GOPHER TORTOISE PERMITTING GUIDELINES

Gopherus polyphemus

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FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
620 South Meridian Street
Tallahassee, Florida 32399-1600

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GLOSSARY

abandoned burrow - burrow appears unused and dilapidated. The entrance may be partially or completely collapsed, and the burrow may be partially or completely filled with leaves or soil. Recent rains, or recent activity by livestock or humans, do not appear to be the primary reason for burrow collapse. There are no trails into the burrow that might indicate that a tortoise recently passed through the leaf litter or that a small tortoise is using a dilapidated, adult burrow. For surveys conducted during the colder months (*i.e.*, November-March), burrows that appear abandoned because of erosion or blockage with vegetation shall be considered potentially occupied.

active burrow - burrow is in good repair with classic half-moon shaped entrance and appears to be in use by a tortoise. These burrows generally have tortoise tracks or plastron scrapes clearly visible on the burrow floor or on the mound. The burrow floor often contains loose soil caused by tortoise activity. The burrow mound is usually clear of vegetation, and it may contain recently excavated soil. For burrow surveys and tortoise density determination, active burrows are combined with inactive burrows to create the *potentially occupied* classification.

asters - plants in the sunflower family.

baseline density - the estimated density (tortoises per acre) of resident gopher tortoises on a recipient site before relocated tortoises are released.

belt transect - a long, thin plot of specific or variable length and width. Burrows are counted within each transect to provide an estimate of the number of burrows, and tortoises, on a given site.

bucket trap - a plastic bucket (generally five gallons or 19 liters, but may be larger or smaller depending on burrow size) that is sunk directly in front of a burrow opening and covered with paper or cloth and soil (for camouflage) to create a pitfall trap for a gopher tortoise. Bucket traps may capture tortoises leaving or entering a burrow.

caliper - a device used to measure straight-line distance between two points of an object or animal. In this case, a caliper with two long metal “jaws” is used to measure the length of the top (carapace) and bottom (plastron) shells of gopher tortoises; this caliper was designed to measure the diameter of trees and can be obtained from forestry supply companies.

clinical signs - veterinary term referring to visible signs or symptoms of disease, illness, or lack of well-being in animals. Nasal discharge is a clinical sign that may be observed when tortoises have upper respiratory tract disease (URTD).

correction factor - also known as a burrow occupancy rate, this is the percentage of gopher tortoise burrows on a particular site that are occupied at a given time (tortoises generally use more than one burrow over time).

canopy cover - layer of vegetation extending above head height, usually composed of tree branches.

carapace - the top (upper) shell of a tortoise.

carrying capacity - the maximum number of individuals of a species that an area can support, given the amount and quality of food, water, and cover.

commensal - living in a relationship in which one animal derives food, refuge, or other benefits from another animal without hurting or helping it. The gopher frog, eastern indigo snake, Florida pine snake, and Florida mouse are listed commensal species of the gopher tortoise.

conjunctiva - the mucous membrane that covers the exposed portion of the eyeball and the inner surface of the eye.

conservation easement - a voluntary legal agreement between a landowner and a land trust or government agency that limits the type or amount of development on the landowner's property, thus protecting the land's conservation value while retaining private ownership.

densitometer - a forestry device used to determine canopy cover for a given area.

depth to water table (DWT) - a soil suitability criterion referring to a saturated zone in the soil. Values provided in the Natural Resources Conservation Service (NRCS) website database are representative values (neither the highest nor lowest) for a particular soil type.

donor site - the property, usually a development, from which tortoises are removed during relocations.

enclosure - a temporary, specified area of a recipient site that is surrounded by approved fencing or hay/pine straw bales to initially contain relocated tortoises and to help them acclimate to their new surroundings. *See soft release*.

endemic – exclusively native to a particular geographic area.

final stocking rate - the density of tortoises that can be relocated to a recipient site after considering the baseline density of the resident population. The final stocking rate is calculated by determining the maximum stocking rate (also known as the site evaluation stocking rate) and subtracting the baseline density.

filter fabric fencing - *See silt fencing.*

forage - plant material, such as grasses, legumes, and other flowering plants, eaten by grazing animals.

ground cover - herbaceous plants and the lowest shrubs occupying an area: a generic term used to describe the mat of plants found on the forest floor.

global positioning system (GPS) - a satellite-based navigational system; the receiver provides latitude and longitude data for specific applications (in this case, burrow locations).

herbaceous - refers to non-woody plants, generally green and leafy in appearance and texture.

inactive burrow - burrow is in good repair, but does not show recent tortoise use. The lack of tortoise sign may be due to weather or season. These burrows have the classic half-moon shaped entrance, but the soil on the burrow floor is usually hard packed, as is the burrow mound. There are no tortoise tracks or recently excavated soil, either on the burrow floor or on the mound. The burrow mound may have vegetation growing on it, or be partially covered with fallen leaves. For burrow surveys and tortoise density determination, inactive burrows are combined with active burrows to create the *potentially occupied* classification.

infrastructure - structural elements that provide the framework supporting a development, *e.g.*, roads, bridges, water resources, wastewater management, electric power transmission, and telecommunications.

legumes - plants in the bean family.

live trap - a mesh wire cage trap, either homemade or commercially available (*e.g.*, Havahart) that is set directly in front of a burrow to capture the resident tortoise.

local government approval – a permit, agreement, development order, or other authorization issued or granted in writing by the local city or county government having jurisdiction over the property.

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

mesic (habitat) - having a moderate or well-balance supply of moisture.

midstory - the middle layer, generally three-nine feet in height, of trees and shrubs (in a multi-layered forest) shaded by taller trees.

mitigation contribution - compensation, usually either in the form of monetary contributions or protected habitat donations, to offset the ill effects of human-related land change (*e.g.*, development) on gopher tortoise populations.

mycoplasma - an infectious agent (bacterium) that has been associated with upper respiratory tract disease in gopher tortoises.

nares - external openings of the nostrils.

off-site recipient area - an area which does not lie within the same boundaries (as defined in the legal description or as identified by the county parcel identification number) of the development area from which tortoises are to be removed and which may be under either the same or different ownership.

on-site recipient area - an area that is located within the same boundaries (as defined in the legal description or as identified by the county parcel identification number) of the development area from which tortoises are to be removed and which is under the same ownership as the development area.

PIT tags - Passive Integrated Transponder (PIT) tags are small microchips (about the size of a grain of rice) that are injected into a tortoise's hind leg using a hand-held applicator. A hand-held scanner reads the tag's electromagnetic code and displays the tag's number. PIT tags provide an alternative method for permanently and uniquely marking individual tortoises.

plastron - the bottom (lower) shell of a tortoise.

plat - A map of land made by a surveyor showing boundary lines, buildings, and other improvements on the land.

population - a group of individuals of the same species that occur in a defined area at the same time and regularly interact or interbreed.

potential tortoise habitat - those land cover types and soil associations that are known to support the life history requirements of the gopher tortoise. These habitats include, *but are not limited to,* sandhill, scrub, scrubby flatwoods, pine flatwoods, dry prairie, coastal strand, xeric hammock, mixed pine-hardwoods, and disturbed habitats on suitably-drained soils.

potentially occupied burrow - this classification combines the active and inactive categories, and therefore includes burrows with obvious sign of use and those with minimal or no obvious sign of use. A potentially occupied burrow is in good repair with the classic half-moon shaped entrance. These burrows may have tortoise tracks or plastron scrapes clearly visible on the burrow floor or on the mound, or may have subtle or no tortoise sign. The lack of observable tortoise sign may be due to weather or season. The burrow floor may contain loose soil caused by tortoise activity or it

may be hard packed. The burrow mound may or may not have vegetation growing on it, and may be partially covered by fallen leaves.

prescribed fire - a planned fire applied within a particular land area under the right weather conditions to accomplish specific, well-defined management objectives.

protected site (relocation) - either privately or publicly-owned lands that meet the definition of "long-term protection."

recipient site - the property where relocated tortoises are released.

recommendation - preferred protocol or technique that permit applicants or permittees should follow, but which is not required (*i.e.*, other viable methods are allowed). In the text of these guidelines, a recommendation is generally indicated by use of the verbs "should" or "may".

relocation - deliberately moving wild gopher tortoises.

requirement - action or protocol that must be followed before FWC will issue a permit. A requirement also includes actions that must be undertaken to avoid violating FWC permit conditions and rules. In the text of these guidelines, a requirement is generally indicated by use of the verbs "must" or "shall", or if an action is prohibited, by use of "do not".

rescue relocation - deliberately moving individuals or groups of tortoises to areas that are typically unprotected, and may be relatively small, disturbed, or inadequately managed to support long-term population viability. Rescue relocation is conducted primarily to remove wild gopher tortoises from human-caused harm.

responsible relocation - deliberately moving wild gopher tortoises into protected, managed, suitable habitat where their future survival and population viability are very likely. Restocking to such sites where tortoise populations have been severely depleted is a form of responsible relocation; however, tortoises may also be responsibly relocated to sites with resident tortoises where the carrying capacity has been increased through habitat management to provide sufficient forage for additional tortoises.

restocking - deliberately moving wild gopher tortoises into protected, managed, suitable habitat where resident densities are extremely low and where the tortoises' future survival and long-term population viability are very likely.

restocking site - an area of protected, managed, suitable habitat where gopher tortoise populations have been severely depleted or eliminated.

roller chopping - a forestry method for preparing sites for planting pine trees; also used as a land management tool to reduce the height and density of understory vegetation. A bulldozer pulls a heavy cylindrical drum with cutting blades that chop vegetation.

silt fencing (Belton Industries, #935) – a durable type of silt fencing (36 inch x 75 ft; pre-assembled, double-stapled, with oak stakes) that has been field-tested as an enclosure material for gopher tortoises. The manufacturer is Belton Industries, PO Box 127, Belton, SC; 800-845-8743; www.beltonindustries.com/silt.html. Distributors include Pallen Enterprises, Conyers, GA (770-922-1812) and Certified Slings, Ft. Myers, FL (239-334-1343).

silt fencing (filter fabric) - A temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts and entrenched. There are two types: a) the silt fence is a temporary linear filter barrier constructed of synthetic filter fabric, posts, and depending upon the strength of the fabric used, wire fence for support; b) the filter barrier is constructed of stakes and burlap or synthetic filter fabric. These types of silt fencing are useful for temporary exclusion, but are generally not durable enough for six month-enclosures on recipient sites.

site evaluation stocking rate (maximum stocking rate) - the maximum allowable density on a particular recipient site, determined by evaluating habitat conditions such as canopy cover, soils, etc. Generally, maximum stocking rates range from two to four tortoises per acre.

scute - a bony external plate or scale, as on the shell of a tortoise.

seropositive - positive blood test indicating an immune response (exposure) to the bacteria that cause upper respiratory tract disease in gopher tortoises.

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

shrub - a woody plant (height variable) that has several stems arising from the base and lacks a single trunk.

silviculture - the art and science of establishing and growing healthy, high quality forests to meet human needs.

site fidelity - remaining within a particular area.

soft release (relocation) - those releases where relocated animals are contained in a temporary enclosure at the recipient site for some period of time before being allowed to roam freely; this differs from hard releases where animals are turned loose without any period to acclimate to their new surroundings.

Strategic Habitat Conservation Area – an area not within existing publicly-owned conservation lands that FWC has identified as needing protection to meet minimum

conservation goals and provide greater security for rare native plants, animals, and habitats.

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

understory - the lowest vegetative layer in a forest, consisting of woody and herbaceous growth less than three feet in height.

upland (habitat) - high, generally dry, lands that are not wetlands (water).

unprotected site (relocation) - lands that do not have any enforceable protection commitments or use restrictions that would prevent them from being modified and made unsuitable for tortoises.

upper respiratory tract disease (URTD) - a disease that occurs in gopher tortoises, where infected individuals may show a discharge from the nasal passages or eyes, swelling of the eyelids or area around the eyes, or reddened third eyelid. These so-called clinical signs (*i.e.*, symptoms) come and go over time.

viable population - a stable, self-sustaining population with a high likelihood (*e.g.*, more than 95%) of surviving for a long-term period (*e.g.*, 100 years).

xeric (habitat) - very dry, in this case due to soil factors.

I. INTRODUCTION

The following gopher tortoise (*Gopherus polyphemus*) permitting guidelines have been produced by the Florida Fish and Wildlife Conservation Commission (FWC) with input from stakeholders, to provide a comprehensive overview of FWC's gopher tortoise permitting system. The new gopher tortoise permitting system has been developed as one tool in accomplishing the goals and objectives set forth in FWC's Gopher Tortoise Management Plan, approved in September 2007.

The overall goal of the management plan is to restore and maintain secure, viable populations of gopher tortoises throughout the species' current range in Florida. Objectives under this goal include: 1) Improving gopher tortoise carrying capacity on lands with existing or potential gopher tortoise habitat; 2) Increasing the amount of protected gopher tortoise habitat; 3) Restocking gopher tortoises to protected and managed areas; and 4) Decreasing gopher tortoise mortality on lands proposed for development.

This permit system has been designed to help accomplish all four of these objectives by providing incentives to landowners to manage their habitat for gopher tortoises, tortoise commensals, and other native wildlife species; providing incentives to responsibly relocate and restock tortoises to protected, managed lands rather than unprotected sites; providing a new permitting system which does not allow entombment of tortoises; and providing a permitting system with regulation and enforcement sufficient to ensure compliance with FWC guidelines and rules.

The *Gopher Tortoise Permitting Guidelines* is a document which may be edited and updated as needed in the future. Proposed changes to these guidelines will be reviewed annually by a FWC standing team and a public stakeholder advisory group. All changes will require approval from the FWC Executive Director. The FWC Executive Director will also coordinate with the FWC Chairman to determine when changes to these guidelines are substantive and warrant full review by the FWC Commissioners.

These guidelines do not address technical details or aspects of the permit application process associated with the gopher tortoise permitting website, as this website has not yet been developed. Future revisions to these guidelines will include additional information on key components of the online permitting system, which will be critical to the functioning of the permit system as a whole.

These guidelines include specific requirements and recommendations for various elements of the gopher tortoise permitting system. *Requirements* include actions or protocols that must be followed before FWC will issue a permit. They also include actions that must be undertaken to avoid violating FWC permit conditions and rules. The terms "shall" or "must" in this document denote guideline requirements. *Recommendations* include preferred protocols or techniques that applicants or permittees should follow, but which are not required (*i.e.*, other viable methods are allowed). The terms "should" and "may" in this document denote guideline recommendations. These guidelines are intended to be a single source for all policy and protocols associated with FWC's gopher tortoise permitting system, and thereby are written primarily for an audience seeking such in-depth knowledge. Other publications and online materials will be developed to

address the informational needs of groups who do not require an in-depth understanding of the entire system.

II. DETERMINING IF A PERMIT IS REQUIRED

Rules and Policies Protecting Tortoises and Their Burrows

Rules protecting gopher tortoises and their burrows, and the *Gopher Tortoise Enforcement Policy*, are found in Appendix 1.

Activities Which do not Require a Permit

Agricultural, silvicultural, and wildlife management activities which impact gopher tortoises or gopher tortoise burrows do not require a permit if they are conducted in accordance with the *Gopher Tortoise Enforcement Policy* (Appendix 1) which is a part of these guidelines. These activities include tilling, planting, harvesting, prescribed burning, mowing, disking, roller chopping, and tree cutting. For additional guidance on activities that do not require a permit, refer to the *Gopher Tortoise Enforcement Policy* in Appendix 1.

Linear utility and highway right-of-way vegetation maintenance activities which may impact gopher tortoises or gopher tortoise burrows do not require a permit. These activities include mowing and tree cutting.

Routine yard and vegetation maintenance and landscaping activities that do not harm gopher tortoises or collapse tortoise burrows do not require a permit.

