

Appendix E

Special Status Species Take and Avoidance Measures

Take Avoidance Measures for Individual Species

In order to avoid and/or minimize negative effects on listed, candidate, or proposed species and critical habitat, various take avoidance measures will be implemented as part of the Proposed Action. Take avoidance measures for individual species are described below.

Take Avoidance and Minimization Measures for Valley Elderberry Longhorn Beetle

The Valley Elderberry Longhorn Beetle (VELB) is currently proposed for de-listing by the U.S. Fish and Wildlife Service (FWS). The take avoidance and minimization measures listed below would no longer be required if the species is officially de-listed.

Temporary construction fencing shall be constructed to provide a minimum setback of at least 20 feet from the single documented potential host elderberry plant.

A tailgate education program on VELB shall be given to each construction worker and all personnel working within the project area to avoid adverse effects on the beetle.

Signs shall be placed every 50 feet along the edge of the exclusion fence to help identify the area as a protected area for the VELB for the duration of the project. Restoration and maintenance activities shall be implemented if activities occur within the 20-foot buffer zone. Restoration and maintenance activities include:

- Restore any damage done to the 20-foot buffer area during construction. Provide erosion control and re-vegetate with appropriate native plants.
- 20-foot Buffer areas must continue to be protected after construction from adverse effects of the Project. Measures such as fencing, signs, weeding, and trash removal are usually appropriate.
- No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant shall be used in the buffer areas.
- Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing shall occur within 5 feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment).

Take Avoidance and Minimization Measures for California Tiger Salamander

In order to avoid and/or minimize negative effects to the California tiger salamander (CTS) and its critical habitat, various take avoidance measures will be implemented as part of the Proposed Action. These measures are designed to be consistent with the recovery objectives for CTS.

Prior to future ground disturbance within the Millerton New Town (MNT) Specific Plan Area (where ground disturbance is defined as major earth work associated with lot leveling, infrastructure construction and street improvements, not construction of individual homes on already-leveled pads), a temporary one-way barrier approved by the FWS shall be constructed along the limits of grading and other disturbance. A qualified biologist shall inspect this area prior to installation. The barrier shall consist of a pipeline constructed of 12-inch-diameter polyvinyl chloride (PVC) pipe placed along the limits of grading and other disturbance. On the

interior (construction) side of the barrier, a gently-sloping (no more than a 3:1 grade), compacted earthen ramp shall be constructed to allow CTS to climb to the top of the barrier and fall to the outside of the barrier. Since no ramp will be provided on the exterior side, CTS will be precluded from entering the site. The one-way barrier must be installed and left in place over the course of one breeding season (between 15 October and 31 March) prior to the commencement of ground-disturbing activities. This corresponds with the period in which CTS are most likely to be foraging above-ground or moving between upland sites and breeding sites. Following the first significant rainfall (>0.25 inches) in October or later, this barrier will be inspected weekly by the on-call biologist and/or construction foreman/manager and maintained and repaired as necessary to ensure that it is functional and not a hazard to CTS on the outside of the barrier. Weekly inspections shall be continued through 31 March. The FWS shall approve any relocation of CTS. Following that initial period, the barrier must be in place whenever ground-disturbing activities will occur between 15 October and 31 March until all development activities have been completed. Weekly inspections of the barrier shall again be conducted per the protocol previously described for the pre-ground-disturbance phase. The barrier may be removed for ground disturbance occurring between 1 April and 14 October but must be re-installed if ground disturbance will occur outside this period.

A FWS-approved qualified biologist shall be available by phone during all activities, including groundbreaking, earthmoving, and construction activities that could result in the take of CTS. The qualified biologist will visit the site weekly during the period that such activities are taking place.

Prior to project groundbreaking, the applicant shall submit to the FWS for its review the qualifications of its qualified biologist(s). The biologist(s) shall be given the authority to stop any work that may result in the take of CTS. The on-call biologist should be approved by the FWS to relocate individual CTS that are at risk from development activities. The biologist shall monitor any translocated animal until it is determined that predators or other dangers do not imperil it. CTS shall be translocated to appropriate habitat for their life cycle. CTS found in burrows shall be translocated to burrows and not to aquatic habitat. If the biologist(s) exercises the authority to stop work or to translocate an animal, the FWS shall be notified by telephone and electronic mail within one working day. The on-call biologist will be the contact for any employee or contractor who might inadvertently kill or injure a salamander or anyone who finds a dead, injured, or entrapped salamander. The on-call biologist shall possess a working cellular telephone whose number shall be provided to the FWS.

A readily available copy of the Avoidance and Minimization Measures shall be maintained by the construction foreman/manager on the construction site whenever earthmoving and/or ground disturbance is taking place. The name and telephone number of the construction foreman/manager shall be provided to the FWS prior to project groundbreaking.

