreement until all offsite pine species have been restored to the appropriate native pine species.
- Thin between 69,000 and 79,000 acres of overstocked pine stands per decade of this Agreement with a target basal area of between 30 and 60 square feet per acre.
- Prescribe burn on average every 3 years with varied intervals on any given site to restore natural processes in all sites where the natural-fire-return interval was less than 10 years. Strive to burn 50 percent of those acres between March 15 and September 30 with 20 percent of the acreage between May 1 and July 31.
- Maintain ground cover that generally consists of more than 40% herbaceous, pyrophytic plants, with no mid-story hardwoods over 7 feet tall.
- Hardwood mid-story may be controlled with chemical or mechanical means or prescribed fire.
- Invasive non-native species are controlled, with priority given to areas where they are causing adverse effects to federally listed species or Regional Forester's sensitive species, such as the gopher tortoise.
- Seek opportunities to use authority under the Wyden amendment to manage habitat on adjacent private lands where landowners are willing to enter into a conservation agreement.
- The national forests involved in this Agreement will serve as recipient sites for gopher tortoises being displaced by development, contingent upon funds being provided by the developer to manage habitat for the tortoises being relocated and to monitor their recruitment into the population.

10.2.6. United States Fish and Wildlife Service

National Wildlife Refuges in Florida, southern Georgia, and southeastern Alabama (east of the Mobile delta) support or have the potential to support gopher tortoises within the range covered under this CCA. The following National Wildlife Refuges are among those placing priority emphasis on applying management practices resulting in restoration and maintenance of habitats that support gopher tortoises:

- Bon Secour NWR, AL
- Okefenokee NWR, GA
- St. Marks NWR, FL
- Lower Suwannee NWR, FL
- Egmont Key NWR, FL
- Lake Woodruff NWR, FL
- Merritt Island NWR, FL
- Lake Wales Ridge NWR, FL
- Harris Neck NWR, GA
- Chassahowitzka NWR Complex, FL
- Mississippi Sandhill Crane NWR, MS

Management practices on National Wildlife Refuges are usually targeting objectives for a number of associated species. Within the distribution of the gopher tortoise, habitat is managed to support and increase red-cockaded woodpecker, Florida scrub-jay, indigo snake, Florida sand skink, and a large number of xeric scrub plants, among federally listed species. In addition, a larger number of non-listed species otherwise of conservation concern in these same habitats include migratory birds (e.g., Bachman's and Henslow's sparrows), reptiles and amphibians (e.g., eastern diamondback snake, gopher frog), and small mammals (e.g., Florida mouse). All of these species are associated with grassy-herbaceous dominated ground cover and many are specifically associated with gopher tortoise burrows.

The USFWS has concerns with leaving gopher tortoises in harm's way, on refuges or anywhere else. Historically, concerns have been raised on the translocation of gopher tortoises both on and off refuges. The extent of the impacts from translocation on this species, both positive and negative, are currently unknown. The USFWS will continue to follow the long-term monitoring of gopher tortoise translocation to determine its success.

Examples of ongoing and planned management actions focused on gopher tortoises follows.

Bon Secour National Wildlife Refuge

Gopher tortoises are locally occurring at Bon Secour and present habitat management for the species is through prescribed burning. Strategies in the Bon Secour NWR CCP include:

- Once habitat is established through use of growing season burns, perform ground searches for gopher tortoise burrows twice yearly (summer and winter).
- By 2014, scope gopher tortoise burrows twice yearly (summer and winter) to estimate gopher tortoise and eastern indigo snake populations. Reduce basal area on 400 acres of ridge top forest to regionally acceptable levels which will provide optimum habitat for gopher tortoises and eastern indigo snakes.

Okefenokee National Wildlife Refuge

Gopher tortoises are present within Upland Management Compartment 3 of Okefenokee National Wildlife Refuge. About half of this compartment has suitable habitat (550 acres) for gopher tortoises. The refuge recently acquired 6,800 acres along the eastern edge of Okefenokee Swamp. This land rises onto Trail Ridge, a sand ridge that defines the eastern boundary of the swamp, and it is estimated that approximately 2,500 acres would be suitable for gopher tortoises once restored to native vegetation. This land has been in slash pine production with soil disturbances. Although the refuge owns the land, management of the timber remains with a private landholder, Forest Investment Associates, until 2081. However, the refuge aims to acquire the timber rights as soon as possible so restoration can begin.

Management within the refuge's upland compartments relies on prescribed fire and periodic selective thinning of the timber. Prescribed fires are used every 2-3 years during the growing season in areas where gopher tortoises exist. Management prescriptions are evaluated every ten years. Conservation objectives and strategies outlined in the refuge's CCP that relate to the gopher tortoise are as follows:

- Protect and maintain the threatened and endangered species populations, expanding their populations where possible, and enhancing the habitat on the refuge by working with adjacent landowners. Encourage other land managers in the area to promote appropriate habitat for threatened and endangered species to create a larger gene pool, increase opportunities for survival within the ecosystem, and restore a piece of the area's natural heritage.
- Develop and implement surveys for "focal" species of mammals, birds, fish, amphibians and reptiles, particularly those species that are threatened, endangered, or species of special concern (e.g., Rafinesque's big-eared bat, round-tailed muskrat, pocket gopher, Sherman's fox squirrel, gopher tortoise, etc).
- Determine the status, specific habitat requirements, and limiting factors of reptile species, including those associated with the upland pine community. Evaluate feasibility of restoration.
- Develop and employ survey methods to determine status and distribution of reptiles within the upland pine community. Identify specific habitat requirements for reptile species and use GIS analysis to locate additional suitable sampling sites.
- Monitor the status of gopher tortoises on the refuge and compare with other populations.
- Map the location of gopher tortoise burrows; establish the level of activity and use by commensal species.