Note: Agricultural, silvicultural, wildlife management, and linear utility and highway right-of-way vegetation maintenance activities have not been shown to routinely result in significant gopher tortoise deaths (*i.e.*, beyond the infrequent, accidental death of individual tortoises). Therefore, FWC will investigate reports of the death of significant numbers of tortoises to determine if these deaths resulted from activities that did not constitute bona fide agricultural, silvicultural, wildlife management, or linear utility and highway right-of-way vegetation maintenance activities. The FWC may pursue such activities as a violation of Rule 68A-27.004, Florida Administrative Code (F.A.C.) which is included in Appendix 1.

Note: Activities which are intended to prepare land for development are not considered bona fide agricultural, silvicultural, and wildlife management, linear utility, or highway right-of-way vegetation maintenance activities. A permit is required for land development activities (including site preparation for such activities) which result in impacts to gopher tortoises or their burrows. See *Site Preparation Activities for Development* below.

A permit is not required for activities which occur more than 25 feet from a gopher tortoise burrow entrance, provided that such activities do not harm gopher tortoises or violate rules protecting gopher tortoises. Examples of such violations noted in the past by FWC include, but are not limited to, killing or injuring a tortoise more than 25 feet away from its burrow; harassing

a tortoise by blocking access to its burrow, and altering gopher tortoise habitat to such an extent that resident tortoises are taken (see *Glossary*).

Activities Which Require a Permit

A permit is required for any activity not covered in the section above, which causes a take, harassment, molestation, damage, destruction, or impact to gopher tortoises or their burrows (see Rule 68A-27.004, F.A.C., Appendix 1). Activities which can lead to rule violations include, but are not limited to: clearing, grading, paving, bulldozing, digging, building construction, and site preparation for development.

Examples of actions which constitute rule violations include:

1) Killing or causing direct harm to gopher tortoises
2) Collapsing gopher tortoise burrow entrances or other parts of tortoise burrows without a permit
3) Blocking, covering, or filling in gopher tortoise burrow entrances without a permit
4) Placing harmful substances or devices inside gopher tortoise burrows
5) Penning or restricting gopher tortoises into small areas for more than 72 hours without a permit
6) Altering gopher tortoise habitat to such an extent that resident tortoises are taken (see *Glossary*) by such activities
7) Excluding tortoises from their burrows without a permit
8) Relocating or possessing tortoises without a permit

Site Preparation Activities for Development

Any site preparation activity which disturbs vegetation or the ground, that is conducted as a precursor to development and which impacts gopher tortoises or their burrows, will require a permit or otherwise be considered a violation of Rule 68A-27.004, F.A.C. (see examples 1-8, above). Site preparation activities such as hand trimming vegetation and other minor investigations for determining suitability of property for development do not require a permit, if these activities do not impact gopher tortoise burrows, harm gopher tortoises, or disturb the ground or vegetation to the degree that accurate tortoise burrow surveys, or FWC site checks of such surveys, cannot be conducted. FWC law enforcement will respond to reports of impacts to gopher tortoises or their burrows as soon as possible, but within no more than three days.

Site preparation activities which disturb vegetation or the ground, and which take place before or after a permit application is received by FWC, which prevent complete and accurate tortoise burrow surveys from being conducted, or which prevent FWC staff from site checking such surveys before a permit is issued, will be handled through the Settlement permit process. A FWC law enforcement investigation will be conducted to determine if gopher tortoises or gopher tortoise burrows have been impacted. Regardless of the outcome of investigations, the permit review process will not resume until any gopher tortoises potentially buried in disturbed portions of the project site, are given adequate time to dig out (a minimum of 28 days, comparable to that required during tortoise trapping efforts; however, longer periods for tortoises to self-excavate

may be warranted during cold weather). Permit applications submitted after documented site disturbances impacting gopher tortoises or their burrows will be processed under the Settlement permit guidelines (Section IV, *Types of Permits*). Settlement permits will not be issued until law enforcement investigations are completed and mitigation contributions are received by FWC.

Permit applications must include tortoise surveys of the entire development, not just infrastructure components. Permits will not be issued solely for proposed infrastructure (*e.g.*, roads and utilities) that are part of a larger common development plan, project, plat, or subdivision. Issued permits must address all burrows to be impacted on the entire project, development, plat, or subdivision site plan (the development footprint). For example, if the entire development footprint impacts more than 10 burrows, such sites will not be eligible (*i.e.*, meet the criteria) for issuance of a 10 or Fewer Burrows permit, even if the infrastructure itself impacts only 10 or fewer burrows.

Applicants submitting permit applications for projects with site plans that include lots or space for residential, industrial, institutional, commercial, or other development must consider all burrows within such areas to be impacted by the development footprint. Only those tortoises residing in burrows that are located within either designated preserves or other areas that will not be impacted by any activity associated with the ultimate build-out of the proposed development site do not have to be relocated. Large projects that are subdivided into development phases where each phase is approved by the local government under a separate development order may be permitted separately, but only one 10 or Fewer Burrows permit will be issued per multi-phased project.

III. PERMITTING GUIDELINES

The FWC uses a multi-tiered approach to permitting actions involving gopher tortoises. These permits are divided into three main types: 1) Authorized Agent permits which authorize persons to trap, transport, and release tortoises; 2) Site-specific relocation permits, which authorize trapping and relocation of tortoises either within the boundaries of the area being developed (on-site) or from one specific area to a certified recipient site (off-site); and 3) Recipient Site permits which authorize the use of designated sites meeting specific criteria as recipient areas for tortoises. Emergency permits and Settlement permits are two additional permit types, only issued under unusual circumstances. The types of permits are illustrated by the flow chart in Appendix 2, *FWC Gopher Tortoise Permitting System Process Map*.

Entombment of tortoises is not allowed under the conditions of any permit, with the exception of Emergency permits. Emergency permits are available only in extreme circumstances where there is an immediate danger to the public's health and/or safety or in direct response to an official declaration of emergency by the Governor or other local authority. Local emergency situations which do not rise to the level of an official declaration should be handled by coordinating with FWC's Division of Law Enforcement and seeking assistance in determining steps that must be taken in order to avoid additional take or endangerment of gopher tortoises. Settlement permits are issued after settlement of FWC law enforcement investigations, which will be initiated under those circumstances where violations of rules or guidelines are suspected.

Mitigation Contributions

A mitigation contribution will be made for all relocation permits. A flat mitigation contribution from each applicant applies to the first 10 burrows impacted on each project site. Additional mitigation for sites supporting more than 10 tortoise burrows is required. These contributions are assessed by determining the estimated number of tortoises impacted (the number of potentially occupied tortoise burrows to be impacted, divided by two). A variable scale for these additional contributions is based on the overall conservation value of the action being permitted and the estimated number of gopher tortoises being impacted by the project. Preferred conservation actions, such as responsibly relocating tortoises to long-term protected lands (public or private), requires a lower contribution per tortoise than relocations to unprotected lands or relocations after settlement of law enforcement cases. All mitigation contributions support gopher tortoise conservation actions as specified in the FWC-approved Gopher Tortoise Management Plan.

Other costs may be incurred by applicants obtaining permits or conducting activities related to gopher tortoises. Examples of such costs include fees paid to consultants, fees paid for on-site preparation for gopher tortoise related activities, fees paid to owners of recipient areas, and fees associated with establishing conservation easements. These fees are not paid to FWC nor controlled by FWC.

All mitigation contributions must be submitted to FWC as specified in these guidelines. Gopher tortoise mitigation contributions for a 10 or Fewer Burrows permit, Authorized Agent permit, Recipient Site permit, Temporary Exclusion permit, or a Settlement permit must be submitted to FWC prior to issuance of the final permit.

Mitigation contributions for Conservation permits will be accepted with two options for payment:

a. Prior to issuance of the permit, a payment representing 100% of the estimated total amount due will be submitted; or

b. Prior to issuance of the permit, a letter of credit payable to the FWC for 100% of the estimated total amount due will be submitted with a permit condition requiring that within 30 days following completion of all relocation activities, a payment of the exact amount due will be submitted.

If the actual number of gopher tortoises relocated is less than the number estimated, a refund of any excess funds paid under option “a” above will be made to the permittee. Under option “b”, FWC will not request payment on the letter of credit unless the permittee fails to make an exact payment as determined by the actual number of gopher tortoises relocated. If the number of tortoises encountered during relocation exceeds the number permitted, then the permittee or agent must call the FWC Permit Coordinator as soon as possible, and before continuing the relocation, to receive instructions regarding amending the relocation permit for the relocation and associated mitigation contribution for extra tortoises.

Emergency permit mitigation contributions will be handled on a case-by-case basis, in accordance with the facts and circumstances of each permit incident.

The FWC realizes that all sites are unique and that circumstances influencing gopher tortoise populations are dynamic. For that reason, the initial permitting mitigation contribution is based on estimates from site surveys and a general application of a statewide correction factor. Estimating the total amount due is accomplished by calculating the number of potentially occupied burrows (based on surveys of not less than 15% of the project site areas where potential gopher tortoise habitat is found), dividing by 2, and then applying the mitigation contribution amounts shown for the various permit types described in Table 1.

Table 1. Permit Type and Corresponding Mitigation Contribution

PERMIT TYPE	MITIGATION CONTRIBUTION
Authorized Agent	$500 (one time contribution)
Recipient Site	$500 per site (one time contribution)
10 or Fewer Burrows *tortoises are relocated on-site or off-site*	$200
Conservation *>10 burrows relocated to **protected** area*	$200 for first group of 10 burrows $300 each additional tortoise
Conservation *>10 burrows relocated to **unprotected** area*	$200 for first group of 10 burrows $3,000 each additional tortoise
Temporary Exclusion	$100-300 per tortoise *To be determined during permit review process*
Emergency Take	$4,000 per tortoise
Settlement *plus any costs stipulated in the agreement or as ordered by court*	$4,000 per tortoise

Note: Eggs and juvenile tortoises (less than 130 mm carapace length) are not included when calculating the mitigation contribution, but must be relocated.

Documentation for Permit Applications and Issuance

In accordance with the requirements of Rules 68A-25.002 and 68A-27.004 (F.A.C.), a permit for a gopher tortoise capture/relocation/release activity must be secured from FWC prior to initiating any relocation work. Required information for applications is outlined in Appendix 3, *Informational Needs for Relocation Permit Applications and Recipient Site Permit Applications*. Application forms are available from the Permit Coordinator, Florida Fish and Wildlife

Conservation Commission, 620 South Meridian Street, Mail Station 2A, Tallahassee, Florida 32399-1600; (850)410-0656, ext. 17327; (850)488-5297 fax; or from the FWC website at: http://MyFWC.com/Permits/Protected-Wildlife. Complete applications should be submitted to the Permit Coordinator at the above address at least 90 days prior to the time needed, although most applications will be processed in 45 days or less. Timely issuance of permits is dependent on receiving all of the required documentation. Demonstration of need for a permit will require submittal of proof of local government approval for the activity proposed (in the form of preliminary or final subdivision plat, or master planned unit development approval; Development of Regional Impact [DRI] development order; or authorization to commence clearing, grading, or construction activities). The actual capture and relocation authorized by the permit shall only be conducted if local written approvals have been obtained for clearing, grading, or construction activities. Local governments may have requirements that an applicant demonstrate that FWC permits have been issued, or even that FWC permit requirements have been met, before issuing their final local government approval. The FWC will work with permit applicants, and the local governments having jurisdiction, to ensure that the appropriate permitting sequence is achieved. The FWC will use letters of intent or special conditions to permits, if necessary, which can be used to demonstrate agency concurrence with a proposed project. However, permits are not issued to move tortoises off a property where no construction activity is imminent.

Permit Duration, Permit Posting, and Post-Relocation Reporting

The duration of each type of permit will be indicated on the permit. Authorized Agent permits are valid for a two-year period and may be renewed without additional payment in two-year increments. Any changes to an Authorized Agent permit will require submittal of an additional mitigation contribution. Recipient Site permits with long-term protection do not expire but will be subject to reporting requirements within the special conditions. Permits for short-term protected recipient sites and unprotected recipient sites must be renewed every two years but will require no additional mitigation contribution. Relocation permits for 10 or Fewer Burrows will expire within six months of the issuance date. Conservation and Temporary Exclusion permits will expire within 12 months following issuance. Emergency permits and Settlement permits will be handled on a case-by-case basis considering the circumstances of the development and the conditions present. Any request for permit renewal or amendments shall be submitted at least 45 days prior to the expiration date of the existing permit.

Phased projects, those which may occur over more than one 12 month period and with clear development stages based on geographic areas, may be permitted with conditions that specify the various gopher tortoise conservation activities to be conducted in the different stages of development.

Either the original permit, or a complete copy, must be clearly posted at the affected site at all times while engaged in the permitted gopher tortoise relocation activities.

Within 30 days of release of the relocated tortoises, the permittee, or authorized agent if applicable, shall submit a report detailing the capture/relocation actions to the Species Conservation Planning Section (SCP) regional contact person, with copies provided to the

recipient site landowner and FWC's Permit Coordinator in Tallahassee (address above). A report form is attached to the permit for use in that regard.

Burrow Surveys on the Development Site

A burrow survey covering a minimum of 15% of the potential gopher tortoise habitat to be impacted by development is required in order to apply for a relocation permit. Immediately prior to capturing tortoises for relocation, a 100% survey is required to effectively locate and mark all potentially occupied tortoise burrows and to subsequently remove the tortoises. Burrow survey methods are outlined in Appendix 4, *Methods for Burrow Surveys on Development (Donor) and Recipient Sites*. Surveys must be conducted within 90 days of when an application is submitted to FWC. However, surveys shall not be conducted within 30 days of any ground disturbance or clearing activities on the donor site. All surveys completed by authorized agents or other permittees are subject to field verification by FWC.

Capture, Handling, and Transport of Relocated Tortoises

Capture Methods: Tortoises may be captured via bucket traps, live traps, hand capture outside burrows, and excavation by hand or backhoe. To prevent impalement of tortoises during backhoe excavation, the backhoe bucket must have a flat plate rather than teeth (long prongs). Use of a pulling rod with a blunted tip to prevent injury to a tortoise will be allowed on a case-by-case basis, when experienced agents have demonstrated to FWC staff that they can capture tortoises in a safe manner.

If bucket or live traps are used, the traps must be checked at least once per day, and preferably twice per day (once in the morning and once in the late afternoon), and remain in place for at least 28 consecutive days or until the resident tortoise is captured, whichever occurs first. Bucket traps are not effective in capturing tortoises during cold weather, particularly in northern Florida, because tortoises may remain inactive for extended periods of time; therefore, bucket traps are not recommended November-March in northern Florida, but if they are used, all burrows where traps are set and no tortoise is captured must be excavated to determine if the burrows are occupied. Drainage holes sufficient in size and number to prevent rain water from accumulating in the bucket must be drilled into the bottom and lower sides of bucket traps.

Burrow scoping shall not be used to confirm vacancy or to determine site-specific correction factors (occupancy rates) because not all potentially occupied burrows can be successfully scoped (*e.g.*, due to curves or obstructions); however, burrow scopes may be used to enhance capture success for tortoises and their commensals. Also, merely capturing a tortoise outside a burrow is not a reason to assume the burrow is vacant. Although all burrows on the donor site must be flagged or otherwise marked, only potentially occupied burrows (see *Glossary* and Appendix 4 for definition) must be trapped or excavated.

All relocated tortoises must be individually marked and measured. Techniques for measuring shells and for individually and uniquely marking tortoises (*i.e.*, assigning them a permanent identification number) are provided in Appendix 5, *Marking and Measuring Gopher Tortoises During Relocations*.

Any mortality associated with the capture or relocation of gopher tortoises must be reported to the FWC Permit Coordinator within two days.

Cold and hot weather handling: During the colder months, tortoises shall only be relocated when the low temperature at the recipient site is forecasted by the National Weather Service (www.nws.noaa.gov) to be ≥ 50˚ Fahrenheit for three consecutive days after release (including the day of relocation). This three-day required window of milder overnight temperatures is to allow the relocated tortoises to settle into the recipient site and to reduce the chance of cold-related stress or mortality.

