

THE GOPHER TORTOISE

GUIDANCE FOR EACH PHASE OF FDOT PROJECT DELIVERY

FDOT Office of Environmental Management

2016



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SECTION 1: INTRODUCTION

1.1 Overview

Gopher tortoises and their burrows are important to the ecology of Florida. Gopher tortoise burrows provide refuge for over 360 species of wildlife including the Eastern indigo snake, Florida pine snake, gopher frog, Florida mouse, and burrowing owl. Because these burrows are relied upon by such a variety of fauna, the gopher tortoise is often referred to as a “keystone” species (Ashton & Ashton 2008). The gopher tortoise is listed as “Threatened” by the Florida Fish and Wildlife Conservation Commission (FWC), and both the gopher tortoise and gopher tortoise burrows are protected under state law (Rule 68A-27.003, Florida Administrative Code (F.A.C.)). From a federal perspective, the gopher tortoise is a “Candidate” species in Florida for possible future listing under the Endangered Species Act (ESA).

Florida Department of Transportation (FDOT) project areas are assessed for the presence of gopher tortoises and their burrows within and immediately adjacent to the footprint of construction. When construction is proposed over or within 25 feet of gopher tortoise burrows, FDOT obtains permits from FWC that allow the capture and relocation of tortoises to approved recipient sites.

1.2 Purpose and Intended Audience

The purpose of this document is to provide guidance for FDOT staff (project managers, permit coordinators, Environmental Management Office (EMO) staff, construction managers, and maintenance managers), consultants and contractors to follow during all phases of project development, ensuring that FDOT projects comply with gopher tortoise regulatory requirements. Less experienced FDOT staff can use the guidance for training purposes, while seasoned staff members can use the guidance as a resource. This document also addresses the relationship (both ecological and regulatory) between the gopher tortoise and the Eastern indigo snake, a federally “Threatened” species.

This document recognizes that the current contractual mechanisms in place to accomplish activities related to gopher tortoises vary depending on project needs. As such, these guidelines usually refer to “the designated District office” when discussing various responsibilities. These “designated District offices” are often times the Environmental Management Office or Environmental Permitting Office, but could also include Project Management, Construction or Maintenance. At times, these guidelines may note specific offices that usually fill a given role, but they are not intended to set forth a requirement of such office. In addition, where specific coordination between various offices is recommended, they are called out directly.

This document includes a Gopher Tortoise Documentation Form (**Attachment C**) as well as guidance for using the form. The intent of this form is a best practice to facilitate communication regarding gopher tortoise involvement among the various district offices that have a role in the project development process. The use of this form is encouraged but not required.

SECTION 2: DESCRIPTION & REGULATORY DESIGNATIONS

2.1 Life History

The gopher tortoise is a terrestrial land tortoise found in every county in Florida (Ashton and Ashton 2008). The tortoise is most frequently associated with upland community types but can also be observed foraging close to or even within wetlands. Gopher tortoises dig burrows within the soil for permanent shelter from fires, extreme temperature, and predators. These burrows often exceed lengths of 20 feet and depths of 15 feet or more. Burrows are typically found in well-drained sandy soils but can also be found (less frequently) in areas with a higher groundwater table. The subterranean end of a tortoise burrow consists of a larger end chamber that allows the tortoise to turn around. Additional side chambers created by tortoises or other inhabitants (such as mice, snakes, or insects) are also common. Tortoises typically occur in groups (called pods) of various sizes, with multiple burrows that are generally the size of the largest tortoise in the group (Ashton and Ashton 2008). Tortoises within a pod will typically have more than one burrow, generally resulting in more burrows than tortoises. Tortoises spend the majority of the time in their burrows, typically coming out once or several times a day for a few hours to bask and forage. Depending on the weather and temperature, tortoises may remain in the burrow for several months at a time during the winter months. Mature gopher tortoises (9-21 years old) breed from April to November and typically lay an average of six eggs during their May to June nesting season (FWC).

2.2 Identification

2.2.1 *The Tortoise*

The length of the upper portion of an adult tortoise shell (carapace) ranges from 5 inches to over 12 inches in length. FWC considers hatchling tortoises to be less 60 mm (2.5 inches) in carapace length, and juvenile tortoise to be between 60 mm and 130 mm (5 inches) in carapace length. The coloration of hatchling tortoises is typically yellow to orange (see Plate 4) that darkens to brown and grey as they mature (Plates 1-3). The coloration of adult tortoises is typically grey but can include varying shades from light tan and darker brown. The differences between sexes is evident on the bottom portion of the adult tortoise shell (plastron) as males have a concave plastron and females have a flat plastron.

The gopher tortoise is not the only turtle observable out of water. Box turtles (also terrestrial turtles) as well as aquatic turtles (while on land) are frequently mistaken for gopher tortoises. Aquatic turtles can travel great distances on land, most often during the breeding seasons (typically spring and early summer). Although infrequent, exotic tortoises that have escaped from captivity (or been deliberately released) can also be mistaken for a gopher tortoise. The following visual clues can be used to quickly identify a gopher tortoise from these other species:



Plate 1: Tortoise front legs resemble shovels.



Plate 3: Tortoises lack webbed feet.



Plate 2: Tortoise hind legs are short and stubby.



Plate 4: Tortoises have a relatively flat carapace.

2.2.2 The Burrow

The entrances or mouths of gopher tortoise burrows are identifiable by their half-moon shape and flat bottom (Plate 5). The burrows of hatchling and juvenile tortoises are similar in appearance, but at a size to match the individual shell. It is important to note that hatchlings and juvenile burrows are typically much shorter in length than adult burrows.

The opening of the burrow may contain a mound or apron constructed from the excavated soil of the burrow. Gopher tortoise burrow aprons are often the location of the gopher tortoise nest site and disturbances (stepping on or driving over) to the apron should be avoided. It is important to recognize that not all burrows contain aprons.

Burrows that are created by mammals (armadillos), exotic reptiles (iguanas, tegu), and sometimes birds (burrowing owls) are often misidentified as gopher tortoise burrows; though these burrows are typically

circular and relatively shallow in length (i.e., 0.5 to 4 feet)(Plate 6). However, it is possible that hatchling and juvenile tortoises will infrequently use these burrows.



Plate 5: Tortoise burrow with apron.



Plate 6: Circular burrow not created by a tortoise.

FWC classifies burrows as active, inactive, and abandoned in accordance with their appearance. Active burrows are defined as “in good repair with the classic half-moon shaped entrance, and appears to be in use by a tortoise” while inactive burrows are defined as “in good repair, but does not show recent tortoise use.” Abandoned burrows are characterized as “appears unused and dilapidated”, including situations where “the entrance is partially or completely collapsed, and the burrow is partially or completely filled with leaves or soil.” When conducting burrow surveys, this distinction is important as active and inactive burrows are combined and classified as “potentially occupied.” Gopher tortoises in these potentially occupied burrows must be relocated (burrows excavated, bucket trapped, or other authorized means). If the status of the burrow is uncertain, it is always good practice to be conservative with the resource and count the burrow as inactive rather than abandoned. It is also good practice to revisit abandoned burrows as a precautionary measure during the relocation event to ensure that the burrow does not show signs of activity.

2.3 Regulatory Designations

2.3.1 *Florida Fish and Wildlife Conservation Commission*

As noted in Section 1.1, the gopher tortoise is protected under state law. FWC administers a permitting program that authorizes activities with unavoidable impacts to gopher tortoises and their burrows. A permit from FWC is required for any activity that causes a take (harassment, molestation, damage, or destruction) to gopher tortoises or their burrows. Activities such as excluding a tortoise from entering a burrow, penning tortoises, and possessing tortoises without a permit are considered violations of Rule

68A-27.003, F.A.C. FWC has “Gopher Tortoise Permitting Guidelines,” which can be found online at <http://myfwc.com/license/wildlife/gopher-tortoise-permits/> that outline permissible activities. Some activities such as agricultural, silvicultural, and wildlife habitat management are exempt from obtaining a permit in accordance to FWC’s General Policy Statement (3/6/2008) as listed in Appendix I of the Gopher Tortoise Permitting Guidelines. A permit is not required for FDOT activities such as highway maintenance activities (mowing and tree cutting).

In general, construction activities that will occur within a 25-foot radius of the mouth of a burrow require a permit. There are multiple types of gopher tortoise relocation permits available, depending on the number of potentially occupied burrows from the project (i.e., donor) site. As part of the FWC gopher tortoise-permitting program, permits are issued to applicants, which authorize that individual to conduct those activities allowed by the permit, to include surveying, capturing, marking, transporting, and relocating tortoises and commensals (animals that benefit from gopher tortoise burrows). A person permitted through the program is referred to as a gopher tortoise “Authorized Agent” for the specific activities outlined on their individual permit. FWC also issues permits to land owners that choose to accept relocated tortoises onto their property, referred to as recipient sites. There are costs (i.e., mitigation contribution) for the permit based on the survey of potentially occupied burrows and fees charged directly by recipient sites, usually on a per tortoise basis. Please see your local procurement office and the FDOT Mitigation Handbook <http://www.dot.state.fl.us/emo/pubs/2015%20Mitigation%20Payment%20Handbook.pdf> for guidance when paying these costs and fees.

For FDOT projects, permits from FWC are typically obtained for relocation activities as a “10 or fewer” burrows permit or a “Conservation” permit which is determined by the amount of potentially occupied burrows that are proposed to be impacted (within the footprint of construction or close enough to be threatened by construction activities). Permit applications should be submitted a minimum of 90 days prior to construction. Applications are submitted online and require that the applicant/landowner (i.e., FDOT) and the Authorized Agent (usually a FDOT consultant or contractor) be registered with FWC. Permits are issued electronically, within 90 days of submittal of a complete application, and require the signature of the applicant (usually FDOT environmental or permit staff) to become valid.

Gopher tortoise relocation associated with these permits can include on-site or off-site relocation (typical for FDOT projects). Relocation events begin after proper notification to FWC and underground utilities have been clearly marked (using FDOT Facilities Department and Sunshine 811). Temperatures must also be within the allowable limits (>50 degrees Fahrenheit at the recipient site for three days following

the relocation event). Within 30 days of the end of relocation activities, FWC requires that the permittee provide an “After Action Report” that documents the number of tortoises as well as the statistics (length, weight, sex) for each individual tortoise. An overview of FWC permitting for FDOT projects is included as **Attachment A**. Sometimes relocation and permitting can be avoided by developing an exclusionary plan to protect burrows by providing proper measures (typically trenched silt fence) to ensure gopher tortoises do not migrate into the construction zone. FWC does not allow penning the tortoises so exclusionary plans typically occur along three sides of gopher tortoise habitat.

2.3.2 U.S. Fish and Wildlife Service

The gopher tortoise is currently listed as “Threatened” in Mississippi, Louisiana and in the counties west of the Mobile and Tombigbee Rivers in Alabama. In Florida, the gopher tortoise is a “Candidate” species for possible future listing under the ESA.

In July 2011, the U.S. Fish and Wildlife Service (USFWS) issued a 12-month finding on a petition to list the gopher tortoise as threatened in the eastern portion of its range (including Florida) and as a result found that such listing is warranted. However, listing the species by USFWS was precluded and the species was designated as a “Candidate” species. This guidance document will be updated once USFWS makes a final decision for the gopher tortoise in the eastern portion of the range.

2.3.2.1 Eastern Indigo Snake Effect Determination Programmatic Key

Gopher tortoise burrows provide refugia for over 360 species of wildlife including the Eastern indigo snake (herein referred to as the indigo snake). The indigo snake is one of the largest nonvenomous snakes in North America, reaching lengths in excess of eight feet. These snakes have home ranges of thousands of acres, making use of both wetland and upland habitat types (USFWS). In northern Florida (Gainesville-north), this species is often found utilizing gopher tortoise burrows as refugia, particularly during the fall/winter breeding season (Hyslop 2009). In southern Florida, the indigo snake uses a wide variety of refugia types in addition to gopher tortoise burrows, including the burrows of land crabs, rats and armadillos as well as the bases of trees and litter piles (Layne and Steiner 1996). Indigo snakes have been found, in some cases quite abundantly, in citrus groves in south Florida due to the high amount of available refugia and prey.

The indigo snake is federally listed as “Threatened” under ESA by USFWS. In 2010, the U.S. Army Corps of Engineers (USACE) in consultation with the USFWS issued a programmatic key for the indigo snake. **Attachment B** contains the original 2010 and 2013 addendum Indigo Snake Programmatic Effect Determination Key, as well as protection measures. The programmatic key is for use in the review of

permit applications (and PD&E documents) for effects determinations for the indigo snake within Florida. In accordance with this key, indigo snake effect determinations are contingent on the number of gopher tortoise burrows or acreage of suitable gopher tortoise habitat anticipated to be impacted by the project. A preliminary “may affect” determination is made for projects that impact 25 acres or more of xeric habitat or 25 or more active and inactive gopher tortoise burrows. A preliminary “may affect” determination in accordance with this key prompts informal consultation with USFWS to decide what additional information is required to ascertain whether there will be an adverse effect on the indigo snake. USFWS may request documentation of wildlife surveys (including burrow surveys) that have occurred in the area and the closest documented occurrence data. Based on this data, the USFWS may request a species-specific survey for the indigo snake for a final effect determination. Ameliorating factors such as video scoping burrows, educational plans, and having a biologist onsite during the clearing and grubbing activities may provide assurances to USFWS that impacts to the indigo snake will be avoided during construction.