St. Marks National Wildlife Refuge

At St. Marks NWR, 5,973 acres have been identified as priority suitable habitats, with about 95% of the known gopher tortoise burrows found within this habitat grouping. Continual management activities include prescribed fire in 2-4 year intervals, hand-cutting of hardwood species to increase herbaceous vegetation, removing exotic species, and planting native grasses. The St. Marks NWR CCP outlines several specific goals, objectives, and strategies that address the needs of gopher tortoises, including the following:

- Continue to restore and maintain open multi-aged, historic pine communities with low, diverse understories. Annually conduct habitat inventories on 7 percent of the forested compartments and prescribe treatments to maintain average pine basal areas of 50 to 80 square feet per acre and retain greater than or equal to 65 pines (>5 inches DBH) per acre. Evaluate revising the target pine basal areas upward for stands with larger diameter pines. Manage pine understories to average less than 4 feet in height.
- The gopher tortoise is a keystone species that provides habitat for a host of other rare species including the federally listed eastern indigo snake. Maintain healthy grassy/herbaceous groundcover in longleaf pine sandhills and conduct a survey of the population.
- By 2010, determine population size and distribution of eastern indigo snakes on the refuge. Assess the impacts of habitat management. Initiate the monitoring of refuge eastern indigo snakes by examining gopher tortoise burrows, area searches, or some other technique.
- Continue habitat restoration of the old agricultural fields (e.g., Panacea, Abe Trull, Wakulla, Mounds, and Stoney Bayou).
- By 2009, as part of the Habitat Management Plan, develop a restoration plan for the fields identifying (to the extent possible) the historic habitat(s), the current plant communities, the restoration needs, the methods to achieve the restoration, and the projected restoration schedule.
- Continue to use commercial harvest to conduct thinning as identified in forest or habitat management prescriptions, while maintaining strict oversight to minimize rutting or other habitat damage. Thinning operations will also be managed to limit possible disturbance to critical wildlife habitat. Regulations to avoid take of flatwoods salamanders would be followed in accordance with 50 CFR 6(a)-(e) during timber harvests within the 1,476-foot radius buffer zone surrounding salamander breeding ponds.
- By 2012, inventory refuge lands for rare and listed plants and animals through contracts, partnerships, or use of existing or additional staff.
- Since research has indicated that RCW populations are more productive where growing season prescribed fires are conducted in their foraging habitat, shift prescribed fires in current and future foraging habitat to the growing season as much as feasible.
- In 2008, determine if human and domestic or feral animal predation is impacting the gopher tortoise population. Take appropriate actions.
- By 2011, evaluate the potential to translocate tortoises to areas of unoccupied (or underutilized) suitable habitat. Any tortoises introduced from off-refuge sites must be disease free. The State of Florida requires permits to relocate or translocate tortoises.

Lower Suwannee National Wildlife Refuge

Lower Suwannee NWR has approximately 7,500-8,000 acres of suitable gopher tortoise habitat. This includes high pine, pine flatwoods, and areas such as roadsides and clearings. Much of this habitat is marginal, but is improving with ongoing management actions, predominantly prescribed burning and forest thinning. Approximately 5% of available habitat on the Refuge has been surveyed thoroughly, and from that survey the Refuge may have had 2,000 - 4,000 active burrows in 2004. Significant population changes probably have not occurred since that time, although significant strides have been made since then in habitat improvement on several areas of the Refuge.

The Lower Suwannee NWR plans to conduct the following habitat management actions:

- Expand scientifically based monitoring and research to support management decisions regarding wildlife habitat and populations.
- Conduct gopher tortoise surveys every 5 years and investigate for presence of Upper Respiratory Tract Disease.
- Conduct prescribed burns using a combination of dormant and growing season burns. Prepare pine plantations for a shift to controlled burning during the growing season by opening the forest canopy through wider tree-to-tree spacing. This widely spaced canopy will allow the damaging heat from controlled fires to quickly dissipate and reduce the heat and fire damage to the trees.
- Continue forestry practices including thinning and restoring pine uplands through planting of longleaf and wiregrass on sites that have historically supported the longleaf pine/wiregrass complex on between 30 to 50 acres per year.
- Create a mosaic of forest structure through the use of appropriate silvicultural methods of thinning, shelterwood, and/or group selection harvesting. Create small openings, ½ - 1 acre in size, within plantations and plant seedlings or rely upon natural regeneration to fill these gaps. This will promote the development of a landscape with trees of multiple species, ages, structure and edge effect.

Egmont Key National Wildlife Refuge

Egmont Key National Wildlife Refuge is an island in Tampa Bay. Although it is relatively small and isolated compared to mainland National Wildlife Refuges, Egmont Key may support the highest density of gopher tortoises found within the NWR system in the existing habitat present on the refuge. Ongoing and future management work involves preparing the island for prescribed burning and to eradicate exotic species (Brazilian pepper and Australian pine), removing thick ground vegetation existing on the island, and facilitating the movement of tortoises throughout the island by developing movement corridors along fire breaks. The total treatment area covered by the fire breaks is approximately 20 acres, and the total area treated to eradicate exotic species to date is approximately 100 acres.

Merritt Island National Wildlife Refuge

Presently, the most important management undertaken at Merritt Island is through prescribed burning of existing short scrub conditions and restoring additional habitat by transforming, through mechanical means, tall scrub largely unoccupied by gopher tortoises into short scrub that can serve as future gopher tortoise habitat. Approximately 12,000 to 20,000 acres of gopher tortoise habitat are burned annually, supporting on average of 5 tortoises per every 10 acres.
In addition to actively managing existing habitat and restoring additional habitat, other work on Merritt Island involves removing berms to restore wetland functions, as well as occasional land clearing projects conducted by NASA, which owns the land on which Merritt Island National Wildlife Refuge exists. With anywhere from 7 to 14 burrows per acre, the Refuge staff places a high priority on surveying and evaluating activities for impact on tortoises. When gopher tortoises are located, they are removed (excavated) and locally relocated when operations require burrow impact.