Because most tortoise relocations occur during the warmer months, overheating is a more common concern. During summer months, releases should not be made during the hottest part of the day at sites where shade is limited. Heat stress on gopher tortoises being captured and transported for relocation can be reduced or eliminated by assuring that tortoises are continually in shaded conditions.

Holding and Transport: Gopher tortoises must be held in shaded conditions and in individual containers that are large enough to allow the tortoise to turn around. To help prevent dehydration, especially during times of drought, tortoises should be soaked for 20-30 minutes in just enough water to cover the container bottom and to allow the tortoise to easily drink. Moist soil (*e.g.*, from the burrow depths during backhoe excavation) may be used to cover the bottom of the bin. Hay, straw, or shredded paper are other acceptable materials to place in the bin.

Gopher tortoises must not be held more than 72 hours after capture, and preferably not more than 24 hours. Tortoises should be transported within vehicles (not in open trucks) and should be kept at moderate temperatures (*e.g.*, 70-85˚ Fahrenheit).

Health Considerations (including testing for mycoplasmal upper respiratory tract disease [URTD] and accommodation of symptomatic/seropositive tortoises): Most health variables are poorly known for wild gopher tortoises, and even veterinarians with advanced training in animal health can have difficulty detecting subtle clues that a tortoise is ill. However, Appendix 6, *Health Considerations for Gopher Tortoises During Relocations* outlines cursory health evaluations and lists some of the clinical signs (symptoms) that authorized agents can watch for, as well as providing a simple disinfection protocol that will help prevent spread of pathogens. Although detailed health exams are not required, authorized agents should observe each tortoise for obvious clinical signs like nasal discharge. Disinfection of hands and equipment should be undertaken between handling tortoises within a donor site, but all equipment, particularly bins and bucket traps, must be disinfected between use on different donor sites. Blood tests for detecting exposure to the pathogen that causes mycoplasmal URTD are no longer mandated. Procedures for the required training to collect such samples, and information on where to send samples are provided in Appendix 6 for cases where recipient site owners require mycoplasmal URTD testing prior to relocation. Appendix 6 also provides options for accommodation of symptomatic tortoises (*i.e.*, those individuals that show signs of illness, especially respiratory disease) and those that test seropositive for mycoplasmal URTD.

IV. TYPES OF PERMITS

Authorized Gopher Tortoise Agent

Note: Authorized agents included under this type of permit are not authorized agents of FWC, but rather individuals authorized to handle gopher tortoises. These permits are not issued for scientific collection or research on gopher tortoises.

This permit authorizes the permittee, referred to as an authorized agent, and any persons listed on the permit working under their supervision, to undertake those activities specified by the permit including surveying, trapping, marking, transporting, and relocating tortoises, and relocating tortoise commensals (*e.g.*, gopher frog, indigo snake, pine snake, Florida mouse). The specific activities that an authorized agent is granted permission to perform will be listed on the permit. The permit must be carried at all times by the agent when conducting permit-related activities. Authorized Agent permits will not allow relocation of tortoises except when accompanied by either a 10 or Fewer Burrows permit, a Conservation permit, a Temporary Exclusion permit, or a Settlement permit for a specific project.

Authorized agents must be well qualified to perform the gopher tortoise conservation actions for which they are requesting permission. Agents will likely be the first point of contact many citizens have when they are advised that gopher tortoises are protected. Agents must accurately represent FWC policies, guidelines, and rules to the general public and specifically to their clients. As a benefit of receiving this permit, agents will have access to a streamlined online permitting process for certain gopher tortoise permit approvals.

This permit will be conditioned so that it can be withdrawn, suspended, revoked, or not renewed for just cause, as determined by FWC. In cases where agents or anyone assisting them violate FWC rules, policies, or guidelines concerning gopher tortoises; engage in unethical or illegal behavior; falsify gopher tortoise permit applications or monitoring reports; or violate conditions of any gopher tortoise permit, the agent permit may be immediately suspended pending an investigation. Substantiated violations will result in appropriate action, up to and including revocation, at FWC's discretion. Any person having an Authorized Agent permit revocation will be ineligible for receipt of any gopher tortoise related permits for some period of time, depending on the severity of the violation.

Authorized Agent Activity Levels

Level 1: Agents may be authorized to perform one or more of the following activities based on specific knowledge, training, and experience.

- Gopher tortoise surveys
- Bucket trapping
- Live trapping
- Hand-shovel excavation of burrows
- Mark, transport, and release tortoises
- Collecting blood from tortoises for health assessments

Level 2: In addition to any or all of the Level 1 actions above, agents may also be authorized to use a pulling rod and/or supervise backhoe excavation of burrows, provided they demonstrate appropriate specific knowledge, training, and experience for this activity.

Application Criteria

All applications for the Authorized Agent permit must be from an individual, and the appropriate mitigation contribution as established in these guidelines must be paid prior to issuance of the permit. Applicants for this permit must provide standard contact information, satisfactory proof of knowledge, and specific gopher tortoise related experience in support of each of the activities they are requesting a permit to conduct. The applicant must provide a certified affidavit confirming that they have committed no wildlife violations in Florida, and that they have read all guidelines provided by FWC and agree to follow these guidelines.

Any one or more of the following may be provided for FWC consideration to demonstrate proof of appropriate knowledge and experience for a specific type of activity requested for Level 1 and Level 2 Authorized Agent permits:

- Documented successful completion of gopher tortoise survey work, or capture and relocation activities associated with permits (at least an average of 240 hours per year over the prior four year period) with no applications or permits denied, revoked, or withdrawn for violation of permit conditions, malfeasance, or falsification of information, etc.
- Satisfactory completion of any gopher tortoise related instructional course for a specific activity (*e.g.*, surveys, capture, relocation) offered by private or commercial entities approved by FWC for this purpose.
- Satisfactory completion of an individual training course offered by FWC for this purpose.
- Not less than one year of substantial practical experience (to consist of no less than 240 hours) conducting gopher tortoise surveys and relocation under the supervision of an authorized gopher tortoise agent (documentation supported by work record and affidavit of the supervising agent).
- Appropriate training by a person experienced in blood sample collection/handling for tortoises, as demonstrated by an affidavit.
- Professional certification by any industry body or trade group established for this purpose (gopher tortoise agent authorizations) in the future and approved by FWC.

Note: Approval of courses for certification of gopher tortoise agents shall be at the discretion of the FWC Executive Director or his delegate.

The following is required for Level 2 permits only:

- No less than one year of using a modified pulling rod to safely extract tortoises from their burrows; FWC staff will evaluate applicants on a case-by-case basis.
- No less than one year of working with an experienced authorized agent in directing

backhoe operators in the excavation of tortoise burrows; or
- Demonstration of on-site experience of supervising at least 50 gopher tortoise burrow excavations, not all of which may have been conducted at the same location (including references to the permit[s] where those were performed).

It is the agent's responsibility to select operators of mechanical excavating equipment that are appropriately experienced and to direct their activity in a way which minimizes threats to gopher tortoises, commensal species, and persons assisting with the excavation. The authorized agent must be on-site at all times while mechanical excavation is being performed.

Grounds for Suspension, Revocation or Non-Renewal of Agent Permit

Agents are responsible at all times for their own actions and for the actions of any other person assisting them with their permitted activities. The following will be considered by FWC as grounds for suspension, revocation, or non-renewal of the permit issued to an agent:

- Violations of gopher tortoise related rules, guidelines, or permit conditions
- Surveys not conducted in adherence with guidelines
- Significant numbers of burrows missed on surveys
- Falsification of data submitted to FWC
- Failure to appropriately supervise and direct persons assisting them

Assistants to Authorized Agents

An authorized agent may have additional persons assist them in their work. These individuals will be under the supervision of the authorized agent and must adhere to all rules, guidelines, or permit conditions when conducting activities relating to gopher tortoises. They must carry a letter from the agent designating them as an assistant and a copy of the authorized agent's permit with them at all times while engaged in activities related to the permit. Such assistants must be directly supervised on-site by the authorized agent during mechanical excavation of burrows. Assistants are not authorized to conduct any gopher tortoise related actions without approval of the authorized agent.

Relocation Permits for Properties with 10 or Fewer Burrows

This type of permit is available when 10 or fewer burrows (and the number of tortoises occupying those burrows) will be impacted on a development site. In cases of phased developments, this permit may only be obtained once for any development on a single identified parcel or within a project under a common plan of development, platting, or subdivision/project name, whichever is largest. As a part of the application process, the permit applicant must complete the required online training (available at MyFWC.com) or the equivalent written training, if this individual is not an authorized agent.

Most typical activities associated with residential lawn and landscape maintenance do not require a permit, provided they do not collapse gopher tortoise burrows or harm gopher tortoises. Activities which do require a permit are listed in Section II, *Determining If a Permit is Required*.

Contacting an authorized agent or FWC prior to implementing any construction or major habitat modifications is advised.

On-Site Relocation

This permit authorizes landowners or other individuals who have completed FWC online training to capture gopher tortoises (via bucket trapping, hand-shovel excavation, or live trapping), and to relocate tortoises to an on-site location within the property boundaries of the development specified in the application. Information on the habitat required to sustain gopher tortoises on-site will be a part of the online application which applicants must review and certify to before being issued a permit. For sites where there will not be any suitable habitat for gopher tortoises remaining after construction activities, off-site relocation should be pursued. Landowners may obtain the assistance of an authorized gopher tortoise agent for on-site relocations, as described under *Authorized Gopher Tortoise Agent* above. Release of tortoises must be accomplished in such a way as to preclude tortoises returning to their burrows. This permit type requires the temporary installation of filter fabric (silt fencing) or other comparable fencing (buried at least eight inches deep) along the outer edge of the construction right-of-way to block tortoise re-entry into the area of disturbance on the project site during construction activities. The temporary fencing must be removed following completion of construction activities. No tortoises shall be confined.

Off-Site Relocation

This permit authorizes gopher tortoises to be relocated off the development property to a protected (long-term or short-term) certified recipient area. The permittee must have an authorized agent to perform this relocation. Authorized agents must have their own permit from FWC for working with gopher tortoises and may assist the landowner or developer in obtaining all permit approvals for this type of action.

Conservation Permits

Conservation permits for relocation of tortoises on-site or off-site will be issued when more than 10 burrows will be impacted on a development site and for subsequent activity on properties undergoing development of phased projects when a 10 or Fewer Burrows permit has been previously issued.

This permit authorizes gopher tortoises to be relocated either on-site or off-site of the development property. The permittee must have an authorized gopher tortoise agent perform this relocation. Authorized agents must have their own permit from FWC for working with gopher tortoises and may assist the landowner or developer in obtaining all permit approvals for this type of action. Conservation permits that involve off-site relocation will require a $300 mitigation contribution per tortoise, beyond the first group of 10 burrows, and if the certified recipient site has long-term protection. If the certified recipient site has short-term protection or is unprotected, then a $3,000 mitigation contribution per tortoise (beyond the first group of 10 burrows) will apply. Conservation permits that involve on-site relocation to areas that are not

being developed but which do not meet the size criteria for a certified recipient site (see *Recipient Site Permits* below) will require a $3,000 mitigation contribution for each tortoise (above the first group of 10 burrows) remaining on-site with a final stocking density (including tortoises already on-site) of two per acre. On-site relocation to areas which are immediately adjacent (share a common boundary) to publicly-owned parks, preserves, management areas, or other lands set aside for long-term conservation purposes that already support or could support gopher tortoises, will require a mitigation contribution of $300 per tortoise (beyond the first group of 10); however, the final stocking density allowed is two tortoises per acre under this option, unless a common management plan with adjacent properties can be achieved.

Recipient Site Permits

Criteria for Relocation of Gopher Tortoises to Long-Term Protected Recipient Sites

Objective: To provide the highest level of long-term security for the gopher tortoise and its habitat on certified recipient sites. Elements that are integral to meeting this objective include appropriate habitat management, population monitoring, legal protection, and long-term financial assurance provided by the landowner.

To receive FWC certification, candidate properties must meet site suitability criteria for size, soil, and habitat. Site suitability criteria are divided into two classes, *Acceptable* (minimum acceptable standards) and *Desirable* (highly desirable features).

A. **Size**: Recipient sites must contain a minimum of 40 acres of contiguous suitable uplands that meet the *Acceptable* criteria for soil and vegetation. Smaller sites in highly developed counties, particularly in southern Florida, will be evaluated on a case-by-case basis, and will be allowed if they are instrumental in retaining the local tortoise resource and can be appropriately managed to perpetuate the relocated population. Sites containing greater than 200 acres of contiguous suitable upland habitat satisfy the threshold for *Desirable* criteria. Perimeter boundaries of recipient sites should ideally be configured in the form of a block, circle, or similar shape. Uplands are considered contiguous if two or more upland communities occur within a distance of 1,000 feet, and there is no physical obstacle (*e.g.,* paved road open to the public, railroad bed, impenetrable fence, river, lake) to prevent tortoise movement to other upland areas within the relocation/restocking site. For administrative purposes, FWC will evaluate and authorize use of up to 1,000 acre portions of recipient sites in phases, however, only a one-time mitigation contribution of $500 will be required for permitting a recipient site.

B. **Soils**: Soils that meet *Acceptable* criteria are moderately well drained to excessively drained, with a depth to water table (DWT) value of 45 centimeters (1.5 feet) or greater. For sites in flatwoods, land cover maps should be overlain on soils maps to help differentiate hydric areas from more mesic or xeric areas; site visits by FWC may also be required. Poorly drained soils with a DWT greater than 31 centimeters (one foot) may meet the *Acceptable* criteria, provided that the proposed site contains augmentation features (*i.e.,* spoil piles or berms) or is drained by ditches, etc. In these select cases, there must be

evidence of past or current use by tortoises; additionally, stocking densities cannot exceed two per acre on these soil types. *Desirable* criteria: 130 centimeters (4.3 feet) to water table; well drained. Site-specific soil information can be obtained by referring to the Natural Resources Conservation Service (NRCS) Web Soil Survey (www.soils.usda.gov) for the appropriate county.

C. **Vegetation Features**: Sites with *Acceptable* habitat features are those that contain: 1) average herbaceous cover of at least 30%, and 2) average canopy cover of 60% or less. Sites with average herbaceous cover greater than 50% and average canopy cover less than 40% meet the *Desirable* criteria threshold. Herbaceous cover (low-growing, soft-stemmed plants) should include broadleaf grasses, and preferably grass-like asters (sunflower family) and legumes (bean family). Vegetation survey methods are outlined in Appendix 7, *Methods for Vegetation Sampling on Recipient Sites*.

D. **Supplemental Stocking Criteria**: Proposed recipient sites may be awarded a 0.5 tortoise per acre increase in stocking rate if FWC determines that the site has enhanced conservation value by: 1) adjacency to existing public or private conservation lands that together provide >200 acres of contiguous upland habitat; 2) the site boundaries are 100% within a designated Strategic Habitat Conservation Area; or 3) at least 75% of the recipient site is vegetated with one or more of the following native upland plant communities: sandhill, scrub, scrubby flatwoods, or dry prairies.

E. **Baseline Densities**: Survey techniques to determine the existing (baseline) tortoise population density are provided in Appendix 4. Supporting information should include potential reasons for low tortoise densities (*e.g.*, past harvest; previous, but now rectified, inadequate habitat management). The burrow survey used to generate this estimate must be performed within 90 days from the date of the permit application. A map showing the site boundaries, transect locations, locations of all documented tortoise burrows, and corresponding tortoise densities will serve as the baseline for future monitoring efforts.

F. **Site Evaluation Stocking Rate**: The site evaluation stocking rate is defined as the maximum allowable density as determined by the scoring process depicted in Table 2, *Acceptable and Desirable Criteria Thresholds for Recipient Site Characteristics*. A site that meets all three *Acceptable* criteria will be assigned a stocking rate of two tortoises per acre. Stocking rates may increase in increments of 0.5 individual per acre for each *Desirable* criteria that is met up to a maximum of four per acre.

