

# PERMITTING RELOCATIONS FOR GOPHER TORTOISES (*GOPHERUS POLYPHEMUS*)

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Natural Resources Division  
Parks, Recreation, & Natural Resources

# Gopher tortoise (*Gopherus polyphemus*)

- Status: State-threatened
- Only in the portion of its range occurring west of the Mobile and Tombigbee Rivers in Alabama
- Protected under the Endangered Species Act
- One of five North American tortoise species
- Spends 80% of time in burrows
- Keystone species because burrows provide habitat for up to 350 other species, called commensals
- Lives in well drained, sandy soils found in long leaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes
- Threats include predation, habitat degradation, fragmentation, and destruction due to development



*Photo courtesy of FWC*

# Gopher Tortoise Biology

- **Lifespan:** Can live up to 40-60 years in the wild
- **Diet:** Over 1,100 plants have been documented
  - Usually forage within 160 feet of their burrows
  - Wiregrass, grasses, legumes, prickly pear cactus, blackberries, paw-paws, gopher apple
- **Burrows:** Provides shelter from heat, cold, drought, and predators



Source: Florida Fish and Wildlife Conservation Commission

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# Recipient Site Permits

- To receive a Florida Fish and Wildlife Conservation Commission (FWC) recipient site permit, candidate properties must meet site suitability criteria for size, soil, and habitat.
- Appendix 3 of the *Gopher Tortoise Permitting Guidelines* outlines all information needed for relocation permit applications and recipient site permit applications
- Site suitability criteria vary according to the level of conservation value provided by the recipient site.
- Four levels of conservation have been defined:
  - **Long-term Protected Recipient Sites**—privately or publicly owned recipient sites that must be protected by a perpetual easement that conforms to the standard format available from FWC.
  - **Recipient Sites for Restocking Public Conservation Lands**—consist of publicly owned lands that are currently managed for conservation.
  - **Short-term Protected Recipient Sites**—have some enforceable protection commitment, but do not meet the definition of “long-term.”
  - **Unprotected Recipient Sites**—provide relocated gopher tortoises protection for at least two years.

## Site Suitability Criteria—Size

### ➤ **Long-term Protected Recipient Sites:**

- Must contain a minimum of 40 acres of contiguous suitable upland tortoise habitat that meet the criteria for soil and vegetation.

### ➤ **Recipient Sites for Restocking Public Conservation Lands:**

- Must contain a minimum of 40 acres of contiguous suitable upland tortoise habitat that meet the criteria for soil and vegetation.

### ➤ **Short-term Protected Recipient Sites:**

- Must contain a minimum of 25 acres of contiguous suitable upland tortoise habitat that meet the criteria for soil and vegetation.

### ➤ **Unprotected Recipient Sites:**

- Must contain a minimum of 25 acres of contiguous suitable upland tortoise habitat that meet the criteria for soil and vegetation.

## ***Acceptable and Desirable Criteria Thresholds for Gopher Tortoise Habitat Within Recipient Sites***

<b>SITE CHARACTERISTIC</b>	<b>ACCEPTABLE CRITERIA</b>	<b>DESIRABLE CRITERIA</b>
Size	> 40 acres	> 250 acres
Soil	> 45 cm (18 in) DWT, with land cover verification for flatwoods sites >31 cm (12 in) (select cases)	>130 cm (51.6 in) DWT
Habitat	> 30% herb cover < 60% canopy cover < 40% improved pasture (minimum 10% shrub cover for improved pasture)	>50% herb cover < 40% canopy cover No improved pasture
Enhanced Conservation Value	Not applicable	Adjacent to protected land, or in Strategic Habitat Conservation Area, or $\geq 75\%$ native upland community (maximum of 0.5 per acre)
Maximum Allowable Gopher Tortoise Density	Two per acre (requires all above criteria be satisfied)	0.5 per acre for each site characteristic that is satisfied, up to a maximum of two additional (four per acre maximum)

# Site Suitability Criteria—Habitat Features

## ➤ Soils

- Sites that meet *acceptable* criteria are moderately well-drained to excessively drained, with a midpoint of the upper limit of the water table value of 45 centimeters (18 inches) or greater.
- Long-term protected recipient sites with a midpoint of the upper limit of the water table (DWT) of 130 centimeters (51.6 inches) or greater meet the *Desirable* criteria threshold and may be eligible for a 0.5 tortoise per acre increase in the site evaluation maximum allowable tortoise density.