10.2.7. Alabama

Until recently, the Alabama Department of Conservation and Natural Resources (ADCNR) has not

taken specific measures for the protection and enhancement of gopher tortoises on state-owned lands other than the nongame regulation described below.

Current efforts:

- Gopher tortoises were reintroduced to the Wehle Nature Preserve in Bullock County in 2006. Efforts will continue to expand the population on this property and the adjoining Barbour Wildlife Management Area, in association with reestablishment of longleaf pine.
- Forest management practices on the Stimpson and Upper State Sanctuaries are designed in part to aid gopher tortoise restoration.
- Longleaf pine restoration is underway at the Gulf State Park, which will set the stage for expansion of the tortoise population.

In addition to these measures on state lands, ADCNR has funded projects to benefit gopher tortoises on properties of other agencies and organizations:

- Gopher tortoise research on Conecuh National Forest, site of Alabama's largest tortoise population. This will be expanded to include reintroduction beginning in 2008.
- Longleaf pine restoration at Splinter Hill Bog, a gopher tortoise-occupied property in Baldwin County owned by The Nature Conservancy.

Future efforts:

- Over the next four years, ADCNR will work to identify burrows and institute gopher tortoise management plans on all ADCNR properties in the gopher tortoise's historic range. As of 2007, these properties consist of about 50,000 acres.
- Over the next year, ADCNR will develop a cooperative agreement with Florida and Georgia for the introduction of excess Florida tortoises to appropriate Alabama sites, including ADCNR lands and properties owned by other agencies and organizations.

10.2.8. Florida

The state of Florida completed and is implementing its Gopher Tortoise Management Plan (the Plan) of September 2007. This comprehensive plan has several important goals and objectives that are summarized below:

- Improve gopher tortoise carrying capacity of all protected, potential habitat on both public and private lands supporting gopher tortoises by 2022.
- Increase protected, potential gopher tortoise habitat to 1,955,000 acres by 2022.
- Restock 60,000 gopher tortoises by 2022 to protected, managed, and suitable habitats.
- Decrease tortoise mortality on lands proposed for development through a redesigned permitting system.

The Plan contains several proposed associated conservation actions to achieve these goals and objectives. The following is a summary of the conservation actions that are highlighted:

- Develop and implement a redesigned gopher tortoise permitting system that

emphasizes tortoise relocation and improves mitigation requirements.
- Coordinate more effectively with local governments.
- Strengthen law enforcement by training law enforcement personnel and developing gopher tortoise law enforcement guidance.
- Acquire and restore upland habitats and increase connectivity between habitats.
- Maintain upland forested pine and hardwood canopy cover below 60% in order to stimulate production of forbs, grasses, and other tortoise forage plants.
- Maintain herbaceous groundcover, including grasses, legumes, and forbs, at 50% or greater.
- Apply prescribed fire every 5 years or less to stimulate growth and diversity of tortoise forage items.
- Develop databases to track prescribed fire, management treatment actions (such as chemical or mechanical applications), vegetation monitoring, and management needs.
- Control infestations of invasive species.
- Avoid or minimize heavy equipment use in areas with high burrow concentrations.
- Manage tortoise populations by restocking tortoises in suitable habitat and working with other states, local governments, and NGOs to identify other sites where tortoises could be relocated to.
- Manage tortoise diseases such as URTD through the development of health screening protocols and disease outbreak contingency plans.
- Create incentives for landowners through the Safe Harbor Program and other landowner assistance programs.
- Create a public awareness campaign.
- Conduct long-term monitoring on tortoise populations in five-year intervals on selected lands and develop a database for monitoring data.

10.2.9. Georgia

Current efforts:

- Using Landsat imagery and soil maps, identified locations of adequate gopher tortoise habitat throughout the Georgia range.
- Assessing the quality of sandhill habitats identified above by vegetation sampling and coarse-scale tortoise surveys.
- Using distance sampling to estimate gopher tortoise populations on a sub-sample of publicly-owned lands identified as having suitable tortoise habitat.
- Evaluate same sub-sample of sites based on their value as potential recipient sites for tortoises translocated from Florida due to development conflicts.
- Developing a CCAA with Plant Vogtle to establish a tortoise population on suitable sites using tortoises translocated from Florida.
- Participation in the Interagency Burn Team to prescribe burn tortoise habitats on state, federal, and The Nature Conservancy lands at intervals consistent with frequency of natural fires.
- Have acquired and will continue to acquire lands supporting gopher tortoise habitat.
- Pursue the use of conservation easements and other landowner incentive programs to protect tortoise habitat on private lands.

Future efforts:

- Use distance sampling to estimate gopher tortoise populations on all of publicly-

owned lands identified as having suitable tortoise habitat.

- Estimate gopher tortoise populations on private lands where permission has been granted to conduct inventories.
- Evaluate all publicly-owned sites (and privately-owned sites we're given access to) based on their value as potential recipient sites for tortoises translocated from Florida due to development conflicts.
- Pursue the development of a standard CCAA for private landowners willing to establish or enhance tortoise populations on suitable sites using tortoises translocated from Florida or displaced from construction sites in Georgia.
- Continue and expand participation in the Interagency Burn Team to prescribe burn tortoise habitats on state, federal, and The Nature Conservancy lands at intervals consistent with frequency of natural fires.
- Continue acquisition of lands supporting gopher tortoise habitat.
- Continue pursuit of conservation easements and other landowner incentive programs to protect tortoise habitat on private lands.