G. **Determination of Final Stocking Rate**: The final stocking rate for a recipient site equals the site evaluation stocking rate minus the baseline density, *i.e.*, final stocking rate = (site evaluation stocking rate) - (baseline density). For all calculations involving stocking rate, only consider tortoises greater than or equal to 130 mm in carapace length. Eggs and juvenile tortoises are not considered in these calculations because of their low survivorship and minimal effect on the recipient site forage base.

When assigning the baseline density and calculating the final stocking rates, applicants submitting permit requests for sites that have been previously approved by FWC and used

as a recipient site for tortoise standard relocation and/or incidental take permits shall include the number of resident tortoises reported for the site when it was originally approved and all tortoises released at the site under previously-issued FWC permits (or authorized for release when no post-relocation reports have been sent to FWC).

H. **Enclosure Methods**: Restraint of tortoises inside an enclosure at the recipient site for a minimum period of six months is required for all relocations as a condition of the relocation permit (this process is called 'soft release'). Recent studies have indicated that site fidelity is enhanced by temporarily enclosing tortoises. Because there is still insufficient scientific knowledge regarding tortoise carrying capacity, tortoise response to relocation, post-relocation site fidelity, social interactions between relocated and resident tortoises, and possible disease transmission through relocations, FWC is establishing experimental guidelines at this time to initiate relocation within temporary enclosures and to evaluate the effects. As additional information becomes available, these guidelines may be modified to ensure that they achieve the management plan objectives. The following guidelines include enclosure methods and procedures proven to be effective.

- All tortoises relocated to any recipient site (protected or unprotected certified site) shall be released into a temporary enclosure as described below and retained within the enclosure for a period of not less than six months and no more than twelve months. However, there is no maximum enclosure time limit for recipient sites that are permanently fenced in their entirety and that are stocked at a density equal to the approved final stocking density for the site.
- Applicants with special circumstances may apply to be released from this requirement. Special circumstances include: recipient sites with natural or artificial boundaries to restrain most tortoises, e.g., islands, coastlines, major rivers or large lakes, existing fencing that prevents the passage of all tortoises released at the site.
- Tortoises shall be released into temporary fenced enclosures at no more than 1.5 times the approved overall final stocking density for the site.
- Temporary enclosures may be of any material that prevents the passage of tortoises of all sizes released to the site. Recommended and cost-effective materials include Belton Industries #935 pre-assembled silt fence (a more durable type of silt fence; see *Glossary* for purchasing information) and hay or pine straw bales.
- With the exception of hay or pine straw bales, temporary fencing must be buried at least eight inches into the ground to prevent tortoises pushing beneath the enclosure and be at least two feet high and of sufficient robustness to prevent tortoises pushing or climbing over.
- Temporary fencing must be regularly monitored and maintained to repair damage and maintain the integrity of the temporary enclosure.
- Tortoises observed above ground, and tortoise burrow numbers and activity status, within the temporary enclosures shall be monitored weekly for the first month and monthly thereafter to document any problems with relocated tortoises (e.g., illness, mortality, evidence of human poaching, emigration). The FWC permitting office must be contacted if decreases in tortoise numbers are documented.

I. **Conservation Easements or Other Long-Term Protection:** Long-term protected recipient sites must be publicly-owned lands or private lands protected by conservation easement. Easements should conform to the standard format available from FWC (Appendix 8, *Draft FWC Conservation Easement*). Conservation easements that were previously granted by landowners to other regulatory, governmental, or conservation entities may be acceptable to FWC if their conditions and restrictions provide habitat protection and management requirements for gopher tortoises and their habitats that are comparable to those contained within FWC's standard easement. However, those easements would need to be modified to either designate FWC as a co-grantee or stipulate that FWC is given the authority to enforce terms of the easement.

J. **Management Plan:** Gopher tortoise habitat requires active management. A detailed, long-term management plan, therefore, is a vital part of gopher tortoise conservation efforts on FWC-certified recipient sites. Management plan requirements are outlined in Appendix 3.

Table 2. *Acceptable* and *Desirable* Criteria Thresholds for Recipient Site Characteristics

SITE CHARACTERISTIC	ACCEPTABLE CRITERIA	DESIRABLE CRITERIA
Size	> 40 acres	> 200 acres
Soil	> 45 cm DWT, with land cover verification for flatwoods sites >31 cm (select cases)	>130 cm DWT
Habitat	> 30% herb cover < 60% canopy cover	>50% herb cover <40% canopy cover
Enhanced Conservation Value		Adjacent to protected land, or in Strategic Habitat Conservation Area, or ≥75% native upland community (maximum of 0.5)
Stocking Rate	Two per acre (requires all above criteria be satisfied)	0.5 for each site characteristic that is satisfied up to a maximum of two additional (four per acre maximum)

Criteria for Relocation of Tortoises to Short-Term Protected or Unprotected Recipient Sites

Objective: Although relocation of tortoises to sites with minimal protection does not provide the same high conservation value as those to sites with perpetual protection, it does prevent the loss of these tortoises on development sites, can help retain the local or regional tortoise resource, and could contribute to the habitat preservation objective if such sites receive long-term protection at some time in the future.

Criteria are as follows:

1. Size: Recipient sites must be ≥25 acres.
2. Soils: The depth to water table (DWT) must be >31 cm (1 ft) and preferably >45 cm (1.5 ft).
3. Vegetation: Canopy cover must be <60%.
4. Stocking density: Maximum density is two per acre (includes resident tortoises)
5. Land management should be compatible with tortoises (*e.g.*, canopy cover, on average, must be maintained at <60%).
6. Enclosures are required to temporarily contain tortoises for at least six months (see specific recommendations and requirements under H. *Enclosure Methods* above).

Temporary Exclusion Permit for Major Linear Utility Corridors

This is a type of on-site relocation conservation permit that is specifically reserved for the installation of major linear utility transmission lines (*e.g.*, major natural gas or electric transmission lines). This permit applies to situations that require the temporary exclusion of tortoises from the utility construction corridor and where habitats within the corridor will be restored to provide suitable habitat for tortoises following completion of the utility installation. These permits require the temporary installation of filter fabric (silt fencing) or other comparable fencing (buried at least eight inches into the ground) along the outer edge of the construction right-of-way to block tortoise re-entry into the corridor during construction activities. The FWC will also consider other proposed options of keeping gopher tortoises out of harm's way in the immediate area of construction on these types of projects.

Permits authorize the capture of tortoises from within the construction corridor right-of-way, and their immediate release on the other side of the temporary fencing into adjacent suitable habitat located outside the construction corridor in close proximity to where each tortoise was captured. This does not authorize placement of tortoises on properties not under control of the permittee. The permittee must obtain written approval from the adjacent landowner authorizing the permittee to release the temporarily-displaced tortoises on the landowner's property. The temporary fencing must be removed following completion of the utility installation and restoration of the habitat. Tortoises will then naturally reoccupy restored habitat within the utility corridor.

The application information requirements for this permit are the same as for other conservation permits with on-site relocation of the affected tortoises. This permit is not intended, and will not be issued, for the installation of local utility service lines that are being installed as a precursor to, or to facilitate the development of, the adjacent or surrounding area (*e.g.*, infrastructure for

specific development projects, planned subdivisions, or multiple projects or subdivisions). Permit applications for those projects must address impacts to all tortoises and tortoise burrows contained within the entire planned project development boundaries.

Emergency Take Without Relocation Permit

This permit will only be issued under limited and specific circumstances in cases where there is an immediate danger to the public's health and/or safety or in direct response to an official declaration of a state of emergency by the Governor of Florida or a local governmental entity. Applications submitted for this permit must include all information that is required from any other applicant seeking a conservation permit, and a copy of the official declaration of a state of emergency. This permit process may be handled after the fact or at least after construction activities have already started. For that reason it is preferred that contact with FWC should be made as soon as possible to minimize adverse impacts to gopher tortoises and their burrows.

This section does not cover what should happen when a local emergency requiring immediate action to protect human safety and welfare, property, and wildlife and its habitat, occurs. Because it is not possible to anticipate every circumstance (*e.g,.* a local oil spill along a highway that contaminates soil adjacent to a gopher tortoise burrow), the best solution would be for anyone encountering an emergency to contact FWC as soon as possible and to request assistance in determining the best course of action to take.

Permit for Authorized Relocation Post-Settlement of Law Enforcement Cases ("Settlement Permits")

Settlement permits are issued after the conclusion of law enforcement investigations. Law enforcement investigations may occur in response to reported wildlife violations from the public. Investigations may also occur during the gopher tortoise permit application review process, when site preparation activities have been conducted before gopher tortoise burrow surveys, or FWC site checks of such surveys, have been completed (Section II, *Determining if a Permit is Required*).

Settlement permits are not issued until any gopher tortoises that are potentially impacted on disturbed portions of the development site are given time to dig out of their burrows (Section II, *Determining if a Permit is Required*). FWC will require follow-up surveys and may conduct site visits of the project area before issuing a settlement permit. Tortoises must be relocated to long-term protected, certified recipient sites.

Due Process for Gopher Tortoise Permit Applicants

The FWC adheres to the time requirements specified in Chapter 120, Florida Statutes for processing permit applications. Upon submittal of an application, FWC staff will respond within 30 days requesting any additional information from the applicant. Upon receipt of all information necessary to complete an application, FWC staff will prepare and issue a permit within 90 days (but attempt to accomplish this within 45 days). Any person has a right to challenge the action of FWC on a given permit application. Each permittee is provided an

"Election of Rights" form with the issued permit which conveys instructions for filing an informal or a formal hearing request.

Any non-permitted person who believes that their substantial interests would be affected by the action taken by FWC on a gopher tortoise permit application may also petition the agency for a hearing. For information on how to submit such a request, please contact: The Office of General Counsel, Florida Fish and Wildlife Conservation Commission, 620 South Meridian Street, Tallahassee, Florida 32399-1600.

IV. HANDLING OF COMMENSAL SPECIES DURING RELOCATIONS

As the keystone species of Florida's uplands, the gopher tortoise provides refuge to some 350-400 other species. These commensal species may be intimately tied to tortoise burrows or may be occasional visitors, but the underground microhabitats serve as multi-purpose retreats that are used for feeding, resting, reproduction, and protection from temperature extremes, moisture loss, and predators. Threats to commensal species are similar in nature to those faced by the gopher tortoise and have been addressed in the Gopher Tortoise Management Plan. One of the objectives outlined in the Management Plan is to promote the responsible, humane relocation of burrow commensals encountered during relocation efforts. An added benefit is the likely increase in biodiversity when commensals are released with the tortoises on recipient sites. The guidelines provided in Appendix 9, *Handling of Commensal Species During Relocations*, have been created to provide guidance for authorized agents who capture commensal species during gopher tortoise relocations. Emphasis is placed on four listed species, with the understanding that these species have habitat needs that generally go beyond those of the gopher tortoise, and will therefore need to be considered during relocations.

APPENDICES

Appendix 1. Rules and Policies Protecting Gopher Tortoises and Their Burrows

RULE:

68A-27.004 Designation of Threatened Species; Prohibitions; Permits.

(2) The gopher tortoise (*Gopherus polyphemus*) is hereby declared to be threatened, and shall be afforded the protective provisions specified in this subsection. No person shall take, attempt to take, pursue, hunt, harass, capture, possess, sell or transport any gopher tortoise or parts thereof or their eggs, or molest, damage, or destroy gopher tortoise burrows, except as authorized by Commission permit or when complying with Commission approved guidelines for specific actions which may impact gopher tortoises and their burrows. A gopher tortoise burrow is a tunnel with a cross-section that closely approximates the shape of a gopher tortoise. Permits will be issued based upon whether issuance would further management plan goals and objectives.

Florida Fish and Wildlife Conservation Commission
620 South Meridian Street, Tallahassee, FL 32399

POLICY☒; POSITION☐; GUIDELINE☐.

TITLE: **Gopher Tortoise enforcement**

APPROVAL AUTHORITY: OFFICE OF EXECUTIVE DIRECTOR

DATE:

GENERAL POLICY STATEMENT

Agricultural, Silvicultrual, and Wildlife management activities

This policy is for the purpose of enforcement of Chapter 68A-27 relating to Gopher tortoises with respect to agricultural and silvicultural activities or activities intended to improve native wildlife habitat. The adoption of the Gopher Tortoise Burrow rule does not expand pre-existing gopher tortoise regulatory prohibitions or change existing policy or practice with respect to agricultural and silvicultural activities.

An illegal take of a gopher tortoise burrow includes, but is not limited to, damaging, collapsing or covering a gopher tortoise burrow from land clearing, bulldozing, grading, paving, or building construction associated with land development, without a permit issued under Chapter 68A, Florida Administrative Code.

Gopher tortoise or gopher tortoise burrow permits are not required to conduct agricultural activities, silvicultural activities, or activities intended to improve native wildlife habitat. Such activities include, but are not limited to, tilling, planting, mowing, harvesting, prescribed burning, mowing, disking, roller-chopping, and tree-cutting.

Burrow prohibition

The prohibitions related to gopher tortoise burrows will not be applied when a landowner can demonstrate that those burrows are no longer used by gopher tortoises by conducting a gopher tortoise survey in accordance with FWC guidelines.

As stated in Chapter 68A-27 "gopher tortoise burrow" is defined as a tunnel in the ground with a cross-section that closely approximates the shape of a gopher tortoise.

Solely for the purpose of this policy, the presence of one or more of the following characteristics indicates that gopher tortoises or gopher tortoise burrows may be present:

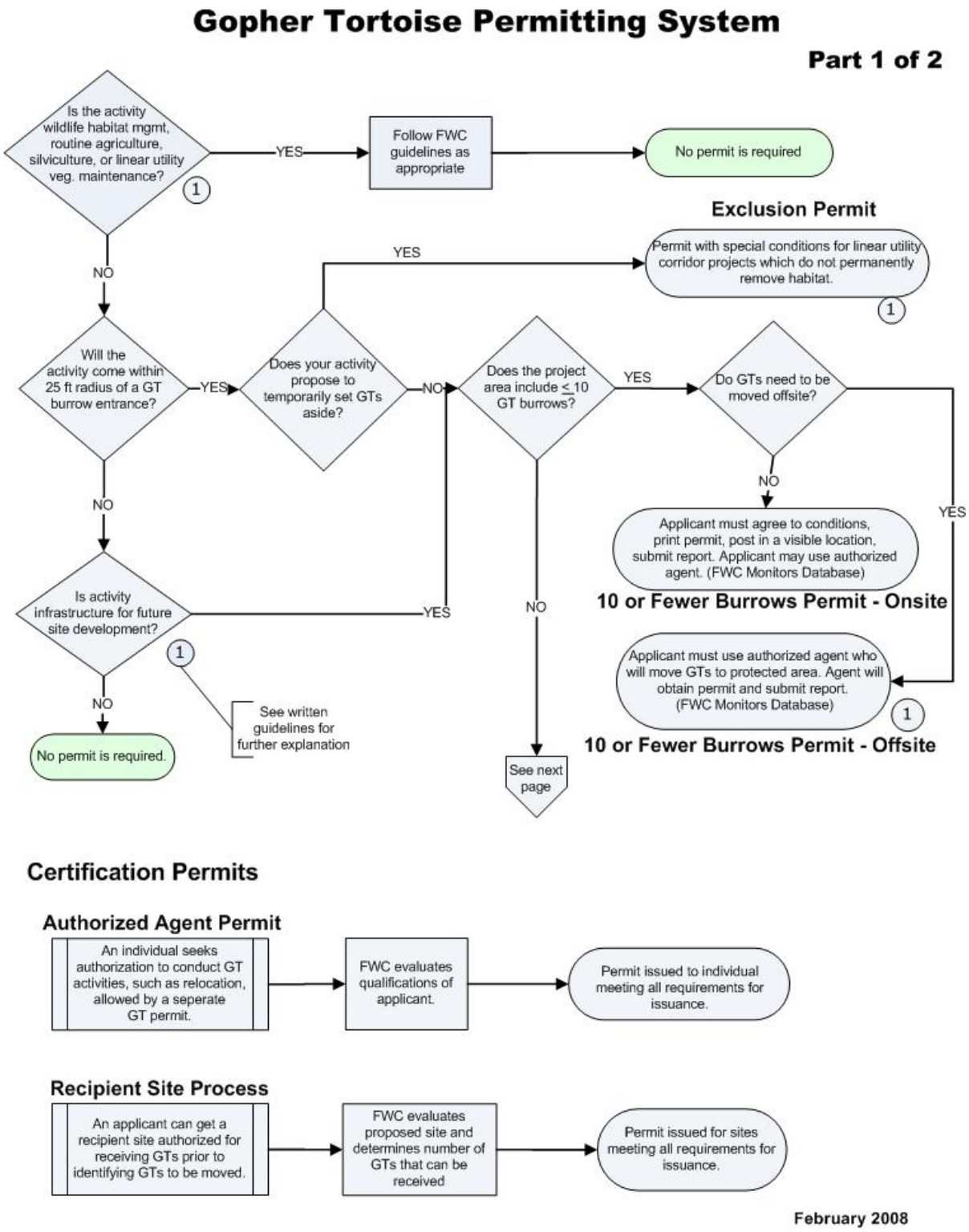
(a) Ground surrounding a burrow entrance shows evidence of gopher tortoise activity including but not limited to presence of a gopher tortoise; gopher tortoise eggs or egg shell fragments; impressions from the bottom shell of the tortoise;

foot-prints or tracks left by tortoises; scat; obvious feeding trails radiating out and extending into surrounding vegetation);
(b) Sand mound from the burrow excavation apparent at the burrow entrance;
(c) Located in well-drained to moderately well-drained, sandy soils;
(d) Located in sandhill, scrub, coastal dunes, flatwoods, dry prairie, dry hammock communities, or any disturbed version of these plant communities (such as, but not limited to, pastures, old fields, yards, power line corridors, roadsides);
(e) Other burrows with the shape defined above, and with one or more of the characteristics described in (a)-(d) above, located on the site or in proximity on adjacent property.

