Lee County Parks and Recreation
Gopher Tortoise Relocation Procedures

Approved by:
Barbara Manzo, Deputy Director

Barbara Manzo

Dated: 12-31-08

PURPOSE: To guide staff and outside entities in the protocols required for authorized relocation of gopher tortoises onto Lee County non- Conservation 20/20 lands. This relocation policy may be reviewed and adjusted if either the Florida Fish and Wildlife Conservation Commission (FWC) or United States Fish and Wildlife Service (USFWS) policy changes or Land Stewardship staff finds that current management practices are not adequate for conservation of the species.

BACKGROUND: Currently, gopher tortoises (*Gopherus polyphemus*) are listed by the FWC as a Threatened species. In southwest Florida, habitat destruction, degradation and fragmentation are the primary reasons for the decline of this species. The gopher tortoise is considered to be an ecological keystone species by many scientists (Eisenberg 1983, Dodd 1984). In addition to acting as a "home base", gopher tortoises are dependent upon the burrows they excavate for protection against fire, predators and climate extremes. Burrows are also important habitat for over 300 invertebrate and sixty vertebrate species (Diemer et. al 1989). Several of these species are considered "commensal" species, or species that depend intimately upon tortoise burrows in some parts of the tortoise range. Some of the species that utilize tortoise burrows; gopher frogs (*Rana capito*), Florida pine snakes (*Pituophis melanoleucus mugitus*), burrowing owls (*Athene cunicularia*), and Florida mice (*Podomys floridanus*) are also listed as Species of Special Concern by FWC. Additionally, both FWC and USFWS list the eastern indigo snake (*Drymarchon corais couperi*) as Threatened.

With increasing development in Lee and surrounding counties, land stewardship staff recognizes the need for conservation-based gopher tortoise relocations from development sites. However, there is a concern that the urgency of the development activities often forces tortoises into less desirable sites without established stewardship plans or adequate long-term management funding.

In general, Parks and Recreation preserves (including those purchased through the Conservation 20/20 program) are managed at the community level and not for individual species. This community stewardship approach provides for a diverse array of native plants and wildlife without artificially selecting for a single species at the expense of other species. Natural community stewardship is generally more ecologically balanced and fiscally prudent than stewardship for a single species.

The stewardship of Conservation 2020 preserves is further governed in accordance with the enabling ordinance (Lee County Ordinance 05-17, as amended). The Conservation 20/20 preserves are managed for natural areas, wildlife resources, passive, nature-based recreation and for water resources. The conservation 20/20 enabling ordinance provides for mitigation opportunities for public (but not private) projects. Each mitigation proposal is carefully reviewed by Parks and Recreation staff, the Management Subcommittee and the

Conservation Lands Acquisition and Stewardship Committee before moving forward on a project. Criteria include:

- Matching the public need with the appropriate preserves (ecological compatibility)
- Reviewing future plans to ensure that conflicts are minimized (both restoration and recreation plans)
- Ensure mitigation plans do not negatively impact extant communities or wildlife
- Ensure that the mitigation plans complement the Board approved land stewardship plan

Conservation 20/20 relocations will be managed through separate criteria on a site by site project basis. Other parks and preserves managed by Lee County will only accept tortoises once the criteria outlined in this document are met.

Land Stewardship staff will consider receiving, on a case-by-case basis, gopher tortoises from rehabilitation centers, such as CROW on Sanibel, which are deemed healthy enough to be returned to the wild and do not test positive for URTD exposure. Land Stewardship staff must be contacted prior to the release of any rehabilitated tortoise on Parks and Recreation managed property including Conservation 20/20 lands. Releasing a rehabilitated tortoise will be treated as relocation and where applicable the procedures outlined in this document will be followed.

The Hickey's Creek Mitigation Park and adjacent public lands will not be used as a recipient site for relocations or rehabilitated tortoises. The creation of this park was and continues to be for protecting an existing viable gopher tortoise population.

All recipient sites considered by Land Stewardship will consist of no less than 40 acres of suitable gopher tortoise habitat as defined by adequate forage, canopy cover, depth to water table greater than 1.5 feet, soil types and access to site for land stewardship activities deemed necessary for perpetual management of relocation site. Prior to final decisions on relocation sites, master plans and land stewardship plans will be consulted for any future construction of buildings or other facilities which would be impeded by relocations.

Relocations onto Lee County Parks and Recreation (LCPR) lands are conservation-based and not humane-based, therefore relocations of 5 or fewer tortoises will be directed to FWC for assistance with identifying non-Parks and Recreation relocation sites or establishing on-site relocations (In spring 2009 FWC will implement a 10 or fewer tortoise permit).

Procedure

Administrative/Review

1. Lee County Parks and Recreation staff reserves the right to deny any request for tortoise relocation to county-owned lands or lands managed by the Department of Parks and Recreation if, at the discretion of the Land Steward and the Department Director, the proposed relocation will not serve to enhance the overall biological diversity and environmental integrity of these lands, or if it will hinder future habitat restoration projects. A site will not be used for gopher tortoise relocations until a land stewardship plan (LSP) has evaluated the site and found it an appropriate area for relocations. The LSP must also address long-term management of the site to ensure appropriate habitat conditions for gopher tortoises will be maintained into perpetuity. Once the LSP has been approved, an FWC permit to establish the site as a relocation site will be applied for. Generally, a proposal to relocate gopher tortoises must demonstrate that there is a potential public benefit to the project and that the potential for benefit exceeds the potential for adverse impacts to indigenous tortoise populations. Further restrictions or requirements, in addition to those described herein, may be imposed on a site-specific basis by the Land Stewardship Coordinator. Tortoises may not be relocated to a Lee County Department of Parks and Recreation receiving site from projects outside of Lee County.