10.2.10. South Carolina

South Carolina has designated the gopher tortoise as an endangered species within the state. Few tortoises remain in South Carolina, but the state continues to conduct habitat protection efforts in wildlife management areas, focusing particularly on areas that are believed to be part of the tortoise's historic range, and is currently conducting mark-recapture studies. Specific conservation actions include:

- Inventory known gopher tortoise populations and relict individual localities to determine the extent of the population.
- Facilitate appropriate habitat conservation initiatives to protect gopher tortoise sites identified in the inventory. Monitor these sites to determine stability of known populations.
- Conduct landowner workshops to educate landowners about the importance of gopher tortoises and methods for protecting this species.
- Conduct fire management operations at known gopher tortoise locations on SCDNR properties.
- Encourage other property owners, especially owners/operators of public lands such as the Savannah River Site (SRS), Public Service Authority (PSA) and others to conduct fire management operations to further enhance gopher tortoise populations.
- Continue gopher tortoise life history research.
- Continue gopher tortoise repatriation/relocation technology research.
- Monitor impacts to gopher tortoise burrows from armadillos.

10.2.11. Poarch Band of Creek Indians

As stated previously, the gopher tortoise is a culturally significant species for the Tribe. This relationship has existed for thousands of years and the Tribe hopes to continue this relationship for the generations to come. The Tribe has several ongoing efforts in place to protect and enhance the population of gopher tortoises living on Tribal lands:

- Continue planting of Longleaf Pine habitat on the Magnolia Branch Wildlife Reserve, which is owned by the Tribe. Several hundred acres have been planted to date.

- Continue controlled burning, which has been conducted for the last two years on targeted sites on the Wildlife Reserve.
- Conduct gopher tortoise burrow surveys periodically. Surveys were conducted in May 2007 and January 2008.
- Maintain funding for gopher tortoise and habitat related projects on Tribal lands through the USFWS and the Natural Resources Conservation Service (NRCS).
- Continue participation in partnerships that have been developed with the Alabama Natural Heritage Program at Auburn University, the USFWS, NRCS, and the Conecuh National Forest.

10.2.12. American Forest Foundation

As part of AFF's "Pine Ecosystem Management for the Gopher Tortoise" initiative, the organization developed a landowner-friendly management handbook for landowners in the listed portion of the gopher tortoises' range, organized several demonstration field days, conducted workshops on landowner assurance agreements, and developed educational trails. These efforts highlight the benefits of active forest management for the gopher tortoise and other wildlife to family forest owners, who own a majority of the non-federally listed gopher tortoise range lands.

Building on this experience, AFF commits to the following conservation actions:

- Update the *Pine Ecosystem Management for the Gopher Tortoise* Handbook
- Distribute the handbook to landowners in Florida and Georgia
- Work with USFWS, state agencies, and other cooperators to develop Candidate Conservation Agreements with Assurances (CCAAs)
- Educated targeted private landowner about how their actions can play a significant role in gopher tortoise conservation and the management flexibility provided through CCAAs and the associated regulatory assurances.

10.2.13. The Longleaf Alliance, Inc.

The Alliance assists landowners in accessing federal and state support programs to manage forest lands in a manner conducive to gopher tortoise conservation. Educational programs and materials encouraging retention, restoration, and management of sandhill habitats are in place and available to public and private school systems. Teacher workshops are conducted across the range of the gopher tortoise and classroom programs featuring both the Alliance classroom kit and "Longleaf", Roger Reid's award winning fiction book for middle school and younger children, have been and will continue to be a major teaching effort. Working with state and federal agencies and cost-share programs, the Alliance will continue to present sound science to landowners and land managers, encouraging conservation all facets of the longleaf ecosystem. With over 700 workshops and 7 major regional conferences conducted over the past 14 years, the Alliance has a long history of bringing together diverse audiences for conservation purposes.

10.3. FUNDING COMMITMENTS

Each of the Parties commits to seek funding for implementation of the conservation measures set forth in this Agreement. As appropriate, Parties will support the GTT and all management activities undertaken in accordance with the responsibilities of the GTT. No provision herein shall be

interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341, or any applicable state law.

11. DURATION AND AMENDMENT OF THE AGREEMENT

Long-term protection and management, as outlined in this Agreement, are necessary for the continued conservation of the gopher tortoise. The initial term of this Agreement shall be ten (10) years. This Agreement shall be extended for additional five (5) year increments until long-term habitat management and conservation of the gopher tortoise is assured. Any Party may withdraw from this Agreement upon sixty (60) days written notice to the other Parties.

Any Party may propose modifications to this Agreement by providing written notice to the other Parties. Such notice shall include a statement of the proposed modification and the reason for the modification. The Parties will use their best efforts to respond to proposed modifications within 60 days of receipt of such notice. Proposed modifications will become effective upon the other Parties' written approval and completion of any necessary environmental analysis.

12. EFFECT OF THE AGREEMENT IN EVENT OF LISTING DECISION

It is the intent and expectation of the Parties that the execution and implementation of this Agreement will lead to the conservation of the gopher tortoise in its natural eastern range. If, subsequent to the effective date of this Agreement, the Secretary of the Interior should determine pursuant to section 4(a) of the ESA (16 U.S.C. §1533(a)), that the gopher tortoise is threatened or endangered, the Parties will participate in recovery planning for the gopher tortoise. It is also the expectation of the Parties that the conservation and management commitments made in this document will be considered in the event of a listing under the ESA.

13. ADDITIONAL PROVISIONS

13.1. REMEDIES

No Party shall be liable in damages for any relief under this Agreement (including, but not limited to, damages, injunctive relief, personal injury, and attorney fees) for any performance or failure to perform under this Agreement. Furthermore, no Party has any right of action under this Agreement.

13.2. DISPUTE RESOLUTION

The Parties agree to work together in good faith. The GTT should coordinate and help resolve any disputes.