This policy will remain in effect until replaced with policy or rule.

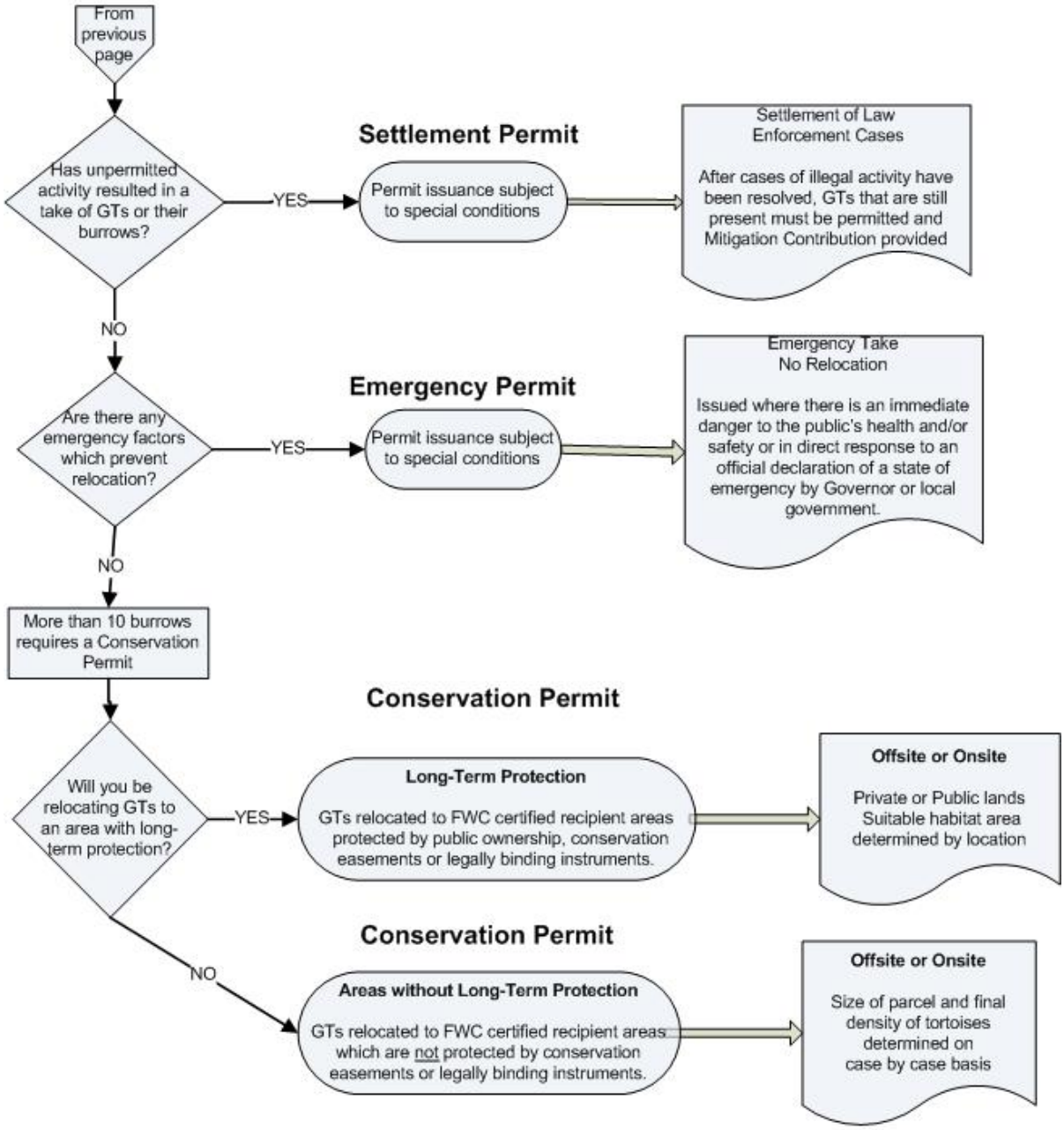
Kenneth Haddad, Executive Director — 3/6/08 date

Appendix 2. FWC Gopher Tortoise Permitting System Process Map



Gopher Tortoise Permitting System

Part 2 of 2



February 2008

Appendix 3. Informational Needs for Relocation Permit Applications and Recipient Site Permit Applications

Although each permit type will have additional specific information that will be required via online and/or hard-copy application forms, this appendix outlines the primary information that FWC staff will need to process applications for relocation permits and recipient site permits:

General information needed for relocation permits and recipient site permits:

1. Name and contact information of the authorized agent that will be performing the gopher tortoise activities. Mailing and physical addresses are needed, as well as phone and facsimile number(s) and email addresses.

2. Certification: Applicant must certify by signature that the information and supporting documents submitted are complete and accurate.

3. Name and all contact information for the property owner (for development sites, also provide the developer's name and contact information if different from that of the property owner).

4. Location map and directions to the site**:** Must provide sufficient detail (*e.g.*, identify all adjacent roads, water bodies, and other major physical landmarks) to allow vehicular access for FWC inspection. All maps submitted during the application process should be in an 8.5 inch by 11 inch, or 8.5 inch by 14 inch format.

5. Most current digital orthoquad or equivalent one-meter resolution aerial photograph of the site**:** Scale of 1 inch = 800 feet, or smaller.

6. Parcel identification**:** Provide latitude/longitude coordinates; section/township/range; parcel identification number (PID), which can be obtained from the county property appraiser's office; and deed showing proof of ownership. For development sites, also provide the name of the project; for recipient sites, provide the name of the property (if applicable).

7. Habitat types**:** Provide a table listing existing land uses (*i.e.*, vegetation community types) by acres (along with corresponding land cover maps) for the entire project and for all potential tortoise habitats to be impacted. For recipient site applications, provide this habitat information (and maps) for the entire property and for the specific phase or parcel within the property proposed for relocation/restocking; for each community type on recipient sites, describe the condition, characteristics, land use history, and other factors that may influence tortoise habitat quality and/or manageability. Accepted sources for land use classifications are:

    - Florida Department of Transportation (DOT) -Florida Land Use, Cover and Forms Classification System (FLUCFCS);

- Florida Natural Areas Inventory (FNAI); or
- FWC Center for Biogeographic Spacial Assessment-LANDSAT (i.e., satellite imagery).

8. Soils**:** In tabular form, provide a list of soil types, depth to water table (DWT), and acreage for each soil found within the entire project and potential tortoise habitat to be impacted (development sites) and within the specific phase or parcel of the property proposed as a recipient site; also provide corresponding soils maps. The accepted source for soils type classification is the Natural Resources Conservation Service (NRCS) Web Soil Survey data base which can be accessed at: www.soils.usda.gov.

9. Current gopher tortoise population size and density (tortoises per acre)**:** Provide a map depicting current locations and distribution of tortoise burrows; also indicate burrow activity (potentially occupied vs. abandoned: see *Glossary* and Appendix 4 for definitions). Burrow surveys methods are in Appendix 4. Show all transects, as well as observed burrows and their activity status, overlain on the map of potential tortoise habitat.

Additional information required for relocation permits:

1. Provide the proposed start date for the development.

2. Indicate whether tortoises are proposed to be relocated on-site or off-site, and provide the necessary location and contact information for the designated off-site recipient area, if known. You may contact FWC or use online resources to find available recipient sites. If the relocation is to occur on-site, provide all the necessary information needed for recipient sites (size of on-site preserve, location within the project, habitat types, soils, proposed stocking density, etc.). On-site recipient areas may have site-specific requirements imposed as part of the permit to reduce potential harm to tortoises.

3. For temporary exclusion permits (major utility corridors), indicate the location of the exclusion fencing on the habitat map.

Additional information required for recipient site permits:

1. Calculated stocking rate: As described in the criteria for recipient sites, provide both the number of additional tortoises requested for release on the site and the final, post-relocation tortoise density that would result. To calculate current tortoise population size, baseline density, and stocking rate, only consider tortoises greater than or equal to 130 mm in carapace length. Eggs and juvenile tortoises are not considered in these calculations because of their low survivorship and minimal effect on the recipient site forage base.

2. Enclosures: requirements for using enclosures to temporarily contain the tortoises within the recipient area are described in the guidelines under Recipient Site permits. Provide information on enclosure(s) size, location, enclosure materials, and proposed tortoise density within enclosures (noting that maximum density within enclosures cannot exceed 1.5 times the final stocking density for the recipient site). Show proposed enclosure locations on a map of the site.

3. Draft conservation easement: Should conform to the standard format available from FWC (as found in Appendix 8); any changes to the standard must be provided with all proposed additions underlined and all proposed deletions indicated by a strike-through; should include a survey and legal description, title search/commitment, and draft site management plan (described below).

4. Site management plan: Site management plans shall contain the following: both qualitative and quantitative baseline information that describes existing conditions; goals of future management actions; description of invasive exotic plant infestations and proposed control program; list and timeline for implementing management activities; quantifiable desired future conditions for canopy cover and herbaceous ground cover; schedule and methods for conducting tortoise population monitoring and habitat monitoring; remedial actions if proposed activities do not achieve desired results; estimate of annual management budget for the site. Below is a list of the major habitat management elements that are required as part of the application package:

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- *Base map*: Indicate property boundaries, land use cover types, management units, and baseline density transect locations with corresponding density values.
- *Tree canopy management activities/timelines:* Describe practices and treatment intervals that will be used to maintain canopy cover at 60% or less.
- *Ground cover management activities/timelines:* Describe practices and treatment intervals that will be used to maintain herbaceous ground cover at 30% or more; if applicable, include treatment practices for problematic exotic plants. Refer to Florida Exotic Pest Plant Council (www.fleppc.org) for a list of species.
- *Compatibility of proposed land uses:* Describe what types of land uses are proposed for the site, and how activities related to these land uses would be conducted to foster the open canopy and herbaceous ground cover noted above, while not adversely affecting the ability of gopher tortoises to excavate and maintain their burrows or to otherwise inhabit and utilize the site.
- *Other habitat enhancement proposed:* Describe proactive measures that could enhance tortoise site fidelity, *e.g.*, berms, spoil piles, forage plantings, fencing.
- *Tortoise population and habitat monitoring*: Recipient site operators are required to submit a summary of the habitat management conducted, and the results of habitat monitoring and tortoise density surveys in a report to FWC every three years; guidelines regarding survey methods, and a template for the report, will be provided.

- *Financial assurance of management*: When FWC issues a permit for activities that impact species, the permittee may be required, as part of the mitigation, to protect property and habitat. Typically, the permit will require the permittees or their successor to actively manage the property in a way that will enhance or maintain the property.

  The applicant must provide FWC with information about what mechanism or mechanisms will be used by the permittee to ensure that funding will be available for the management of the mitigation property for the duration specified in the permit. Below are examples of commonly used assurance options:

  - Trust agreement,
  - Deposit of cash or cash equivalent into an escrow account,
  - Performance bond,
  - An audited annual financial statement,
  - Irrevocable letter of credit,
  - Guarantee bond,
  - Insurance certificate,
  - Community Development District funding, or
  - Deed covenants and restrictions.

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  Each of these options provides different levels of assurance to FWC and burden on the applicant/permittee. Some may not be well-suited for ensuring adequate funding of perpetual management, but may still be appropriate as an interim guarantee in conjunction with another option.

Appendix 4. Methods for Burrow Surveys on Development (Donor) and Recipient Sites

(1) Development (donor) site surveys: A minimum of 15% of potential gopher tortoise habitat must be surveyed as a pre-application requirement for relocation. Because gopher tortoises and their burrows are protected from development activities by Florida law, regulatory compliance requires a comprehensive, 100% burrow survey of all potential tortoise habitat proposed for development. To effectively locate all potentially occupied tortoise burrows and to subsequently remove the tortoises, this 100% survey should be conducted immediately prior to capturing tortoises for relocation.

(2) Recipient site surveys: A minimum of 15% of potential gopher tortoise habitat must be surveyed on recipient sites that are proposed to receive relocated tortoises. The primary purpose of the recipient site survey is to obtain a density estimate of existing tortoises so that a biologically appropriate determination can be made regarding the number of relocated tortoises that can be added to the site. This value is the baseline density. The baseline density is subtracted from the maximum allowable stocking density (*e.g.*, two-four tortoises per acre) and the result is the final stocking rate for that particular recipient site.

(3) All surveys (development and recipient sites) must be completed by authorized agents and are subject to field verification by FWC.

(4) Documentation and reporting results from development and recipient site surveys:

1. Land Cover Map: Provide an up-to-date aerial photograph of the development site or recipient site and identify all land cover types (see acceptable types of land use classifications in Appendix 3). All maps, including the aerial photograph, should be at a scale of one-inch equals 800 feet or less. List all land cover types and associated acreage either on the map or on an accompanying table.

2. Soils Map: Attach a Natural Resources Conservation Service (NRCS) Web Soil Survey map depicting soil type and depth to water table (DWT) values for project site.

3. Gopher Tortoise Habitat Map: Provide a map that delineates potential tortoise habitat on the project site or recipient site, and provide an acreage estimate by land cover type.

4. Burrow Location Map: Plot and label the location of each burrow observed during the burrow survey. Attach a table that shows the burrow label, activity class (see below), and associated Global Positioning System (GPS) coordinates.

Gopher Tortoise Burrow Activity Classification

Potentially Occupied Burrow: This classification combines the active and inactive categories, and therefore includes burrows with obvious sign of use and those with minimal or no obvious sign of use. A potentially occupied burrow is in good repair with the classic

half-moon shaped entrance. These burrows may have tortoise tracks or plastron scrapes clearly visible on the burrow floor or on the mound, or may have subtle or no tortoise sign. The lack of observable tortoise sign may be due to weather or season. The burrow floor may contain loose soil caused by tortoise activity or it may be hard packed. The burrow mound may or may not have vegetation growing on it, and may be partially covered by fallen leaves.