It is important to understand this “linkage” between the number of gopher tortoise burrows/acreage of xeric habitat impacted within the project corridor with the programmatic key as this may play a role in determining how and when to conduct burrow surveys during the various phases of project development. This is discussed in applicable areas throughout the remainder of the document.

SECTION 3: ETDM PROJECTS

The Efficient Transportation Decision Making (ETDM) process comprises the first phase in FDOT project delivery (Planning) for qualifying projects. The process is a “first look” environmental analysis of potential project impacts. Using the Environmental Screening Tool (EST), which provides Geographic Information System (GIS) data and an opportunity for resource agencies and other stakeholders to provide comments and considerations. The EST incorporates a large digital database (maintained by the Florida Geographic Data Library) that includes information pertaining to natural, physical, cultural, and community resources. The database pulls information from a variety of sources including FDOT, FWC, USFWS, the Florida Department of Environmental Protection (FDEP), counties, and Water Management Districts.

In order to qualify for this screening process, a project must meet conditions described in the ETDM and Project Development & Environment (PD&E) Manuals, and include activities such as a new roadway, interchange, or bridge as well as additional access or capacity improvements. Please refer to the FDOT PD&E (<http://www.dot.state.fl.us/emo/pubs/pdeman/pdeman1.shtm>) and ETDM

<http://www.dot.state.fl.us/emo/pubs/etdm/etdmmanual.shtm>) Manuals for a complete list of qualifying project types. Projects that do not qualify for ETDM screenings include Type 1 Categorical Exclusions (CE), some Type 2 Categorical Exclusions, and Non-Major State Actions (NMSA).

With regard to the gopher tortoise, the EST includes wildlife occurrence databases, Water Management District and FWC land use layers, soils, and public lands layers. These data layers may provide the opportunity to make a preliminary determination of whether gopher tortoises may occur within the corridor based on land-use habitat types. Commenting agencies (primarily FWC and USFWS) may also provide firsthand or additional resource documentation of gopher tortoise populations within the vicinity of the project corridor. Please note that identification of existing gopher tortoise populations during this phase is infrequent, but when provided may be useful for scoping PD&E survey efforts or to determine whether future coordination or consultation will be required.

SECTION 4: PD&E STUDY

The PD&E study is the next phase of FDOT project delivery and is conducted to comply with the National Environmental Policy Act (NEPA) for federally funded major projects. State funded major projects generally follow the PD&E process to ensure compliance with state and federal regulations. As part of this phase, an in-depth analysis of the effects of the project on the natural, physical, cultural, and community resources is undertaken with consideration of project alternatives. During the PD&E process, the presence of gopher tortoises (along with other protected species, such as the indigo snake) is assessed as a part of the Natural Resource Evaluation described in the Protected Species and Habitat Chapter (Part 2, Chapter 27) of the PD&E Manual. The guidance outlined within this document is not intended to exceed the amount of assessment expected as outlined in FDOT's PD&E Manual, but rather to provide a template to document this species based on data collected as part of the study. The requirement of additional species-specific surveys should be identified by USFWS and FWC during early coordination as outlined in Section 4.1.

4.1 Coordination and Survey

In accordance with Part 2, Chapter 27 of the PD&E Manual, a resource assessment as well as a general wildlife survey are typically carried out early (sometimes concurrently) during the PD&E study to determine and record the presence of protected species individuals, identify evidence of listed species utilization, and document the presence and quality of existing habitats. Prior to the general field and wildlife surveys, the project team should coordinate with USFWS and FWC in early project development

to discuss the ETDM Programming Screen Summary Report and ensure that potential protected species and habitat issues identified have not changed since the screening.

During this coordination, it should be determined whether a 100-percent gopher tortoise burrow survey, as defined in the FWC Gopher Tortoise Permitting Guidelines, should be conducted during this phase to ascertain indigo snake effect determinations (in accordance with the Indigo Snake Programmatic Effect Determination Key, see section 2.3.2.1 of this document). Please note that some FDOT Districts may not have large populations of gopher tortoises, and therefore projects within these Districts have not triggered the need to use the above-mentioned effect determination key. For this reason, these Districts are also not requested (by USFWS or FHWA) to conduct gopher tortoise surveys during PD&E. For these Districts, please only consider the indigo snake for instances where it is obvious that USFWS thresholds (burrows or habitat acres) will be exceeded and a preliminary “may affect” determination will be made, resulting in informal USFWS consultation. If it is determined that a 100 percent survey for gopher tortoises will not be required during this phase, all observational data collected during general wildlife surveys should be included in the Natural Resource Evaluation as well as the Gopher Tortoise Documentation Form (**Attachment C**).

4.1.1 Eastern Indigo Snake Involvement (When Applicable)

If it has been determined that a 100-percent survey for gopher tortoise burrows will be beneficial or required for the indigo snake effect determination, then the designated District office should make contractual arrangements for supplemental fieldwork if necessary. If the results of surveys indicate potential impacts to ≥ 25 active and inactive burrows or ≥ 25 acres of xeric habitat impact, consultation (either informally or formally) with USFWS in accordance with Section 7 or Section 10 of the ESA for the indigo snake will be required, to determine whether there will actually be an effect on this species.

4.2 Gopher Tortoise Documentation Form

During the start of the PD&E phase, the designated District office should initiate use of the Gopher Tortoise Documentation Form (**Attachment C**). For projects that do not qualify for a PD&E study (i.e. Type 1 CE or NMSA), the Gopher Tortoise Documentation Form (**Attachment C**, page 1) should be initiated during the Design phase as applicable.

The designated District office is responsible for ensuring that the Gopher Tortoise Documentation Form is updated and includes (as attachments) the results of all surveys, correspondence with regulatory agencies and FHWA, and commitments to resurvey prior to being submitted to the designated District office in the

Design phase. The form should include any preliminary gopher tortoise information obtained from the ETDM screening (if applicable).

4.3 Reevaluations

During reevaluations, if new right-of-way (ROW) is proposed that was not previously evaluated (e.g. ponds, shifts in project alignment), the designated District office should consider the new area as it relates to the gopher tortoise and the indigo snake programmatic key as explained in Section 4.1 . An additional Documentation Form (**Attachment C**, page 4) is provided specifically for reevaluation(s) if needed.

4.4 Process for State Funded Projects

If a project is state funded, a State Environmental Impact Report (SEIR) or NMSA is prepared as the Environmental Document. During the SEIR analysis, the project team should document the presence or absence of gopher tortoises (evaluated as part of the general wildlife survey of the project corridor) in the Gopher Tortoise Documentation Form.

4.5 Statewide Acceleration and Transformation Projects

For Statewide Acceleration Transformation (SWAT) projects, the PD&E phase will overlap the design phase. In some cases, the design phase environmental responsibilities may be carried out by the party responsible for conducting the PD&E study. These responsibilities may include species-specific surveys and permitting. Any projects using SWAT principles must be carefully coordinated by disciplines from each project phase to expedite project delivery. For these projects, please review Sections 4.1 and 5.1 and use the Documentation Form to address both phases of project delivery.

SECTION 5: DESIGN

The design of a project is the next phase of FDOT project delivery. This phase takes the preliminary PD&E concepts and develops the final engineering aspects of the project. Generally, at 60-percent plan development, federal and state environmental resource permits are applied for, if they were not obtained during the PD&E phase. The acquisition of ROW required to construct the project typically occurs between 60 and 100 percent plans.

5.1 Survey Timing

Surveys for gopher tortoise burrows need to occur during design. At the beginning of the design phase, the designated District office should review the level of gopher tortoise survey effort and coordination

that occurred during the PD&E study (if applicable) as detailed in the Gopher Tortoise Documentation Form. Based on previous efforts, it should be determined when the Authorized Agent (design consultant ecologist, FDOT staff, or District-wide consultant) should conduct additional gopher tortoise surveys. If it appears that the project could trigger a “may affect” determination in accordance with the indigo snake programmatic key, and this species was not addressed during PD&E, it may be prudent to conduct a 100-percent gopher tortoise burrow survey prior to the environmental permit (i.e., Water Management District and USACE) application submittal. The survey data could also be useful for planning purposes for small projects such as milling and resurfacing; route siting for sidewalks; when it is known that utility relocation will need to occur well in advance of construction; or in the implementation of avoidance measures such as exclusionary fencing plans. If it appears that the project will not trigger the indigo snake programmatic key and the location of the gopher tortoise is not integral to the engineering of the project, the 100-percent gopher tortoise survey can occur at the end of design phase and prior to the start construction.

5.1.1 Eastern Indigo Snake Involvement (When Applicable)

If the gopher tortoise survey triggers a preliminary “may affect” determination according to the indigo snake programmatic key, informal consultation can be initiated by FDOT for the indigo snake. Formal consultation can be initiated by the USACE (if required) after submittal of the environmental permit application package if USFWS determines that the project will have an effect on the indigo snake. If a Biological Opinion (BO) was issued during PD&E for another species, determine whether this document needs to be revised based on additional project area or data. For projects that do not have a federal nexus FDOT will take the lead in initiating formal consultation in accordance with Section 10 of the ESA.

5.2 Pre-Construction Coordination

Approximately one year prior to the scheduled production completion date, it is critical that coordination occur between various offices. The designated District office responsible for coordinating the gopher tortoise efforts (i.e., permitting, relocation and exclusionary plan needs) during pre-construction should take the lead in this effort. Coordination with the Specifications Office, the Design PM, Construction Project Administrator, and the District Utility Office is advised to ensure the proper timing of all pre-construction related gopher tortoise activities. Please refer to **Attachment D** for a Flow-chart of design coordination as well as the sections below for areas of consideration.

5.2.1 Gopher Tortoise Burrow Surveys

Burrow surveys must, at a minimum, cover 15 percent of the gopher tortoise habitat proposed for impact, in order to be used for the FWC Conservation permit application. It is recommended that a 100-percent survey be conducted for all tortoise habitats within or immediately adjacent to the project ROW, as all potentially occupied tortoise burrows within 25 feet of the proposed construction footprint should be documented to determine whether tortoises from those burrows need to be relocated, or the burrows protected through an exclusionary fencing plan. This level of survey can also verify whether the project will qualify for the “10 or Fewer” permit. This will also confirm the correct number of burrows is included in the FWC relocation permit application. These surveys, carried out by FWC permitted Authorized Agents, consist of pedestrian transects that systematically cover the survey area. Spacing between transects is dependent on vegetation height and density (i.e., pasture can have wider spacing versus dense saw palmetto flatwoods which would require much tighter transect spacing).

It is common for FDOT gopher tortoise surveys to identify tortoise burrows along fence lines that may be out of the FDOT ROW. In this instance, it is important to note the direction/heading of the burrow. If the burrow tunnel is heading toward the ROW and construction is within 25 feet, it may be prudent to gain permission from the adjacent property owner (see example letter- **Attachment E**), include the burrow in the permit application, and relocate the tortoise to avoid potential damage to the burrow or injury to the tortoise. However, if the burrow is heading/facing away from construction, avoiding injury may be facilitated by adding a fence exclusionary plan. As there are many items to consider on a case-by-case basis, it is always advisable to review the options and discuss with FWC if needed for unresolved issues or questions. Pre-Construction coordination will determine the timeframe for initiation of the 100-percent gopher tortoise burrow survey for the gopher tortoise permit application. Note that burrow surveys are only valid for FWC permitting purposes for 90 days, so even if a 100% survey was conducted previously, it may need to be updated before submitting the permit application.

Considerations when determining timing for burrow surveys includes (Note that “FDOT” below includes district wide, construction engineering & inspection or other contracts that contain gopher tortoise services outside of a construction contract. “Contractor” below may include a design-build firm):

- Will FDOT or the Contractor be responsible for the survey?
- Will FDOT or the Contractor be responsible for necessary Gopher Tortoise permitting, including permit costs?
- Will FDOT or the Contractor be responsible for relocation, including permit costs or relocation fees?

- Will FDOT or the Contractor be responsible for exclusionary fencing plans, installation, maintenance, removal? (Note that each of these items listed should be considered individually. For example, FDOT may develop the exclusionary fence plan for the contractor to carry out. In this instance, FDOT would need to ensure the proper pay items and any special provisions are included in the contract for the contractor to carry out the installation, maintenance, removal.)
- Are modified special provisions (MSPs) required to explain to the contractor what their responsibilities are? Coordination with Specifications office will be important. A sample MSP for exclusionary fencing is included as **Attachment F** for reference.
- Are the appropriate pay items and quantities in the plans, or will they require updating?
- What advanced utility relocation work needs to be considered in conjunction with tortoise relocation and/or exclusionary fencing? (See Section 5.2.2)
- What demolition activities need to be considered in conjunction with tortoise relocation? (See section 5.2.2)
- Are there cold weather conditions that need to be considered?