13.3. NO THIRD-PARTY BENEFICIARIES

This Agreement does not create any new right or interest in any member of the public as a third-party beneficiary, nor shall it authorize anyone not a Party to this Agreement to maintain a suit for personal injuries or damages pursuant to the provisions of this Agreement. The duties, obligations, and responsibilities of the Parties to this Agreement with respect to third parties shall remain as imposed under existing law.

APPENDIX A: SIGNATURE PAGES

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT

The following page will be reproduced as necessary to facilitate the signature of the Agreement by the appropriate Party representatives. It is anticipated there will be one Signature per page.

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix E for additional Parties.

Alex A. Beehler
Signature

Alex A. Beehler
Typed or Printed Name

Department of Defense
Agency/Organization

October 10, 2008
Date

Roel Lopez
Designated Point of Contact (POC)

703-604-1820 roel.lopez@osd.mil
Designated POC Phone and Email

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix F for additional Parties.

Signature

ADDISON D. DAVIS, IV

Typed or Printed Name

HEADQUARTERS, DEPARTMENT OF THE ARMY

Agency/Organization

1 OCT 08

Date

Leslie Gillespie-Marthaler

Designated Point of Contact (POC)

703 697-5433 leslie.gillespie marthaler@hqda.army.mil

Designated POC Phone and Email

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix F for additional Parties.

Signature

Donald R. Schregardus

Typed or Printed Name

Department of the Navy

Agency/Organization

9/4/03

Date

Mr. Tom Egeland

Designated Point of Contact (POC)

(703) 614-1173 tom.egeland@navy.mil

Designated POC Phone and Email

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix F for additional Parties.

Signature

EMMETT R. TITSHAW, Jr., Maj Gen, USAF

Typed or Printed Name

Air Force

Agency/Organization

29 Oct 08

Date

Lt Col Scott T. Taylor, AF/A3O-AYR

Designated Point of Contact (POC)

703.588.2017 scott.taylor@pentagon.af.mil

Designated POC Phone and Email

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix F for additional Parties.

Thomas A. Peterson

Signature

THOMAS A. PETERSON, Acting Regional Forester

Typed or Printed Name

U. S. Forest Service, Southern Region

Agency/Organization

June 13, 2008

Date

JIM FENWOOD, Director of Biological & Physical Resources

Designated Point of Contact (POC)

Phone: 404.347.7397 Email: jfenwood@fs.fed.us

Designated POC Phone and Email

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix F for additional Parties.

Signature

M. N. Pugh, Director

Typed or Printed Name

Alabama Division of Wildlife & Freshwater Fisheries

Agency/Organization

July 16, 2008

Date

James J. McHugh

Designated Point of Contact (POC)

334-242-3874 Jim.McHugh@dcnr.alabama.gov

Designated POC Phone and Email

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix F for additional Parties.

Signature

Noel Holcomb, Commissioner

Typed or Printed Name

Georgia Department of Natural Resources

Agency/Organization

June 18, 2008

Date

Michael J. Harris

Designated Point of Contact (POC)

770-761-3035 mike_harris@dnr.state.ga.us

Designated POC Phone and Email

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix F for additional Parties.

Signature

Drue DeBerry
Typed or Printed Name

American Forest Foundation
Agency/Organization

10/15/08
Date

Todd Gartner
Designated Point of Contact (POC)

202/ 463-5181 tgartner@forestfoundation.org
Designated POC Phone and Email

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix E for additional Parties.

Buford L. Rolin

Signature

Buford L. Rolin

Poarch Band of Creek Indian
Agency/Organization

10.21.08

Date

Laura L. Cook, Environmental Director
Designated Point of Contact (POC)

(251) 368-9136, Ext. 2680
Designated POC Phone and Email

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix E for additional Parties.

Signature

Kenneth D. Haddad

Typed or Printed Name

Florida Fish and Wildlife Conservation Commission

Agency/Organization

12/23/08

Date

Thomas E. Ostertag

Designated Point of Contact (POC)

850 410-0656 x17340

Designated POC Phone and Email

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

Commission Attorney

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix E for additional Parties.

Signature

John E. Frampton

Typed or Printed Name

Director, SC Department of Natural Resources

Agency/Organization

Feb. 19, 2009

Date

Barry R Beasley

Designated Point of Contact (POC)

803-734-9095, beasleyb@dnr.sc.gov

Designated POC Phone and Email

CANDIDATE CONSERVATION AGREEMENT FOR THE GOPHER TORTOISE DRAFT FINAL

GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT SIGNING PARTY

By signing this Agreement, the organization listed below agrees to uphold the ideals and values of the CCA and hereby commits to carry out specific conservation measures as detailed in Section 10, or Appendix F for additional Parties.

Rhett Johnson
Signature

Rhett Johnson
Typed or Printed Name

The Longleaf Alliance, Inc.
Agency/Organization

10/20/2009
Date

Rhett Johnson
Designated Point of Contact (POC)

334-427-1029 rhett@longleafalliance.org
Designated POC Phone and Email

APPENDIX B: RECOMMENDED CONSERVATION ACTIVITIES – HABITAT MANAGEMENT, MONITORING, AND TRANSLOCATION

HABITAT MANAGEMENT

The long-term survival of the gopher tortoise requires effective natural resources programs to meet and enhance stewardship requirements set forth in federal laws and agency policy. This should include habitat management to maintain an open park-like canopy with a diverse herbaceous groundcover and minimal shrub encroachment. Proactive habitat management requires the application of aggressive land management activities to optimize conditions for tortoise foraging (diverse herbaceous groundcover) and reproduction (open, sunlit sites for nesting). Prescribed fire, mechanical and chemical treatments, and timber management are an example of tools available to land managers.

The successful application of prescribed fire to enhance and maintain optimal gopher tortoise habitat is dependent on burn frequency and season of the burn. Fire frequency will vary depending on the habitat type and associated fuel loads, but most gopher tortoise habitats will benefit from a fire-frequency of 1-5 years (see Table 1). Frequent fires will reduce shrub encroachment and competition and stimulate a rich, herbaceous groundcover.