Abandoned Burrow: An abandoned burrow appears unused and dilapidated. The entrance may be partially or completely collapsed, and the burrow may be partially or completely filled with leaves or soil. Recent rains, or recent activity by livestock or humans, do not appear to be the primary reason for burrow collapse. There are no trails into the burrow that might indicate that a tortoise recently passed through the leaf litter or that a small tortoise is using a dilapidated, adult burrow. Surveys conducted during the colder months (*i.e.*, November-March), burrows that appear abandoned because of erosion or blockage with vegetation shall be considered potentially occupied.

Burrow Survey Methods (minimum of 15%)

1. Using evenly spaced belt transects, distribute these transects across all potential tortoise habitat within the designated donor or recipient site to provide at least 15% coverage. This initial step is a map exercise (see illustration below), and transect locations should be indicated on the gopher tortoise habitat map.

2. Maximum dimensions for each individual transect are 250 meters (820 feet) long and 16 meters (52 feet) wide. The area covered by this size transect is approximately one acre (0.4 hectare). In areas with heavy cover, the width of each transect must be reduced to allow for 100% detection of burrows within the transect, and the total area covered by the transect must be recalculated to adjust for the reduced width.

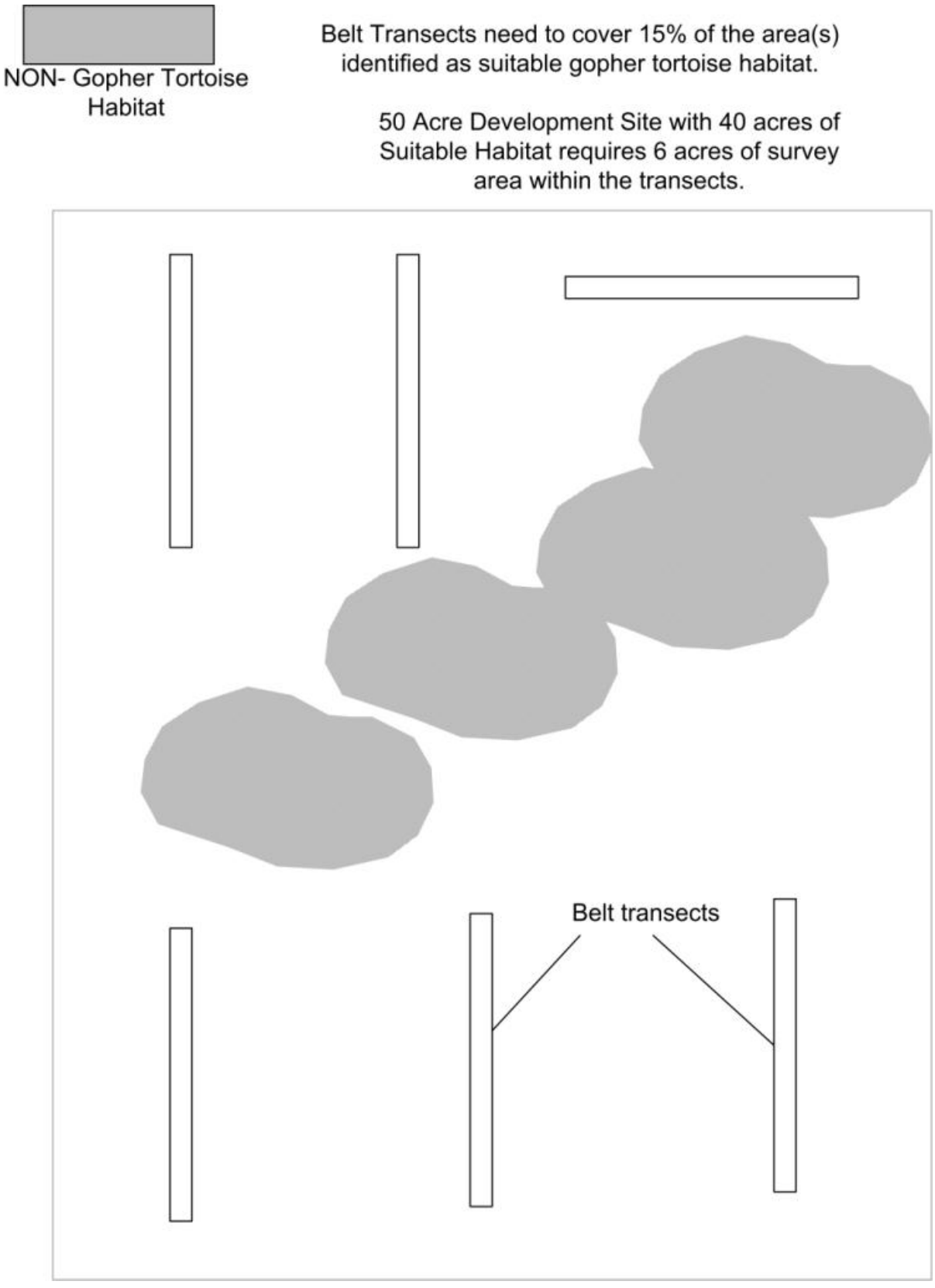
3. One or multiple observers may conduct these burrow surveys. When multiple observers are used, sufficient distance must exist between observers to ensure that transects do not overlap. It is essential that observers focus solely on searching for burrows, *i.e.*, they should not be performing vegetation sampling (i.e., on recipient sites) concurrently or conducting other activities.

4. Activity class and GPS coordinates should be recorded for all burrows within each transect. A burrow is considered within the transect if any portion of the burrow or mound is within the boundaries.

5. For each transect, report the raw data in a table (transect dimensions, number of burrows by activity class, and burrow density per acre). For the donor or recipient site, report the average tortoise density using the following calculation:

   $$\frac{\text{(Total Potentially Occupied Burrows)}}{\text{(Total Acres within Survey Area)}} \times (0.50) = \text{Tortoises / Acre}$$

Example of burrow survey using belt transects:



Burrow Survey Methods (100%)

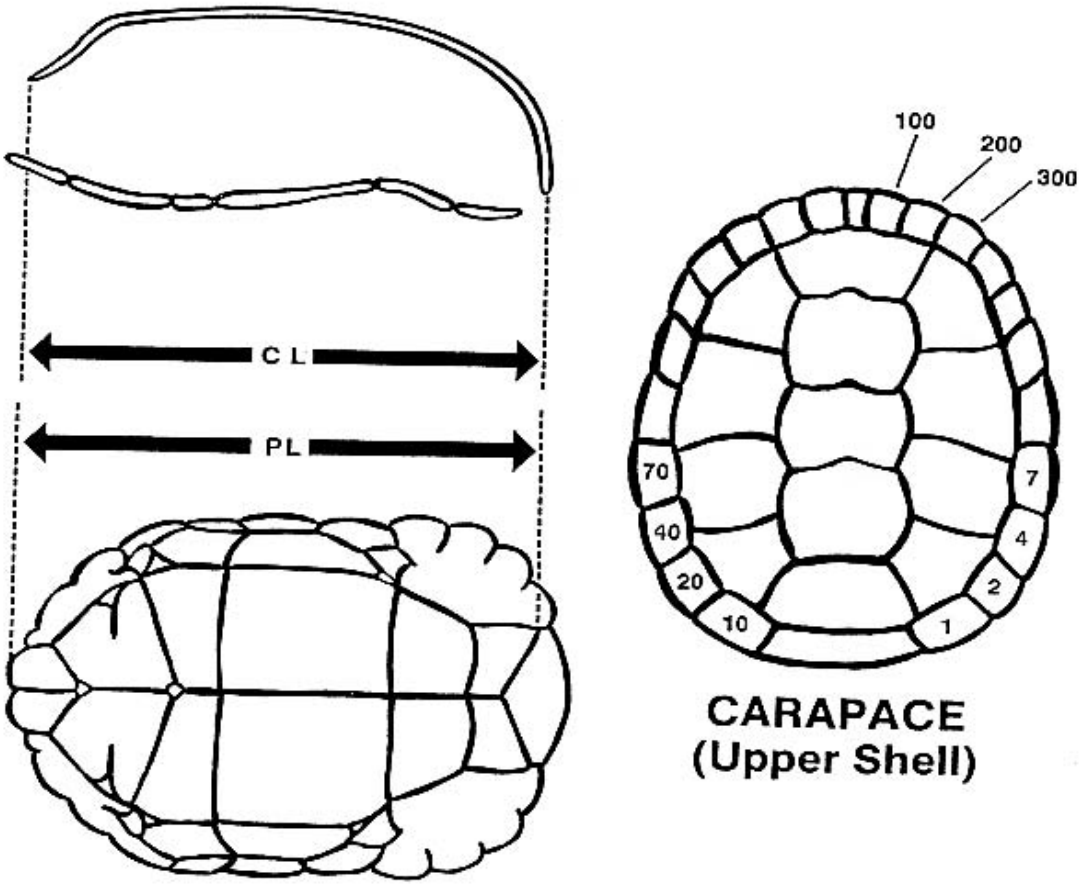
1. All potential gopher tortoise habitat that will be impacted by development activities must be searched for burrows. The recommended approach is to systematically search the entire impact zone by traveling parallel transects spaced appropriately for the habitat conditions (*i.e.*, the length may be consistent or vary with the shape of the site, but the width should allow 100% detection of burrows). The search can be conducted by one or more observers. Transect edges should be marked with flagging to ensure complete coverage. In open habitat, such as mowed pasture or natural sandhill, transects should be spaced no more than 10 meters (33 feet) apart. In thicker habitat, such as flatwoods and scrub, transects should be spaced as close as five meters (16 feet) apart. Patches of extremely thick habitat, such as saw palmetto or blackberry patches, should be searched more intensely with spacing at approximately one meter (three feet) or less.

2. All burrows observed (*i.e.*, potentially occupied and abandoned) should be marked with flagging tape that indicates the burrow's label and activity class. This will assist field verification of survey completeness by FWC. The burrow label, status, and GPS coordinates should be recorded and reported to FWC so that the burrow can be identified later.

Appendix 5. Marking and Measuring Gopher Tortoises During Relocations

Marking: Tortoises must be permanently and uniquely marked by drilling holes in one or a combination of the eight rearmost marginal scutes (the four right ones and the four left one) and the three right-front marginal scutes. Each scute is assigned a numerical value, as illustrated below. The scheme is additive; *e.g.*, tortoise #14 would require the drilling of the first scute left of the rear marginal and the third scute right of the rear marginal. The left front marginals can be used for site-specific codes; also, all relocated tortoises must have the third marginal on the left front side drilled. The size of the drill bit should be relative to the size of the tortoise, but no more than 25% the width of the marginal scute. Drilling should be carefully undertaken, to avoid injury to the limbs or head. Also, holes should be drilled closer to the marginal edge (without breaking through the edge) rather than higher up on the scute. PIT (Passive Integrated Transponder) tags may be used as an alternative to drilling marginal scutes. These small microchips are about the size of a grain of rice and are injected into a tortoise's hind leg using a hand-held applicator. A hand-held scanner reads the tag's electromagnetic code and displays the tag's number.

Measuring: Straight-line carapace length (CL) and plastron length (PL) must be recorded in millimeters (see below). Forestry tree calipers are useful for making those measurements.



Appendix 6. Health Considerations for Gopher Tortoises During Relocations

Making Decisions Regarding Relocations and Tortoise Health Assessments

Although relocation removes individual tortoises from harm on sites proposed for development, the transport of tortoises to new areas carries with it an inherent risk of exposure to infectious diseases for both recipient and donor populations. Determining the degree of risk and therefore the need for assessing tortoise health involves consideration of the following: the conservation value of the recipient site; whether tortoises exist within, or adjacent to, the recipient site; and the overall goals of the relocation (see Table 1 below). Relocations to sites with high conservation value and established or adjacent populations, for example, carry a greater risk of adversely affecting these priority populations, and therefore would generally warrant a correspondingly greater scrutiny of the relocated tortoises. Health assessments include physical examinations and the collection of biological samples (*e.g.*, blood) for diagnostic tests. Currently, the only available blood test for a known gopher tortoise disease involves blood sampling for mycoplasmal upper respiratory tract disease (URTD; see below); however, even this well-documented test only indicates whether a tortoise has been exposed to the disease-causing organism, and does not provide information on whether the tortoise currently *has* the disease.

Table 1. Recipient Population Conditions, Goals, Disease Issues, and Suggested Health Assessment Needs

Recipient Population	Established or adjacent populations	Goals	Disease an issue?	Health Assessment Needs
Highest conservation value (relatively large sites with long term protection and management)	Yes	Healthy populations; minimize risks to adjacent/ existing populations	Yes - can impact both recipient and donor populations	Maximum on both donor and recipient populations. Monitor for success.
Highest conservation value	No	Healthy populations	Yes - due to established conservation goal	Maximum. Monitor for success.
Moderate conservation value (smaller protected sites, or large sites with non-perpetual easements)	Yes	Healthy populations; minimize risks to adjacent/ existing populations	Yes - can impact both recipient and donor populations	Moderate, or based on land manager's guidelines and risk to adjacent populations.

Moderate conservation value	No	Site specific	Questionable - depends on goals and site specifics	Based on land manager's guidelines. Monitor for success.
Minimal conservation value (sites with no long-term protection; may also be relatively small)	Yes	Humane or rescue relocation. Minimize risks to adjacent/ existing populations	Yes - can impact recipient and/or adjacent populations	Moderate or based on land manager's guidelines and risk to adjacent populations.
Minimal conservation value	No	Humane or rescue relocation.	No	Low. Based on land managers guidelines.

Cursory Health Evaluations

Knowledge pertaining to normal gopher tortoise behavior and appearance is necessary when conducting health examinations. If biological samples are going to be collected, appropriate training by (or assistance from) a veterinarian or other person with extensive experience working with tortoises and collecting such specimens is required. The basic components of a physical exam include an overall assessment of the posture/behavior of the tortoise, and an examination of the eyes, nostrils, skin, muscle mass, and shell. Shell measurements are not only important in determining the maturity of individual tortoises (*e.g.*, juvenile, subadult, adult male or female), but, especially when correlated with weight, can be helpful in assessing the overall body condition. The following are components for a cursory physical examination:

1. Overall posture/behavior - as noted above, some knowledge of tortoise behavior is necessary to discern between normal/abnormal.
   a. Alert and responsive or quiet but responsive- these two categories identify behavioral characteristics of normal tortoises. Alert/responsive tortoises paddle their forelimbs (front legs) when held, attempt to escape, and repeatedly retract into shell when handled. Quiet/responsive tortoises are shy and tend to remain withdrawn into their shell when being handled, but they have normal strength.
   b. Depressed and lethargic - these animals may hang forelimbs limp when lifted, may have poor muscle mass, are weak, and do not resist gentle tugging on their limbs.
   c. Walking/Moving - normally/abnormally.
   d. Breathing sounds (normal, congestion, distress) - Tortoises may normally create a very faint, high-pitched whistle when expelling air out of their nostrils. Wet or gurgling sounds associated with congestion are abnormal and pumping forelimbs

up and down symmetrically when breathing may indicate pneumonia or other causes of respiratory distress.

2. Examine eyes. May need a flashlight or, in some cases, magnification to examine.
   a. Clarity of eye (*i.e.*, is cornea or lens clear or cloudy? Is there any discoloration?); position of eye within orbit *(i.e.*, is eye bulging or sunken into orbit?)
   b. Discharges - clear/watery or cloudy; characterize as mild, moderate, or severe.
   c. Examine eyelids, conjunctiva (third eyelid), and area around eyes - look for swelling, redness, or traumatic wounds (*i.e*., lacerations). Characterize severity as mild, moderate, or severe.

