

**Energy Commission and CDFG Comments and Questions
Victorville 2 Desert Tortoise Translocation Plan
4/23/08**

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1. Project proponent should come to the workshop ready to discuss the methods that will be used for the translocation of desert tortoise and the phases of construction required to implement this plan.

2. Page 6, says "All at-risk desert tortoises must be translocated from the permanent surface disturbance area of the VV2 Project's power plant site to a suitable offsite habitat..." and "At-risk tortoises found in temporary surface disturbance areas associated with the staging areas and linear utility features, and which cannot be avoided, will be moved to an adjacent unrestricted location within the Project right-of-way, or to adjacent lands where approved by the respective landowner." This plan indicates that the staging areas' desert tortoises would be moved out of harm's way rather than permanently translocated as would be done for desert tortoises found on the power plant site and solar field. Due to the proximity of the staging areas, this plan puts those moved desert tortoises in danger during the project's operations. Moving (rather than translocating) desert tortoises in the transmission line corridor is OK but any desert tortoises found in other areas (e.g., the staging areas, which staff considers permanently impacted) should be translocated along with those found at the power plant site. Please reword the section as follows:

"All at-risk desert tortoises must be translocated from the ~~permanent~~ surface disturbance areas of the VV2 Project's power plant site and staging areas to a suitable offsite habitat..." and "At-risk tortoises found in temporary surface disturbance areas associated with the ~~staging areas and~~ linear utility features, and which cannot be avoided, will be moved to an adjacent unrestricted location within the Project right-of-way, or to adjacent lands where approved by the respective landowner."

3. Please provide more detail on the contingency plan. For example, please address the following questions:
 - a. Is there likely to be sufficient room onsite for contingency locations?
 - b. If it becomes infeasible to use contingency locations on the project site, what offsite options or alternate contingency plans are being considered?

4. Consider unlinking the translocation area from the compensation area to allow greater flexibility in schedule to secure suitable compensation land and the timely completion of the translocation plan. This could involve translocating desert tortoises to public (e.g., CDFG or other non-BLM) land with landowner consent for translocation and regular monitoring.

5. Please increase the monitoring requirement to 18 months. Given the long-lived nature of the species, 6 months is inadequate to assess survivorship following translocation. The monitoring can be simple tracking of individuals through time (i.e., simply recording that desert tortoises were found in burrows rather than checking their status is sufficient).
6. Please define the following project/construction description terms:
 - a. Facility (Is this just the power plant or does it include the solar field)
 - b. Power block (Does this include only the actual footprint of the power block or does it include any buffer or other adjacent development like fences?)
 - c. Initial work zones (Again, does this include any buffer? How are the zones delineated?)
7. Please provide a more detailed description of the single/double pass survey method and "occupied habitat clearance surveys."
 - a. Where will the passes occur (i.e. only on the power plant site and solar field?)?
 - b. How do this plan's survey methods differ (if at all) from the USFWS protocol?
 - c. How do the passes differ (if at all) from the occupied habitat clearance surveys?
 - d. Describe the specific activities involved in clearance.
8. Please add a section on methods to address and protect juvenile desert tortoises found during clearance surveys that are too small for transmitters.
9. Please annotate all fencing references in Table 1 with "temporary" or "permanent." The description for temporary fencing seems to be the same as permanent design specifications in this case (Is that true?). Also, the permanent desert tortoise fencing around the main site should be attached to any chain link fencing that is being used not to a three strand fence as in Figure 3. Finally, the last sentence of this paragraph should state something like " at least monthly, as well as during storms, and after high wind events (Sand and debris should be removed as necessary) or weekly if cutting by OHVs becomes a problem..."
10. When will permanent fencing around the power plant site and solar field be installed?
11. This plan should mention that the roads to the site will be temporarily fenced during construction (Colusa and Adelanto).
12. What will occur if desert tortoises are found during a double pass when temperatures are lethal? The plan specifies that there will be no

translocation during such temperatures, but there should also be no moving of desert tortoises under these conditions.

13. In the construction sequence/phasing description and table, please specify the locations where events will occur (e.g., it appears that partial grading of the site will occur at the power block location, if so, please specify).
14. Regarding disease testing, where and by whom will this be performed? This person must have an MOU with the Department to handle desert tortoises.
15. Please clarify the temperature guidelines, their sources, location of measurement (e.g., ground vs. air), and the associated allowed/prohibited activities (e.g., transport, moving, "clearance").
16. Change references to a 40 to 50-acre temporary holding area to "a holding area of not more than 100 acres." The amount of land should be determined within this guideline based on the number of individuals to be held.
17. Please revise the plan to include the new compensation land location descriptions and maps. If the exact location where compensation will occur remains unknown, please provide a plan and timeline for resolving this.
18. Insert on Page 10, second paragraph:

The permittee shall make every effort when handling tortoises to release each desert tortoise within 1/2 hour of its capture. Captured animals shall be released at the same location or beneath a nearby shrub or in their assigned translocation site, where they were initially observed. Except during brief 1-minute periods when plastron measurements and photographs require that animals be turned over, animals shall remain in an upright position at all times.

