

**TRANSLOCATION OF DESERT TORTOISE FROM THE RIDGECREST SOLAR MILLENNIUM
PROJECT SITE: PLAN DEVELOPMENT GUIDANCE**

**U.S FISH AND WILDLIFE SERVICE
VENTURA FISH AND WILDLIFE OFFICE**

15 April 2010

DOCKET

09-AFC-9

DATE APR 15 2010

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Solar Millennium should consider the feasibility of avoidance, then minimization prior to initiating development of a translocation plan. Ideally, the proposed project will be located outside of occupied desert tortoise habitat. If this is not possible, it is preferable to minimize the projects adverse effects such that desert tortoises can remain on the site, survive, and contribute to a sustained population. If this is not possible, then translocation is needed. The Ventura Fish and Wildlife Office is providing the following general guidance based on the best scientific information currently available. Guidance was sent to CEC in January based on the best scientific information available then; USFWS, with DTRO, have been revising that guidance and the following is based on what we currently have on hand. This is a summarized version of what DTRO (with the other wildlife agencies' concurrence) will be coming out with soon. It is a general step by step approach for determining data collection and data plan development.

I. Determine how many tortoises may be affected by the proposed action

Conduct pre-project surveys of the action area according to the most recent FWS guidance to determine how many tortoises may be affected by the proposed action (can be found at http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/). Surveys should be conducted during the tortoises most active season to increase the likelihood of observations. Generally, active periods are late March - May and September - October, although climatic conditions may prolong aboveground activity outside of these months. Provide data on the number and location of carcasses found, as well.

I. Identify potential translocation/relocation (recipient) and control site(s)

We are encouraging applicants to select more than one recipient site due to potential conflicts with disease status, density, and/or other factors. This should be done in coordination with Federal and State wildlife and land management agencies, and obtain approval of the landowner/manager for use of the sites. Recipient sites should: be a minimum of 10km from areas expected to be developed; be at least 15km from major unfenced roads or highways; be equal in size and contiguous with the project site (i.e., no barriers to movement); have no designated rights-of-way (ROWs) or other encumbrances; support desert tortoise habitat suitable for all life stages; be managed for conservation so that potential threats from future impacts are precluded in perpetuity. Some recipient sites may need to be temporarily fenced (partially or completely) if adjacent areas are not protected or tortoise movements need to be restricted.

Potential control sites should be equivalent in habitat type/quality, desert tortoise population size/structure, and disease status as the project and recipient sites. Control sites should be a minimum distance of 10km from the project site if the site is unfenced or no substantial anthropogenic or natural barrier exists to prevent the interaction of control, resident, and translocated tortoises.

II. Estimate tortoise densities at agreed upon recipient and control sites using the most recent Pre-project Survey Protocol

Document observations of signs of disease and data on carcasses. Tortoises should be observed closely, but not handled. Additional permits are not needed for these surveys.

III. Develop your preliminary translocation plan

It's recommended that this plan and the proposed project are approved and permits secured before subsequent steps are conducted. All activities associated with handling tortoises have to be conducted under the BO, or an incidental take permit.

IV. Construct Fence around Project area (treat as linear project)

This can occur in any season after project approval. If constructed during DT active season, clearance surveys have to be done within 30 days of the fence construction. If done outside DT season, clearance surveys have to be conducted during the next DT active season.

V. Confirm DT density (and disease status) on recipient and control sites

Survey using pre-project survey protocol transects, conduct health assessments and attach transmitters. If recipient sites are < 5km from project site with no barrier to impede movement, visual health assessments (by those approved by agencies under BO or permit) should be conducted on all encountered. No disease test (via blood samples) is needed. An equal number of DT that will be relocated/translocated from the project site need to be assessed, assigned a unique identifier (provided by FWS), fitted with a transmitter, and monitored on the recipient and control sites.

If at any time during the health assessments a DT with visual signs of disease is encountered, that animal should be taken to the Desert Tortoise Conservation Center in Las Vegas. SM will be charged a flat fee for each tortoise sent to the recovery center.

For recipient sites >5km from the project site, health assessments of resident tortoises include disease testing (via blood samples) by an approved and permitted individual have to be conducted. Blood samples can be drawn between May 15 and October 31. Results from health assessments, including blood work, will be valid for 1 year.

VI. Prepare project site for translocating/relocating desert tortoise; Conduct protocol clearance surveys

There are two options for monitoring tortoises before relocation and/or translocating them. This step can be done at the same time as step VI (confirming DT density on recipient and control sites). Whichever option is chosen, it will be explained in the translocation plan.

Option 1) *Ex situ*: Construction of individual quarantine pens off-site is optional for tortoises located during clearance surveys that need disease testing (i.e., >5km translocation from project site). If animals are quarantined in pens, they must have access to burrows, forage, and water and cannot be held longer than one year. Animals cannot come into contact with one another while being held. All quarantine facilities and animal husbandry plans should be developed by a qualified veterinarian and approved by the DTRO.