3. Examine nares (term for nostril openings).
   a. Discharges - clear/watery or cloudy/thick; describe color of discharge and characterize as mild, moderate, or severe. Note if dirt/material is obstructing nostrils.
   b. Erosion or irregular shape of the nares (evidence of long term discharge).

4. Examine shell (scutes and seams between scutes).
   a. Flaking, discoloration, defects/erosions, soft areas, fractures, chew marks.
   b. Note the distribution and severity of lesions.
   c. Photographs and drawings are extremely useful.
   d. Measure carapace (top shell) and plastron (bottom shell) and record tortoise weight. Note whether tortoise has urinated/defecated as this waste elimination may significantly affect body weight.

5. Examine skin and muscles
   a. Excessive flaking, discoloration of the skin, wounds, scars or evidence of prior injuries.
   b. Evaluate muscle mass on head and limbs to look for muscle loss (*e.g.*, wasting away of muscles). Note whether the head has “old man appearance”: sunken eyes; skin drawn tightly over skull).
   c. Check to make sure the limbs are symmetric, look for swollen areas or malformations, and check toenails for symmetrical wear patterns.
   d. d) Note the presence of external parasites (*e.g.*, ticks) and number (< or > 10).

Note: Although determining the health of an individual tortoise at a particular moment in time can be difficult (*i.e.*, certain clinical signs or “symptoms” may come and go), there are some tell-tale signs that authorized agents can watch for: nasal discharge; severely eroded nares; “old man appearance” (eyes sunken, skin drawn tightly over skull); eyes/eyelids severely swollen or reddened, with discharge; poor muscle mass and emaciated (abnormally thin) appearance. Options for accommodating individuals that appear ill, or that test positive for mycoplasmal URTD, are indicated below.

Disinfection Protocol

Caution must be taken during relocations and whenever handling gopher tortoises to ensure that authorized agents do not contribute to the spread of pathogens ("germs"). Therefore, it is recommended that hands and equipment be disinfected between handling individual tortoises. Cleaning and disinfecting bins, traps, and other equipment between use on donor (development) sites is required to reduce the chance of cross-contamination between populations.

Disinfection Solution: 1:20 dilution of 5% household bleach in water. A stronger 1:10 dilution of 5% household bleach in water is recommended for equipment that is particularly dirty (*i.e.*, stained with soil or feces).

Solutions should be stored in dark bins or in opaque bottles and should be made fresh regularly (*e.g.*, weekly depending on storage conditions). Bleach should be purchased in small bottles or dispensed into small bottles to minimize deterioration from opening/closing the lid.

Disinfecting Equipment: Remove dirt and feces by rinsing with water (*e.g.*, from gallon jugs), or by brushing with paper towels. Spray equipment liberally with the bleach solution and allow to dry. Between donor sites, thoroughly scrub bins and buckets with detergent and water before spraying with the bleach solution.

Disinfecting Hands: A pump-applicator, plastic bottle of 60% ethyl alcohol is an efficient way to disinfect hands between handling tortoises; smaller pocket-size bottles of hand sanitizers are also useful in the field. If hands are extremely dirty, rinse with water before using the alcohol sanitizer.

Testing for Mycoplasmal Upper Respiratory Tract Disease (URTD)

Authorized agents or other individuals wishing to collect blood or other samples for mycoplasmal URTD tests shall be appropriately trained by a veterinarian or other person experienced in such sample collection/handling for tortoises, and shall sign an affidavit provided by FWC stating they have been so trained. The signed affidavit, in addition to their permit, authorizes the following:

1. Blanket authorization to capture, hold, and draw blood from gopher tortoises as needed for collecting blood samples. Tortoises may be held up to 24 hours, but shall not be held for more than 72 hours, as stipulated in the FWC permitting guidelines.

2. Blood samples for testing (identified by the applicant's name, county, and project name) shall be submitted by the applicant to Mycoplasma Testing Lab, University of Florida, Department of Pathobiology, 1600 South West Archer Road - BSB 350, Gainesville, Florida 32610. The Lab may be contacted at (352)392-2239, extension 3986. The applicant is responsible for all fees and costs associated with testing.

3. Test results will be provided by the testing facility to FWC and the applicant.

Protocol for Accommodating Symptomatic Gopher Tortoises and/or Those That Test Seropositive for Mycoplasmal URTD

Symptomatic gopher tortoises (see cursory health examination section above for clinical signs that are especially cause for concern), and/or those individuals that test seropositive in cases where blood tests for mycoplasmal URTD are undertaken:

- Should not be relocated off-site, unless they are to go to permanently fenced sites with no resident gopher tortoises or to other specifically designated recipient sites for such cases.
- May be relocated on-site if sufficient suitable habitat will remain.
- May be quarantined in an FWC-licensed wildlife rehabilitation center facility or licensed veterinary facility for observation and treatment (in cases of recovery, these individuals may be subsequently released with others from their population).
- May be placed in an FWC-permitted disease research program.
- May be humanely euthanized by a licensed veterinarian if severely ill or suffering.

It should be noted that there is currently no known cure for mycoplasmal URTD, making recovery of truly infected tortoises an unlikely scenario. Recipient site owners/managers reserve the right to request mycoplasmal URTD testing or other diagnostic tests that become available, and to refuse any, or all, tortoises from populations that have seropositive and/or symptomatic individuals. Making such decisions will depend on the goals and priority of the recipient site (see table above), and thus determining the level of risk involved by allowing introduction of potentially ill or infected tortoises. In those cases where several clinically ill tortoises are encountered, consultation with FWC and wildlife veterinarians will be necessary to determine how best to accommodate such populations.

Appendix 7. Methods for Vegetation Sampling on Recipient Sites

The vegetation sampling method described below can be performed in conjunction with the 250-meter long belt transects that are used to estimate tortoise density on recipient sites. Vegetation sampling should occur at a minimum of 30% of the belt transects and be equally distributed across the survey area.

Example: *A 15% tortoise survey of a proposed 200-acre recipient site would require thirty 16-meter x 250-meter belt transects (each transect covers approximately one acre in area). Thirty percent of the transect, or nine transects total, would be selected for vegetation sampling. Those transects selected for vegetation sampling should be located so there is representative coverage across the site. Each transect selected for vegetation sampling would have four stations associated with the 0-, 75-, 150-, and 225-meter points along the transect. Data obtained from the sampling should be presented in tabular form by sample station and by transect number similar to that shown below.*

Transect	Station	% Herb Cover	% Shrub Cover	% Canopy Cover	Tortoise Density
1	0 m				
	75 m				
	150 m				
	225 m				

Vegetation Sampling Methods

1. Canopy Cover - At 75-meter intervals along a transect (*i.e.*, at the 0, 75-, 150-, and 225-meter points along the transect), take 20 steps perpendicular to each side of the transect line (a total of 40 steps). On each alternate step (10 samples on each side), look through a densitometer (manufactured by Geographic Resource Solutions) with cross hairs and held directly overhead. Canopy vegetation is defined as woody stemmed plants three meters or greater in height. If there is canopy at the center point of the cross hairs, count that sample as a plus. If there is no canopy cover, count that step as a zero. For 20 steps, total the pluses and divide by 20 to obtain percent canopy cover at the station.

2. Shrub Cover - At each 75-meter interval along the transect line, take 20 steps perpendicular to each side of the transect line (a total of 40 steps). On each alternate step, hold arms outstretched approximately three feet off the ground. If the arms strike shrub plants (woody plants one to three meters in height), count that sample as a plus. If the arms strike nothing, count that step as a zero. For the 20 total steps, total the pluses and divide by 20. This provides an estimate of the percent shrub cover at the station.

3. Herbaceous Ground Cover - At each 75-meter interval along the transect line, take 20 steps perpendicular to each side of the transect line (a total of 40 steps). On each alternate step, look directly down through a densitometer. Herbaceous vegetation is defined as soft stemmed vegetation one meter or less in height. If there is herbaceous ground cover at the point where the cross hairs meet, count that sample as a plus. If there is no herbaceous ground cover, count the sample as a zero. Total the numbers of pluses at each transect and divide by 20 to obtain the percent herbaceous ground cover at the station.

Appendix 8. Draft FWC Conservation Easement

[NOTE TO PREPARERS: PLEASE USE "TRACK CHANGES' WHEN YOU REVISE THIS FORM FOR SUMMITAL TO FWC. IF YOU DO NOT USE "TRACK CHANGES" FWC REVIEW OF THE FORM MAY BE SIGNIFICANTLY SLOWED.]

This instrument prepared by:

After recording please return the document to Grantee:
Florida Fish and Wildlife Conservation Commission
ATTN: Permit Coordinator
620 South Meridian Street
Tallahassee, Florida 32399-1600

CONSERVATION EASEMENT

THIS DEED OF CONSERVATION EASEMENT is given this _____ day of _____ 200_ by _____ , a Florida corporation whose mailing address is _____ , ("Grantor") to the Florida Fish and Wildlife Conservation Commission, an agency of the State of Florida, with its principal office at 620 South Meridian Street, Tallahassee, FL 32399-1600 ("Grantee").

The parties agree as follows:

WITNESSETH

WHEREAS, the Grantor is the owner of certain lands situated in _____ County, Florida, hereinafter referred to as the "Property", more specifically described in Exhibit A attached hereto and incorporated herein by this reference; and

WHEREAS, the property possesses natural, scenic, open space, wildlife preservation and conservation values (collectively, "conservation values") of great importance to Grantor, the people of _____ County, and the people of the State of Florida; and

WHEREAS, the specific conservation values of the Property are documented as part of the Habitat Management Plan pertaining to the Property, dated _____ ("Plan"), part of which is entitled the "Baseline Documentation". A copy of the Plan is attached hereto as Exhibit B, and incorporated herein by reference. The Baseline Documentation is an accurate representation of the Property at the time of this grant and is intended to serve as an objective information baseline for monitoring compliance with the terms of this grant; and

WHEREAS, Grantor intends that the conservation values of the Property be preserved and maintained by the continuation of land use patterns, including, without limitation, those relating to ___ [*e.g.*, farming, ranching, or timber production] existing at the time of this grant, that do not significantly impair or interfere with those values; and

WHEREAS, Grantor further intends, as owner of the Property, to convey to Grantee the right to preserve and protect the conservation values of the Property in perpetuity; and

WHEREAS, Grantee is a state public agency, part of whose mission is the conservation, preservation, protection or enhancement of lands such as the Property; and

WHEREAS, the Grantor, in consideration of the issuance by the Grantee of Permit No. _____ issued by the Grantee on _____ ("Permit") in favor of the Grantor for the incidental take of listed wildlife species, is required to grant and secure the enforcement of a perpetual conservation easement pertaining to the Property.

NOW THEREFORE, consistent with the issuance of the Permit, Grantor hereby grants, creates, and establishes a perpetual conservation easement upon the Property described in Exhibit A, which shall run with the land and be binding upon the Grantor, its heirs, successors and assigns, and remain in full force and effect forever.

1. Purpose. The purpose of this Conservation Easement is to ensure that the Property or part thereof as described in this Conservation Easement shall be protected forever and used as conservation areas, consistent with the Habitat Management Plan ("Plan"). The parties intend that this Conservation Easement will confine the use of the Property to such uses as are consistent with the purpose of this Conservation Easement.

2. Rights of Grantee. To accomplish the purpose of this Conservation Easement the following rights are conveyed to Grantee:

a. To preserve and protect the conservation values of the Property as defined in this Conservation Easement;

b. To enter upon the Property at reasonable times and upon reasonable notice to the Grantor in order to engage in activities consistent with this Conservation Easement, to monitor Grantor's compliance with this Conservation Easement, and to otherwise enforce the terms of this Conservation Easement; provided that Grantee shall not unreasonably interfere with Grantor's use and quiet enjoyment of the Property; and

c. To prevent any activity on or use of the Property that is inconsistent with the purpose of this Conservation Easement, and to require the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use.

3. Grantor's Reserved Rights. Grantor reserves to itself, its heirs, successors or assigns all rights as owner of the Property including the right to engage in all uses of the Property that are not expressly prohibited herein and are not inconsistent with the purpose of this Conservation Easement.

4. Prohibited Uses. Unless expressly authorized in accordance with the Plan (Exhibit B), the following are prohibited activities on the Property:

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

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

c. Removal or destruction of trees, shrubs, or other vegetation.

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

e. Surface use except for purposes that permit the land or water areas to remain in their existing natural condition.

f. Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation, or fish and wildlife habitat preservation.

g. Act or uses detrimental to such retention of land or water areas in their existing natural condition.

h. Acts or uses detrimental to the preservation of the structural integrity or physical appearance of sites or properties of historical, architectural, archaeological, or culture significance.

i. Alteration of the Property except in compliance with the Plan.

5. No Public Access. No right of access by the general public to any portion of the Property is conveyed by this Conservation Easement.

6. Expenses; Taxes. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property, including the maintenance of adequate comprehensive general liability insurance coverage. Such responsibilities and costs shall include those associated with the management activities discussed in the Plan. Grantor shall keep the Property free of any liens arising out of any work performed for, materials furnished to, or obligations incurred by Grantor. Grantor shall pay before delinquency all taxes, assessments, fee, and charges of whatever description levied on or assessed against the Property by competent authority, and shall furnish Grantee with satisfactory evidence of payment upon request.

7. Costs of Enforcement. Any costs incurred by Grantee in enforcing the terms of this easement against Grantor, including, without limitation, costs of suit and attorney's fees, and any costs of restoration necessitated by Grantor's violation of the terms of this Easement, shall be borne by Grantor.

8. Liability. Grantor and its successors shall hold harmless, indemnify and defend Grantee from and against all liabilities, penalties, costs, losses, damages, expenses causes of action, claims, demands or judgments, including attorneys fees, arising from or in any way connected with: 1) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause, 2) costs and liabilities of any kind related to the ownership, operation, upkeep and maintenance of the Property, including but not limited to the maintenance of adequate comprehensive general liability coverage, payment of taxes, and keeping the Property free of liens; and 3) the existence or administration of this Conservation Easement.

9. Remedies. If Grantee determines that Grantor or successors are in violation of the terms of this Conservation Easement, it may take any of the following actions, after 30 day written notice to Grantor or successors to correct the violation: 1) Grantee may itself correct the violation, including but not limited to restoration of any portion of the Property affected to the condition that existed prior to the violation, and demand payment from Grantor for all costs associated with such action; 2) Grantee may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Conservation Easement, for specific performance, to temporarily or permanently enjoin the violation, recover damages for violation of this Conservation Easement, including but not limited to the costs of restoration, and any other damages permitted by law. In any enforcement action Grantee shall not be required to prove either actual damages or the inadequacy of otherwise available remedies. Grantee's remedies shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity. As part of the consideration for this Conservation Easement, the parties hereby waive trail by jury in any action brought by either party pertaining to any matter whatsoever arising out of or in any way connected with this Conservation Easement.

10. Waiver. Grantor intends that enforcement of the terms and provisions of the Conservation Easement and the Plan shall by at the discretion of Grantee and that any forbearance on behalf of Grantee to exercise its rights hereunder in the event of any breach hereof by Grantor, its heirs, successors, personal representatives or assigns shall not be deemed or construed to be a waiver of Grantee's rights hereunder in the event of a subsequent breach. Grantor hereby waives any defense of laches, estoppel, or prescription.

11. Assignment. Grantee agrees that it will hold this Conservation Easement exclusively for conservation purposes and that it will not assign its rights and obligations under this Conservation Easement except to another organization qualified to hold such interests under the applicable state and federal laws and committed to holding this Conservation Easement exclusively for conservation purposes. Not later than thirty (30) days after recordation in the Public records of _____ County, Florida of an instrument transferring the title to the property, which is the subject of this easement, Grantor agrees to give written notice to Grantee of such transfer.

12. Severability. If any provision of this Conservation Easement or the application thereof to any person or circumstance is found to be invalid, the remainder of the provisions of this Conservation Easement, and the application of such provision to persons or circumstances other than those as to which it is found to be invalid, shall not be affected thereby.