When FDOT will be responsible for tortoise permitting the burrow survey and associated permitting through FWC should generally occur 3 months prior to the scheduled production completion date. This will provide a reasonable amount of time to include necessary information with the production package (plans, specification and permits) generated for the contractor to bid on. If the Contractor is responsible for relocation under a permit obtained by FDOT, the FWC permit will have to be transferred to the Authorized Agent that will be performing the relocation activities once the construction contract is awarded. If a less than a 100-percent survey was conducted for permitting (or if 90 days has lapsed since the last 100-percent survey), a survey covering 100 percent of gopher tortoise habitat must also occur no fewer than 72 hours (excluding weekends and holidays) before relocation activities by the responsible Authorized Agent. Please note that the 100-percent survey and burrow location map must be submitted no fewer than 72 hours before relocation. FWC staff must also be notified at least 24 hours (excluding weekends and holidays) prior to the start of the relocation effort. See Section 6 for additional considerations during construction.

5.2.2 Utility and Right-of-Way Acquisition Coordination

When gopher tortoise burrows exist within the ROW for any FDOT project, the designated District office responsible for coordinating the gopher tortoise efforts should coordinate with the District Utility Office. This coordination should take place between 60 and 90 percent plans to address utility relocation (i.e., any earth disturbing utility work) anticipated for the project and, if conflicts exist, organize relocation efforts

in advance of these activities. Survey data collected earlier in the design process is useful for the purposes of this discussion.

During this coordination, there should be a discussion that includes the following:

- The locations of the tortoise burrows as they relate to the location of the utility relocations.
- The timing of the utility relocation and how any schedule changes will be addressed.
- Will the utility relocation be scheduled prior to the FDOT contractor's starting roadway construction?
- If so, how far in advance (i.e., some utility work could be up to one year in advance of FDOT construction, which could require the gopher tortoise permit to be obtained earlier than normal). Note the District Utility Office may not be able to provide an exact number of days prior to construction, but should be able to provide some general expectations to help plan for gopher tortoise relocation activities. It may be necessary to check back with the designated District office as design progresses to ensure the most efficient timing of the 100-percent burrow survey.
- Will exclusionary fencing need to be installed at the same time as the utility relocation? If so, who will handle this task? How will any responsibility for fencing be transferred to the roadway contractor if applicable? Coordination with Maintenance may be required.

A Utility Agency/Owner is not able to obtain a permit for gopher tortoise relocation from within the FDOT ROW, so this coordination is critical. If advanced utility relocation will trigger advanced gopher tortoise relocation, the FDOT environmental staff should also coordinate with FDOT Construction staff (Project Administrator, Utility Construction contact) to ensure that they are aware of this effort and the required oversight that may be needed. An additional meeting is also recommended three months prior to utility relocations to confirm that all tortoises are relocated or protected from proposed utility actions.

Preliminary coordination with the ROW acquisition staff is also recommended to ensure that any demolition activities do not occur within gopher tortoise habitat. This discussion should also include the ingress/egress locations for the demolition activities.

5.2.3 Request For Proposal Development

If a project will be constructed through a Design-Build contracting mechanism (see Section 6 below) or other alternative contracting method, a Request for Proposal (RFP) or similar document is developed to outline the requirements of the project. For Design-Build projects, the gopher tortoise survey, permitting, and relocation activities can be conducted by FDOT prior to the Design-Build Firm's notice to proceed (NTP). Alternatively, FDOT has standard language within Design-Build RFPs that can be used to assign gopher tortoise survey, permitting, and relocation activities to the Design-Build firm. If the FDOT is

conducting any of these activities, the RFP verbiage should be revised to direct the Design-Build Firm accordingly. FDOT is responsible for overseeing any gopher tortoise relocation or protection efforts conducted by the Design-Build Firm including: verification of the completeness and accuracy of the survey; proposed exclusionary fencing, the permit application package including all permit modifications; or subsequent permit applications. The oversight can be provided by the District Permits Coordinator, EMO staff, or Construction Engineering Inspector (CEI). In cases where the amount of gopher tortoise burrows triggers indigo snake consultation during a Design-Build project, FDOT is responsible for consulting with USFWS.

Permits for gopher tortoise relocation outside of FDOT-owned ROW (i.e., utility easements, license agreements) require the owner of the property to act as the “permittee” per FWC requirements. In these special cases, FDOT will perform the oversight of the process as described above.

5.3 Gopher Tortoise Documentation Form

The pre-construction section of the Gopher Tortoise Documentation Form (**Attachment C**, page 2) provides a breakdown of the items to consider prior to the start of construction. This section of the form contemplates when the 100-percent preconstruction survey should occur in relation to production schedule, utility relocations, demolitions and the start of construction. Should the design segment be a smaller section of the PD&E study, each design segment should fill out pages 2 and 3, with a duplicated page 1, that documents the ETDM and PD&E study results.

SECTION 6: CONSTRUCTION

The construction phase of project delivery is primarily accomplished through the Design-Bid-Build and Design-Build processes. The Design-Bid-Build (conventional) process is a form of project delivery whereby the FDOT either performs the design work in-house or negotiates with an engineering design firm to prepare drawings and specifications under a design services contract, and then separately contracts for construction services by engaging a contractor through competitive bidding. The Design-Build form of project delivery is a system of contracting whereby one entity performs both engineering design and construction under one contract. For either contracting process, the designated District office should coordinate with the Construction Project Administrator to ensure that gopher tortoise surveys, permitting, and relocation are being conducted ahead of the start of work (clearing and grubbing).

6.1 Road Construction

6.1.1 Design-Bid-Build Projects

For conventional construction projects, the gopher tortoise survey, permitting, and relocation can be conducted by FDOT prior to the roadway contractor's notice to proceed (NTP). Alternatively, all or part of these efforts may be included in the contractor's bid package. Once a contractor has been selected, it is good practice for the designated District office to attend the preconstruction meeting to specifically discuss and provide:

- The locations of documented gopher tortoise populations and burrows
- The status of the FWC permits and relocation
- The installation/maintenance/removal of exclusionary fence
- The responsible party and current status of each of these activities
- What to do and who to contact if additional tortoises enter the corridor during construction.

Please refer to Section 8.2 of the Construction Project Administration Manual <http://www.dot.state.fl.us/construction/manuals/cpam/CPAMManual.shtm> & Standard Spec 7.1.4 <http://www.dot.state.fl.us/programmanagement/Implemented/SpecBooks/default.shtm> for additional guidance. If the FDOT will be responsible for exclusionary fence installation, it is good practice to have the installer meet with the CEI and roadway contractor on-site to review the locations, schedules and type of contractor work activities. The roadway contractor may request adjustments of the fencing (either previously installed or proposed for installation) in order to better accommodate specific means and methods, which should be addressed as long as requirements of FWC to protect tortoises and their burrows are adhered to. If the roadway contractor will be responsible for tortoise relocation but FDOT has obtained the FWC permit, the contractor's Authorized Agent should also attend the preconstruction meeting and will need to coordinate the permit transfer prior to relocation activities.

6.1.2 Design-Build Projects

As the contractor's design team may propose changes as part of an alternative technical concept (ATC), it is important that the FDOT Construction Project Administrator and Design PM coordinate proposed changes with the designated District office responsible for gopher tortoise efforts to ensure these changes do not cause listed species issues. As with Design-Bid-Build projects, if the Design-Build Firm is responsible for tortoise relocation, it recommended that the Design-Build Firm's Authorized Agent attend

the preconstruction meeting so that the designated District office can specifically discuss the project as it relates to gopher tortoises.

6.1.3 Construction Permitting Considerations

If a project is within close proximity of other populations of gopher tortoises, a strong exclusionary plan is warranted to keep these additional tortoises out of the construction zone. Please see Section 7 for additional exclusionary plan details. Tortoises are naturally drawn to recently cleared areas with exposed sand. While it is always good practice to keep them outside of the construction zone, some tortoises may find their way past the silt fence. Therefore, it may be prudent to request authorization to relocate additional tortoises in the FWC application, to account for tortoises that may inadvertently enter the construction zone. It is also advisable to keep the FWC gopher tortoise permit open for the life of construction, preventing delays and allowing the flexibility to relocate additional tortoises. These circumstances may also dictate that the corridor is reviewed multiple times during the life of the project. Please note that the majority of tortoises that enter the corridor are typically found within burrows along the silt fence at the edge of construction.

6.2 Gopher Tortoise Documentation Form

The construction section (**Attachment C**, page 3) of the Gopher Tortoise Documentation Form provides a breakdown of the items to consider prior to the start of clearing and grubbing/construction. This section of the form considers the survey, permitting, and relocation activities. The responsibility of completing this form can be determined in accordance with the normal function of each District. The designated District office should ensure that the data is documented. The permit and After Action Report should be included as an attachment. After the construction is completed, the entire Gopher Tortoise Documentation Form should be added to the project file.

SECTION 7: MAINTENANCE

7.1 Maintenance

The final phase of project delivery is the maintenance of transportation facilities within the ROW. Maintenance includes additional considerations and best practices for long-term preservation of transportation facilities. As part of corridor maintenance, burrows are frequently mowed over, which does not typically require a permit. Mowing does not typically cause injury to the tortoise and the tortoise typically corrects any effects to the burrows; however, it may cause damage or impacts to the sand apron used for nesting. The avoidance of collapsing these burrows and aprons should be encouraged by FDOT

managers of the maintenance contracts. Should these burrows create an issue with maintenance procedures, the FDOT Maintenance Engineer should contact the designated District office regarding relocation or avoidance options. Marking the locations of burrows or clusters of burrows may provide a solution to inadvertent collapsing of the burrows. Other FDOT maintenance activities, projects or contracts (i.e., push button, asset maintenance, safety) that could potentially require a relocation permit or burrow protection should be discussed by the responsible District maintenance office with the District environmental staff (EMO or Permits Coordinator). An example would be the construction of new buildings or parking facilities within gopher tortoise habitat.

SECTION 8: ADDITIONAL CONSIDERATIONS/BEST PRACTICES

8.1 Non-standard Projects

Some smaller projects such as landscaping, turn lanes, shoulder widening, sidewalks, and trails do not always go through the standard phases of project delivery and therefore populations of tortoises can be unintentionally overlooked. Potential tortoise injury can occur from equipment, or directly from the auguring equipment used to install planting material. It is good practice for FDOT staff to inspect these corridors for tortoise populations 90 days prior to letting the project to evaluate whether tortoises or their burrows are present, determine whether avoidance is possible or whether relocations or exclusionary fencing will be required in advance of issuing the notice to proceed.

8.2 State Lands as Recipient Sites

FWC offers a type of Conservation permit for relocating gopher tortoises from public projects to contiguous public conservation lands. The intent of this permitting option is to authorize relocations to adjacent public lands that the tortoises could reasonably access naturally. In order for FDOT projects to qualify for this permit, the project site must be contiguous to public lands in addition to meeting other criteria listed in **Attachment A**.

FDOT has executed a Memorandum of Understanding (MOU) with the Florida Department of Agriculture and Consumer Services, Florida Forest Service (FFS) to relocate up to 600 tortoises within public conservation lands impacted by transportation projects to contiguous public conservation lands. This MOU allows tortoises to be relocated to adjacent FFS property if certain criteria (guiding principles) are met. A copy of this MOU is included as **Attachment G**.

8.3 Protection Measures

Silt fencing is the most common way gopher tortoises are excluded from a project corridor during construction. In order for the silt fence to function correctly, the fence must be installed according to FDOT standard specification 104-6.4.6 (trenched and taut). Repeated and diligent inspections and repairs are important to maintain functionality of the silt fence. Silt fence installations in conjunction with relocation can occur prior to the relocation or immediately afterwards. It is important to note that gopher tortoises are attracted to recently cleared property and can enter a construction zone and dig a new burrow in as little as one day. Each District has different contractual mechanisms in place to install, maintain, and ensure that silt fences are functioning correctly if this responsibility does not fall directly on the contractor. If it is not the contractor's responsibility, it is good practice to keep the lines of communication open regarding the location of silt fence installation and how it relates to the construction schedule as well as specific contractor work activities to avoid confusion and misunderstanding.



Plate 7: Correctly installed silt fence.



Plate 8: Incorrectly installed silt fence.

8.3.1 Exclusionary Fencing

When gopher tortoise burrows remain within FDOT ROW or just beyond the ROW, but are over 25 feet away from construction, exclusionary fencing may be an option in lieu of relocation. In special circumstances (especially when burrows are outside of the ROW), FWC may allow construction to occur closer than 25 feet; however, this is determined on a case-by-case basis, typically by the FWC regional gopher tortoise biologist during a site visit to the project site. It is important that the silt fence does not “pen” the tortoises, nor trap tortoises between silt fence and adjacent permanent ROW fencing. It should allow the opportunity for tortoise movement, but prevent tortoises from entering the construction zone.

Exclusionary plans should be field reviewed on a case-by-case basis to ensure compliance with state rules.