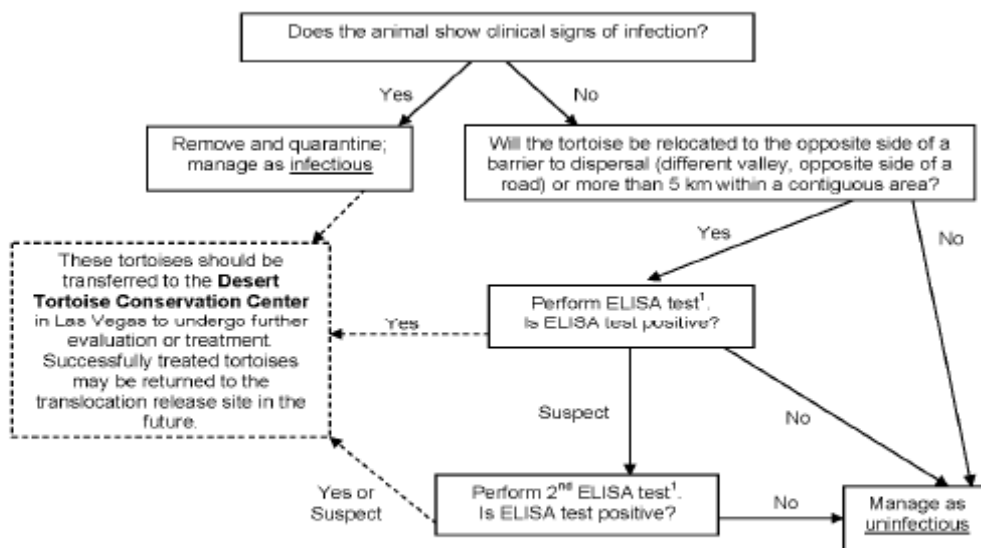
Option 2) *In situ*: Tortoises can be monitored on-site via telemetry (after construction of desert tortoise exclusion fence). This option could be used when animals need to be disease tested before translocating, or if more than 10 tortoises will have to be relocated from the project site. Tortoises will have to be monitored until wildlife agencies have reviewed and approved results of the complete health assessments and disposition plans. As the clearance surveys are conducted, health assessments, including blood draws, assignment of unique identifiers (provided by USFWS), and affixing transmitters should be performed on each tortoise as it is located. Telemetry monitoring would then be conducted a minimum of once per month with more frequent monitoring under certain

circumstances. Data to be collected will be standardized for all projects. If animals are to be housed on the project site, additional disease testing will be required for all individuals within 500m of a seropositive or sick animal prior to translocation.

Clearance surveys are complete when no **additional** tortoises are detected during two consecutive surveys (If monitoring *in situ*, every tortoise would have a transmitter attached). (These surveys are not necessarily to **clear** the project site of tortoises, yet. Their purpose is to identify every tortoise that will need to be moved. If there were less than 10 tortoises on site, and were being relocated < 5km off-site, the animals could be moved from the site at this time.) Detail data will be collected on each individual (exact point found during survey before and after translocation, location description, unique ID#, etc). If tortoises will be monitored *ex situ*, a transmitter will not be attached until final translocation from the quarantine site.

After health assessment results (including blood work) and disposition plans are approved, tortoises can be relocated and/or translocated. Translocation should proceed to the selected recipient site(s) in a manner consistent with existing protocols, this guidance, and the project-specific translocation and monitoring plan relative to time of year, local/regional weather patterns, actual weather conditions during the proposed release event, and condition of the donor and recipient sites (*e.g.*, degraded, recently burned). This must be done in the spring (fall could be considered) and according to the most recent agency guidelines by approved individuals.

Health Assessment Decision Tree



¹ELISA tests, as developed by the University of Florida, must be conducted for both *Mycoplasma agassizii* and *Mycoplasma testudineum*.

Health assessments will include a physical inspection (*i.e.*, notation of clinical signs of acute disease infection, body mass, and carapace measurements). The need to draw blood from tortoises within the project area depends on the presence or absence of clinical signs and the distance that tortoises will be translocated.

VII. Post-translocation monitoring (minimum 5 years)

Monitoring translocated, resident, and control tortoise. Monitoring refers to pinpointing the exact location of the desert tortoise and attempting to view it without disturbance unless entrapment or a scheduled body condition assessment requires handling.

Translocated tortoises should be monitored as follows:

- Once within 24 hours of release,
- A minimum of twice weekly for the first two weeks, and

- A minimum of once a week during the active season (approximately March through early November) and once every other week from November to February starting after the third week of release.

Resident and control tortoises should be monitored as follows:

- A minimum of once a week during the active season (approximately March through early November); and
- A minimum of once every other week from November to February.

Annual assessments of condition (*i.e.*, measurements of body mass and carapace, health assessment, calculation of body condition) should be conducted both prior to and subsequent to over-wintering. Any health problems observed (*e.g.*, rapid declines in body condition, perceived outbreaks of disease, mortality events) should be reported to the USFWS and State wildlife agency such that implementation of approved adaptive management measures occurs in a timely fashion. Mortalities should be investigated as thoroughly as possible. Information on health concerns or mortalities, including tortoise unique identifier, location, and cause of death (if determined) should be provided to USFWS and State wildlife agency upon discovery.