2. All requests for permission to relocate gopher tortoises to county owned land managed by Lee County Department of Parks and Recreation shall be submitted in writing to the Land Stewardship Manager, who will coordinate a review by the Land Stewardship Coordinator responsible for the proposed relocation site. The written request must also contain information on the status of coordination with FWC, the Lee County Division of Environmental Sciences and the appropriate city/county environmental permitting agency. Land Stewardship staff is responsible for being familiar with the most current FWC guidelines (available at http://myfwc.com/permits/protected-wildlife/permits.html#gophertortoise) on gopher tortoise relocation prior to accepting any gopher tortoises on Lee County parks and preserves. This will ensure the protection of the integrity of all gopher tortoise populations present on County parks and preserves. The proposed receiving site must be identified through appropriate field surveys as described in this procedure. The applicant shall also submit an approved five-year monitoring plan that is designed to measure the success of the proposed relocation project.

3. All on-site activities associated with a tortoise relocation proposal or project must be coordinated with the Land Stewardship Coordinator for the park or preserve. Day use authorization will be required for vehicular access to County-owned lands and the Land Stewardship Section may, at its discretion,

require that County staff be present during any survey, monitoring or tortoise release activities.

4. Once land stewardship staff provides written acceptance of the relocation proposal, and prior to any relocation, a performance bond or a cash bond held in escrow of $5,000 must be submitted to Lee County Parks and Recreation by the sponsor of a permitted relocation project. The bond will be terminated upon successful completion of all post-relocation monitoring requirements. Alternatively, the sponsor may submit an irrevocable letter of credit. This requirement may be waived to accommodate volunteer or not-for-profit projects, as determined on a case-by-case basis. Internal Lee County projects will be coordinated through Conservation 20/20 staff and will follow separate protocol. A non-refundable deposit of $3000 to hold the recipient site for the sponsor of the permitted relocation project will be required in conjunction with the written request for relocation (This will be refunded if Land Stewardship staff cannot accommodate relocation). This deposit will be used to conduct a gopher tortoise survey on the recipient site and to compile a gopher tortoise management plan for the site prior to relocation activities and to pay the fee to FWC for establishing the relocation site. The survey work and written plan will be completed by an environmental consultant hired by Land Stewardship staff. This consultant must be qualified as an Authorized Agent through FWC. Upon receipt of deposit the recipient site will be held for six months, at which time if the relocation has not been completed the site will no longer be reserved and the performance/cash bond or irrevocable letter of credit will be returned.

5. A fee of $4000 per permitted tortoise from projects within Lee County will be charged for habitat restoration, prescribed burning and other management activities required due to relocation and subsequent management requirements. This fee must be paid half at initiation of relocation project and the final half on the day of relocation and will be used to cover all costs of perpetual maintenance of the relocation site. (FWC stakeholders meeting notes estimate a “base figure” of $6,278 - $8,630 per tortoise at a stocking rate of 2 tortoises/acre.)

6. Permitted relocations must be completed within a 60-day time interval approved by the Land Stewardship Coordinator, the appropriate city/county environmental permitting agency and the FWC. The specified time interval should not overlap with periods of seasonal dormancy or inactivity among gopher tortoises. Relocation will not be allowed during times of standing water on the recipient site, or when the weather is forecasted for overnight lows below 50 degrees F for a minimum of three nights after the tortoises are to be moved.

7. The County’s Land Stewardship Coordinator will make the recommendation to the Parks and Recreation Director, for the final determination for proposed

which shall be contingent upon issuance of a relocation permit by the FWC. The Applicant must comply with all capturing, handling, transport and health consideration protocols recommended by the FWC.

Pre- Survey Requirements

1. The sponsor of the relocation project must provide survey data and maps that demonstrate the proposed receiving site satisfies the site selection criteria enumerated below as compared to the site from which the tortoises were relocated from. A consultant hired by Land Stewardship staff will prepare a report on the suitability of the proposed receiving site as assessed for suitable gopher tortoise habitat. A FLUCFCS code map of the property will be compared with the list of habitat types as listed in the most currently published FWC's Available Options to Address the Presence of Gopher Tortoises on Land Slated for Development. Soil samples will be taken and the Lee County Soil Survey will be consulted to determine if the site has the appropriate soil types to support tortoises and burrowing activities. Depth to water table will also be measured and data from the Natural Resources ground water monitoring stations will be consulted to determine average depth to water table. Plant surveys will be conducted investigating both canopy cover and diversity of forage. A maximum tree canopy cover of 40%, keeping in mind future growth of shrubs and trees, will be allowed. Plant surveys will be conducted according to methods in The Natural History and Management of the Gopher Tortoise (Krieger Publ. 2008). Only areas with sufficient forage will be considered for relocation. All gopher tortoise burrows encountered on the recipient site will be mapped using GPS.
2. If the relocation site is considered to have suitable FLUCFCS code, soils, canopy cover and forage for tortoises, a burrow survey will be conducted. Every gopher tortoise burrow on the potential host site will be mapped using GPS and classified as either "potentially occupied" or "abandoned". Burrow survey methods employed will follow protocol established in FWC's Gopher Tortoise Permitting Guidelines and must be documented sufficiently to allow repetition. A minimum of 15 percent of the total land area of the proposed receiving site must be encompassed within the area surveyed to obtain an accurate estimate of population density.

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

Criteria Governing Relocations

1. If no burrows, or very few active burrows are found, Land Stewardship staff, the environmental consultant hired by Lee County and a representative for the sponsor of the permitted relocation project will meet to discuss why there is not an established population of tortoises at that specific site. Typical declines of tortoise populations in upland habitats include human or animal predation, lack of fire, invasive plant infestation, poor quality habitat, and /or

disease. Once a cause for the specific recipient site is determined, the Land Stewardship Coordinator will provide a plan to the entity requesting relocation on how the problem will be resolved before the relocation can occur.