Table 1: Recommended structural characteristics and fire frequency for plant communities commonly used by the gopher tortoise (Modified from FWC, 2007).

Plant Community	**Fire Regime**	**Max. % Canopy Cover**	**Max. % Shrub Cover**	**Min.% Ground Cover**
Dry Prairie	1-3 yrs	<10	<10	50
Sandhill/ Upland Pine Forest/Oldfield Pinelands	*2-5 yrs*	*50*	30	40
Flatwoods	2-5 yrs	60	50	50
Scrubby Flatwoods	3-7 yrs	40	60	30
Scrub	7-12 yrs	40	60	15

Season of burn can have an effect on top-kill and establishment of shrubs. Shrubs are more vulnerable to growing season burns (spring and summer) than to dormant season burns (winter). When feasible, prescribed fire should mimic the natural fire cycle of occurrence. Summer burns produce optimal forage for gopher tortoises and reduce encroachment of shrubs. In old-field areas that have lost their one hour fine fuels (grasses/forbs), summer burns may not be an option. These areas respond well to winter burns, where the dormant biomass provides adequate fuels.

One consequence of fire suppression of forested lands in the Southeast has been severe habitat degradation of formerly fire maintained communities. Active land management practices can often

restore these sub-optimal habitats. Removal of off-site hardwoods, thinning of pine trees, and the introduction of prescribed fire can foster a return to an open, grassy forest structure preferred by gopher tortoises. The following management actions will promote optimal conditions for gopher tortoise habitat:

- Maintenance of upland forested pine and hardwood canopy cover below 60% in order to stimulate production of forbs, grasses, and other tortoise forage plants.
- Maintenance of herbaceous groundcover, including grasses, legumes, and forbs, at 50% or greater.
- Application of prescribed fire at least every 5 years or less to stimulate growth and diversity of tortoise forage.

Proactive management practices, in addition to prescribed fire, are effective for improving gopher tortoise habitat. Timber harvest and/or mechanical and chemical vegetation control can be used to achieve the desired forest structure and to restore degraded sites. During timber and restoration efforts, where possible, avoid the use of heavy equipment when constructing logging decks, roads, or other site-converting activities in areas with high burrow concentrations, unless there is no other alternative to reduce shrub cover. Harvesting of off-site timber species followed by reforestation with appropriate site-suited species and the reintroduction of fire can stimulate recovery of suppressed ground cover species. Locate logging decks in areas that will minimize skid traffic near gopher tortoise burrows. On heavily disturbed sites, natural recovery of native ground cover may not be possible. These sites may require intensive restoration efforts such as sowing of a suitable native seed mix to facilitate restoration. Site preparation should employ fire and/or herbicides where possible rather than mechanical methods such as chopping. Apply the latter if necessary for inhibiting vigorous sprouting of woody vegetation. Chemical and mechanical methods of hardwood control should employ best management practices to avoid soil disturbance, destruction of ground-layer vegetation, and non-target effects of herbicides. There should be no bedding for establishment of new forest stands on gopher tortoise habitat. To the greatest extent possible, damage to gopher tortoise burrows should be avoided.

Remedial Actions for Habitat Loss or Destruction

- Where construction will occur within 25 feet of the mouth of a gopher tortoise burrow, and permanently destroy suitable habitat, the tortoise should be removed and translocated to another location onsite, offsite or penned and released after the construction activity is completed. If the construction activity will take more than 12 months to complete, offsite relocations should be pursued.
- Where construction and/or excavation activities occur beyond 25 feet from an active gopher tortoise burrow, the area around the construction site should be enclosed by a fence or other barrier to exclude tortoises.
- Corridor(s) should be maintained to allow for movement of the tortoises outside of the construction/project area. An “island” (burrows encircled by development) population of gopher tortoises will not be biologically sustainable. Translocation will be necessary for “island” populations.
- For construction of roads that will have heavy use, some type of wildlife passage designed to allow for safe movement of gopher tortoises and other wildlife is encouraged.

- To ensure the amount of available habitat is not significantly diminished, consider mitigating loss of habitat by restoring/enhancing existing habitat or establishing easements on private land for management of gopher tortoise habitat (can benefit other species, especially commensals, as well).

Invasive Species and Predation

The spread of invasive, exotic species can have detrimental effects on gopher tortoise habitat. Invasive exotic plant species can greatly reduce the quality of gopher tortoise habitat. These invasive species can be spread via contaminated equipment. It is important to clean all machinery to prevent the spread of these invasive species.

Predator populations, such as raccoons and crows, can be artificially high in some habitats because of anthropogenic factors. Additionally, several other non-native predators, coyote, nine banded armadillo, dogs (feral and domestic), fire ants, and several exotic reptile species have been shown to eat gopher tortoises and/or their eggs. When gopher tortoise survival and recruitment are adversely affected by anthropogenic induced predation pressure and/or invasive species, it may be necessary to consider a hatchling head start program, predator control measures to minimize predator populations, and chemical/mechanical controls for invasive plant species.

MONITORING

Monitoring is an essential component of any conservation strategy and plan. Monitoring allows habitat quantity and quality to be assessed and ensures that gopher tortoise populations are adequately supported. Monitoring plans should include both habitat parameters and a general idea of the number of tortoises and, as appropriate, be part of the agency's management plan and/or regular planning process.

When an agency decides to pursue a gopher tortoise monitoring plan, it should be incorporated into the agency's existing management plan within the prescribed cycle of revision. If a monitoring plan is developed and implemented, periodic monitoring reports should be submitted to the GTT and incorporated into agency management plans. The results should be made available to the Parties as appropriate. As information is developed, census/monitoring techniques should be modified in order to stay effective and relevant.