Under direction of the qualified biologist, orange plastic mesh fencing at least 4 feet in height shall be erected around the portion of any designated conservation areas where disturbance is unnecessary in order to avoid unintentional disturbance to such areas during development.

Where these areas overlap with the one-way barrier fence, only the barrier fence shall be required.

Project-related vehicles shall observe a 15 mile-per-hour speed limit in all Project areas, except on City and County roads. Because CTS are most active on rainy nights, nighttime construction shall be minimized to the maximum extent practicable.

If at any time a CTS is discovered in the development area by the on-call biologist or anyone else, the authorized on-call biologist shall move the animal to a nearby safe location.

Because CTS may take refuge in cavity-like and den-like structures such as pipes and may enter stored pipes and become trapped, all construction pipes, culverts, or similar structures that are stored at a construction site for one or more overnight periods will be either securely capped prior to storage or thoroughly inspected by the authorized on-call biologist and/or the construction foreman/manager for these animals before the pipe is subsequently buried, capped, or otherwise used or moved in any way.

To prevent inadvertent entrapment of CTS during development, the on-call biologist and/or construction foreman/manager shall ensure that all excavated, steep-walled holes or trenches more than 1-foot deep are completely covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks and inspected by the on-call biologist. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals by the on-call biologist and/or construction foreman/manager.

To eliminate an attraction for the predators of CTS, all food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in solid, closed containers (trash cans) and removed at the end of each working day from the entire construction site.

An employee education program shall be conducted for contractors and their employees involved in the project. The program shall consist of a brief presentation by persons knowledgeable about CTS. The program shall include the following: a description of the species and its habitat needs, photographs, an explanation of the legal status of the species and its protection under the Endangered Species Act (ESA), and a list of measures being taken to reduce effects to this species during project development. A fact sheet conveying this information shall be prepared for distribution to the above-mentioned people and anyone else who may enter the construction site. Upon completion of training, employees shall sign a form stating that they attended the training and understand all the conservation and protection measures. The original form(s) shall be submitted to the FWS.

A representative shall be appointed by MNT development proponents who shall be the contact source for any employee, contractor, or agency personnel who might inadvertently kill or injure a CTS or who finds a dead, injured, or entrapped individual. The representative shall be identified during the employee education program. The representative's name and telephone number shall be provided to the FWS and the Bureau of Reclamation (Reclamation).

If a CTS, or any animal that construction personnel believe may be of this species, is encountered during project construction, the following protocol shall be followed:

- All work that could result in direct injury, disturbance, or harassment of the individual animal shall immediately cease.
- The foreman and on-call biologist shall be immediately notified.
- The on-call biologist shall immediately notify the FWS and Reclamation via telephone or electronic mail when a CTS is encountered that may be in harm's way.
- The FWS authorized on-call biologist shall move the CTS to a safe nearby location and monitor it until he/she determines that predators or other dangers do not imperil the animal(s).

Tightly woven fiber netting or similar material shall be used for erosion control or other purposes at the project site to ensure that CTS do not get trapped. This limitation shall be communicated to the contractor through use of Special Provisions included in the bid solicitation package. Plastic monofilament netting (erosion control matting) or similar material shall not be used in construction areas because CTS may become entangled or trapped in it.

If required during construction, pesticides (e.g., rodenticides) and herbicides shall be used in construction areas only in a manner that avoids primary or secondary poisoning of CTS and the prey populations on which they depend within the Action Area. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other appropriate State and Federal regulations, as well as additional project-related restrictions deemed necessary by the FWS.

During all construction in the vicinity of White Fox Creek and its tributaries, Best Management Practices (BMPs) shall be used to minimize erosion and impacts to water quality to protect water quality in downstream areas used by CTS and/or other listed species.

Take Avoidance Measures of Vernal Pool Fairy Shrimp

One vernal pool that has been documented to support vernal pool fairy shrimp and CTS breeding will be preserved on-site, with greater than 250 feet of buffer from ground disturbing activities, and with direct access to grassland outside the MNT Specific Plan Area. Two swales that have been documented to contain fairy shrimp cysts will be partially or completely outside the area of ground disturbance, but will be within 250 feet of ground disturbing activities. These wetlands shall be protected with a CTS barrier or worker exclusion fence and worker avoidance training as described above in the take avoidance measures for CTS. On-call biologists will be authorized to stop any work which may threaten to damage the pools and swales in question, but no translocation of fairy shrimp will be undertaken.

Take Avoidance Measures for San Joaquin Kit Fox

The FWS's standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance (FWS 2011) will be adhered to during all earth-moving activities.