2. The population density of a proposed receiving site must be below 1 tortoise per acre, as determined by the requisite site surveys previously described in this plan. Lee County Land Stewardship staff reserves the right to lower the number of tortoises accepted for relocation per acre if there is evidence of existing recruitment onto the park or preserve. Restocking or reintroduction rates must not result in a final, post-relocation population density that exceeds one tortoise per acre in flatwood and/or scrub sites, or two tortoises per acre in pasture and/or old field sites with sufficient grassy cover and a commitment in the site stewardship plan to maintain pasture through prescribed burning, mowing, or cattle grazing (excluding cogon and guinea grass). Generally, donor populations consisting of 20 or more individuals should be reserved for reintroduction to unoccupied sites. This habitat measurement cannot include seasonally flooded areas or beach berm low tide line. (FWC states that "the larger the protection area, the greater the benefits will be in terms of assuring gopher tortoise persistence and preserving characteristics of the wildlife habitat to which gopher tortoises are inextricably linked". They recommend that a population of at least 40-50 individuals are needed to assure meaningful levels of persistence, and that populations of this size will require 50-250 acres of appropriate habitat depending on habitat quality and the degree of management available for a preservation area to satisfy general ecological requirements.

3. The release habitat area will be entirely fenced to discourage, impede or inhibit unrestricted movement by tortoises, in order to limit initial contact and competition with surrounding, indigenous tortoise populations. For these reasons, a release habitat area will be constructed. It will be constructed with powder coated poultry wire and silt fencing (FWC recommends the Belton Industries woven fabric silt fencing) and stakes dug a minimum of 6-12 inches into the ground and at least two feet above ground to prevent the tortoises from either burrowing under or climbing over the enclosure (see Figure 1). Hay bales will not be allowed as a substitute for fencing. The release habitat will be a minimum of 10 acres and final size will be determined on a one additional tortoise per acre basis. It will be located in an area that has a wide variety of native forage, especially native grasses, and contain both shady and sunny areas. Once relocation has occurred, the silt fencing will remain in place and be maintained for a minimum of six months and a maximum of one year. Fence construction, monitoring, maintenance and removal will be the responsibility of the sponsor of the permitted relocation project. During the first month after relocation the fence will be checked weekly for any signs of failure. After the first month the schedule will shift to a monthly inspection. Fence inspection and repairs must also occur within three days of request by the Land Stewardship staff. Once Land Stewardship staff is confident the relocation fencing is no longer needed, the fence will be removed and site

restored to natural grade by the sponsor of the permitted relocation project. All fencing costs, construction, maintenance and removal will be the responsibility of the sponsor of the relocation or its agent and is included in the $4000 per tortoise fee.

4. All FLEPPC Category I and II listed invasive exotic plants (www.FLEPPC.org) within the release habitat area will be treated by a contractor hired by Lee County and paid for by the sponsor of the permitted relocation project. The Land Stewardship Coordinator has the option of requiring other plants to be controlled as well. One year and five year follow-up treatments will be paid for through the long term management account established for the recipient site. If plantings for forage are required after the exotic plant removal work in order to meet forage criteria, this fee will be charged to the sponsor of the permitted relocation project. Weed barrier will not be allowed as part of the planting project. Mulching will be considered on a case by case basis.

5. If the relocation site is at a park or preserve open for public access, a fee for creation and installation of an educational sign will be charged to the sponsor of the permitted relocation project. The sign will be designed and installed by land stewardship staff.

6. If the release habitat area is within 500 feet of a two lane road or multi-lane highway a permanent solid barrier will be constructed. This barrier will be dug 18 inches below grade and extend 24 inches above grade to minimize the chance of the tortoises being hit by vehicles. This permanent barrier will be constructed of powder-coated chain link fence, or other non-corroding material deemed suitable by Land Stewardship staff.

7. Starter burrows will be dug approximately one meter deep at a 4:1 slope for 35% of the tortoises being placed within the pen if more than 5 tortoises are relocated, and one starter burrow for each tortoise for relocations of 5 or fewer. The sponsor of the permitted relocation project is responsible for the starter burrows to be dug no more than three days prior to the scheduled day of relocation.

8. The applicant shall provide documentation that each tortoise to be released onto Lee County-owned lands has been screened for exposure to mycoplasmal Upper Respiratory Tract Disease (URTD). Screening must consist of a serological assay or other recognized procedure that is effective in detecting exposure to URTD. Any population in which symptomatic or sero-positive tortoises have been detected will be considered unsuitable for release onto Lee County-owned lands unless a future site is created to take only seropositive tortoises (symptomatic tortoises cannot be relocated per FWC policy). Gopher tortoise surveys of adjacent land to this site would be

required before Lee County would accept URTD positive tortoises to ensure we are not responsible for potentially impacting adjacent populations.

9. Gopher tortoises with poor or thin body condition, lethargic, weak or depressed tortoises, or tortoises with abnormal respiratory sounds (i.e. gurgling associated with pneumonia) shall be excluded from relocation.

10. Additional diagnostic tests for other infectious diseases may be required if they become available.

11. Whenever possible, native commensal burrow species should also be relocated from the donor site. Additional permits may be required from the FWC and/or the USFWS before relocation of certain commensal species may be conducted. Commensals must be relocated to their native communities so caution must be taken to ensure appropriate sites are chosen if commensals are part of the relocation process. Relocation of commensals must be addressed in the initial written request for permission to relocate tortoises onto county lands and include information on compliance with regulations, federal and state, applicable to these species.