Goals of Monitoring

- Establish baseline habitat or population data
- Assess effectiveness of management for adaptive management purposes
- Assess effectiveness of translocations
- Track changes in habitat acreage and suitability
- Track changes in population as applicable

Steps To Successful Monitoring

The following four stages comprise an effective approach to monitoring gopher tortoise populations and habitat:

Identification

- Develop an understanding of where gopher tortoise populations are, or could be, located.
- Utilizing base maps or GIS data sets, determine if land is suitable for the gopher tortoise and, if suitable habitat is occupied, whether there are actual tortoises on the property. Categorize parcels as:
- No potential to become gopher tortoise habitat
- Potential gopher tortoise habitat
- Occupied gopher tortoise habitat

Quantification

Once one determines that there are gopher tortoise populations at the site, the following steps should be taken to quantify observations:

- First, the simple observation that tortoises are present is valuable. This is the first and most basic form of quantification. The goal here is to provide presence or absence for every potential tortoise site. This information, combined with an estimate of the size (acreage) of the site is the first stage and is the basis for Conservation Planning (see Conservation section below).
- Second, initiate the simplest forms of enumeration. Begin sampling using broad general estimates: e.g., how far does one have to walk to find 40 gopher tortoise burrows? *This standard is in the process of being developed through research funded by the Army Threatened and Endangered Species (TES) program, along with other, more statistically-sound protocols. That effort will be discussed later in this section.*
- Third, only after the Prioritization described below has been achieved is detailed enumeration logical. In the case of the tortoise, it is believed that an initial accurate sampling using this method should be the basis for determination of progress, and should require re-sampling only at intervals of 5 to 10 years. However, in many cases a total survey will not be necessary – the primary goal is to track general population levels.

Prioritization

- Develop a schema identifying which populations will be looked at more intensively and followed more rigorously.
- Determine the responsible party for actual monitoring of each population.
- Make decisions about which tortoise populations within each agency are most important and require funding. *There are several tools being developed in order to help organizations determine where to place their funds. These include different maps of gopher tortoise regions/populations in Georgia and the beginnings of a region wide network for all who gather information on specific populations, similar to the RCW networking site*. With information from all parties, agencies can make decisions on where to place their funding based on knowing where their help could have the biggest impact.

Conservation

- Set up a follow-up scheme at which a re-examination of the extent and numbers of animals is conducted every five to ten years.
- Determine whether management plans are reversing the decline of the species.
- Conduct repeated sampling to discover trends:
- Situation 1: Many animals in quality habitat (viable)
- Situation 2: Very few animals in quality habitat (not viable)
  Situation 3: Many animals in poor quality environment (viable, if animals are moved or habitat is improved)

Tools For Monitoring

A region-wide GIS database and a web-based interactive tool for management of site information are being developed to support the partners in this agreement.

TRANSLOCATION

Translocation is conducted for a number of reasons. It is a suitable option when efforts to maintain tortoises at their original sites are not possible or where leaving them in place will put them in imminent danger. Additionally, it can be used to maintain and restore other populations and habitat.

Off-Site Translocations

Recipient sites

Sites where tortoises in need of translocation are to be placed must be identified early so that biologists do not have to search for appropriate sites as impending needs to move animals arise. Therefore, signatory agencies should identify sites throughout their property, or in the case of state agencies, their jurisdiction's tortoise range, that meet the criteria essential for the acceptance of translocated tortoises. These essentials are:

- Site must have suitable habitat requirements (i.e. relatively open canopy, well-drained sandy soil, and abundant herbaceous vegetation)
- Site must be within the historic range of the species
- Site preferably devoid of a natural tortoise population, or the population is assumed or known to be below carrying capacity
- Dedicated, long-term and proper management of the site is secured, which includes the development of a site-specific management plan.

Signatory agencies should maintain a database of available recipient sites and their important characteristics (e.g. location, acreage, native tortoise population demographics) within their jurisdiction. Signatory agencies will pursue and promote established state and federal private land incentive programs that can be tapped by landowners interested in receiving and managing translocated tortoise populations. Where possible, incentive programs unique to this effort will be developed and employed.

Donor sites

Two main scenarios exist as to when a tortoise population may be deemed a donor:

- The population is either not viable at it's current population size or makeup or the habitat quality and/or management is not sufficient (if the first part of this scenario is the issue, such a site may also be considered a recipient site to enhance a low or sexually skewed population, provided dedicated management exists).
- Impending harm to the site (and therefore the tortoises) renders a need to rescue the tortoises.

Other Considerations

- When feasible, donor tortoises should be moved to the closest recipient site.
- Tortoises that display clinical signs of disease should be segregated from the others and relocated to a site that has been established specifically for diseased tortoises, for the purpose of avoiding potential disease transmission. Efforts should be made to test tortoises for URTD prior to arrival if requested by the managers of the recipient site.
- Translocations should only be conducted when the forecasted overnight low temperatures for the day of translocation and the two following days are 50°F or greater.
- Although a recipient site may consist of tortoises from more than one donor site, every effort should be made to avoid splitting up tortoises from a particular donor site into multiple recipient sites.
- Ideally, capture and removal of tortoises from donor sites should be accomplished by live-trapping (i.e., bucket trapping, box trapping, and hand capture). Mechanical excavation, although acceptable, is less preferred because of the increased stress on the tortoises and the greater potential for injury or mortality.
- Efforts should be made to remove and translocate commensals to the recipient site or an appropriate alternative. If commensal species of special concern are found, consult with state or federal agencies for guidance. If translocations are conducted during the nesting season, burrow aprons should be searched for eggs. Eggs should be relocated, or eggs should be incubated and hatchlings released at the recipient site.
- Temporary enclosures have proven to be highly effective at increasing the site fidelity of relocated tortoises. Tortoises should be enclosed for a minimum of six months prior to release, but ideally nine months to ensure that tortoises habituate to their new environment. Sub-adults should be provided with starter holes to reduce chances of predation. The size of the enclosure shall depend on the number of tortoises within and the amount of native forage. A general guideline is to allow one half acre of high quality habitat per tortoise, and tortoises should not be enclosed alone. Supplemental feeding may be required in some instances. Enclosed areas must afford the tortoises some areas of shade.
- Translocated populations should be monitored one active season after removal of fences to document if site-fidelity has been achieved. Long-term monitoring for population viability is discussed in the Monitoring section above.
- All translocations should be under the guidance of a biologist (or biologists) or other qualified federal or state government wildlife professional and be coordinated with the appropriate federal, state, and resource agencies. All necessary state and federal permits must be secured prior to operations if applicable.