8.4 Education

FDOT has standard requirements for unanticipated interaction with protected species that include the gopher tortoise:

<http://www.dot.state.fl.us/programmanagement/Implemented/URLInSpecs/files/endangeredwildlifeguidelines.pdf> In accordance with this specification, sightings of the gopher tortoise should be reported immediately to the Construction Project Administrator who will coordinate with FDOT environmental staff. To avoid potential impact, work should cease in the area where the animal is located until receiving further guidance from the District Permits Coordinator.

8.4.1 Suggested Education

Prior to a contractor starting clearing and grubbing activities, a simple in-field education plan of what to look for concerning gopher tortoises and burrows can prevent injuries and misidentification of burrows. Visual aids such as posters, signs or key chains that reiterate basic identification principles can also be very helpful (Plate 9 and 10). The visual aids can be provided by FDOT, the contractor’s environmental consultant or be obtained from the FWC website http://myfwc.com/media/2358553/GT_FactSheet_Laws.pdf. An internal educational presentation can also be provided by EMO to other FDOT departments that can inform staff of measures to protect this species and who to contact within FDOT if they have questions. A sample presentation is provided in **Attachment H**.



Plate 9: Examples of educational visual aids.

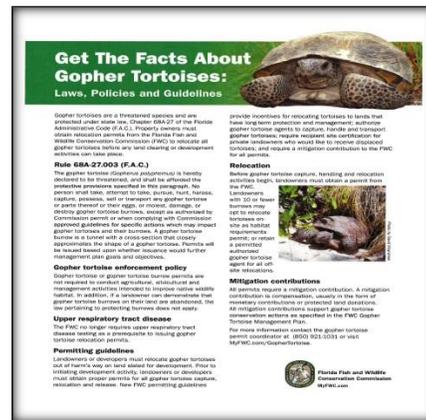


Plate 10: FWC visual aid and fact sheet.

8.5 Commensals

Animals that benefit (obtain food, refuge) from gopher tortoise burrows are known as commensals. FWC has an interim policy regarding relocation of commensals that is subject to change. Currently, FWC guidance for commensals (including state listed species) is to capture and /or allow safe passage to similar habitats outside of the limits of construction but within FDOT ROW. Please note that offsite relocation of listed commensal species is not currently an option under the Interim FWC policy. Please review the FWC Gopher Tortoise Permitting Guidelines on an annual basis (typically every April) to obtain the latest guidance.

8.6 Local Agency Program Projects

The Local Agency Program (LAP) provides municipalities the opportunity to receive federal funds for local transportation projects. FDOT is responsible for the oversight of funded projects on behalf of the FHWA and funds are only available to local agencies that go through the required certification process. The local agency typically obtains the permits including those for wildlife. FDOT should verify that the presence of gopher tortoises is properly documented as part of the protected species evaluation of the project. Assurances that permitting and relocation of gopher tortoises is occurring in accordance with FWC requirements should be part of the FDOT's supervisory role.

SECTION 9: REFERENCES

Ashton, R.E. and P.S. Ashton. 2008. *The Natural History and Management of the Gopher Tortoise*, Krieger, Malabar, Florida

Layne, J.N., and T.M. Steiner. 1996. *Eastern indigo snake (Drymarchon corais couperi): Summary of Research Conducted on Archbold Biological Station*. Report to U.S. Fish and Wildlife Service, Order No. 43910-6-0134, Jackson, MS. 3 pp.

Hyslop, N.L. R.J. Copper, and J.M. Meyers. 2009a *Seasonal shifts in shelter and microhabitat use of Drymarchon couperi (Eastern Indigo Snake) in Georgia*, Copeia 2009: 458-464.

[FWC] Florida Fish and Wildlife Conservation Commission. 2008 (revised 2015). *Gopher Tortoise Permitting Guidelines*; Tallahassee, Florida

[USFWS] U.S. Fish and Wildlife Service. Alabama Ecological Services. *Gopher Tortoise Recovery Plan*; Atlanta, Georgia.

Florida Administrative Code. Chapter 68A-27 Rules Relating to Endangered or Threatened Species

ATTACHMENT A – FWC Permitting Overview

FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION

PERMITTING OVERVIEW

This information is provided as a brief overview of the gopher tortoise permitting process. For a more in-depth examination of the state gopher tortoise permitting program please refer to the Florida Fish & Wildlife Conservation Commission (FWC) Gopher Tortoise Permitting Guidelines <http://myfwc.com/media/2984206/GT-Permitting-Guidelines-FINAL-Feb2015.pdf>.

1) *Burrow Survey*

The first step in determining what type of permit will be required is conducting a burrow survey of the development area including a 25-foot buffer. Burrow survey must cover at least 15 percent of the designation tortoise habitat to be impacted by the proposed activity and be no older than 90 days prior to the submittal of the application. Please note that a 100 percent survey is required to determine whether a “10 or Fewer” permit is required. A 100 percent survey is required no more than 90 days prior to the relocation activity.

FWC classifies burrows as active, inactive, and abandoned in accordance with their appearance. Active burrows are defined as “in good repair with the classic half-moon shaped entrance, and appears to be in use by a tortoise” while inactive burrows are defined as “in good repair, but does not show recent tortoise use”. Abandoned burrows are characterized as “appears unused and dilapidated”, including situations where “the entrance is partially or completely collapsed, and the burrow is partially or completely filled with leaves or soil”. This distinction is important when conducting burrow surveys, as the active and inactive burrows are combined and classified as “potentially occupied.” Gopher tortoises in these potentially occupied burrows must be relocated (burrows excavated, gopher tortoise bucket trapped, or other legal means). If the status of the burrow is uncertain, it is always good practice to be conservative with the resource and count the burrow as inactive rather than abandoned. It is also good practice to excavate abandoned burrows as a precautionary measure, since there may be instances of usage by other wildlife or hatchlings/juveniles.

When calculating the amount of tortoises to request in the permit application please be aware that juvenile tortoises that are less than 130 mm carapace length must be included on the burrow surveys and permitted for relocation. However, refunds for permitting costs will be provided for these tortoises after the final after action report is submitted and approved and a refund request is submitted. Burrows of hatchlings

must be submitted on burrows surveys but mitigation contributions are not required. Tortoise eggs and nests are not included when calculating the mitigation contribution.

2) *PERMIT TYPES*

FWC's permitting program offers multiple types of permits. However, the three permit types that are integral in the FDOT process are the Authorized Agent, 10 or Fewer, and Conservation permits.

a) Authorized Agent

As part of the FWC gopher tortoise permitting program, permits are issued to applicants which authorize that individual to conduct those activities authorized by the permit, to include surveying, capturing, marking, transporting, and relocating tortoises and commensals. A person permitted through the program is referred to as a gopher tortoise "Authorized Agent" for the specific activities outlined on their individual permit. For FDOT projects, an authorized agent typically submits the permit application on behalf of the District Permits Coordinator who is listed as the "applicant" on the application. That individual must carry the authorized agent permit at all times when conducting activities authorized by FWC.

b) "10 or Fewer" Permit

FWC offers a "10 or fewer" permit when 10 or fewer burrows will be impacted by a project. As the title indicates, this permit authorizes the relocation of tortoises from up to ten burrows. If this threshold is reached, work must cease until a conservation permit is applied for and issued. This is an important consideration for projects that are right at the 10 burrow threshold as it may be more efficient to initially apply for a conservation permit. Exceeding the amounts specified in the permit can result in suspension of the authorized agent permit. For FDOT, this permit is typically associated with off-site relocation to a recipient area although FWC can authorize on-site relocation.

c) Conservation Permit

A conservation permit is for projects with more than 10 burrows. As with the 10 or fewer permit, FDOT typically conducts off-site relocation with these permits. These permits allow FDOT the ability to reserve additional tortoises to account for incidental discoveries or the introduction of additional tortoises into the project corridor.

d) Public Projects to Contiguous Public Conservation Land

This option is a type of Conservation Permit that encourages relocation within contiguous public lands to maintain local populations, minimize stress on the tortoise, and minimize the potential for disease transmission. In order to qualify for this permit the following criteria must apply:

1. Donor site must be contiguous to the public conservation area;
2. Signed permission from the recipient site is required;
3. The donor site must not be located more than one mile from the conservation land;
4. The recipient site must be designated as a public conservation land protected by a minimum 50-year conservation easement;
5. A MOU must be executed for lands held by the State of Florida that provides a land management timeframe;
6. Public conservation land must be a minimum of 40 acres;
7. Draft management plan with proof of financial assurances;
8. Submitted monitoring reports; and
9. Restricted maximum stocking density for the recipient site.

e) Recipient Sites

FWC's permitting program also includes gopher tortoise recipient site permits that authorize land owners to accept relocated gopher tortoises on their property with varying degrees of management and protection measures. Recipient sites can be permitted as long-term, short term, unprotected, or restocking public conservation lands. When determining the appropriate type of site to use, consider cost/timing of permitting the use of a new recipient site versus a recipient site already permitted and in use.

f) Disturbed Sites Permit

In special cases, FWC may issue a disturbed site permit where ground disturbance occurred prior to permit issuance. This permit typically requires much higher mitigation costs in addition to enforcement action and potential project delays.

3) FFWCC APPLICATION PACKAGE

To apply for a gopher tortoise permit, an applicant must prepare a package that typically includes the following:

- a) A map package that includes the location, soils, land use, and burrow location map;
- b) Date of last survey (minimum of 15% coverage);
- c) Lat/long of potentially occupied and abandoned burrows;
- d) Development site plan and proof of government approval of the activity proposed;
- e) Recipient site reservation letter; and
- f) FFWCC permit processing fee.

This information is submitted digitally along with the application on the FWC permitting portal. It is important to note that the FWC online permitting portal also requires that the applicant (typically the FDOT permit coordinator) be registered through FWC to submit applications. An authorized agent is not able to submit an application on behalf of FDOT without the proper authorization registry. Applications are typically reviewed within 45 days of the application submittal. FWC will issue requests for additional information if additional information is needed. FWC issues conservation permits within 90 days; however, 10 or fewer permits are typically issued much sooner.

After a permit is issued by FWC, the applicant must sign the permit for the permit to become valid. A final signed permit must be clearly posted at the project site while engaged in the permitted relocation activities. Conservation permits are valid for 1 year. Ten or fewer permits are valid for 6 months. Time frame extensions are granted by FWC but must be submitted 90 days prior to expiration.

4) RELOCATION ACTIVITIES

In order to start the relocation activities several items must occur. No more than 90 days prior to, and no fewer than 72 hours (excluding weekends and holidays) before commencing gopher tortoise capture and relocation activities, the authorized agent shall:

- a) Complete the 100% gopher tortoise survey and burrow location map; and
- b) Deliver to FWC the 100% survey and burrow location map;
- c) In accordance with Chapter 556, F.S., Sunshine 811 must be notified to inform member utility companies that they must mark underground utilities at least two full business days before beginning any excavation.

d) Notify FWC 24 hours (excluding weekends/holidays) prior to starting relocation

5) POST-RELOCATION ACTIVITIES

Within 30 days of the end of relocation activities, FWC requires that the permittee provide (through their online permitting portal) an “After Action Report” that documents the number of tortoises as well as the statistics (length, width, weight, sex) for each individual tortoise. FWC will either accept the After Action Report or request additional information. If the amount of tortoises recovered is less than the FWC estimated 50% occupancy, it is recommended that justification be provided that explains the lower percentage of tortoise occupancy. Examples of justifications may include that some of the burrows were more indicative of mammal burrows or land uses in the surrounding area do not provide ingress/egress of tortoise populations.

When submitting an After Action Report online, the FWC website will request whether this is the final report. If the applicant (or agent) indicates that this is the final report, the permit will be closed out. It is recommended that the relocation permit remain open for the entire construction period in case additional tortoises access the construction corridor. If it is the intent of the applicant to have the permit remain open, do not indicate that the submitted After Action Report is final. Please note that “10 or Fewer” permits typically expire within 6 months and a conservation permit can expire within 1 year of issuance. As such, the extension of these permits is typically required for FDOT construction projects. It is recommended that renewal or amendment requests are submitted 90 days prior to expiration.

Once a construction project is over, the applicant can close out the permit and request a refund if the actual number of tortoises is less than the number estimated. Please note that requests for a refund must be submitted within 60 days of the date that the final After Action report is accepted.

**ATTACHMENT B – Eastern Indigo Snake Programmatic Effect
Determination Key and Protection Measures**



United States Department of the Interior

U. S. FISH AND WILDLIFE SERVICE

7915 BAYMEADOWS WAY, SUITE 200
JACKSONVILLE, FLORIDA 32256-7517

IN REPLY REFER TO:

August 13, 2013

Colonel Alan M. Dodd, District Engineer
Department of the Army
Jacksonville District Corps of Engineers
P.O Box 4970
Jacksonville, Florida 32232-0019
(Attn: Mr. David S. Hobbie)

RE: Update Addendum to USFWS Concurrence Letter to U.S. Army Corps of Engineers
Regarding Use of the Attached Eastern Indigo Snake Programmatic Effect Determination Key

Dear Colonel Dodd:

This letter is to amend the January 25, 2010, letter to the U.S. Army Corps of Engineers regarding the use of the attached eastern indigo snake programmatic effect determination key (key). It supersedes the update addendum issued January 5, 2012.