12. Relocated tortoises must be individually marked following the scute marking scheme (Appendix P in land stewardship manual) prior to release at the receiving site so that the fate of relocated individuals may be tracked. Staff will provide a starting number so as to avoid confusion with other tortoises that may have been relocated, or already reside on other Lee County parks or preserves. The size, weight, sex and any distinguishing features of each relocated tortoise must also be recorded prior to the release and the data shall be included in the initial post–relocation monitoring report submitted to the Land Stewardship Coordinator.

13. When the tortoises arrive at the designated relocation site a 1/8” drill bit will be used for adult tortoises, 1/16” for juveniles, and hatchling tortoises will be marked using nail clippers. Marking will be the responsibility of the party requesting relocation. A representative of Lee County land stewardship staff will be present to fill out the data sheets, ensure that the tortoises are being marked and measured correctly and are kept in a shady area until being released.

Monitoring Requirements

1. The sponsor of a permitted relocation project will be responsible for monitoring the status of relocated tortoises and documenting the success of the project. For the first week monitoring of the fence and of the relocation areas shall be conducted three times a week, then weekly for the first two months. The monitoring shall focus on checking the condition of the fence, determining new burrow construction and looking for tortoises that have been

turned over onto their backs. The initial post-–relocation monitoring survey must be conducted within 30 days of the end of the stipulated 60-day relocation period. Subsequent surveys will be conducted annually for five years thereafter.

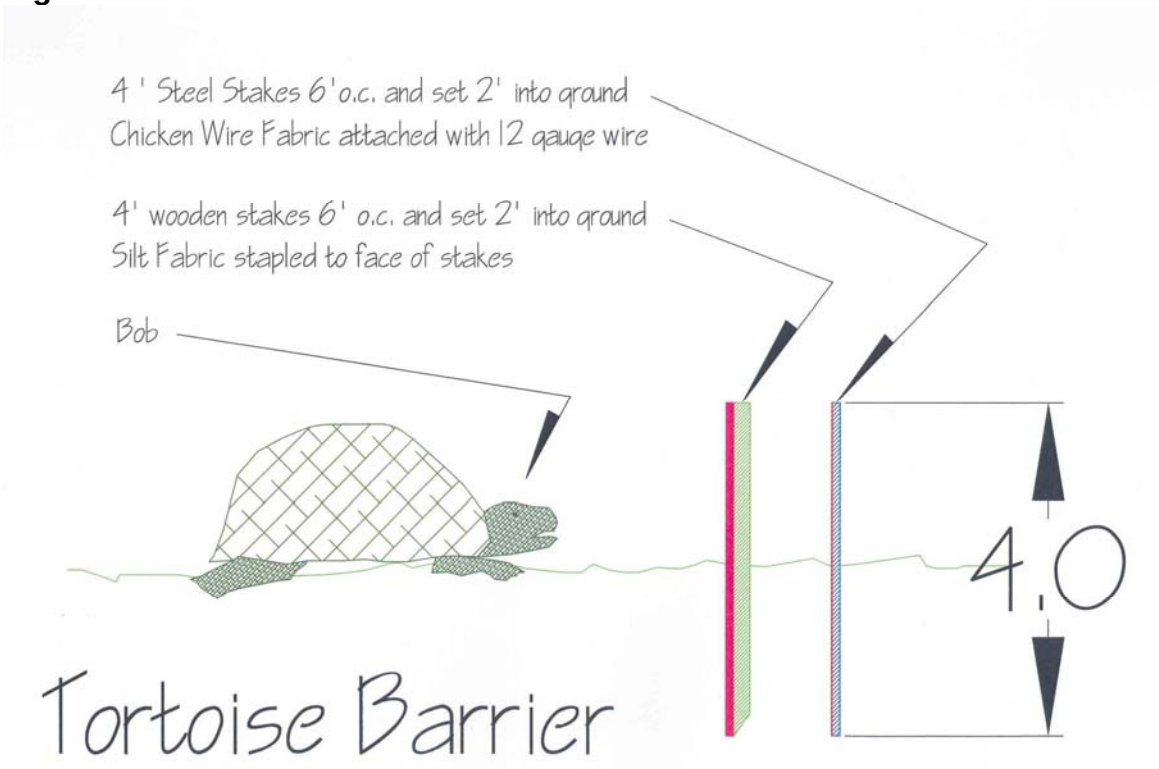
2. Post- relocation burrow surveys conducted to estimate burrow density must employ the same methodology used in the pre-–relocation survey of the receiving site.

3. The results of each post-relocation survey must be summarized in a report submitted to the Land Stewardship Coordinator for the relocation site within 30 days of completing the survey.

4. Every effort should be made to incorporate data regarding the status of indigenous tortoises into pre–relocation and post–relocation survey reports. These data should include information on size/age class distribution of resident tortoises and other pertinent demographic or morphometric data which may permit analysis of impacts to the indigenous individuals. Data regarding size may consist of estimates based upon burrow width but should consist of actual size and weight measurements whenever possible.

5. Failure to meet these monitoring requirements will result in non-refund of all or part of the $5000 bond or cash bond held in escrow.

