

APPENDIX – DESERT TORTOISE

Standard Instructions for Construction Activities within Desert Tortoise Habitat Helendale Facility

(Biological Opinion on Routine Operations at the Lockheed Martin Aeronautics Company Radar Measurement Facility, Helendale, San Bernardino County, California 1-8-05-F-06)

Pre-Construction Activities

1. SELLER shall perform pre-construction surveys for Desert Tortoises (DT), burrowing owl, badger and kit fox dens, including within 90 ft. of all project facilities and access.
2. Burrowing owl nesting surveys (if in nesting season) shall be completed by SELLER within 30 days prior to planned construction.
3. Pre-construction surveys for nesting birds and bat colonies will be completed in the project locations and in adjacent habitat areas by the SELLER and any nests observed shall be identified and clearly marked.

Construction Monitoring

1. Prior to the start of work, on-site crew members SELLER personal working on the project shall attend a Desert Tortoise Awareness training.
2. If suitable habitat is present to support sensitive biological resources, SELLER shall conduct construction monitoring during all construction activities and preconstruction mobilization.
3. SELLER shall ensure monitors are present during all ground disturbing activities to either actively or passively relocate special status wildlife species.
4. Monitors shall walk immediately ahead of equipment during ground disturbing activities.
5. SELLER shall ensure a biologist is present onsite during all construction activities to move DTs missed during clearance surveys.
6. Heavy equipment shall enter the construction zone to perform clearing, grubbing, leveling and trenching activities only after the clearance surveys have been performed.
7. The biologist has the authority and shall stop work if a non-compliance issue related to desert tortoise is observed.
8. SELLER shall clearly mark sensitive biological resource areas and check these exclusion zones to ensure they remain intact.
9. SELLER shall clear all project footprint vegetation outside nesting season when practicable.

Daily Checks

1. SELLER shall check active construction areas where animals subject to this Appendix may have become trapped prior to construction commencing for the day.
2. SELLER shall report incidental sightings of special status bird species, ravens, and all raptors within the project area.

3. SELLER shall inspect the site to ensure that structures were installed to prevent entrapment or allow escape during periods of inactivity.
4. SELLER shall ensure all potential pitfalls outside the fenced area are backfilled at a sloped with a 3:1 ratio at the ends to provide a ramp for wildlife and covered completely to prevent wildlife access or fully enclosed with DT fence.
5. SELLER shall inspect potential pitfalls outside the DT fence at the beginning, end of, and periodically through the day.
6. SELLER shall record information relative to invasive weeds in monitoring reports.
7. SELLER shall delineate boundaries of areas to be disturbed prior to construction in coordination with the monitor.
8. All disturbance, project vehicles, and equipment shall be confined to delineated areas.
9. All vehicles turning around should do so in the planned impact areas or areas previously disturbed.
10. SELLER shall clearly mark new access and vehicular traffic shall be confined to existing routes to and from project sites.
12. SELLER shall post new access roads to the site with a speed limit at not to exceed 25 mph.

General Protection Measures

1. No vehicle outside of the fenced area shall be moved without inspection underneath. Any tortoise located under a vehicle shall be given 15 minutes to move on its own before being moved out of harm's way by a biologist.
2. Any structure with an internal diameter greater than 3", stored less than 8 inches aboveground outside the DT fence shall be checked by SELLER for desert tortoises before the material is moved, buried or capped.
3. Water applied to dirt roads and construction areas for dust abatement shall be the minimum amount necessary to prevent puddles.
4. A monitor shall patrol watered areas to ensure water does not accumulate.
5. Road killed animals or other carcasses detected by personnel on roads associated with the project areas shall be promptly removed by SELLER for disposal.
6. The biologist shall be informed of any hazardous spills immediately by the SELLER. Spills shall be immediately cleaned up for proper disposal by SELLER.
7. SELLER shall clean dirt and mud from vehicles and equipment prior to entering the project work areas to ensure they are clean of seeds, roots and rhizomes that promote the spread of invasive weeds.
8. New vehicles and equipment shall be inspected by SELLER before entering the project area.
9. Vehicles frequently entering and exiting the site shall be inspected and washed on an as-needed basis.
10. Equipment servicing shall take place only at an authorized area.
11. SELLER shall place all food waste in self-closing containers and remove such from the site daily.
12. SELLER's personnel shall not feed wildlife.
13. No pets or firearms shall be brought onto the project except for law enforcement personnel.

Fencing

1. Fencing can be used around linear features when a monitor shall not be present.
2. All fence alignments shall be flagged and surveyed within 24 hrs. by SELLER. prior to the initiation of fence construction.
3. If tortoises were moved out of harm's way during fence construction, fencing should be checked by SELLER two times daily for 7 days to ensure tortoise is not pacing the fence.
4. SELLER shall inspect permanent fence monthly and within 24 hrs. of major rainfall events. Any damage to fence shall be temporarily repaired immediately and permanently repaired within 48 hrs. of observing damage.
5. SELLER shall inspect temporary fence weekly, and within 24 hrs. of rainfall events. Any damage shall be repaired immediately upon discovery, and if a DT may have entered the site, the biologist shall survey the area for any individuals.

Clearance surveys

1. SELLER shall conduct clearance surveys during April to May and September to October.
2. Transect width for clearances shall be no greater than 4.6m (15ft).
3. Prior to clearance, a DT exclusion SELLER shall install fencing.
4. All target species of cactus shall be identified and reported by SELLER during clearance surveys for relocation.
5. Clearance of linear components can be done during any season and shall provide 100% coverage of all areas to be disturbed and an additional transect along both sides of the fence alignment.
6. Fence-line surveys shall be 13.7m (45ft) wide on either side of the centerline along the alignment.
7. DTs located during clearance of access roads shall be moved by SELLER out of harm's way to within 500m (1640 ft.) of the disturbance area.
8. Clearance shall consist of a minimum of two surveys (from opposing directions) covering 100% of the project area.
9. If a tortoise is located on the second survey, a third survey shall be conducted by SELLER.
10. All DT burrows and burrows constructed by other species that might be used by desert tortoises shall be examined to assess occupancy by DTs.
11. All potential DT burrows located during clearance surveys during active season shall be excavated by hand and shall be collapsed once absence has been verified.