We have evaluated the original programmatic concurrence and find it suitable and appropriate to extend its use to the remainder of Florida covered by the Panama City Ecological Services Office.

On Page 2

The following replaces the last paragraph above the signatures:

“Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. Any questions or comments should be directed to Annie Dziergowski (North Florida ESO) at 904-731-3089, Harold Mitchell (Panama City ESO) at 850-769-0552, or Victoria Foster (South Florida ESO) at 772-469-4269.”

On Page 3

The following replaces both paragraphs under “Scope of the key”:

“This key should be used only in the review of permit applications for effects determinations for the eastern indigo snake within the State of Florida, and not for other listed species or for aquatic resources such as Essential Fish Habitat (EFH).”

On Page 4

The following replaces the first paragraph under Conservation Measures:

“The Service routinely concurs with the Corps’ “not likely to adversely affect” (NLAA) determination for individual project effects to the eastern indigo snake when assurances are given that

our *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013) located at: <http://www.fws.gov/northflorida/IndigoSnakes/indigo-snakes.htm> will be used during project site preparation and project construction. There is no designated critical habitat for the eastern indigo snake.”

On Page 4 and Page 5 (Couplet D)

The following replaces D. under Conservation Measures:

D. The project will impact less than 25 acres of xeric habitat (scrub, sandhill, or scrubby flatwoods) or less than 25 active and inactive gopher tortoise burrows.....go to E

The project will impact more than 25 acres of xeric habitat (scrub, sandhill, or scrubby flatwoods) or more than 25 active and inactive gopher tortoise burrows and consultation with the Service is requested²..... ”may affect”

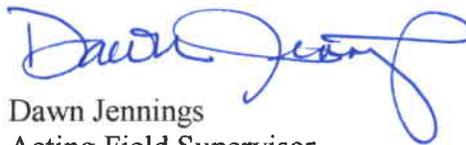
On Page 5

The following replaces footnote #3:

“³If excavating potentially occupied burrows, active or inactive, individuals must first obtain state authorization via a FWC Authorized Gopher Tortoise Agent permit. The excavation method selected should also minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the most current Gopher Tortoise Permitting Guidelines found at <http://myfwc.com/gophertortoise> .”

Thank you for making these amendments concerning the Eastern Indigo Snake Key. If you have any questions, please contact Jodie Smithem of my staff at the address on the letterhead, by email at jodie_smithem@fws.gov, or by calling (904)731-3134.

Sincerely,


Dawn Jennings
Acting Field Supervisor

cc:

Panama City Ecological Services Field Office, Panama City, FL
South Florida Ecological Services Field Office, Vero Beach, FL



United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960



January 25, 2010

David S. Hobbie
Chief, Regulatory Division
U.S. Army Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Service Federal Activity Code: 41420-2009-FA-0642

Service Consultation Code: 41420-2009-I-0467

41910-2010-I-0045

Subject: North and South Florida
Ecological Services Field Offices
Programmatic Concurrence for Use
of Original Eastern Indigo Snake
Key(s) Until Further Notice

Dear Mr. Hobbie:

The U.S. Fish and Wildlife Service's (Service) South and North Florida Ecological Services Field Offices (FO), through consultation with the U.S. Army Corps of Engineers Jacksonville District (Corps), propose revision to both Programmatic concurrence letters/keys for the federally threatened Eastern Indigo Snake (*Drymarchon corais couperi*), (indigo snake), and now provide one key for both FO's. The original programmatic key was issued by the South Florida FO on November 9, 2007. The North Florida FO issued a revised version of the original key on September 18, 2008. Both keys were similar in content, but reflected differences in geographic work areas between the two Field Offices. The enclosed key satisfies each office's responsibilities under the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C.1531 *et seq.*).

Footnote number 3 in the original keys indicated "A member of the excavation team should be authorized for Incidental Take during excavation through either a section 10(a)(1)(A) permit issued by the Service or an incidental take permit issued by the Florida Fish and Wildlife Conservation Commission (FWC)." We have removed this reference to a Service issued Section 10(a)(1)(A) permit, as one is not necessary for this activity. We also referenced the FWC's revised April 2009 Gopher Tortoise Permitting Guidelines with a link to their website for updated excavation guidance, and have provided a website link to our Standard Protection Measures. All other conditions and criteria apply.

We believe the implementation of the attached key achieves our mutual goal for all users to make consistent effect determinations regarding this species. The use of this key for review of projects

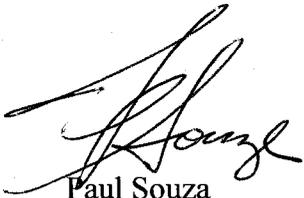
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IN AMERICA 

located in all referenced counties in our respective geographic work areas leads the Service to concur with the Corps' determination of "may affect, not likely to adversely affect" (MANLAA) for the Eastern indigo snake. The biological rationale for the determinations is contained within the referenced documents and is submitted in accordance with section 7 of the Act.

Should circumstances change or new information become available regarding the eastern indigo snake or implementation of the key, the determinations may be reconsidered as deemed necessary.

Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. Any questions or comments should be directed to either Allen Webb (Vero Beach) at 772-562-3909, extension 246, or Jay Herrington (Jacksonville) at 904-731-3326.

Sincerely,



Paul Souza
Field Supervisor
South Florida Ecological Services Office



David L. Hankla
Field Supervisor
North Florida Ecological Services Office

Enclosure

cc: electronic only
FWC, Tallahassee, Florida (Dr. Elsa Haubold)
Service, Jacksonville, Florida (Jay Herrington)
Service, Vero Beach, Florida (Sandra Sneckenberger)

Eastern Indigo Snake Programmatic Effect Determination Key

Scope of the key

This key should be used only in the review of permit applications for effects determinations within the North and South Florida Ecological Services Field Offices Geographic Areas of Responsibility (GAR), and not for other listed species or for aquatic resources such as Essential Fish Habitat (EFH). Counties within the **North** Florida GAR include Alachua, Baker, Bradford, Brevard, Citrus, Clay, Columbia, Dixie, Duval, Flagler, Gilchrist, Hamilton, Hernando, Hillsborough, Lafayette, Lake, Levy, Madison, Manatee, Marion, Nassau, Orange, Pasco, Pinellas, Putnam, St. Johns, Seminole, Sumter, Suwannee, Taylor, Union, and Volusia.

Counties in the **South** Florida GAR include Broward, Charlotte, Collier, De Soto, Glades, Hardee, Hendry, Highlands, Lee, Indian River, Martin, Miami-Dade, Monroe, Okeechobee, Osceola, Palm Beach, Polk, Sarasota, St. Lucie.

Habitat

Over most of its range, the eastern indigo snake frequents several habitat types, including pine flatwoods, scrubby flatwoods, high pine, dry prairie, tropical hardwood hammocks, edges of freshwater marshes, agricultural fields, coastal dunes, and human-altered habitats (Service 1999). Eastern indigo snakes appear to need a mosaic of habitats to complete their life cycle. Wherever the eastern indigo snake occurs in xeric habitats, it is closely associated with the gopher tortoise (*Gopherus polyphemus*), the burrows of which provide shelter from winter cold and summer desiccation (Speake et al. 1978; Layne and Steiner 1996). Interspersion of tortoise-inhabited uplands and wetlands improves habitat quality for this species (Landers and Speake 1980; Auffenberg and Franz 1982).

In south Florida, agricultural sites, such as sugar cane fields, created in former wetland areas are occupied by eastern indigo snakes (Enge pers. comm. 2007). Formerly, indigo snakes would have only occupied higher elevation sites within the wetlands. The introduction of agriculture and its associated canal systems has resulted in an increase in rodents and other species of snakes that are prey for eastern indigo snakes. The result is that indigos occur at higher densities in these areas than they did historically.

Even though thermal stress may not be a limiting factor throughout the year in south Florida, indigo snakes still seek and use underground refugia. On the sandy central ridge of central Florida, eastern indigos use gopher tortoise burrows more (62 percent) than other underground refugia (Layne and Steiner 1996). Other underground refugia used include armadillo (*Dasypus novemcinctus*) burrows near citrus groves, cotton rat (*Sigmodon hispidus*) burrows, and land crab (*Cardisoma guanhumii*) burrows in coastal areas (Service 2006). Natural ground holes, hollows at the base of trees or shrubs, ground litter, trash piles, and crevices of rock-lined ditch walls are also used (Layne and Steiner 1996). These refugia are used most frequently where tortoise burrows are not available, principally in low-lying areas off the central and coastal ridges. In extreme south Florida (the Everglades and Florida Keys), indigo snakes are found in tropical

hardwood hammocks, pine rocklands, freshwater marshes, abandoned agricultural land, coastal prairie, mangrove swamps, and human-altered habitats (Steiner et al. 1983). It is suspected that they prefer hammocks and pine forests, because most observations occur in these habitats disproportionately to their presence in the landscape (Steiner et al. 1983). Hammocks may be important breeding areas as juveniles are typically found there. The eastern indigo snake is a snake-eater so the presence of other snake species may be a good indicator of habitat quality.

Conservation Measures

The Service routinely concurs with the Corps' "not likely to adversely affect" (NLAA) determination for individual project effects to the eastern indigo snake when assurances are given that our *Standard Protection Measures for the Eastern Indigo Snake* (Service 2004) located at: <http://www.fws.gov/northflorida/IndigoSnakes/indigo-snakes> will be used during project site preparation and project construction. There is no designated critical habitat for the eastern indigo snake.

In an effort to reduce correspondence in effect determinations and responses, the Service is providing an Eastern Indigo Snake Effect Determination Key, similar in utility to the West Indian Manatee Effect Determination Key and the Wood Stork Effect Determination Keys presently being utilized by the Corps. If the use of this key results in a Corps' determination of "no effect" for a particular project, the Service supports this determination. If the use of this Key results in a determination of NLAA, the Service concurs with this determination and no additional correspondence will be necessary¹. This key is subject to revisitation as the Corps and Service deem necessary.

- A. Project is not located in open water or salt marsh.....go to B
 Project is located solely in open water or salt marsh..... "no effect"
- B. Permit will be conditioned for use of the Service's *Standard Protection Measures For The Eastern Indigo Snake* during site preparation and project construction.....go to C
 Permit will not be conditioned as above for the eastern indigo snake, or it is not known whether an applicant intends to use these measures and consultation with the Service is requested² "may affect"
- C. There are gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activitiesgo to D
 There are no gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities "NLAA"
- D. The project will impact less than 25 acres of xeric habitat supporting less than 25 active and inactive gopher tortoise burrows.....go to E

The project will impact more than 25 acres of xeric habitat or more than 25 active and inactive gopher tortoise burrows and consultation with the Service is requested²..... "may affect"

- E. Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be evacuated prior to site manipulation in the vicinity of the burrow³. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an indigo snake, no work will commence until the snake has vacated the vicinity of proposed work..... "NLAA"

Permit will not be conditioned as outlined above and consultation with the Service is requested² "may affect"

¹With an outcome of "no effect" or "NLAA" as outlined in this key, the requirements of section 7 of the Act are fulfilled for the eastern indigo snake and no further action is required.

²Consultation may be concluded informally or formally depending on project impacts.

³ If burrow excavation is utilized, it should be performed by experienced personnel. The method used should minimize the potential for injury of an indigo snake. Applicants should follow the excavation guidance provided within the Florida Fish and Wildlife Conservation Commission's revised April 2009 Gopher Tortoise Permitting Guidelines located at http://myfwc.com/License/Permits_ProtectedWildlife.htm#gophertortoise. A member of the excavation team should be authorized for Incidental Take during excavation through an incidental take permit issued by the Florida Fish and Wildlife Conservation Commission.

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or “approval” from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or “approval” from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11” x 17” or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. “Taking” of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. “Take” is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336
Panama City Field Office – (850) 769-0552
South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.
2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.
3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.
3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.