Figure 1



Checklist for Land Stewardship Staff:

Prior to any relocation action:

_____ Review current FWC gopher tortoise permitting guidelines

_____ Consult land stewardship/management plan and master plan for identified release sites to ensure infrastructure or habitat alterations are not planned for site

_____ Ensure population is below 1 tortoise per acre and little or no recruitment is occurring on relocation site before proposing park/preserve as relocation site and that final restocking meets criteria of this plan

_____ Write LSP for relocation site

_____ Hire Authorized Gopher Tortoise Agent environmental consultant to conduct tortoise survey and compile a tortoise management plan for the recipient site (cost reimbursed through $3000 non-refundable deposit)

-FLUCFCS code map of recipient site compared to FWC's Gopher Tortoise Permitting Guidelines
-soil samples taken and consultation of Lee County Soil Survey to determine if appropriate soil types are present to support tortoises and burrowing activities
-measure depth to water table and compile data from the Natural Resources ground water monitoring stations to determine average depth to water table
-conduct plant surveys for canopy cover and diversity of forage (maximum canopy allowed on site will be 40% into perpetuity once relocation occurs)
-survey a minimum of 15% of the recipient site to obtain a statistically defensible estimate of population density on recipient site
-if site is determined a viable relocation site GPS all visible burrows across entire proposed recipient site
-include barrier fencing plan

Submit permit application to FWC for recipient site permit and pay associated contributions once tortoise management plan for recipient site is completed

Date: _____

_____ Designate scute marking numbers unique for each relocation site

Upon receipt of written request for relocation:

_____ Review relocation request letter to ensure FWC, Lee County Division of Environmental Sciences and the appropriate city/county environmental permitting agency have been contacted

If letter is a request from a rehabilitator the request will be treated on a case by case basis and Land Stewardship staff will consult to devise plan

If relocation request is for 20 or greater tortoises reserve a relocation site with no existing tortoises (consider restocking needs of site)

_____ Contact FWC, Lee County Division of Environmental Sciences and the appropriate city/county agencies involved to verify status of permits and acknowledge agreement to receive tortoises

_____ If commensal species will be located, ensure they are native to relocation site and it provides suitable habitat for all stages of the species life cycle, and that permit requirements are met if necessary. If not native to the site, inform requestor that commensal relocation will not be possible.

_____ Compare proposed receiving site to the site from which tortoises will be relocated to ensure satisfaction of site selection criteria described in this plan

_____ Consult land stewardship/management plan and master plan for identified release site to ensure no revisions have been made which will null availability for relocation

_____ Land Stewardship Manager consults with Land Stewardship Coordinator for release site

_____ Land Stewardship Manager writes letter of acceptance/denial to entity requesting relocation and send copy of Lee County Parks and Recreation Gopher Tortoise Relocation Plan

<u>If relocation is denied:</u>
Return $3000 deposit check and notify FWC denial of relocation
Date: _____

<u>If relocation is to be accepted:</u>

Receipt of $3000 non-refundable deposit to hold site
Date: _____

Receipt of performance bond/letter of credit/cash bond
Date: _____

Receipt of $3000 per permitted tortoise

Date: _____

Date of termination of hold for site
Date: _____

Place $5000 performance or cash bond in escrow
Date: _____

Place $3000/permitted tortoise into designated account
Date: _____

Site visit with relocation requestor to discuss fence/barrier installation
Date: _____

_____ Hire contractor to treat all FLEPPC listed Category I and II invasive plants within release habitat area if needed and submit cost estimate and final bill to entity requesting relocation

_____ Conduct prescribed burning if needed

_____ Provide authorization for day use vehicular access to recipient site

Receive 5 year monitoring plan Date: _____

_____ Design and install educational sign for release sites on parks or preserves open for public use (submit bill to entity requesting relocation)

_____ Ensure relocations do not occur during times of standing water on recipient site, or when the weather is forecasted for overnight lows below 50 degrees F for a minimum of three nights after the tortoises are to be moved

_____ Receive testing results for all tortoises prior to finalizing relocation

<u>Day before relocation:</u>

_____ Check weather reports for temperature for week of release

_____ Inspect fence, starter burrows, and condition of release habitat

_____ Call relocator and ensure bleach solutions, drills and bits, nail clippers and all other necessary equipment will be brought

<u>Day of relocation:</u>

_____ Ensure all sampling and sanitation protocols recommended by FWC are complied with

_____ Inspect fencing prior to initiating release

_____ Data sheet and Cagle number for each tortoise completed

Post relocation:

Weekly checks on release pen for first two months

Date: _____
Date: _____
Date: _____
Date: _____
Date: _____
Date: _____
Date: _____
Date: _____

_____ Provide notification if fencing failures are discovered (must be repaired within three days of notification)
Dates:
_____

_____ After first month notify relocation requestor if inspection schedule can be moved to once a month Date: _____

_____ Authorize removal of fence and ok restoration of fence area to natural grade

Contact FWC permitting office if tortoise numbers decline during their stay in the release habitat area Date: _____
Notes:

Upon receipt of 5th year monitoring report:

Terminate the $5000 cash/performance bond or irrevocable letter of credit (Provide written notification that $5000 bond/letter of credit will not be returned if monitoring reports were not received as scheduled)
Date: _____

Checklist for Entity Requesting Relocation:

_____ Conduct gopher tortoise and habitat survey of site to be developed (Ensure all sampling and sanitation protocols recommended by FWC are complied with.)

_____ Submit written letter requesting relocation site to Land Stewardship Manager with Lee County Parks and Recreation and include

-status of FWC permits, and any other required city/agency permits
-indicate this is a private project (public projects go through Conservation 20/20)
-provide number of tortoises requiring relocation
-meet criteria that development is within Lee County
-provide survey data and maps
-address any commensal species and status of any permits related to each
-include check for $3000 to reserve relocation site (non-refundable unless relocation is denied by Land Stewardship staff)

_____ Obtain appropriate FWC permits for relocation of gopher tortoises (FWC relocation permit will identify recipient site on the application)

_____ Once Relocation Permit is obtained contact Land Stewardship Manager and provide copy of FWC permit

_____ Upon receipt of official written response from Land Stewardship staff submit a $5000 performance or cash bond or irrevocable letter of credit to be held in escrow and written acknowledgement of acceptance of terms laid out in the Lee County Parks and Recreation Gopher Tortoise Relocation Plan (GTRP)

_____ Submit within 20 days of receipt of acknowledgement letter from Lee County Parks and Recreation a check for $2000 for each permitted tortoise to be relocated, and on day of relocation present a check for the remainder of $2000 per permitted tortoise