13. Notices; References. All notices, consents approvals or other communications hereunder shall be in writing and shall be deemed properly given as of the second business day after mailing if sent by United State certified mail, return receipt requested, or by overnight mail service (*e.g.* FedEx, UPS), addressed to the appropriate party or successor-in-interest, at the address above set forth or such new addresses as either party may in writing deliver to the other. References in this Conservation Easement to the Grantor or Grantee include their successors-in-interest.

14. Venue; Waiver of Jury Trial. This Conservation Easement has been delivered in the State of Florida and shall be construed in accordance with the laws of Florida. As part of the consideration for this Conservation Easement, the parties hereby waive trial by jury in any action or proceeding brought by any party against any other party pertaining to any matter whatsoever arising out of or in any way connected with this Conservation Easement.

15. Amendment. This Conservation Easement may be amended, altered, released or revoked only by written agreement between the parties hereto, their successors or assigns.

16. Subordination of Liens. Grantor agrees that if the Property is subject to a mortgage lien or any other form of lien or security pertaining to the Property, Grantor shall provide recorded or recordable documentation to verify that such lien or security interest is subordinate to this Conservation Easement.

17. Recording. This Easement shall be recorded in the same manner as any other instrument asserting title to real property.

TO HAVE AND TO HOLD unto grantee, its respective successors and assigns forever. The covenants, terms, conditions, restrictions and purposes imposed with this easement shall not only be binding upon Grantor but also its agents, personal representatives, heirs, assigns and all other successors to it in interest and shall continue as a servitude running in perpetuity with the Property.

IN WITNESS WHEREOF Grantor has set its hand on the day and year first above written.

Signed, sealed and delivered
In our presence as witnesses:

_____
[Corporate name]

_____ By: _____

Name: _____ Name: _____

Title: _____

_____

Name: _____

STATE OF FLORIDA
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 200_ by _____, the _____ of, a Florida corporation, on behalf of the corporation. The above-named individual is personally known to me or produced _____ as identification.

_____
Notary Public State of Florida
Commission No:
Commission expires:

GRANTEE'S ACCEPTANCE

The Florida Fish and Wildlife Conservation Commission hereby accepts the foregoing Conservation Easement.

FLORIDA FISH AND WILDLIFE
CONSERVATION COMMISSION

By: _____
Title:_____
Date:_____

Approved as to form and legal sufficiency:

_____
FWC Attorney

Appendix 9. Handling of Commensal Species During Relocations

INTRODUCTION

Commensals are other species of animals that live within gopher tortoise burrows, deriving food, refuge, or other benefits from the burrow environment. Threats to commensal species are similar in nature to those faced by the gopher tortoise and have been addressed in the Gopher Tortoise Management Plan. These guidelines have been created to provide guidance for authorized agents who capture commensal species during gopher tortoise relocations. Authorized agents conducting activities under gopher tortoise permits are encouraged to minimize the mortality of commensal species and, where possible, to relocate commensals with the tortoises.

RULES PROTECTING COMMENSAL SPECIES

Florida Gopher Frog (*Rana capito*)

The Florida gopher frog is listed as a Species of Special Concern (Rule 68A-27.005, F.A.C.) by the Florida Fish and Wildlife Conservation Commission (FWC). It is illegal to take gopher frogs or their eggs without a permit issued by the FWC Executive Director (Rule 68A-27.002, F.A.C.). The gopher frog is also considered a Species of Concern (SOC) by the U.S. Fish and Wildlife Service (USFWS). The SOC designation is an informal term indicating some degree of concern for the future of the species but does not impart any Endangered Species Act protection.

Florida Mouse (*Podomys floridana*)

The Florida mouse is listed as a Species of Special Concern (Rule 68A-27.005, F.A.C.) by FWC. It is illegal to take Florida mice or their nests without a permit issued by the FWC Executive Director (Rule 68A-27.002, F.A.C.). The Florida mouse is also considered a Species of Concern (SOC) by USFWS. The SOC designation is an informal term indicating some degree of concern for the future of the species but does not impart any Endangered Species Act protection.

Eastern Indigo Snake (*Drymarchon couperi* [= *Drymarchon corais couperi*])

The eastern indigo snake is listed as a Threatened Species (Rule 68A-27.004, F.A.C.) by FWC. It is illegal to take indigo snakes or their eggs without a permit issued by the FWC Executive Director (Rule 68A-27.002, F.A.C.). The indigo snake has also been classified as a Threatened Species by USFWS since 1978. The Threatened Species designation is a formal term indicating a moderately high level of protection provided by the Endangered Species Act. For federally listed species like the indigo snake, federal permits are required to capture, handle, or relocate individuals; therefore, authorized agents should coordinate with USFWS.

Florida Pine Snake (*Pituophis melanoleucus mugitus*)

The Florida pine snake is listed as a Species of Special Concern (Rule 68A-27.005, F.A.C.) by FWC. It is illegal to take pine snakes or their eggs without a permit issued by the FWC Executive Director (Rule 68A-27.002, F.A.C.), but individuals may possess one Florida pine snake without a permit (Rule 68A-25.002[12]).

SPECIES-SPECIFIC GUIDELINES: IDENTIFICATION, HABITAT NEEDS, CAPTURE, AND RELOCATION

Eastern Indigo Snake

The eastern indigo snake is a large, non-venomous snake found throughout Florida. Its color is uniformly lustrous black except for reddish to cream coloring on the chin and throat. Many indigo snakes in northern Florida are completely black with the exception of a white patch in the center of the throat. The indigo snake is most commonly confused with the black racer (*Coluber constrictor*), which is a duller black color, has a white chin and throat (or brown in the central Panhandle), and is smaller and thinner.

In northern Florida, eastern indigo snakes are intimately tied to gopher tortoise burrows that protect them from extreme temperatures and moisture loss. In the milder climates of central and southern Florida, especially in habitats where tortoises are not present, they rely on a wide variety of other shelters, including hollow tree root channels and logs, burrows of rodents and armadillos (*Dasypus novemcintus*), and limestone solution holes. Because indigo snakes have relatively large home ranges (hundreds of acres) and use a variety of upland and wetland habitats, large diverse recipient sites will best provide for their needs.

Relocation:
Indigo snakes may be encountered during site surveys, excavation of gopher tortoise burrows, or capture of tortoises. Snakes may be secured by hand or gentle application of snake tongs, a stick, or other device. Indigo snakes are generally not aggressive, often presenting an appearance of being tame when captured. However, when agitated they can bite, and although the bite is non-venomous, it can be very painful. Secured snakes should be enclosed in a cloth bag (one snake per bag) such as a pillow case or similar ‘snake bag’ constructed for the purpose. Alternatively, for those not wishing to handle snakes directly, snakes may be picked up with a rake or stick and dropped into a plastic garbage can with a secure lid. Snakes in bags can be placed in the same type container used for a gopher tortoise (without the gopher tortoise) and maintained under the same conditions as the tortoises until release. Snakes should be released with gopher tortoises and will make their own way to suitable cover.

Florida Pine Snake

The Florida pine snake is a large, non-venomous snake with dark brown to reddish blotches on a gray to sandy-colored background. The scales on the upper part of the body are strongly keeled (ridged). The head and snout are distinctly cone-shaped and adapted for burrowing.

The species is restricted to xeric habitats in the Atlantic and Gulf coastal plains. In Florida, its historic distribution included most of the state north of Lake Okeechobee and coastal ridges to the south. Florida pine snakes spend much of their time underground, often burrowing into the tunnels of pocket gophers (*Geomys pinetis*) and other rodent prey.

Relocation:
Like indigo snakes, pine snakes may be encountered during site surveys, excavation of gopher tortoise burrows, or capture of tortoises. Snakes may be secured by gentle application of snake tongs, a stick, or other device. Unlike indigo snakes, pine snakes will often bite when captured or handled. Secured snakes should be enclosed in a cloth bag such as a pillow case or similar 'snake bag' constructed for the purpose. Alternatively, for those not wishing to handle snakes directly, snakes may be picked up with a rake or stick and dropped into a plastic garbage can with a secure lid. Snakes in bags can be placed in the same type container used for a gopher tortoise (without the gopher tortoise) and maintained under the same conditions as the tortoises until release. Snakes should be released with gopher tortoises and will make their own way to suitable cover.

Florida Gopher Frog

The Florida gopher frog is a stout-bodied frog with short legs, a large head and mouth, and prominent eyes that are slightly larger than the ear drums. The gopher frog's background color and belly are typically light gray. A series of irregular dark spots form rows along the back and side, and the limbs are distinctly striped. A raised ridge (dorsolateral fold) that is yellow or orange colored runs down each side of the back from head to groin.

The species' distribution corresponds to that of the gopher tortoise; however, unlike the gopher tortoise, the gopher frog appears to be absent from most coastal islands and dunes. This species occurs primarily in native, xeric upland habitats, particularly scrub and sandhill associations. The Florida gopher frog is extremely dependent upon gopher tortoise burrows, more so than the other listed commensals noted in these guidelines. In addition to its dependence on gopher tortoise burrows as an adult, the gopher frog tadpole only lives in isolated wetlands. These temporary water bodies generally have no fish and may have smaller populations of predatory invertebrates than permanent wetlands.

Relocation:
Gopher frogs are most commonly encountered during tortoise capture, either in bucket traps or during burrow excavation. They can also be trapped by drift fences and buckets or funnel traps set to intercept their seasonal breeding migrations to temporary or seasonal ponds and during breeding at those ponds. Frogs may be secured in plastic containers (one frog per

container) with a quantity of moist soil from the burrow. Containers with frogs can be kept under the same conditions as gopher tortoises for transport. Agents who undertake tortoise relocations in central and south Florida should be aware of two exotic amphibians (Cuban tree frog and cane or marine toad) that may be confused with gopher frogs. These exotic species should not be relocated.

Gopher frogs should only be released directly into the mouth of existing tortoise burrows when such burrows are located on a recipient site that has temporary or fish-free ponds within 1 km (0.6 mi) distance and without significant barriers to frog movement (*e.g.*, no roads). Several frogs may be released into one burrow.

Florida Mouse

The Florida mouse is distinguished from other rodents by the following: light reddish-tan color; comparatively large eyes, ears, and hind feet; long tail; presence of five instead of six well-developed plantar tubercles on the soles of the hind feet; fragile tail sheath that may slough off during handling; and a distinct, skunk-like odor.

The Florida mouse is endemic to Florida and is restricted largely to the northern two-thirds of the peninsula, where it typically occupies fire-maintained, xeric vegetative communities on deep, well-drained soils. The biology of the Florida mouse is closely tied to the gopher tortoise, whose burrows are used as nesting sites and refuges during dispersal. Florida mice are most common in sandhill, scrub, and scrubby flatwoods, but other xeric upland habitats may be used. These habitats are characterized by the presence of acorn-producing oak trees, especially scrub oaks and other species considered to be in the 'white' oak group. The ground cover is usually interspersed with patches of bare sand, but a diverse assemblage of grasses and forbs is typically present. An open tree canopy, typically composed of longleaf or other pines, may be present.

Relocation:
Florida mice can be captured alive in Sherman live traps baited with sunflower seeds and set in or near the gopher burrow entrance. Mice can also be opportunistically captured by hand during burrow excavation. Mice can be retained in Sherman traps for 24 hrs, as long as they are carefully protected from extremes of heat and cold. Mice should be released at the mouth of gopher tortoise burrows at the relocation site. To maximize translocation success, mice should be released into active burrows of adult gopher tortoises. Florida mice should be released only within their known range.

Suitable habitats at the recipient site should primarily be limited to sandhill, scrub, or scrubby flatwoods. A tree layer, typically composed of longleaf or other pines, may be present; percent canopy cover should not exceed 30%. A shrub layer dominated by scrub oaks, other oaks or other shrubby species (*e.g.*, palmetto) should be present. The shrub layer should be discontinuous, typically 1-3 m (3-10 ft) high and with 30-70% coverage. A diverse ground cover assemblage of grasses and forbs should be present, and interspersed with conspicuous patches of bare ground. Active and inactive gopher tortoise burrows should be present. The minimum size of suitable habitat patches for Florida mice probably should be 25 ha (62

acres); bigger is better. Isolated sites supporting suitable xeric upland habitat should be connected by less suitable (degraded) xeric upland or mesic habitats (native or reclaimed) considered capable of supporting tortoises. Because the maximum dispersal distance for Florida mice is not well known, suitable patches of xeric upland habitat probably should not be separated by more than 1-2 km (0.5-1 mi) to maximize the probability that Florida mice would be able to move successfully among patches.

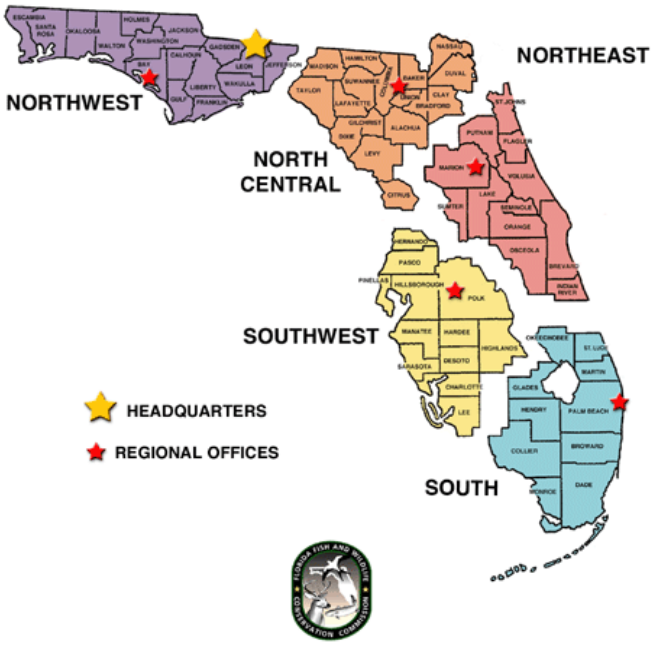
Non-Listed Burrow Commensals

The gopher tortoise is considered to be a keystone species, whose burrows serve as a shelter from stressful environmental conditions (e.g., cold, heat, fire, dryness), a site for feeding or reproductive activities, or as a permanent microhabitat for some 350-400 other species. Although FWC does not require non-listed burrow associates to be relocated, these species, if encountered, may be relocated with the gopher tortoises. This practice has important positive implications for gopher tortoises and all the listed burrow associates. For example, cave crickets (*Ceuthophilus* sp) and other burrow-dwelling invertebrates are important prey of gopher frogs and Florida mice. Few or no data exist regarding relocation effectiveness or success for these non-listed commensals. However, by relocating the entire suite of burrow associates, the biodiversity of recipient sites will likely be enhanced.

Relocation:
Material from the bottom of a gopher tortoise burrow, including specimens of invertebrate commensals and their larvae, may be transported in any suitable container and deposited at the relocation site. In addition, burrow soil used in tortoise relocation containers may be deposited at the recipient site.

Appendix 10. FWC Gopher Tortoise Contact Information

Florida Fish and Wildlife Conservation Commission
DIVISION OF HABITAT AND SPECIES CONSERVATION
GOPHER TORTOISE CONTACT INFORMATION



For inquiries related to the Gopher Tortoise Management Plan, please contact:

Gopher Tortoise Plan Coordinator
Division of Habitat and Species Conservation
Species Conservation Planning Section
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street (Mail Station 2A)
Tallahassee, Florida 32399-1600
(850)410-0656 extension 17332; SUNCOM: 278-3831
Fax: (850)921-1847

For specific inquiries related to Gopher Tortoise permitting requirements and status, please contact:

Gopher Tortoise Permit Coordinator
Division of Habitat and Species Conservation
Species Conservation Planning Section
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street (Mail Station 2A)
Tallahassee, Florida 32399-1600
(850)410-0656 extension 17327; SUNCOM: 210-0656
Fax: (850)488-5297

http://MyFWC.com/permits/Protected-Wildlife