When live desert tortoises are transported by vehicle, a means of cushioning the desert tortoise shall be used to minimize jarring, bumping, and sliding. Desert tortoises shall not be placed in automobile trunks, on floorboards in an unconfined manner, in the bed of a truck over the exhaust system, or left unattended in vehicles. Each tortoise shall be individually transported in its own, clean plastic container. Containers may be reused only after being disinfected with a 10% bleach solution and dried.

During all handling procedures, desert tortoises must be treated in a manner to ensure that they do not overheat, exhibit signs of overheating (e.g., gaping, foaming at the mouth, hyperactivity, etc.),

or are placed in a situation where they cannot maintain surface and core temperatures necessary to their well-being. Desert tortoises must be kept shaded at all times until it is safe to release them. For the purposes of this permit, ambient air temperature must be measured in the shade, protected from wind, and at a height of 2 inches above the ground surface.

No desert tortoise shall be captured, moved, transported, released, or purposefully caused to leave its burrow for whatever reason when the ambient air temperature is above 95 degrees Fahrenheit (35 degrees Celsius). No desert tortoise shall be captured if the ambient air temperature is anticipated to exceed 95 degrees Fahrenheit before handling or processing can be completed. If the ambient air temperature exceeds 95 degrees Fahrenheit during handling or processing, desert tortoises shall be kept shaded in an environment, which does not exceed 95 degrees Fahrenheit, and the animals shall not be released until ambient air temperature declines to below 95 degrees Fahrenheit. For translocation, captured tortoises may be held overnight and moved the following morning within these temperature constraints.

Radio transmitters shall be attached to desert tortoises similar to the manner described in Boarman *et al.* (1998). Radio transmitters and antennae must be mounted so as not to impede growth or the daily activities of the desert tortoise such as burrow construction, righting of overturned desert tortoises, and mating. The permittee has the responsibility to ensure that the well-being of the desert tortoise is not compromised by either the process of attaching radio transmitters or the location and operation of these devices.

19. Insert on page 11, Paragraph 1: Placement and installation of radio antennae on desert tortoises shall be done in a manner that eliminates voids between the carapace and the antennae (i.e., the antennae attachment shall be flush with the carapace). Antennae may be left trailing unattached behind the tortoise. The total mass of the instrumentation that is attached to each desert tortoise including antenna, epoxy, etc., shall not exceed 10 percent of the animal's body mass. Radio transmitters that contain weak batteries shall be removed or replaced before the batteries are likely to fail.

A. Radio transmitters may temporarily (up to 48 hours) be attached to desert tortoises with duct tape, in situations in which full processing cannot be completed to comply with temperature guidelines, or when light levels do not allow for processing.

B. Any shell damage from attachment or removal of radio transmitters

shall be reported in writing within 3 working days to the Department.

- C. Adult transmittered desert tortoises shall be monitored at approved intervals year-round to ensure that animals are not lost due to long-range movements beyond the area capable of being detected by telemetry equipment. Monitoring is important even during the inactive period (when an animal is brumating). If a desert tortoise has a malfunctioning transmitter it can be replaced before the animal becomes active. Juvenile tortoises with shorter life-span transmitters than those used on adults shall be monitored at least once a week during the active season.
- D. The permittee shall ensure that transmitters and other equipment are removed from all desert tortoises that can be located prior to end of monitoring timeframes. In addition, the permittee shall exercise the best possible effort to locate and remove non-functioning transmitters and other equipment from all desert tortoises. This effort shall include thorough searches of each desert tortoise home range and previously occupied shelter sites. All efforts to locate such desert tortoises shall be documented within the annual and final reports described below, by an estimate of the number of hours spent or areas covered while searching for desert tortoises with non-functioning transmitters and other equipment. Deviation from these conditions requires prior written approval from the Department.

These sections may need their own paragraphs:

If a desert tortoise voids its bladder as a result of being handled, the animal shall be rehydrated. The process of rehydrating a desert tortoise will take place at the location where the animal was captured (or to be released, for translocated tortoises), and consist of placing the desert tortoise in a tub with a clean plastic disposable liner. The amount of water that is placed in the lined tub shall not be higher than the lower jaw of the animal. Each desert tortoise shall be rehydrated for a minimum of 10 to 20 minutes. During the period when the desert tortoise is in the tub, the tub will be placed in a quiet protected area. Desert tortoises shall be soaked individually. Rehydration of desert tortoises (that have voided their bladders) via the nares is not permitted.

The permittee shall limit vehicle use within the translocation site to existing routes that are designated as being open to vehicle use. Within desert tortoise habitat and during times when desert tortoises

are likely to be active, and shall not operate motor vehicles in excess of 25 miles per hour on dirt roads, and they shall watch for and avoid all desert tortoises on the road.

If any desert tortoise mortality is suspected as a result of any part of the study methodology (*e.g.*, radio transmitter prevents a tortoise from righting itself or causes it to get caught in vegetation), the permittee shall contact the Department immediately.