_____ Complete relocation within the 60-day time period approved by Land Stewardship Coordinator of the relocation site

_____ Schedule site visit with Land Stewardship Coordinator of relocation site

_____ Pay for initial treatment of all FLEPPC Category I and II listed invasive exotic plants within the release habitat area

_____ Pay for planting of forage species if required after exotic plant removal

_____ Pay for design of educational sign for relocation sites in parks or preserves open for public use

_____ Submit a five year monitoring plan designed to measure the success of the proposed relocation project

_____ Construct release habitat area according to fencing requirements in the GTRP

_____ Install starter burrows no more than three days before relocation for 35% of the tortoises relocated or one for each if 5 or fewer tortoises are relocated

_____ Provide documentation for each tortoise to be released on screening for URTD and any other required diagnostic tests for infectious diseases. If seropositive tortoises are found contact Land Stewardship Coordinator to discuss issue (symptomatic tortoises cannot be relocated)

Day before relocation:

_____ Check weather reports for temperature for week of release

_____ Inspect fence, starter burrows, and condition of release habitat

_____ Ensure bleach solutions, drills and bits, nail clippers and all other necessary equipment will be brought and tortoises are stored and transported in conditions required by FWC

_____ Confirm with Land Stewardship Coordinator arrival time and any other needs/concerns

Day of relocation:

_____ Ensure all sampling and sanitation protocols recommended by FWC are complied with

_____ Inspect fencing prior to initiating release

_____ Data sheet and Cagle number for each tortoise completed in conjunction with Land Stewardship Coordinator

Post relocation:

_____ Conduct monitoring of release site three times a week for first week, then weekly for first two months. Check condition of fence and make repairs, determine new burrow construction, and turn over tortoises on their backs

_____ Conduct and submit initial post-–relocation monitoring survey within 30 days of the end of the stipulated 60-day relocation period

_____ Subsequent surveys will be conducted annually for five years thereafter and are due within 30 days of survey completion

_____ Maintain and monitor release site fencing for a maximum of one year
-first month after relocation occurs fence will be checked weekly and repairs will be made immediately
-after first month fencing will be assessed and Land Stewardship staff may move inspection schedule to once a month if no issues arise
-fencing failures must be repaired within three days of notification from Land Stewarship staff

_____ Remove fencing and restore to natural grade within 30 days of receipt of written notification from Land Stewardship Coordinator

Upon receipt of 5th year monitoring report:

_____ Lee County will provide written notification of completion of project and terminate the $5000 cash/performance bond or irrevocable letter of credit as long as all conditions of the GTRP were met

Forage plants for use in relocation site plantings

Acacia famesiana	sweet acacia
Acacia pinetorum	pineland acacia
Acalypha gracilens	slender threeseeded mercury
Acalypha ostryifolia	pineland threeseeded mercury
Aeschynomene americana	shyleaf
Ageratina jucunda	hammock snakeroot
Amaranthus floridanus	Florida amaranth
Ambrosia artemisifolia	common ragweed
Ambrosia hispida	coastal ragweed
Ambrosia trifida	giant ragweed
Amorpha herbaceae var. herbaceae	*c*lusterspike false indigobush
Amphicarpum muhlenbergianum	blue maidencane
Andropogon floridanus	Florida bluestem
Andropogon glomeratus var. glaucopsis	purple bluestem
Andropogon glomeratus var. pumilus	bushy bluestem
Andropogon gyrans	Elliott's bluestem
Andropogon longiberbis	hairy bluestem
Andropogon ternaries	splitbeard bluestem
Andropogon virginicus	broomsedge bluestem
Andropogon virginicus var. glaucus	chalky bluestem
Anthaenantia villosa	green silkyscale
Aristida palustris	longleaf threeawn
Aristida patula	tall threeawn
Aristida purpurascens	arrowfeather threeawn
Aristida spiciformis	bottlebrush threeawn
Asimina reticulate	netted pawpaw
Asimina triloba	common pawpaw
Axonopus compressus	tropical carpetgrass
Axonopus fissifolius	common carpetgrass
Axonopus furcatus	big carpetgrass
Balduina angustifolia	coastalplain honeycombhead
Berlandiera subacaulis	Florida greeneyes
Bidens alba	beggarticks
Blechnum serrulatum	swamp fern
Bouteleloua hirsuta	hairy gramma grass
Bulbostylis ciliatifolia	capillary hairsedge
Bulbostylis stenophylla	sandyfield hairsedge
Bulbostylis warei	Ware's hairsedge
Cakile lanceolata	coastal searocket
Canavalia rosea	baybean
Carex longii	Long's sedge
Carphephorus corymbosus	coastalplain chaffhead
Carphephorus odoratissimus	vanillaleaf
Carphephorus paniculatus	hairy chaffhead