On-Site Translocation

This section only applies to on-site translocations, which occur when recipient and donor sites are near enough to potentially allow free movement between them.

Temporary

Temporary on-site translocations occur when tortoises are in harm's way of a particular, temporary activity or disturbance, but can be allowed to safely return to the site following such an activity or disturbance. Temporary captivity preferably lasts no more than a few weeks but can be longer. Two primary methods are:

- Capture and temporary captivity of tortoises, followed by hard releasing (no temporary enclosing necessary) at site of capture following cessation of the activity or disturbance that required their rescue. Proper care of captive tortoises depends on the duration of their captivity and the number of tortoises housed together. Any tortoises that display clinical signs of disease should be segregated from others during captivity.
- Capture and immediate release of tortoises outside of an impassable fence surrounding the impacted area. This should not be done if the immediately adjacent habitat is unsuitable for tortoises. Once the activity or disturbance has ceased, the fences should be removed to allow tortoises to return to the original site if suitable habitat remains at least partially intact.

Permanent

Permanent on-site translocations occur when tortoises are in harm's way of a particular activity or disturbance that will permanently prevent re-establishment of the tortoises at that site, and a suitable site devoid of a natural tortoise population, or containing a population assumed or known to be below carrying capacity, is available nearby. Guidelines for permanent on-site translocations are similar to those for off-site relocations and tortoises should be penned rather than hard-released. Care should be taken to ensure tortoises are not attempting to return to original areas.

APPENDIX C: DEFINITIONS

Adaptive Management: The integration of design, management, and monitoring through a scientific approach to systematically test assumptions in order to adapt and learn.

Bedding: A site preparation method which mounds the topsoil to raise the roots of seedlings above any temporary standing water.

Burrow apron: Fanned-out sandy area immediately in front of a tortoise burrow.

Carrying capacity: The maximum number of individuals that a site and its resources can support during the most unfavorable time of year.

Chemical Treatment: The use of herbicides to control undesired plant species.

Chopping: A site preparation method and land management tool to reduce the height and density of understory vegetation using a weighted drum with cutting blades to cut and chop vegetation.

Commensals: A biological relationship in which one species derives food, refuge, or other benefits from another animal species hurting or helping it; in the gopher tortoise's case, it is a species that shares the burrow with the tortoise.

Donor site: A site which tortoises are moved from during translocations.

Fuel loads: The amount of flammable materials (fuels) present in a habitat (e.g., trees, shrubs, grasses, etc.).

Hard release: A release without the benefit of penning, creating starter burrows, or any other technique designed to improve site-fidelity.

Hatchling Head Start Program: Protects hatchlings until they are of sufficient size to be beyond normal hatchling mortality to increase their chances of survival upon release into the wild.

Logging Deck: Site where logs are prepared and loaded for transport.

Mechanical Treatment: The use of mechanical means such as chainsaws, roller chopping, or mowing to reduce competition from undesired vegetation when regenerating forest stands.

Off-Site Timber Species: A species growing in a habitat it normally would not occur in due to disruption of natural processes, such as fire suppression.

Off-site translocation: Translocation in which the recipient and donor sites do not allow free movement between them.

On-site translocation: Translocation in which the recipient and donor sites are near enough to potentially allow free movement between them.

One Hour Fine Fuels: Fuels consisting of dead herbaceous plants, stems and branches less than ¼ -inch in diameter and the upper most layer of litter.

Predator Control: Removing predators, usually through trapping, to maintain their population well below natural levels for the benefit of some target species.

Recipient site: Site which tortoises are moved to during translocations. **Seropositive:** A positive blood test indicating an immune response (exposure) to the bacteria that cause upper respiratory tract disease in gopher tortoises.

Site Preparation: Measures employed on a site to dispose of debris, reduce competitive vegetation, and prepare the soil for artificial or natural regeneration.

Skid: Moving of logs by means of heavy equipment from the point of harvest to a loading area.

Starter hole: A shallow hole dug with a shovel or auger that approximates the angle of a gopher tortoise burrow entrance.

Take: Taking, attempting to take, pursuing, hunting, molesting, capturing, injuring, or killing any wildlife or freshwater fish, or their nests or eggs by any means, whether or not such actions result in obtaining possession of such wildlife or freshwater fish or their nests or eggs.

Top-kill: To kill the above-ground portion of a tree or shrub.

APPENDIX D: REFERENCES

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APPENDIX E: ADDITIONAL PARTIES TO THE GOPHER TORTOISE CANDIDATE CONSERVATION AGREEMENT

Additional federal agencies, state and tribal agencies, NGOs, and private parties that 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 are welcome to sign onto this Agreement at any time. In order to do so, the agency or organization interested in becoming a Party to the CCA must provide the GTT with the following information:

- A detailed description of the agency's or organization's authority to enter into such agreement (see Section 6 for examples), and
- Specific conservation commitments the agency or organization will implement and execute (see Section 10.2 for examples).

Upon receipt of this information and review and agreement among GTT members, the organization will be asked to submit a signed signature page, after which the GTT will amend this Appendix as appropriate.