## ➤ Vegetation

- Sites with *acceptable* habitat features are those that contain an average herbaceous cover of at least 30% **and** an average canopy cover of 60% or less.
- Improved pasture cannot exceed 40% of the total recipient site unit and must include a minimum of 10% patchy shrub cover to provide shade and refuge from predators.
- Long-term protected recipient sites and public conservation lands recipient sites for restocking with average herbaceous cover greater than 50% and average canopy cover less than 40% meet the *Desirable* criteria threshold and may be eligible for a 0.5 tortoise per acre increase in the site evaluation maximum allowable tortoise density.
- Herbaceous cover (low-growing, soft-stemmed plants) should include broadleaf grasses and, preferably, grass-like asters (sunflower family) and legumes (bean family).

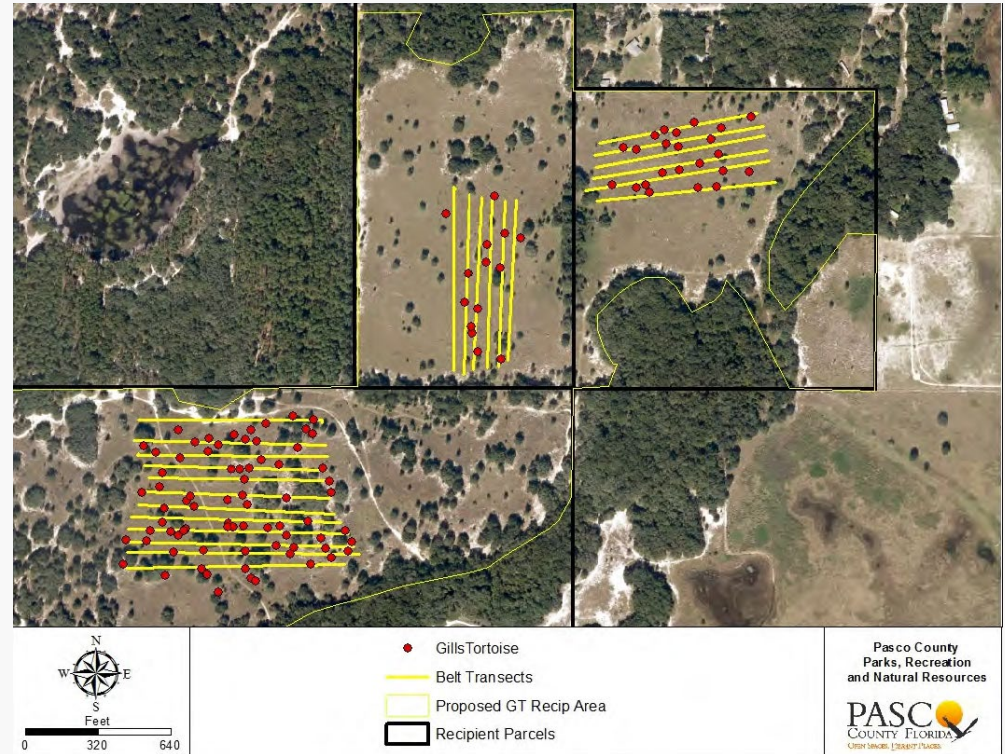
## Enhanced Conservation Value

- Proposed long-term protected recipient sites and recipient sites for restocking public conservation lands may be awarded a 0.5 tortoise per acre increase in the site evaluation maximum allowable tortoise density if FWC determines that the site has enhanced conservation value by any of the following:
  - Adjacency to existing public or private conservation lands that together provide >250 acres of contiguous suitable upland gopher tortoise habitat that satisfy the threshold for *Desirable* criteria;
  - The site boundaries are 100% within a designated Strategic Habitat Conservation Area; or
  - At least 75% of the recipient site is vegetated with one or more of the following native upland plant communities: sandhill, scrubby flatwoods, or dry prairie.