Cenchrus echinatus	southern sandbur
Centella asiatica	spadeleaf
Centrosema virginianum	spurred butterflypea
Chamaecrista fasiculata	partridge pea
Chamaesyce blodgettii	limestone sandmat
Chamaesyce bombensis	Dixie sandmat
Chamaesyce cordifolia	heartleaf sandmat
Chamaesyce cumulicola	coastal dune sandmat
Chamaesyce hirta	pillpod sandmat
Chamaesyce hypericifolia	graceful sandmat
Chamaesyce hyssopifolia	hyssopleaf sandmat
Chamaesyce maculate	spotted sandmat
Chamaesyce mesembrianthemifolia	coastal beach sandmat
Chamaesyce ophthalamica	Florida hammock sandmat
Chamaesyce thymifolia	gulf sandmat
Chapmannia floridana	Alicia
Chaptalia tomentosa	pineland daisy
Chenopodium berlandieri	pitseed goosefoot
Chiococca alba	milkberry
Chrysobalaus icaco	coco plum
Chrysopogon pauciflorus	Florida false beardgrass
Chrysopsis mariana	Maryland goldenaster
Chrysopsis scabrella	coastalplain goldenaster
Cirsium horridulum	purple thistle
Cissus trifoliate	sorrelvine
Cissus verticillata	possum grape
Cnidoscolus stimulosus	tread-softly
Coelorachis rugosa	wrinkled jointtailgrass
Commelina erecta	whitemouth dayflower
Conyza canadensis	Canadian horseweed
Coreopsis floridana	Florida tickseed
Coreopsis leavenworthii	Leavenworth’s tickseed
Crotalaria rotundifolia	rabbitbells
Croton glandulosus	vente conmigo
Croton punctatus	gulf croton; beach tea
Cypernus compressus	pooland sedge
Cypernus croceus	Baldwin’s flatsedge
Cypernus cuspida	coastalplain flatsedge
Cypernus filiculmis	wiry flatsedge
Cypernus flavescens	yellow flatsedge
Cypernus ligularis	swamp flatsedge
Cypernus planifolius	flatleaf flatsedge
Cypernus polystachyos	manyspike flatsedge
Cypernus retrorsus	pinebarren flatsedge
Dalia carnea var. carnea	whitetassels
Desmondium floridanum	Florida trefoil

Dicanthelium commutatum	variable witchgrass
Dicanthelium dichotomum	cypress witchgrass
Dicanthelium ensifolium	cypress witchgrass
Dicanthelium erectifolium	erectleaf witchgrass
Dicanthelium laxiflorum	openflower witchgrass
Dicanthelium leucothrix	rough witchgrass
Dicanthelium ovale	eggleaf witchgrass
Dicanthelium portoricense	hemlock witchgrass
Dicanthelium strigosum var. glabrescens	roughhair witchgrass
Dichanthelium ariculare	needleleaf witchgrass
Digitaria ciliaris	southern crabgrass
Digitaria filiformis	slender crabgrass
Digitaria serotina	blanket crabgrass
Diodia teres	poor Joe
Drymaria cordata	west Indian chickweed
Dyschoriste angusta	pineland twinflower
Dyschoriste oblongifolia	oblongleaf twinflower
Echinochloa muricata	rough barnyardgrass
Echinochloa walteri	coast cockspur
Eleocharis baldwinii	Baldwin’s spikerush
Elephantopus elatus	tall elephantsfoot
Elionurus tripsacoides	Pan-American balsamscale
Emodea littoralis	beach creeper
Eragrostis elliottii	Elliott’s lovegrass
Eragrostis hypnoides	teal lovegrass
Eragrostis pectinacea var. tracyi	Sanibel Island lovegrass
Eragrostis spectabilis	purple lovegrass
Eragrostis virginica	coastal lovegrass
Erigeron quercifolius	oakleaf fleabane
Erigeron vemus	early whitetop fleabane
Erythrina herbacea	coralbean
Eupatorium mohrii	Mohr’s thoroughwort
Euphorbia polyphylla	lesser Florida spurge
Euphorbia trichotoma	sanddune spurge
Eustachys floridana	twospike fingergrass
Eustachys petraea	pinewoods fingergrass
Fimbristylis cymosa	hurricanegrass
Fimbristylis puberula	hairy fimbry
Froelichia floridana	cottonweed
Fuirena breviseta	umbrella sedge
Gaillardia pulchella	firewheel
Galactia elliottii	Elliott’s milkpea
Galactia regularis	eastern milkpea
Galactia striata	Florida hammock milkpea
Galactia volubilis	downy milkpea
Galium hispidulum	coastal bedstraw

Gaylussacia durnosa	dwarf huckleberry
Geranium carolinianum	cranesbill
Gymnopogon brevifolius	shortleaf skeletongrass
Gymnopogon chapmanianus	Chapman’s skeletongrass
Hedyotis nigrans	diamond flowers
Hedyotis procumbens	innocence
Hedyotis uniflora	clustered mille graine
Hieracium megacephalon	coastalplain hawkweed
Helianthemum corymbosum	pinebarren frostweed
Helianthemum nashii	Florida scrub frostweed
Hydrocotyle umbellate	manyflowered marshpennywort
Hydrocotyle verticillata	whorled marshpennywort
Indigofera caroliniana	Carolina indigo
Ipomoea pandurata	man-of-the-earth
Ipomoea pres-caprae	railroad vine
Ipomoea violacea	heavenly blue morningglory
Lantana involucrate	coastal buttonsage
Lechea cernua	nodding pinweed
Lechea divericata	drysand pinweed
Lechea sessiliflora	pineland pinweed
Lechea torreyi	piedmont pinweed
Lepidium virginicum	Virginia pepperweed
Liatris chapmanii	Chapman’s gayfeather
Liatris gracilis	slender gayfeather
Liatris tenuifolia	shortleaf gayfeather
Licania michauxii	gopher apple
Lupinus diffuses	skyblue lupine
Lygodesmia aphylla	rose-rush
Melochia spicata	bretonica peluda
Mimosa strigillosa	powderpuff
Muhlenbergia capillaris var. capillaries	hairawn
Muhlenbergia capillaries var. filipes	gulf hairawn muhly
Oenothera humifusa	beach eveningprimrose
Oenothera laciniata	cutleaf eveningprimrose
Opuntia humifusa	pricklypear
Opuntia stricta	erect pricklypear
Oxalis comiculata	common woodsorrel
Palafoxia feayi	Feay’s palaflox
Palafoxia integrifolia	coastalplain palafox
Panicum amarum	bitter panicgrass
Panicum anceps	beaked panicum
Panicum dichotomiflorum	fall panicgrass
Panicum hemitomon	maidencane
Panicum hians	gaping panicum
Panicum rigidulum	redtop panicum
Panicum tenerum	bluejoint panicum