ATTACHMENT C – Gopher Tortoise Documentation Form

FDOT GOPHER TORTOISE DOCUMENTATION FORM

| |
|----------------|
| PROJECT NAME: |
| FM NO.: |
| COUNTY: |
| FDOT DISTRICT: |

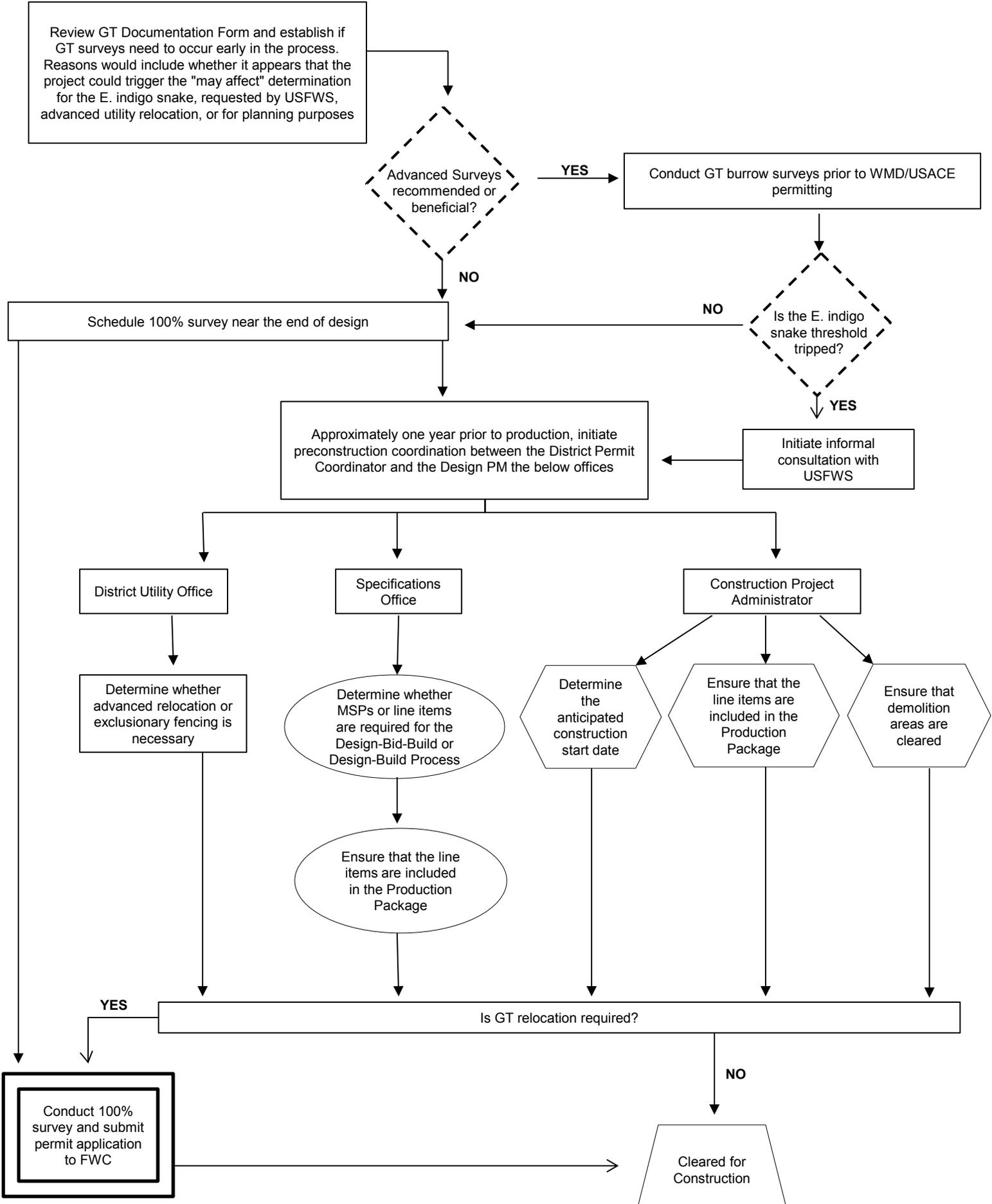
| | | | |
|---|-------|--|-----|
| REEVALUATION | | PM: | |
| Reason for reevaluation? | | Were GT burrows identified in earlier surveys? | Y/N |
| <i>General Field/Wildlife Survey</i> | | Reason for reevaluation? | Y/N |
| Burrow Count within the R/W: | | Project impacting ≥25 burrows? | Y/N |
| GIS Estimate of Acres of Xeric Habitat | | Project impacting ≥25 acres of xeric habitat? | Y/N |
| Date(s) of Survey | | Is Section 7 required for the indigo snake? | Y/N |
| Date of USFWS Coordination meeting(s) | | Was the BO issued for the indigo snake? | Y/N |
| Meeting Minutes Attached? | Y/N | Is the BO attached? | Y/N |
| Is a 100% survey Required? | Y/N | AGENCY COORDINATION SUMMARY: | |
| 100 % GT Burrow Survey-Burrow Count (if required) | | | |
| Date(s) of the 100% Survey | | | |
| PM or DESIGNEE SIGNOFF: | DATE: | ATTACHMENTS | |

| | | | |
|---|-------|--|-----|
| REEVALUATION | | PM: | |
| Reason for reevaluation? | | Were GT burrows identified in earlier surveys? | Y/N |
| <i>General Field/Wildlife Survey</i> | | Reason for reevaluation? | Y/N |
| Burrow Count within the R/W: | | Project impacting ≥25 burrows? | Y/N |
| GIS Estimate of Acres of Xeric Habitat | | Project impacting ≥25 acres of xeric habitat? | Y/N |
| Date(s) of Survey | | Is Section 7 required for the indigo snake? | Y/N |
| Date of USFWS Coordination meeting(s) | | Was the BO issued for the indigo snake? | Y/N |
| Meeting Minutes Attached? | Y/N | Is the BO attached? | Y/N |
| Is a 100% survey Required? | Y/N | AGENCY COORDINATION SUMMARY: | |
| 100 % GT Burrow Survey-Burrow Count (if required) | | | |
| Date(s) of the 100% Survey | | | |
| PM or DESIGNEE SIGNOFF: | DATE: | ATTACHMENTS | |

| | | | |
|---|-------|--|-----|
| REEVALUATION | | PM: | |
| Reason for reevaluation? | | Were GT burrows identified in earlier surveys? | Y/N |
| <i>General Field/Wildlife Survey</i> | | Reason for reevaluation? | Y/N |
| Burrow Count within the R/W: | | Project impacting ≥25 burrows? | Y/N |
| GIS Estimate of Acres of Xeric Habitat | | Project impacting ≥25 acres of xeric habitat? | Y/N |
| Date(s) of Survey | | Is Section 7 required for the indigo snake? | Y/N |
| Date of USFWS Coordination meeting(s) | | Was the BO issued for the indigo snake? | Y/N |
| Meeting Minutes Attached? | Y/N | Is the BO attached? | Y/N |
| Is a 100% survey Required? | Y/N | AGENCY COORDINATION SUMMARY: | |
| 100 % GT Burrow Survey-Burrow Count (if required) | | | |
| Date(s) of the 100% Survey | | | |
| PM or DESIGNEE SIGNOFF: | DATE: | ATTACHMENTS | |

ATTACHMENT D – Design Coordination Flow-Chart

DESIGN COORDINATION FLOWCHART



ATTACHMENT E – Adjacent Property Owner Example Letter

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

PERMISSION TO PERFORM MISCELLANEOUS CONSTRUCTION

RE: ROAD PROJECT NAME, Financial Project No.: XXXXX-X-XX-XX

John Smith
1234 Apple Street
Fruit City, Florida XXXX

I, _____ Owner of the property located on the xx side at 1234 Apple Street, Fruit City, Florida (Parcel No. x-xx-xx-xx-xxx-xxxxxx-xxxx.x), agree to allow XXXX Corporation and its sub-contractors onto my property for the purpose of excavation and relocation of gopher tortoises adjacent to the ROAD PROJECT NAME. I understand these activities will be consistent with the guidelines and permit conditions issued by Florida Fish and Wildlife Conservation Commission (FWC).

It is understood that I will not be held liable for any damages or costs incurred by this construction and that all grades will be returned to pre-existing condition.

It is further understood and agreed that this work will be done on my property, and with my full consent; and is necessitated to protect gopher tortoises during construction of the above project.

Property Owner:

Print Name

Signature

Date

ATTACHMENT F – Sample Modified Special Provision

MODIFIED SPECIAL PROVISION APPROVAL REQUEST
(REV 7-9-15)

Date: 1/4/2016 **District:** 3 **Type:** Project Specific

Letting Month: 3/2016 **FPID Number:** XXXXX (Goes with)

Requested by: XXXXX **Office/Phone:** XXXXXXXX

Specification being modified: 007-1.4 LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC

Affected Pay Items: N/A

***Expected Cost Impact to this project:** \$0.0

* Give an estimate of dollar impact (added cost or cost savings) to the project if this Modified Special Provision is used in lieu of the corresponding statewide implemented specification.

Project Description: XXXX – XXX County

Background Data: To prevent using plan notes to inform the Contractor of the endangered gopher tortoises in the project area. The web link within our standard specification does not effectively address the expanded work requirements for protection of the endangered species. This modification will inform the Contractor of the work.

***Name and PE Number of PE signing and sealing the Modified Special Provision:**

* Project Specific Modifications to the Standard Specifications or Workbook Specifications must be signed and sealed by the Professional Engineer responsible for this Special Provision under the following statement and kept in the Project Files maintained in the District.

PE Name: XXXXXX

PE Number: XXXXX

I hereby certify that this Specification was prepared under my responsible charge, and that it has been reviewed in accordance with procedures adopted and implemented by the Florida Department of Transportation.

The official record of this Special Provision is the electronically signed and sealed under Rule 61G15-23.003, F.A.C.

Professional Engineer: XXXXXXXX
Date: XXXXXXXX
Fla. License No.: XXXXX
Firm Name: Florida DOT District XXX
Firm Address: XXXXX
City, State, Zipcode: XXXX, FL XXXXX
Certificate of Authorization: N/A
Pages: 1

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC –
COMPLIANCE WITH FEDERAL ENDANGERED SPECIES ACT AND OTHER
WILDLIFE REGULATIONS.**

(REV 10-21-15)

SUBARTICLE 7-1.4 is expanded by the following:

7-1.4.1 Additional Requirements for Gopher Tortoises. The Department has determined that certain gopher tortoise burrows are to remain within the project area. Upon completion of the required gopher tortoise survey, the burrows to remain must be protected. Avoid impacts to the burrows for a distance of 25 feet in all directions. Using the mouth of the burrow as a reference point, install silt fence or barricade fence as a means of avoidance, insuring the burrow is not fully enclosed. Install the fence prior to any other construction activity.

If new burrows appear or are discovered after construction begins, stop work immediately and contact the Engineer in accordance with 7-4.1.

ATTACHMENT G – FDOT and FFS MOU

FLORIDA FOREST SERVICE
(850) 681-5800



THE CONNER BUILDING
3125 CONNER BOULEVARD
TALLAHASSEE, FLORIDA 32399-1650

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
COMMISSIONER ADAM H. PUTNAM

August 13, 2015

Ms. Nona Schaffner
Assistant General Counsel
Florida Department of Transportation
Office of the General Counsel
605 Suwannee Street, MS 58
Tallahassee, Florida 32399-0458

RE: Gopher Tortoise Memorandum of Understanding

Dear Ms. Schaffner:

Enclosed is the Florida Department of Transportation's fully executed original copy of the Gopher Tortoise Memorandum of Understanding (FDACS Contract #022431). The Florida Department of Agriculture and Consumer Services, Division of Administration has retained the other fully executed original copy. If there are any additional questions or concerns, please do not hesitate to call or email at (850) 681-5890 or Brian.Camposano@FreshFromFlorida.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Camposano", written over a large, light-colored scribble.

Brian Camposano
Forest Ecologist
Florida Forest Service

Enclosures

DOT GENERAL COUNSEL
REC'D LEGAL
15 AUG 20 PM 1:58

AGREEMENT NO. _____

022431

**MEMORANDUM OF UNDERSTANDING BETWEEN THE FLORIDA DEPARTMENT
OF TRANSPORTATION AND THE FLORIDA FOREST SERVICE FOR GOPHER
TORTOISE RELOCATION**

This Memorandum of Understanding (MOU) is made by and between the Florida Department of Transportation (FDOT) and the Florida Department of Agriculture and Consumer Services, Florida Forest Service (FFS).

Recitals

WHEREAS, FDOT anticipates that transportation projects currently planned throughout the state will result in impacts to populations of the gopher tortoise (*Gopherus polyphemus*), a state imperiled species; and

WHEREAS, FDOT is responsible for developing projects which, through interagency coordination, provide conservation measures for imperiled species in cases where avoidance and minimization actions related to transportation projects cannot avoid impacts to these species; and

WHEREAS, FDOT has an interest in identifying ecologically suitable lands in order to relocate gopher tortoises located within the footprint of public transportation projects on public conservation lands throughout the state; and

WHEREAS, FFS has over 1.06 million acres of public conservation lands in the state forest system which may be impacted by public transportation projects; and

WHEREAS, FFS has no fewer than 30 state forests with documented populations of gopher tortoises which may be impacted by public transportation projects requiring mitigation and which may contain other areas of habitat suitable for receiving gopher tortoises affected by these projects; and

WHEREAS, FFS believes that cooperation with FDOT in relocating gopher tortoises from public conservation lands impacted by public transportation projects to contiguous public conservation lands would be beneficial to gopher tortoise conservation and mutually beneficial to the goals and objectives of both agencies.

NOW, THEREFORE, in consideration of the foregoing, FDOT and FFS agree to the following:

I. GUIDING PRINCIPLES

- A. The FDOT and FFS hereby agree that the purpose of FFS's state forest management is to fulfill the land acquisition and management goals and objectives described or referenced in the approved resource management plan for each state forest.