# Baseline Densities

- Must be performed no more than 90 days before the date the permit application is submitted.
- 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.
- Refer to Appendix 4 of the *Gopher Tortoise Permitting Guidelines* for burrow survey methods on development (donor) and recipient sites



# Stocking Rates

- **Site Evaluation Stocking Rate**—the maximum allowable gopher tortoise density
  - A site that meets all three *Acceptable* criteria will be assigned an evaluation stocking rate of two tortoises per acre.
  - Evaluation stocking rates for long-term protected recipient sites and recipient sites for restocking public conservation lands may increase in increments of 0.5 individual per acre for each *Desirable* criterion that is met, up to a maximum of two additional individuals (four per acre total).
- **Determination of Final Stocking Rate**—equals the site evaluation stocking rate minus the baseline density,
  - Ex. Final stocking rate = (site evaluation maximum allowable density) - (baseline density).
  - For all calculations involving stocking rate, consider only tortoises greater than or equal to 130 mm (5 inches) in carapace length. Eggs and juvenile tortoises less than 130 mm are not considered in these calculations because of their low survivorship and minimal effect on the recipient site forage base.
  - Recipient sites for restocking public conservation lands shall be stocked at no more than 50% of the site evaluation stocking rate.

## Enclosure Methods

- **“Soft Release”** required for all relocation permits, where tortoises are restrained inside an enclosure at the recipient site for a minimum period of six months
- **Temporary enclosures must:**
  - Be of any material that prevents the passage of tortoises of all sizes released to the site.
  - Be buried at least eight inches into the ground to prevent tortoises pushing beneath the enclosure and must be at least two feet high and of sufficient robustness to prevent tortoises pushing or climbing over.
  - Provide adequate shade and cover from predators (minimum 10% patchy shrub cover).
  - Be regularly monitored and maintained to repair damage and maintain the integrity of the temporary enclosure.
- Tortoises observed above ground within the temporary enclosures shall be monitored weekly for the first month and monthly thereafter to document any problems (e.g., illness, mortality, evidence of human poaching, emigration).
- The FWC must be contacted if decreases in tortoise numbers are documented.

## Crews Lake Long-Term Protected Recipient Site

- Natural Resources Division has permitted the Crews Lake Gopher Tortoise Recipient Site with the FWC. This site was permitted for a total 144 tortoises.
- The Crews Lake Gopher Tortoise Recipient Site shall be managed and monitored according to the most current FWC gopher tortoise permitting guidelines and FWC Gopher Tortoise Management Plan.
- This site is for gopher tortoise relocations that are necessary for the construction of ***Pasco County Infrastructure Projects ONLY*** including, but not limited to, stormwater, roads, facilities, utilities projects, and Pasco County School Board projects.
- Private entity development projects shall **NOT** be accepted at the Crews Lake Gopher Tortoise Recipient Site.

## Crews Lake Long-Term Protected Recipient Site, continued

- Upon an inquiry from a department or Pasco County contractor, Natural Resources staff shall review the ledger and coordinate with the applicable department and consultant. If the estimated number of tortoises anticipated from the Donor Site is acceptable, staff shall send a Reservation Letter to the applicable department and consultant.
- Departments shall be required to pay a discounted recipient site fee of \$3,000 per gopher tortoise. There will be no Recipient Fee for sub-adult gopher tortoises (carapace length less than 5”).
- Donor site owner shall be required to pay a Mitigation Contribution to FWC for tortoises relocated to Crews Lake Recipient Site.
- The Department or Contractor is responsible for installation of the Temporary Enclosure Silt Fencing.

## Additional Resources

- FWC gopher tortoise permitting guidelines

<https://myfwc.com/media/11854/gt-permitting-guidelines.pdf>

- FWC gopher tortoise management plan

<https://myfwc.com/media/1819/gt-management-plan.pdf>

- FWC's wildlife alert hotline

- (888)-404-3922 or text [Tip@myFWC.com](mailto:Tip@myFWC.com)

- Permit-specific inquiries: (850)-921-1031

- General tortoise inquiries: (850)-921-1030

- Regional gopher tortoise conservation biologist: (863)-648-3200