Panicum virgatum	switchgrass
Parthenocissus quinquifolia	Virginia creeper
Paspalum bifidum	pitchfork crowngrass
Paspalum blodgettii	coral paspalum
Paspalum caespitosum	blue crowngrass
Paspalum conjugatum	sour paspalum
Paspalum distichum	knotgrass
Paspalum floridanum	Florida paspalum
Paspalum leave	field paspalum
Paspalum monostachyum	gulfdune paspalum
Paspalum plicatulum	brownseed paspalum
Paspalum praecox	early paspalum
Paspalum repens	water paspalum
Paspalum setaceum	thin paspalum
Paspalum vaginatum	seashore paspalum
Passiflora incarnate	purple passionflower
Pectis glaucescens	sanddune cinchweed
Pectis linearifolia	Florida cinchweed
Pectis prostrada	spreading cinchweed
Penstemon multiflorus	manyflower beardtongue
Phyla nodiflora	capeweed
Physalis angustifolia	coastal groundcherry
Physalis walteri	Walter’s groundcherry
Piriqueta caroliniana	pitted stripeseed
Pityopsis graminifolia	narrowleaf silkgrass
Plantago virginica	Virginia plantain
Poinsettia cyanthophora	paintedleaf
Poinsettia heterophylla	fiddler’s spurge
Polygala lutea	orange milkwort
Polygala nana	candyroot
Polypremum procumbens	rustweed
Portulaca pilosa	pink purslane
Portulaca rubricaulis	redstem purslane
Pseudognaphalium obtusifolium	sweet everlasting
Pteridium aquilinum	bracken fern
Ptilimnium capillaceum	mock bishopweed
Quercus geminate	sand live oak
Quercus laurifolia	laurel oak
Quercus myrtifolia	myrtle oak
Quercus elliottii	running oak
Quercus virginiana	live oak
Reimarochloa oligostachya	Florida reimargrass
Rhus copallinum	winged sumac
Rhynchosia michauxii	Michaux’s snoutbean
Rhynchosia minima	least snoutbean
Rhynchospora baldwinii	Baldwin’s beaksedge

Rhynchospora colorata	starrush whitetop
Rhynchospora divergens	spreading beaksedge
Rhynchospora fasicularis	fascicled beaksedge
Rhynchospora fernaldii	Fernald’s beaksedge
Rhynchospora intermedia	pinebarren beaksedge
Rhynchospora latifolia	giant whitetop
Rhynchospora megalocarpa	sandyfield beaksedge
Rhynchospora nitens	baldrush
Rubus trivialis	southern dewberry
Rudbeckia hirta	black-eyed Susan
Ruellia carolinensis	Carolina wild petunia
Ruellia ciliosa	ciliate wild petunia
Sabatia brevifolia	shortleaf rosegentian
Sabatia calycina	coastal rosegentian
Schizachyrium scoparium	little bluestem
Scleria ciliate var. ciliate	fringed nutrush
Scleria triglomerata	tall nutgrass
Senna ligustrina	privet wild sensitiveplant
Serenoa repens	saw palmetto
Sericocarpus tortifolius	dixie aster
Sesuvium maritimum	slender seapurslane
Sesuvium portulacastrum	shoreline seapurslane
Setaria corrugate	coastal foxtail
Setaria macrosperma	coral foxtail
Setaria parviflora	knotroot foxtail
Sida acuta	common fanpetals
Sida elliottii	Elliott’s fanpetals
Sida rhombifolia	Indian hemp
Sideroxylon celastrinum	saffron plum
Smilax auriculata	earleaf greenbrier
Smilax bona-nox	saw greenbrier
Smilax laurifolia	laurel greenbrier
Solidago canadensis	Canada goldenrod
Solidago fistulosa	pinebarren goldenrod
Solidago odora	sweet goldenrod
Solidago sempervirens	seaside goldenrod
Solidago stricta	wand goldenrod
Solidago tortifolia	twistedleaf goldenrod
Sorghastrum elliottii	slender indiangrass
Sorghastrum secundum	lopsided indiangrass
Spermacoce prostrate	prostrate false buttonwood
Sporobolus domingensis	coral dropseed
Sporobolus junceus	pineywoods dropseed
Sporobolus virginucus	seashore dropseed
Stachys floridana	florida betony
Stachytarpheta jamaicensis	native blue porterweed

Stillingia aquatica	water toothleaf
Stillingia sylvatica	queensdelight
Stylosanthes biflora	sidebreak pencilflower
Symphyotrichum adnatum	scaleleaf aster
Symphyotrichum dumosus	rice button aster
Tephrosia chrysophylla	scurf hoarypea
Tephrosia florida	Florida hoarypea
Tephrosia hispidula	sprawling hoarypea
Tephrosia rugelii	Rugel's hoarypea
Tephrosia spicata	spiked hoarypea
Tridax procumbens	coatbuttons
Tridens flavus var. chapmanii	Chapman's purpletop tridens
Triplasis purpurea	purple sandgrass
Uniola paniculata	seaoats
Vaccinium corymbosum	highbush blueberry
Vaccinium darrowii	Darrow's blueberry
Vaccinium myrsinites	shiny blueberry
Verbena scabra	sandpaper vervain
Vernonia blodgettii	Florida ironweed
Vigna luteola	hairypod cowpea
Viola palmate	early blue violet
Vitis aestivalis	summer grape
Vitis cinerea var. floridana	Florida grape
Vitis rotundifolia	muscadine
Woodwardia areolata	netted chain fern
Woodwardia virginica	Virginia chain fern
Yucca filamentosa	Adam's needle