1. The FFS's purpose in cooperating in this MOU is primarily to benefit conservation and management of gopher tortoise populations on state forests through improvements to gopher tortoise habitat and through gopher tortoise relocation where these efforts result in biologically sound gopher tortoise habitat and population management.
2. The FFS recognizes that the timely relocation of gopher tortoises and, where appropriate, their burrow commensals from within the footprint of public transportation projects also contributes to gopher tortoise conservation and to the accomplishment of the FDOT mission. Thus, designated areas of a state forest impacted by a public transportation project may be used as recipient areas for gopher tortoises and, where appropriate, their commensals displaced by such a project.
3. For the purposes of this MOU, relocation is defined as the deliberate moving of wild gopher tortoises and/or commensal species from within the footprint of the public transportation project to suitable, contiguous habitat on the impacted state forest such that the final stocking density of gopher tortoises is no greater than the maximum allowable per acre amount for public conservation land as defined in the most recent revision of the Florida Fish and Wildlife Conservation Commission (FWC) Gopher Tortoise Permitting Guidelines which is incorporated herein by reference.
4. FDOT will coordinate with and solicit input from FWC on measures to reduce impacts to gopher tortoises as a result of public transportation projects. All efforts to avoid or minimize impacts to the gopher tortoise at public transportation project construction sites will be exhausted by FDOT prior to the relocation of impacted gopher tortoises to other suitable areas on any impacted state forest.
5. FFS does not become a party to any permit or regulatory agreement made in relation to the transportation project itself by accepting relocated gopher tortoises under this MOU.
6. State forest recipient sites for relocated gopher tortoises under this MOU must be situated no further than maximum allowable distance from the area impacted by the public transportation project footprint as defined by the most recent revision of the FWC Gopher Tortoise Permitting Guidelines, unless authorized by FWC.
7. The relocation of gopher tortoises on the impacted state forest shall meet the guidelines and requirements of the most recent revision of the FWC Gopher Tortoise Permitting Guidelines.
8. Prior to FDOT relocating gopher tortoises on a state forest impacted by a public transportation project covered under this MOU, both FFS and FDOT shall sign an addendum to this MOU for each individual project which shall include the following:

- a. State forest name;
 - b. FDOT project title;
 - c. Map indicating donor site(s) and burrow locations;
 - d. Map indicating proposed location and size (acres) of recipient site(s);
 - e. Documentation of recipient site suitability assessment;
 - f. Estimated number of tortoises to be relocated; and
 - g. Any and all project-specific agreements between FFS and FDOT which:
 - i) Alter the management responsibilities of either agency, either wholly or in part, as referenced in section III of this MOU; and/or
 - ii) Are otherwise not specifically referenced herein.
9. Upon completion of the gopher tortoise relocation, FDOT will provide FFS documentation of relocation which shall be appended to the addendum referenced in (8) above to serve as fulfillment of relocation responsibilities detailed herein. This documentation shall include the following:
- a. Date(s) of tortoise removal;
 - b. Date(s) of tortoise relocation;
 - c. Description of tortoises relocated including:
 - i) all demographic information collected
 - ii) any required marking of tortoises for identification purposes
 - iii) any indications of unhealthy or diseased tortoises
 - iv) any instances of mortality during relocation; and
 - d. Final number of tortoises moved.

II. MAXIMUM NUMBER OF GOPHER TORTOISES TO BE RELOCATED

- A. The maximum number of gopher tortoises which may be relocated to a designated recipient area or areas on any state forest where gopher tortoises are impacted by a public transportation project and under this MOU is 600 individuals.
- B. In order to assist the FFS with the management of recipient sites on any impacted state forest, the FDOT has provided the Friends of Florida State Forests, Inc. a total of \$600,000.00 (SIX HUNDRED THOUSAND DOLLARS), of which the mitigation contribution for relocation is \$1,000.00 (ONE THOUSAND DOLLARS) per tortoise. This sum has been provided to the Friends of Florida State Forests, Inc. prior to the relocation of any gopher tortoises on state forests impacted by a public transportation project and shall be used by Friends of Florida State Forests, Inc. for management of gopher tortoise populations and for conducting associated land management activities, to include the purchase of equipment, beneficial to gopher tortoises on any impacted state forest. Friends of Florida State Forests, Inc. shall not expend funds for any project covered under this MOU until FDOT provides FFS the final number of tortoises moved for a specific project as detailed in (I.9) above. A ledger shall be provided by

FDOT after relocation efforts for each project that shows the number of tortoises remaining eligible under the initial lump sum payment.

- C. Friends of Florida State Forests, Inc. shall be entitled to withhold up to 5% of the per-tortoise amount referenced in (II.B) for each gopher tortoise relocated as part of any relocation project covered by this MOU for overhead and administrative costs. Friends of Florida State Forests, Inc. will also maintain a ledger indicating remaining funds available after each relocation project is complete.

III. MANAGEMENT RESPONSIBILITIES

- A. FFS shall assume responsibility for security and habitat management of all recipient sites pursuant to this MOU.
- B. FFS shall manage all recipient sites covered under this MOU utilizing accepted habitat management techniques and guidelines set forth in the most recent revision of the FWC Gopher Tortoise Permitting Guidelines. While all state forests are managed under the multiple-use concept, a specific goal of the management of these recipient sites will be to improve or maintain habitat suitable for the gopher tortoise. FFS may choose, at its discretion, to enter into contractual agreements with other vendors to perform management activities within the recipient areas.
- C. FFS shall specify to FDOT the state forest locations which are appropriate for assessment as potential recipient sites. FDOT shall be responsible for the assessment of a potential recipient site or sites in state forests and the measurement of gopher tortoise baseline densities at the recipient site or sites for each individual project covered under this MOU. FDOT may utilize previously collected data in determining the suitability of a recipient site if the collected data are still valid. These assessments and measurements shall be done to meet the guidelines and requirements found within the most recent revision of the FWC Gopher Tortoise Permitting Guidelines. FDOT may choose, at its discretion, to enter into contractual agreements with other vendors to perform assessment and measurement activities within the recipient area or areas. The FFS may obtain and review any comments from other agencies and organizations in its determination as to whether a particular assessment is adequate and whether any particular relocation should proceed forward.
- D. FDOT shall be responsible for gopher tortoise relocation. This shall include identification and extraction of gopher tortoises to be relocated, transportation of the gopher tortoises from the public transportation project footprint to the designated recipient site or sites on the impacted state forest, and construction of temporary enclosures as indicated for the "soft release" of gopher tortoises. FDOT may choose, at its discretion, to enter into contractual agreements with other vendors to perform relocation and temporary enclosure construction activities within the recipient area or areas. All relocations must be coordinated with FFS and made in accordance with the most recent revision of the FWC Gopher Tortoise Permitting Guidelines.

- E. FFS shall provide to FDOT the name and contact information for a FFS field representative to coordinate oversight of each relocation project, including recipient site selection. FDOT will notify FFS field staff in writing at least 30 days prior to temporary enclosure(s) construction and relocation.
- F. After approval of the initial installment of temporary enclosures by FDOT and FFS, FFS shall be responsible for monitoring and maintaining the temporary enclosures during the “soft-release” period, removing the temporary enclosures upon completion of the “soft release” period, and performing all post-release population monitoring as required by the most current revision of the FWC Gopher Tortoise Permitting Guidelines.
- G. FFS shall be responsible for the development and/or amendment of the habitat management plan for all recipient sites.
- H. FFS will be responsible for maintaining the eligibility of gopher tortoise relocation sites.

IV. SUCCESS CRITERIA

Upon completion of gopher tortoise relocation for each project covered under this MOU, FFS will assume long-term population monitoring and reporting responsibilities as required under the most recent revision of the FWC Gopher Tortoise Permitting Guidelines. FFS will work with FWC to ensure that gopher tortoise management goals are being met within the recipient sites of state forests impacted by public transportation projects.

V. GENERAL TERMS AND CONDITIONS

This MOU, including documents expressly incorporated by reference, constitutes the entire MOU between FDOT and FFS. It supersedes the “Memorandum of Understanding Between the FDOT and the DOF for Gopher Tortoise Relocation” (executed October 15, 2008, FDACS Contract #014188), and all other previous communications, representations, or contracts, either written or oral, which purport to describe or embody the subject matter of this MOU.

VI. SEVERABILITY

If any provision of this MOU, or the application thereof to any person or circumstance, is held by a court of competent jurisdiction to be partially or wholly invalid or unenforceable for any reason whatsoever, any such invalidity, illegality, or unenforceability shall not affect other provisions or applications of this MOU which can be given effect without the invalid provision or application, and to this and the provisions of this MOU are declared severable.

VII. AMENDMENTS

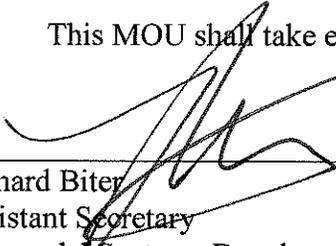
No amendment of this MOU shall be of any force or effect unless set forth in a written instrument signed by authorized representatives of each party.

VIII. TERMINATION

Sections II and III of this MOU shall terminate upon the relocation of a maximum of 600 gopher tortoises to recipient sites of state forests impacted by FDOT public transportation projects and completion of post-release monitoring requirements associated with the relocated gopher tortoises. Notwithstanding, the management of the recipient areas shall continue to be the responsibility of FFS. The FDOT or FFS may terminate this MOU at any time by providing 60 days written notice to the other party. Any money which has not been expended for relocation shall be returned to FDOT within 45 days of termination.

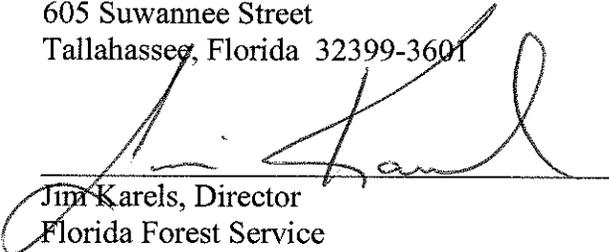
IX. EFFECTIVE DATE

This MOU shall take effect on the last signature date, as completed below.



Richard Biter
Assistant Secretary
Intermodal Systems Development
Florida Department of Transportation
Haydon Burns Building
605 Suwannee Street
Tallahassee, Florida 32399-3601

6-30-15
Date



Jim Karels, Director
Florida Forest Service
Department of Agriculture and Consumer Services
3125 Conner Boulevard
Tallahassee, Florida 32399-1650

7-8-15
Date



D. Alan Edwards, Director
Division of Administration
Department of Agriculture and Consumer Services
407 South Calhoun Street
Tallahassee, Florida 32399-0800

8-7-15
Date

ATTACHMENT H – Gopher Tortoise Presentation

Gopher Tortoise

How do they impact your project and
how can PLEM help?

David Bogardus

Senior Environmental Specialist

FDOT District IV Planning & Environmental Management

TEL: (954) 777-4339

David.Bogardus@dot.state.fl.us



Gopher Tortoise: Uplisted to Threatened Species (2007)

“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.” (Chapter 68A-27.004, F.A.C.)



What does a gopher tortoise look like?



Gopher Tortoise Burrow



Gopher Tortoise Burrow



Potential Gopher Tortoise Habitat



Unconventional Gopher Tortoise Habitat



How does PLEM help?

COORDINATION POINTS IN REVIEW PROCESS WITH PLEM:

- Identify Environmental Features
- Environmental Activity Coordination Meeting
- Initial Environmental Impact Review
- Constructability Environmental Impact Review
- Biddability Environmental Impact Review
- Environmental Certification
- Coordinate Gopher Tortoise Permitting/Relocation

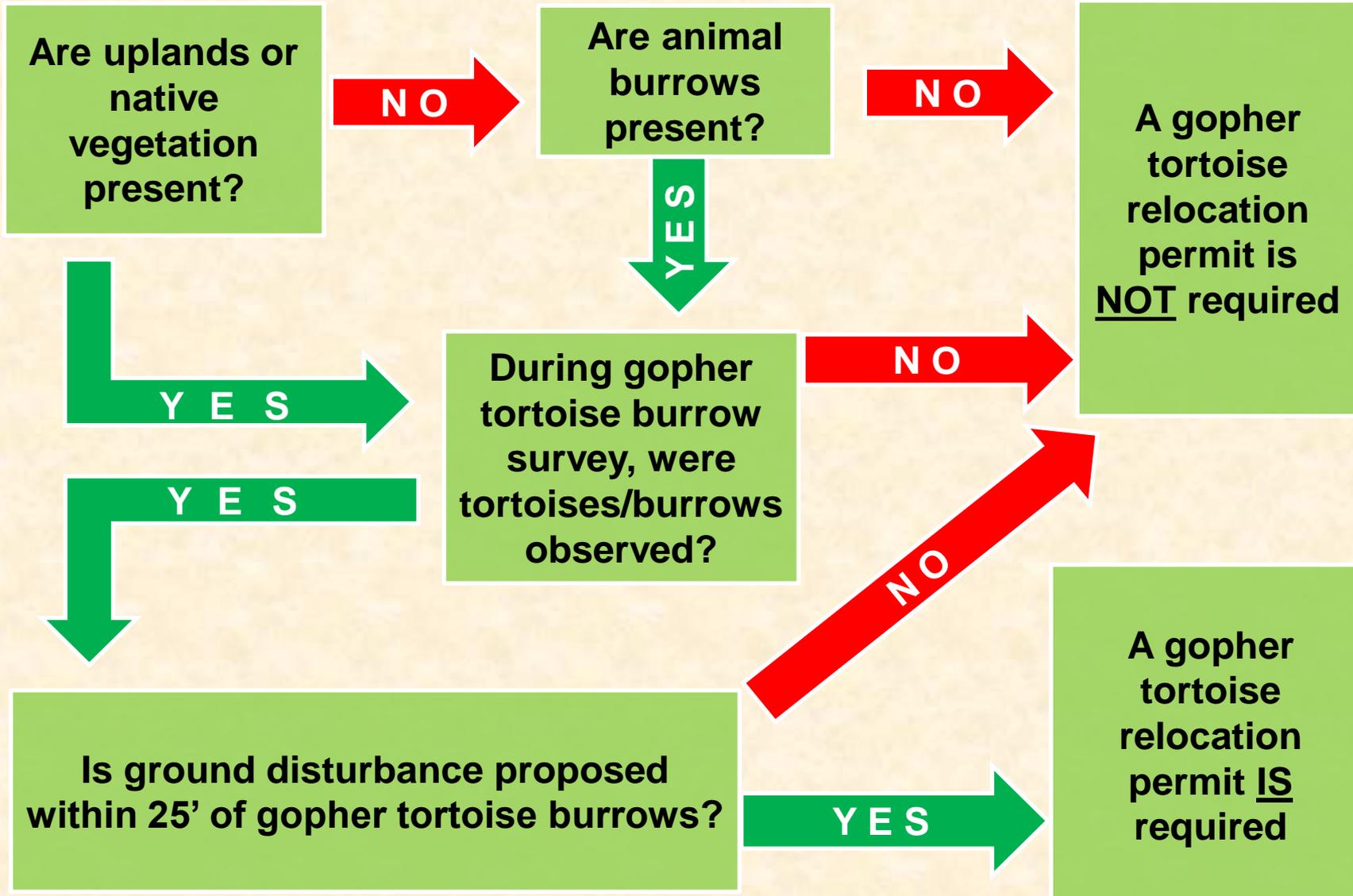


Identify Environmental Features

PLEM Environmental Liaison will:

- Determine if suitable gopher tortoise habitat exists by reviewing available GIS, aerial, PD&E (if applicable), and database information
- Conduct a field review if suitable habitat exists (urbanized vs. public lands)
- Detail results of reviews in the Environmental Features Identification (EFID) Memo
- Identify next steps needed to address the presence of tortoises

Decision Matrix





Environmental Activity Coordination Meeting

PLEM Environmental Liaison will:

- Provide Project Manager with gopher tortoise review information (Environmental Features Memo)
- Discuss next steps with Project Manager
 - Ways to avoid permitting and scheduling conflicts
 - Review potential costs and schedule impacts
 - Need for additional surveys

Examples of DOT Projects



Initial Environmental Impact Review

PLEM Environmental Liaison will:

- Review initial engineering plans and compare with gopher tortoise surveys to identify potential burrow impacts
- Enter comments into the Electronic Review Comment (ERC) system regarding:
 - Avoidance and minimization efforts recommended
 - Plan notes
- Evaluate if a permit is required and if so what type
 - Conservation vs. 10 or fewer
 - Type of relocation options - on-site (preferred) vs. off-site (recipient site)

Activities Requiring a Permit

Not all activities require a permit, but any ground disturbing activities within 25' of a gopher tortoise burrow require a permit.

- Bulldozing
- Digging
- Building Construction
- Clearing
- Grading
- Paving



Activities that don't require a permit

No Permit Required:

- Wholly avoid the area(s) inhabited by gopher tortoises
- Design your project such that activities requiring a permit DO NOT occur within 25 feet of a gopher tortoise burrow entrance and provide sufficient habitat for remaining gopher tortoises



A vertical strip on the left side of the slide shows a lush green forest with tall trees and dense foliage.

Costs associated with Gopher Tortoise Relocation Permits

10 or Fewer Burrows Permit
(relocate on-site or off-site)

\$203

Conservation Permit:
(>10 burrows, relocated to
long-term protected area)

\$203 for first group of 10 burrows
(5 gopher tortoises max). \$305 each
additional gopher tortoise.

Temporary Exclusion Permit

\$102 - \$305 per gopher tortoise

Emergency Take

\$4,053 per gopher tortoise

Recipient Site*

Between \$700-\$900 / tortoise in addition
to the fees listed above



Constructability Environmental Impact Review

PLEM Environmental Liaison will:

- Review constructability engineering plans to identify any design changes that could impact more or less burrows
- Final coordination with Project Manager on any additional avoidance and minimization measures
 - Gopher tortoise Fencing
 - Staging areas
- Enter ERC Comments and additional plan notes if applicable
- If a permit is required start the application process with FWC

Permitting Timelines

| | |
|--------------------------------|---------------------|
| Burrow Survey | Valid for 90 days |
| Permit Application Preparation | 1 - 2 weeks |
| Permit Review | Up to 90 days |
| Permit Duration | 6 months to 2 years |



Biddability Environmental Final Impact Review

PLEM Environmental Liaison will:

- Review biddability engineering plans for any final design changes
- Ensure fencing and comments are shown on plans as recommended during constructability review
- Final ERC Comments (if necessary)
- Finalize Gopher Tortoise Permit



Checklist/Environmental Certification

PLEM Environmental Liaison will:

- Final checklist and memo provided to the Project Manager
- Signature by Environmental Administrator
- Schedule meeting with District Construction Environmental Coordinator (DCEC) in order to make the Construction Department aware of the gopher tortoise issues.
- Identify Construction Date
- Additional surveys may be necessary (90 days)

Prior to Construction

PLEM Environmental Liaison, in coordination with DCEC, will:

- Funding – permit, recipient site, excavation
- 100% Survey (no more than 90 days prior to construction)
- Relocate Tortoises in conjunction with mobilization
 - Bucket trapping - 28 days
 - Weather Conditions
 - Excavation



Permit Execution

A valid Gopher Tortoise Relocation Permit from FWC must be issued before land clearing can begin

An Authorized Gopher Tortoise Agent must conduct the relocation. Can only be conducted when average daily low is higher than 50°F for 3 straight days. Makes winter relocations difficult

Silt fence installation is now encouraged (and in specific cases, required) by the FWC to limit gopher tortoise movements

Permit issuance does NOT preclude the permit holder from relocating additional gopher tortoises encountered during the life of the project



Gopher Tortoise Exclusionary Fencing

UTILITIES



Utilities often conduct work prior to what Project Manager considers ground breaking. **Tortoises must be relocated prior to any work, including utility relocation.**

GT Agent and/or backhoe operator must understand utility locations prior to digging. **Get utility locates Before You Dig: Call 811.**



Disturbed Site Permit

If you don't contact PLEM regarding gopher tortoises it may take more time and money.

Special case permit sometimes necessary after premature site clearing has occurred

May be issued in association with a FWC law enforcement investigation

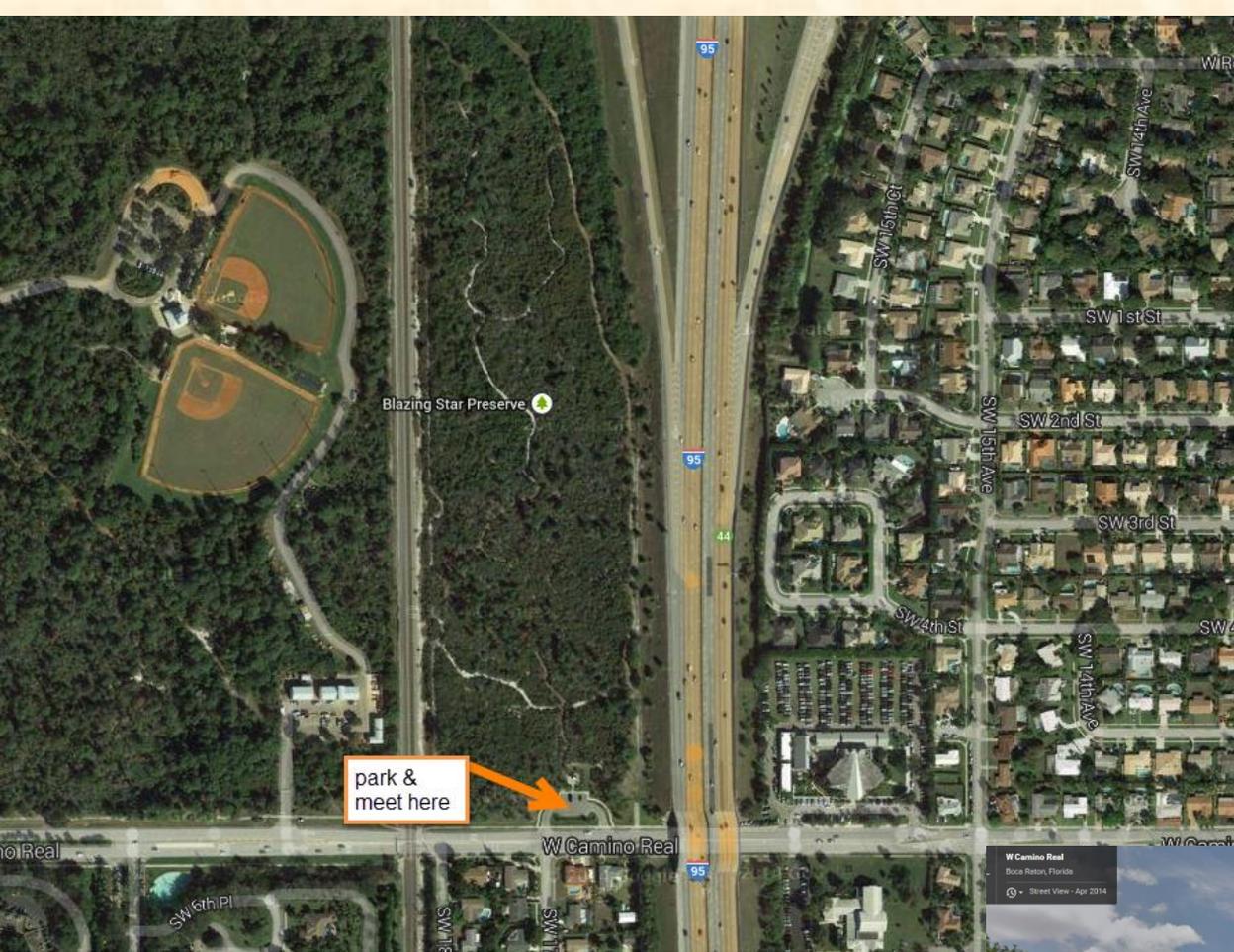
Requires a more thorough (= time and cost intensive) site review

\$500 for first group of 10 burrows (5 gopher tortoises max).
\$4,000 each additional gopher tortoise

A photograph of a turtle, likely a sea turtle, sitting in a nest. The turtle's shell is covered in a thick layer of white powder, possibly talcum powder, which is being used to protect the eggs from predators and moisture. The nest is made of sand and is surrounded by dry pine needles and some green vegetation. The text "THE END" is overlaid in yellow on the turtle's shell.

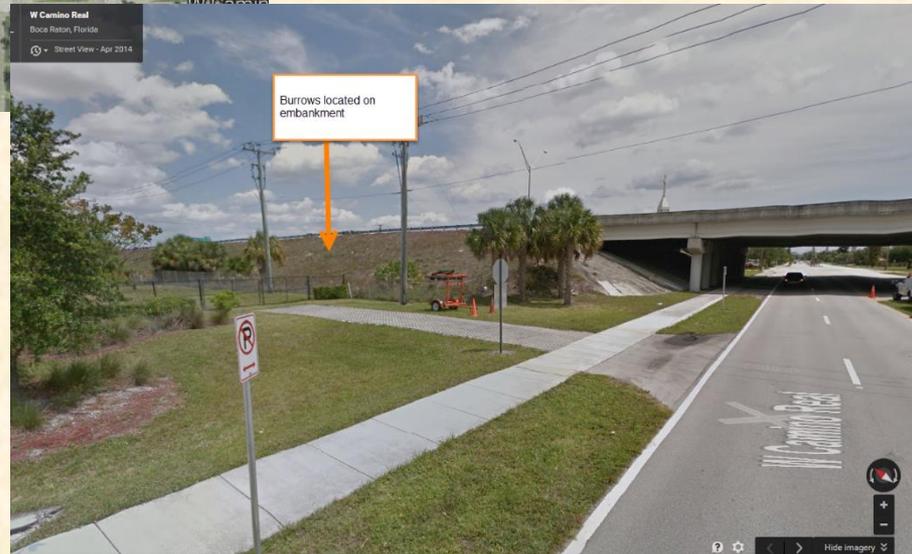
THE END

http://www.youtube.com/watch?v=td6F_rU6l3k&feature=player_embedded



Field Review
At Blazing Star
Preserve,
1751 W Camino Real,
Boca Raton, FL 33486

1:30 PM for gopher
tortoise field review.





See a demonstration of
gopher tortoise burrow scoping.

